An Exploration of Female Undergraduates' Attitudes Towards and Perceptions of Entrepreneurship

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Abstract:

The objective of this research was to add knowledge and insight to the very under researched topic of female undergraduates and their attitudes towards and perceptions of entrepreneurship. The reason for this research was to obtain a better understanding of why so few female undergraduates consider entrepreneurship as a career. This is of particular relevance in Ireland as female entrepreneurial activity is relatively low, therefore leading to the under utilisation of a potentially valuable resource in the economy. This lack of female business owners has particular significance as entrepreneurial activity has been recognised as a valuable means to help develop and sustain a country's economic growth.

The primary data for the research were gathered over a three week period, through the administration of a self-completion questionnaire delivered to 273 female undergraduate students from five of the six schools in Waterford Institute of Technology (WIT). This allowed for quantitative data analysis using SPSS.

There are a number of interesting findings emerging from this research. Notably, there was almost unanimous agreement (97%) by students, who expressed a wish to own a business, that that they would like to be their own boss. They also perceived entrepreneurship as enabling them to do things their way and therefore allowing them to have more control over their lives. Interestingly, these students were also more likely to believe they had the business skills and knowledge required for business ownership than students who did not want to start a business.

The most inhibiting factor for students who do not want to start a business is the fear of the risk involved. Strikingly, in contrast to students that want to start a business they perceive business ownership as giving them less control over their lives and therefore, believe it would be easier to work for someone else. Interestingly, 79% of these undergraduates expressed the belief that a good business support structure would encourage more women to start a business.

When the attitudes and perceptions of the collective group of students (273) towards entrepreneurship were examined more interesting issues emerged. The most prominent being that one needs to be very determined and work extra hard to run a successful business. When one adds to this their belief that one requires special characteristics or traits to start a business, one can see how respondents may self-select themselves out of entrepreneurship.

The current research has highlighted some of the principal perceived advantages and disadvantages of female business ownership along with the prominent general attitudes and perceptions as expressed by female undergraduates towards entrepreneurship. Therefore, these findings have implications for academics, educators in entrepreneurship, policy makers, enterprise support agencies and future female entrepreneurs.

Declaration:

I hereby declare that the material is entirely my own work and has not been submitted as an exercise or degree at this or at any other higher education establishment. The author alone has undertaken the work except where otherwise stated.

Eileen Sinnott

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Chapter One

Introduction

Chapter 1: Introduction

1.1 Chapter overview

The purpose of this chapter is to inform the reader why the present research is necessary, which in turn will lead to an explanation of the rationale behind the study. It will continue with a discussion about the research question and the objectives that the research intends to answer. The thesis structure will then be outlined and the chapter will conclude with a look at the limitations and the benefits of the current research.

The current research has been undertaken to examine female undergraduates' attitudes towards and perceptions of entrepreneurship. This is necessary in order to obtain more knowledge and a better understanding of why so few female undergraduates consider entrepreneurship as a career. This is important as the topic of female entrepreneurship and in particular female undergraduates and their views on entrepreneurship is a seriously neglected and under developed research area. An examination of literature shows there is little known about their needs, motivations and reservations concerning business ownership. The reason why final year female undergraduates were chosen for the current study is because they are at a period in their career development where they are considering different career routes and are therefore, a potential source of future female entrepreneurs.

1.2 Rationale for the study

As the importance of entrepreneurship has increasingly been recognised as vital to the sustainability of a country's economic stability and growth (Gibb, 1996; EU Commission, 2004), so has the recognition that women can play an important part in this development (Weeks, 2007; OECD, 2004). However, in almost every country throughout the world there are fewer women than men involved in new venture creation (Fitzsimons and O'Gorman, 2005). This has particular relevance in Ireland as noted by (Forfas, 2007; Fitzsimons *et al*, 2004; Henry and Kennedy, 2003; Gender Equality Unit, 2003; Fitzsimons *et al*, 2003), with the average rate of early stage

entrepreneurship for the period of 2002-2006 being only 4.8% of women in comparison to 12% of men (Fitzsimons *et al*, 2006). Recent research has highlighted that this problem is even more pronounced in the South East of Ireland, where only 4% of entrepreneurs are female (O'Gorman, 2007).

This under utilisation of a valuable resource within Ireland has been noted throughout literature (Henry *et al*, 2003; Goodbody 2002; Fitzsimons *et al*, 2003). If female entrepreneurship in Ireland could be increased to the level presently in the USA where women led-businesses have grown at twice the rate of other businesses in the last twenty years (Centre for Women's Business Research, 2007) it would create 56,000 new businesses in Ireland (Fitzsimons *et al*, 2003).

This potential increase in employment is of particular relevance within the South East of Ireland as this region is considered an economically under-performing area when compared to other regions within Ireland (Reform, 2008).

The general lack knowledge about young women in the area of entrepreneurship is recognised by Kourilsky and Walstad (1998 p.78) who noted in order to encourage young women into entrepreneurship there is a need to establish what she thinks or understands about entrepreneurship. Therefore this current research hopes to gain some insight into the antecedent influences, attitudes, barriers and motivations to entrepreneurship of the young educated female and consequently leads to a better understanding why so few women start their own business.

1.3 Research questions and objectives

Bearing in mind that the fundamental aim of the current study is to get a better understanding of female undergraduates' views of entrepreneurship the research question is:

What are the attitudes and perceptions of female undergraduates towards entrepreneurship?

The associated objectives of this research are to establish:

1. If female undergraduates consider entrepreneurship a viable career option.
2. The perceived motivations of female undergraduates for entering into entrepreneurship.
3. The perceived barriers of female undergraduates for not entering into entrepreneurship.
4. The general attitudes of female undergraduates towards entrepreneurship.

The primary research was conducted using methodology comprising of quantitative research based on the positivist approach. The primary data for this study were collected through the direct administration of a self-completion questionnaire. The respondents were taken from five of the six different schools within Waterford Institute of Technology. The use of this quantitative research tool enabled the researcher to obtain data from a large number of female undergraduates. These included:

- The general demographics of the students
- Family background including business ownership by family members
- Students' general attitudes towards and perceptions of entrepreneurship
- Students' specific attitudes towards and perceptions concerning entrepreneurship as a career. This area is divided into two distinct sections, namely students that want to start a business and those that do not.

A detailed explanation of the research methodology used can be found in Chapter Three.

1.4 Structure of the thesis

The thesis continues with a critical review of literature in Chapter Two. This is necessary in order to establish the relevant areas of literature required to inform this current research. The literature review is divided into four main sections:

1. Entrepreneurship and the entrepreneur;
2. The female entrepreneur;
3. The undergraduate;
4. The female undergraduate;

Chapter Three presents the research methodology used in the current study. This includes an examination of the research problem leading to the research question and its objectives. This is followed by an exploration of the philosophical underpinning of the current study and the research tool decided upon for the data collection.

Chapter Four examines the primary research findings of the current study. This naturally leads to a discussion about the research findings in Chapter Five, highlighting the major research findings in relation to the students that want to start a business and those that do not. This chapter concludes with a discussion about the general attitudes towards entrepreneurship as expressed by the collective group of students.

Finally, Chapter Six draws conclusions from the discussion of the research findings. It concludes by discussing the limitations associated with the present research and makes further recommendations for future research.

1.5 Limitations of the current research

As with any research there are a number of limitations associated with this study. Firstly, research was restricted to one academic institution, which limits the degree to which the findings can be applied to all female undergraduates in Ireland. Secondly, the division of the questionnaire hindered the comparability of results between different groups of students. This division of the questionnaire also caused some respondents to answer the wrong section, resulting in (4.6%) invalid responses. Thirdly, there was some confusion about the terminology regarding self-employed and business ownership, which led to some contradictory responses.

1.6 Benefits of the study

The current study contributes to the body of research on female entrepreneurship. It particularly adds knowledge and insight to the very under researched topic of the female undergraduate and her attitudes and perceptions towards entrepreneurship. As far as this author can ascertain this is the first time that such a study has been undertaken in the Republic of Ireland. Hazlett, Henderson, Hill and Leitch (2007) performed similar research in Northern Ireland, but their study examined male and female undergraduates' views on entrepreneurship. However, the present study focuses specifically on final year female undergraduates' attitudes towards and perceptions of entrepreneurship. Therefore the current study will be beneficial to other researchers and academics working in this discipline. The research also has specific implications for educators in entrepreneurship, enterprise support agencies, policy makers and future female entrepreneurs.

1.7 Summary

This chapter began with an explanation of the background and the rationale to the current study, followed by an examination of the research question and objectives. This led to an outline of the structure of the thesis and concludes with a discussion of the associated limitations and benefits of the present research. Chapter Two presents a review of literature pertaining to the research topic.

Chapter Two

Literature Review

Chapter 2: Literature review

2.1 Introduction

The aim of the present research is to examine the attitudes towards and perceptions of female undergraduates towards entrepreneurship. The reason for this is to gain more knowledge and understanding of the female undergraduate and her views towards entrepreneurship, as final year female undergraduates have to make decisions regarding their future careers. This research is important because, according to the literature review, considerably fewer women chose to become entrepreneurs than their male counterparts, resulting in the loss of many educated women to entrepreneurship.

As part of the current research it is necessary to first examine who is the entrepreneur. This will involve examining the characteristics and traits associated with entrepreneurship and the antecedent factors that encourage entrepreneurship. This will be followed by a discussion on the general nature of female entrepreneurship. The chapter continues with an examination of undergraduates, their views of entrepreneurship and the links between entrepreneurship and education. This chapter concludes with a look at the female undergraduate and examines the limited research conducted in this area.

2.2 Entrepreneurship

Entrepreneurship is recognised both nationally and internationally as a key driver of growth (Fitzsimons and O'Gorman, 2003; Commission of the European Communities, 2004), with future prosperity depending on the creation of indigenous businesses (Orhan and Scott, 2001). Martin and Laing (1998) believed that a country's future economic development is dependent upon increasing its growing entrepreneurial talent. Morrison (1998) agreed with this, proposing that the successful entrepreneur is the "first among equals in the process of wealth creation" (Morrison, 1998, p.177).

It is difficult to get agreement among researchers and writers as to who exactly are these entrepreneurs (Carson, Cromie, McGowan and Hill, 1995). They have been described as the *new heroes* of our society (Donckels and Meittinen, 1990), who possess characteristics, which are highly prized in a culture (Hofstede, 1991). Garavan, O'Cinneide, Fleming, McCarthy and Downey (1997) and Inman (2000) went back to the word entrepreneur to find a definition, citing an Irish economist, Cantillion (1755) who identified the entrepreneur as a pivotal figure in the economy, a risk taker, taking chances and facing uncertainty thus defining entrepreneurship as self-employment of any sort. Schumpeter (1934) expanded on this concept by introducing innovation as a determinant to entrepreneurship saying that entrepreneurs are people who introduce new combinations of factors of production, notably labour and capital. Therefore it can be deduced from the literature that entrepreneurs are clearly self-reliant people and their ambition is undoubtedly to create a business of their own (Johannison, 1990). Morrison, Rimmington and Williams (1999) came to the general conclusion that there are as many definitions of an entrepreneur as there are entrepreneurs.

2.2.1 Characteristics or traits of entrepreneurs

Due to the difficulty in coming to a universally acceptable definition of the entrepreneur, researchers have attempted to distinguish different factors that influence the individual towards entrepreneurship (Dyer, 1994). Efforts have been made to identify some of the characteristics or attributes possessed by the entrepreneur (Kao, 1990), and this is often referred to as the trait school of thought. Carson *et al* (1995) believed that entrepreneurial traits distinguish entrepreneurs from other groups in society. Delmar (2000) identified the most common of these traits as a need for achievement, internal locus of control, risk-taking propensity, tolerance for ambiguity, over-optimism and the need for autonomy. These characteristics and traits have been acknowledged by many authors and are seen as an important factor when calculating a person's propensity towards entrepreneurship (McClelland, 1961; Scott and Twomey, 1988; Gibb, 1990;Morrison, Chell, Hawthorn and Brearly, 1991; Carson *et al*, 1995; ;Garavan *et al*, 1997 ; Morrison, 1998; Rimmington and Williams, 2000). Gasse (1990) also believed motivation, energy and perseverance are important traits, with

Plaschka (1990) including innovation as an important characteristic of the entrepreneur. McCarthy (2000) found risk-taking propensity to be associated with personality traits, subsequently arguing that research on traits is of extreme importance in any serious attempt to understand entrepreneurship. However, despite this, Delmar (2000) argued that with the exception of the need for achievement, it has been difficult to link any specific traits to entrepreneurial behaviour.

While most researchers see entrepreneurial behaviour as the result of positive characteristics, Kets de Vries (1977) takes the opposite view point, claiming that entrepreneurial behaviour is the result of negative characteristics. He sees the entrepreneur as an anxious individual, badly organised, who does not conform to the social norm and suffers from low esteem. However, academics are generally uncomfortable with this model, as it reduces our understanding of the entrepreneur to a deviant, who is a misfit in conventional organisational life (Morrison *et al,* 2000 p.39).

The importance of examining entrepreneurial traits and characteristics in relation to the current research is to help establish the basic characteristics associated with the entrepreneur. However, not everyone agreed with the trait school of thought. Carson *et al* (1995) found four main criticisms of the trait approach: first, the inability to differentiate clearly between entrepreneurial small business owners and equally successful professional executives. Second, the assumption that by identifying the supposed key trait or characteristic of the entrepreneur, you can identify the entrepreneurial personality. Third, the lack of recognition of entrepreneurship as a continuously changing process in which the entrepreneur will also change. Finally, the lack of empirical evidence to connect entrepreneurial characteristics with actual entrepreneurial activity and the inability to acknowledge an individual's situation and the effect it has on new venture creation. Basically, the trait approach cannot be used alone to explain entrepreneurial behaviour. Therefore, there is a need to look at what entrepreneurs do and why they do it (Martin *et al,* 1998).

2.2.2 Antecedent influences

Current researchers are increasingly trying to understand how entrepreneurs perform and why some engage in entrepreneurial behaviour and others do not (Delmar, 2000). The socialisation process is one such area of study, and is often referred to as social learning theory. This school of thought tries to establish what influence factors such as interaction with the environment, dealing with life experiences and social relationships have on forming our attitudes and values and therefore influencing our behaviour (Morrison *et al,* 2000). Social learning theory, while acknowledging the genetic influence on personality traits, emphasises the importance of each individual's personal situation and the influence the environment has on the individual and, in turn, the influence the individual has on the environment (Garavan *et al,* 1997). Consequently, social learning theory recognises the influence that society has on encouraging entrepreneurship (Morrison, 1998).

Carson *et al* (1995) see the entrepreneur as being embedded in a complex set of social networks that will either facilitate or hinder the potential of the individual to enter into entrepreneurship. Examples include family and social background, education, religion, culture, work and general life experiences. Morrison, Rimmington and Williams (2000) further expanded on these social influences by adding availability of appropriate role models, career experience ranging over the complete life-cycle, deprived social upbringing, sibling order within the family, entrepreneurial family background, level of educational attainment, negative and positive peer influence, position in society and being uncomfortable with large bureaucratic organisations. These influential factors are often referred to in entrepreneurial literature as antecedent influences, and can have an impact on a person's motivation, perception, skills and knowledge.

According to Scott *et al* (1988) and Plaschka (1990) those who want to own their own business are usually more likely to have parents as role models. Rosa (1993) and Morrison (1990) agreed with this, believing family play a significant role in helping new entrepreneurs with opportunities and resources such as finance and business contacts. Garavan *et al* (1997) further acknowledge the importance of parents to entrepreneurship, believing parents are the primary role models in the development of

entrepreneurial personality and future career attitude. The importance of others was also noted by Curran (1996) as cited by Henderson and Robertson (2000) who found the attitude of family, friends, and neighbours are an essential influence on the young student when forming an attitude or perception. Phan, Wong and Wang (2002) agreed with this, finding attitude to be of extreme importance in the encouragement of entrepreneurship, arguing that educational effort should be made to develop the right attitudes and motivations towards entrepreneurship.

Dyer (1994) found working for an entrepreneur or knowing an entrepreneur had a positive impact on entrepreneurial career choice. Matthews and Moser (1995) found work experience an important factor in the encouragement of entrepreneurial activity, especially in small businesses. Madsen, Neergaard and Ulhoi (2003) agreed with this, recognising the importance of work experience in the development of a business idea. It is suggested by Carter and Cachon (1988), as cited by Morrison (1998), that entrepreneurs often share common features and experiences of a social context, which distinguish them from other individuals. Nevertheless, there is a need to recognise the heterogeneous and diverse nature of entrepreneurship (Carson *et al,* 1995). Especially, as much of the knowledge about entrepreneurship is based on studies of the male entrepreneur (Brush, 1992).

As the current research involves female undergraduates, it is necessary therefore, to look at the female entrepreneur. Female entrepreneurial activity in most of the developed countries of the world is significantly lower than their male counterparts, even though it is argued they are influenced by many of the same factors (Minnitti, Arenius and Langowiz, 2004).

2.3 Female entrepreneurship

It has been suggested by Weeks (2007) that women-led businesses can make a significant contribution to the economy. US statistics have shown that over the last twenty years women-owned businesses have grown at a rate of nearly two to one of other businesses and, interestingly, have made more of a significant impact on employment figures and revenue intake than is actually suggested by these figures (Centre for Women's Business Research, 2007). Allen, Langowitz, Elam and Dean

(2007) further substantiated the importance of female entrepreneurial activity on economic development, finding investment in female entrepreneurship an important way for a country to exponentially increase the impact of new venture creation. Furthermore, they noted women are more inclined to share the benefits gained through entrepreneurship with members of their family and the wider community.

However, in Ireland the economy has yet to achieve substantial benefit from women-led businesses as, in comparison with other countries, the level of female entrepreneurship is particularly low; for example in Portugal, Austria, and France female entrepreneurship can account for 41% of all new start-up's (Henry and Kennedy, 2003; Gender Equality Unit, 2003; Fitzsimons *et al*, 2003; Fitzsimons and O'Gorman, 2004).

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In Ireland the average rate of early stage entrepreneurship for the years 2002 to 2006 is only 4.8% for women in comparison to 12% of men (Fitzsimons *et al*, 2006). This is even more significant when you consider that women make up over 51% of the population and over 53% of the female population now participate in the labour force. Female participation in the labour force has increased by 7.2% in the last ten years compared to an increase of only 2.7% in male participation in the same period of time (CSO, 2007).

Interestingly this increase of women into the labour force is not reflected in a similar increase in female participation in entrepreneurship. The relatively low number of female entrepreneurs in Ireland is of particular concern as Fitzsimons *et al* (2003) argue that if Irish women were as entrepreneurially active as Irish men there would be approximately extra 109,000 entrepreneurs in the country. Similarly if Irish women were as active in setting up new businesses as women are in the US, there would be approximately an extra 56,000 Irish entrepreneurs (Fitzsimons *et al*, 2003). However, despite this loss to the economy, there has been little attention paid to the specific needs of women entrepreneurs who are largely invisible in the mainstream of entrepreneurial research (OECD, 2004).

2.3.1 Characteristics of female entrepreneurs

Women entrepreneurs are not a homogenous group *per se*, but they often share common characteristics and therefore it is possible to build up a general profile of the typical female business owner (Still and Walker, 2006). According to Sarri and Trihopoulou (2005), the female entrepreneur is 43 years old, and is usually older than her male counterpart. This demographic of women entering entrepreneurship at a later age than men is well recognised in entrepreneurial literature (Goodbody, 2002; Madsen *et al*, 2003). She is often married with children, and enters entrepreneurship when the children are older (Madsen *et al*, 2003; Sarri *et al*, 2005). However, there is a trend towards women entering entrepreneurship at a younger age (Birley, Moss and Saunders, 1987; McCelland, Swail, Bell and Ibbotson, 2005; Still *et al*, 2006). This development of women entering into entrepreneurship at a younger age has also been noted in Ireland with research showing the average female business owner to be 38 years of age and is only slightly older than her male counterpart (Fitzsimons and O'Gorman, 2007).

The average female entrepreneur operates a service-orientated business (Hisrich and Brush, 1984; Brush and Hisrich, 1991; Buttner and Moore, 1997; Matis, 2004; Still *et al*, 2006). She tends to be college educated (Goodbody, 2002; Henry *et al*, 2003; McClelland *et al*, 2005 Still *et al*, 2006) usually in the area of liberal arts (Watkins and Watkins, 1984; McClelland *et al*, 2005); is often more educated than her male counterpart (Madsen *et al*, 2003; Fitzsimons, 2004); and has occupational experience (Henry *et al*, 2003) in the service area (Brush *et al*, 1991; Goodbody, 2002). It has been suggested this service related background may be the result of the advice of guidance counsellors and friends, who discourage women from entering male dominant sectors (Hagen, Rivchun and Sexton, 1989). Buttner (1993) found the typical female entrepreneur to come from middle to upper class background, having worked in a larger organisation to gain experience and to have a self-employed father.

According to Fitzsimons *et al,* (2004), the Irish female entrepreneur is less likely to be in full-time employment prior to start up than her male counterparts and has usually been in part-time employment or engaged full time in the home prior to starting her business.

A study conducted by The Centre of Entrepreneurship WIT (2006) on female business owners in the South East Region of Ireland found the majority of female business owner to be aged between 30-39 years, educated to second level standard and have owned their business for an average of 11.3 years. They are mainly sole traders and own a 100% of the business. They mainly work in the retail sector (33%) or the health and beauty sector (12%) and are underrepresented in the manufacturing and construction sector (2%) respectively. They see their main constrains to business growth as finance (26%), staff issues (21%) and insufficient sales (19%). These particular constraints were further corroborated by Fitzsimons (2007) who also noted these issues as a cause of concern for businesswomen in the South East Region.

2.3.2 Family influence

Research has suggested there is a strong correlation between family background and participation in entrepreneurial activity (Morrison, 2000). Some researchers consider sibling order in the family an important family demographic (Hisrich *et al,* 1984; Hagan *et al*, 1989; Brush, 1992; Buttner, 1993). Watkins *et al* (1984) believe first-born children, including only children have a more positive attitude than their siblings and display a sense of responsibility and a need for achievement that are often correlated with entrepreneurship. These authors found sixty percent of the female entrepreneurs participating in their research were eldest or only children. Hisrich and Brush (1984) had a similar finding with fifty percent of the female entrepreneurs surveyed being first-born children. However, Nearchou-Ellinas *et al* (2004) found that birth order played no significant role in female entrepreneurial activity.

According to Hagen *et al* (1989) Orhan and Scott (2001) and Mattis (2004) family influence is particularly important for women as women are more inclined to seek

family advice than their male counterparts (Kirkwood, 2007). Some authors put a particular emphasis on the importance of fathers in the encouragement of women towards entrepreneurship (Hisrich *et al,* 1984; Birley *et al,* 1987; Kirkwood, 2007). A British study conducted by Watkins *et al* (1984) established that thirty-seven percent of the female entrepreneurs who participated in their study had fathers who ran their own business, with sixteen percent of the mothers also owning their own business. These researchers concluded that a female entrepreneur is four times more likely to be influenced by an entrepreneurial parent than a member of the general population.

2.3.3 Role models

Hisrich (1989) recognised the positive impact of parents as role models for female entrepreneurs, with Watkins *et al* (1984) finding that a mother was at least as influential as a role model as a father. However, it has also been suggested that role models other than parents can be influential in the encouragement of entrepreneurship as a chosen career route (Matthews *et al,* 1995). Hagan et al (1989) and Minnitti, Arenius and Langowiz (2004) acknowledged the importance of the female role model in the promotion of female entrepreneurship, indicating a successful female entrepreneur can act as a role model for other female entrepreneurs and hence impact on the success of future female entrepreneurs. This, Buttner (1993) believed helps "to dissipate the enduring perception that entrepreneurship is a predominantly male domain" (p.8).

Having recognised the importance of the female role model the availability and recognition of suitable role models can be difficult to find Ljunggren and Alsos (2007). Therefore, the media has an essential part to play in the promotion of the equality of women particularly with a view to informing and raising awareness of equal opportunities among young people in present day society (European Parliament, 2006). The influence of media is especially significant for women as it is understood that "women who believe that there is a great deal of positive media coverage are much more likely to be entrepreneurs" (Fitzsimons *et al,* 2006, p.47). However, Ljunggren and Alsos (2007) found that out of two hundred and seventy-six articles written about entrepreneurs, women business owners were featured in only twenty-

five of these articles. This point was also noted by Menzie and Tatoff (2006) citing Nicholas and Anderson (2005) whose study of a major British newspaper found only thirteen articles featured female entrepreneurs out of a total of four hundred and eighty articles about entrepreneurs. This led them to conclude, "the entrepreneurial myth is male" (p.215).

2.3.4 Work experience

Work experience is also found to be an important factor in the encouragement of successful female entrepreneurial activity (Brush *et al*, 1991). Previous research shows if a women starts a business in an area she has previous work experience she has a much better chance of running a successful business than a woman without previous experience in her business area (Brush *et al*, 1991; Buttner 1993). Henry *et al* (2003) also found in their study of Irish female entrepreneurs that prior work experience was considered extremely useful when setting up their business however, for many of them the work experience was in a different area than their business start up.

Watkins and Watkins (1984) in their study found that 50% of women had no direct prior experience compared to only 5% of the men. Rosa, Hamilton, Carter and Burn (1994) echoed this, finding male business owners much more likely to have owned previous businesses than female business owners. Conversely, Menzies Gasse and Diochon (2003) disagreed with this, believing no difference existed between men and women regarding prior work experience.

However, Carter and Collinson (1999) found business start-up is sometimes delayed because women wanted more work experience. Lim, Smith and Bottomley (2003) added an interesting element to the debate finding work experience an important source of business ideas by helping identify niches or gaps that other companies cannot satisfy.

In a study involving women business owners Matis (2004) noted that women came from a variety of career background finding 58% of women coming came from the private sector and 19% from the public sector with 32% having worked for a company with less than 100 employees. It was also suggested by this author that women left their prior occupation to start a business because of a general dissatisfaction with their work environment that included a lack of flexibility in their working times, no possibility of furthering their career due to hitting the *glass ceiling*, and their career no longer offered them a challenge.

2.3.5 Family responsibility

The need to balance family responsibilities and career is a major factor for female entrepreneurship (Cromie, 1987; Buttner *et al*, 1997; Stills and Walker, 2006). This is often cited as one of the greatest differences between the female and the male entrepreneur, with the unequal division of domestic labour (Still and Timms, 2000), leading to a disproportionate share of family responsibilities resting with the woman (Buttner *et al*, 1997). Women are seen as a homemaker with the sole responsibility for the family (Henry *et al*, 2003). The flexibility of entrepreneurship is constantly cited throughout the literature as enabling a woman to maintain the dual role of career and family responsibilities (Birley, 1989; Brush, 1992; Buttner, 1993; Still *et al*, 2000; Orhan *et al*, 2001; Bruni Gherardi and Poggio, 2004; McClelland *et al*, 2005; Still *et al*, 2006). Carter (1998) believed this view to be a distraction in a woman's entrepreneurial career path with this perception of women having to maintain a dual role as stereotyping the woman business owner as being unable to distinguish her private life from her business life. However, Brush (1992) argued women cope with their family responsibilities by considering their business as a "cooperative network of relationships rather than separate economic units" (p.16). Consequently, women business relationships are integrated rather than separated from family, societal and personal relationships. This integrated perspective offers explanations for many of the differences between male and female-owned businesses (Brush, 1992). However, Bruni *et al* (2004) claimed that the integrated roles of women business owners is a disadvantage to women, as it stereotypes them as being unable to distinguish their

private lives from their business lives. Bruni et al also suggest this amalgamation of roles may reduce the credibility of women when starting a business.

2.3.6 The importance of profit

Brush (1992) believed the assessment of business performance for women owned businesses should include intrinsic goals such as quality of work, customer service and work life balance as women often consider these objectives more important than making a profit. Buttner (1993); Hisrich *et al* (1984) and Buttner *et al* (1997) agreed with this view suggesting that men start a business for economic reasons whereas women start a business to aid work-life balance.

Hofstede (1980) added an Irish dimension to this debate when as part of a landmark study he attempted to differentiate countries as having predominantly male or female values, it was found that Ireland scored relatively high on the masculinity index score ranking slightly higher than both the USA and the UK thus acknowledging that male characteristics at that time were more valued by society than female characteristics. Morrison (1998) suggested these male values include traits such as forceful selling techniques, steadfast determination, guile, a strong desire for material wealth and extreme resilience. This is in contrast to the feminine values proposed by Hofstede (1980) which include the desire for a good quality of life, warm personal relationships and good customer service.

According to Brindley (2005) the definition of success based on the male perspective of equating success with financial accomplishment, may diminish the achievement of a woman led-business, who measures her success on other factors such as quality of work and life balance. However, contrary to many other studies Sandberg (2003) and Carter and Marlow (2007) found no clear evidence to suggest that women are less profit orientated than men, or are more likely to value intrinsic goals.

2.3.7 Obstacles to female entrepreneurship

Welter (2004) has indicated that the participation of women in entrepreneurship has been hindered by the value that society places on women in employment, believing that as a result of past social norms women are still being stereotyped according to their gender thus limiting opportunities and creating occupational segregation.

This influence of past social norms and its negative influence on female participation in entrepreneurship was also recognised by Henry *et al* (2003) who brought attention to the implementation of a marriage bar that was in operation in Ireland until the early 1970s. According to Goodbody (2002) the marriage bar has resulted in only one generation of women having participated in the workforce since it was lifted, and that another generation is required before involvement in the labour force has a proper impact on female entrepreneurship. Consequently, due to society's attitude towards women authors such as Goodbody (2002) and McClelland (2003) believe that Irish women are still expected to take a supportive role within society rather than that of the leader.

Williams (2002) also stated that women are expected to take a supportive role in society, stating society sees the male as the natural leader, with the female been seen as the nurturer and the supporter. Tayeb (1988) refers to these different roles as socio-cultural differences stating that sexual discrimination against women is common to almost all societies, with the discrimination varying between societies.

Hisrich *et al* (1984) also acknowledged the difficulties that woman face when starting a business stating that the risk and effort entailed in starting a business from scratch is perhaps even greater for a woman entering a male dominated arena. This concept is given further credence by Ljunggren *et al* (2007) who noted society sees entrepreneurship as predominately male. Stills and Timms (2000) suggested that women perceive business to be a masculine-orientated domain with women being excluded from this culture of advantage. However, Kolvereid, Shane and Westhead

(1993) disagreed with this advocating that male and female entrepreneurs in western countries do not face very different business environments.

Carter *et al* (2007) suggested that women lack finance and capital assets during the start-up period and argued that one of the key debates within female entrepreneurial research is how these barriers at the start-up stage affect the long-term business performance of women business owners. The lack of initial under-funding and its prolonged negative effect on a woman's business was previously noted by Buttner *et al* (1997) and Lim *et* al (2003), with many studies noting that women find obtaining the finance necessary to start a business particularly difficult (Carter *et al*, 2007). Brush (1992) considered the financial aspect when starting a business a major obstacle for women, with the majority of women using personal savings to start their own business. Carter (2000) concurred with this statement when she found that "women may be disadvantaged in their ability to raise start-up finance, as guarantees required for external financing may be beyond the scope of most women's personal assets and credit track record and this in turn may lead to further disadvantages for their business" (p.174).

There is an assumption by financial institutions, friends and family that woman cannot handle money; this can pose a barrier to a business start-up (Bruni *et al*, 2004). Hisrich and Brush (1986) also recognised this, acknowledging women may suffer discrimination from bankers when starting a business. Paradoxically Rosa, Carter and Hamilton (1996), while agreeing that women tended to start out with less initial capital, found that women have less chance of being refused a bank loan than their male counterparts. It was suggested by Rosa *et al* (1994) that women sharing business and domestic resources with men may have less access and control over resources than the men, which could be a hindrance to women in business.

In order to encourage female entrepreneurial activity and help counteract these imbalances there must be acknowledgement and recognition of the difficulties that women frequently encounter when entering into entrepreneurship (European Commission, 2003). Fitzsimons *et al* (2004) agreed with this stating these difficulties must be identified and removed. Consequently, the challenge for policy makers in

Ireland is to recognise these imbalances and to provide practical supports and training for women who want to start their own business (Fitzsimons *et al*, 2004).

2.3.8 Confidence issues

Lack of confidence can be a major problem in the area of female new venture creation (Minnitti *et al*, 2004; Chowdhury and Endres, 2005). Brindley (2005) agreed lack of confidence can have a negative effect on women entering into entrepreneurship. However, she believed that as a woman's confidence grows, her fear of risk diminishes. Bennett and Richardson (2005) saw this lack of confidence as gender specific. Williams (2005) agreed with lack of confidence being gender specific, believing this is due to social conditioning and can affect basic business practice such as approaching financial institutions (Fielden and Dawe, 2004). Williams (2005) while noting this lack of confidence in financial matters believed it may be an advantage, making women more financially conservative and therefore encouraging them to seek appropriate development and training.

According to Birley (1989) lack of confidence is not a major issue. Nonetheless, Blisson and Nelson (2003) found ninety percent of the women interviewed in their study had a problem regarding confidence and low self-esteem, which in turn had a negative effect on their attitude towards entering entrepreneurship. Still *et al* (2000) specifically found women were less confident than men in matters relating to the management of staff, with lack of information and training being considered to be the principal reasons why women expressed less confidence in these areas. The subject of confidence is of significant interest to this research as it could have a crucial impact on the female undergraduate and her consideration of entrepreneurship as a career.

2.3.9 Educational factors

The female entrepreneur has a high level of education with some studies indicating that she often reaches a higher educational standard than her male counterpart (Madsen *et al*, 2003). In Ireland over 50% of female businesswomen have post

leaving certification studies [1] with almost 20% having post graduate experience compared with 39.5% of men having post leaving cert studies and only 12% of men having post graduate experience (Fitzsimons *et al*, 2004). Brush *et al* (1991) also noted the high educational standard of the female entrepreneur acknowledging that often-successful women entrepreneurs have a high level of education. However, Brush *et al* (1991) recognised the importance of subject choice in enhancing the success of a female led business venture. Watkins *et al* (1984) believed subject choice is what differentiates between the male and female entrepreneur. Menzie *et al* (2003) and Madsen *et al* (2003) also recognised this difference in subject choice finding women were less inclined to study science and computer subjects and were more likely to major in health and natural science.

Research has shown that female entrepreneurs have been encouraged to study non-practical subjects with only a minority holding degrees in business, engineering or technical disciplines (McCelland *et al*, 2005). According to Watkins *et al* (1984) and McCelland *et al* (2005) almost nothing that has been studied in the educational system *per se* by the female student is directly linked to the type of business they eventually started.

Consequently, a woman, due to her lack of business training especially in the areas of engineering and science is at an immediate disadvantage to entering traditionally male dominated areas such as construction and science (Hisrich *et al*, 1984). Subsequently, women most frequently start businesses in what are seen as traditional female sectors such as health, education, retail and consumer services (Buttner *et al*, 1997; Fitzsimons *et al*, 2004; Still *et al*, 2006). These are usually sectors requiring less technological and management skills along with low financial barriers (Watkins *et al*, 1984; Bruni *et al*, 2004).

[1] The leaving certificate is an examination taken at the end of secondary school in Ireland. The certificate is used for the purposes of selection into further education, employment, training and higher education (State examination Commission, 2008).

Having looked at some of the major factors associated with female entrepreneurship as recognised in literature including how education may impinge on female entrepreneurship. The next section will examine undergraduates in relation to entrepreneurship as a career choice.

2.4 Education and entrepreneurship

Matthews *et al* (1995) acknowledged the significance of education and the part it plays in entrepreneurial activity, stating that it is critical to attract the young and educated to entrepreneurship, especially as current industrial trends are towards a knowledge-based environment (Henderson and Robertson 2000; Postigo, Lacobucci, and Tamborini, 2006). Thus, higher education provides the skills required for the formation of firms within these knowledge-based industries (Fletcher, 1999). Furthermore, Scott *et al* (1988) observed that undergraduate students, with the assistance of an entrepreneurial education strategy, could be helped to consider entrepreneurship as a career. Carter *et al* (1999) and Gibb (1996) agreed with the importance of education to entrepreneurship, believing that ambitious, educated, young people can be equally encouraged into new venture creation as opposed to a large organisation, especially as the long-term supply of well educated and qualified entrepreneurs is essential to a strong modern society (Scott *et al,* 1988).

Therefore, it is of interest to note that Fitzsimons *et al* (2007) found a direct correlation between education and entrepreneurship finding entrepreneurial activity highest amongst those with a third level qualification. This correlation with education was further substantiated by Brooksbank and Jones-Evans (2005) who also found entrepreneurship higher amongst graduates than non-graduates, thus helping to dispel the 'myth' there is no link between educational achievement and entrepreneurial activity. Despite, this positive correlation between education and entrepreneurship only 4% of early stage entrepreneurs in Ireland are in the age group 18-24 years old. This is the smallest proportion of early stage entrepreneurs across all OECD countries. For example in the US 15% of early stage entrepreneurs are young people (Fitzsimons *et al,* 2007).

Research has recognised that young people, parents or teachers did not consider entrepreneurship a serious occupational choice in the 1950s, 1960s, and 1970s (Blackburn *et al,* 1993). More recent research would appear to further substantiate these findings with little done to prepare students for self-employment (Klapper, 2004), as University Career Centres tend to provide information about large organisations therefore, promoting a large firm culture (Henderson and Robertson, 1999; Oakey, Mukhtar and Kipling, 2002). Large firm culture according to Vickery, Pilkington and Read (1990) and Henderson *et al* (1999) demoralises and actually inhibits the entrepreneurial spirit and encourages the majority of students to plan to work for someone else.

Paradoxically, Vickery *et al* (1990) countered these arguments by quoting the six fold increase in annual new business registrations in the USA in one generation stating this would seem to correlate better with the boom in secondary and higher education than with a major personality change. However, Wang and Wong (2004) in contrast suggested that education might be a deterrent to entrepreneurship as honour students show less interest in starting their own business, speculating that a longer time spent in education assimilating more business knowledge does not necessarily lead to higher interest in entrepreneurship.

2.4.1 Entrepreneurship as a career choice

Without doubt the choice of career for the undergraduate can be a complex and difficult process, with this decision-making process becoming even more intricate when the career path chosen is that of starting your own business (Nabi *et al*, 2006). This can lead to entrepreneurship not readily being considered as a career choice (Henderson *et al,* 2000). Despite this, Wang *et al* (2004) acknowledged that undergraduates show a high level of interest in entrepreneurship, as a career. Brindley and Richie (2000) and Oakey *et al* (2002) found that up to seventeen percent of undergraduates have aspirations to start their own business. Robertson, Price and Wilkinson (2004) as cited by Nabi *et al* (2006) found in their study of 3,500 English university students that nearly fifty percent of the students surveyed intended to enter self-employment within five years of graduation. However, a study by Galloway (2005) carried out on students from four Scottish universities who had an

entrepreneurial module included in their course; found that only a quarter of the students are likely to become business owners within the short term (five years). The study also noted these students were more likely to be from the Business school than from the Engineering School or Science School.

Notably, from an Irish point of view, this appeal of entrepreneurship as a career was also found in a study performed by Goodbody (2002) in which just over fifty percent of the undergraduates surveyed indicated, if given the option, they would prefer to be self-employed rather than work for someone else. These students also cited being their own boss, personal satisfaction, making their name, having control and a supportive policy environment for entrepreneurship as their main motivational factors.

2.4.2 Entrepreneurial model

Interestingly, for the present research, Nabi, Holden and Walmsley (2006) noted the lack of academic research on what initiates the journey from undergraduate to business owner. Lack of research concerning students and young adults' perceptions of entrepreneurship has periodically been acknowledged within entrepreneurial literature (Scott *et al*, 1988; Blackburn and Curran, 1993; Henderson *et al*, 2000). Scott *et al* (1988), recognising the particular difficulties surrounding undergraduates and their entry into entrepreneurship designed an entrepreneurial model suggesting the main variables that influence students towards entrepreneurship. These variables are presented as follows:

- **Pre-Dispositional Factors:** These include an individual's personality traits, antecedent influences with a particular emphasis on family role models and relevant work experience, confidence in one's own abilities and a preference to work in the SMEs sector.
- **Trigger Factors:** These depend on the individual situation, and include the effects of looking for work, availability of career guidance and the prospect of being unemployed.
- **Possessing a Business Idea:** This is considered the main factor in choosing entrepreneurship as a career. Although the previous factors are important in

encourage entrepreneurial activity and may help in prompting a business idea, possessing a business idea alone may inspire new venture creation and is seen as an independent pull into entrepreneurship. Wong *et al* (2002) and Phan, Wong, and Wang (2002) agree with Scott *et al* (1988) that having a business idea is a vital trigger factor when considering entrepreneurship. Madsen *et al* (2003) are in agreement with this. However, they also agree with the importance of work experience and its help in developing a business idea.

2.4.3 Entrepreneurial traits

A feature of particular interest to this research is recognised by Oakey *et al* (2002) and Gurol and Atsan (2006) who ascertain that students expressing an interest in entrepreneurship display a high level of entrepreneurial characteristics, which they see as a positive factor for undergraduate entrepreneurship. However, undergraduate students who do not believe they have the traits necessary may self-select themselves out of entrepreneurship (Robertson, Collins, Medeira and Slater 2003). This was further substantiated by Postigo *et al* (2006) who found that undergraduates see entrepreneurs as people with specific personal attributes.

Louw, Van Eeden, and Bosch (2003) claim the age of the undergraduate plays a significant role in how students perceive their own entrepreneurial qualities finding the older the undergraduate the higher they assessed their level of entrepreneurial traits. Eeden Van, Louw and Venter (2005), while recognising the importance of entrepreneurial traits, also believed that these traits can be acquired through education, life experience and the entrepreneurial process. Interestingly, Scott *et al* (1988) noted undergraduate students who came from an entrepreneurial family background were more likely to believe they had entrepreneurial characteristics than students that did not come from an entrepreneurial family.

2.4.4 Perceived barriers

Financial risk is considered a major barrier to starting your own business with over fifty percent of university students in a study conducted by Robertson *et al* (2003) stating it as a problem. However, they claimed it was not fear of failure as in social embarrassment but the need for security, with many respondents citing having to pay back a student loan as a difficulty. Goodbody (2002) found fear of failure along with bankruptcy, the hard work involved, a small Irish market, difficulties accessing finance and lack of business information as undergraduate's main barriers to starting a business. Wang *et al* (2004) agreed with the fear of failure but added inadequate preparation and insufficient business knowledge to the list of perceived barriers. Lack of a business idea is also perceived as a barrier throughout literature on student entrepreneurship (Carter e*t al,* 1999; Klapper, 2004), with Robertson *et al* (2003) finding twenty-two percent of students citing the lack of a business idea as a reason for not starting a business.

Interestingly, Oakey et al (2002) noted that if a network of support systems were put in place to assist when starting a business, the undergraduates that had previously dismissed the idea of entrepreneurship as a career said they would reconsider entrepreneurship as a career option.

2.4.5 Family influence

Oakey *et al* (2002) and Wang *et al* (2004) found that the lack of information on entrepreneurship to be a problem for the undergraduate, noting, students coming from a family with no entrepreneurial background are perceived as being at a considerable disadvantage having less access to relevant information. Scott *et al* (1988) also believed family background to be important finding undergraduate students coming from a family involved in entrepreneurship have a higher preference to own their own business than undergraduates from a family with no entrepreneurial background. In a cross country study carried out on Italian and Argentinean undergraduate students, it was established that an entrepreneurial family background has a bigger impact on the propensity towards starting your own business than individual factors within a country

(Postigo *et al*, 2006). Scott *et al* (1988) suggested this influence is two-fold both as a role model and resource provider.

Having looked at the role of education and the undergraduate in relation to entrepreneurship, the final section of the literature review examines the female undergraduate and entrepreneurship.

2.5 The female undergraduate

The first factor to note in this section of the literature review is the distinct lack of research on the female undergraduate and entrepreneurship. It is not an overstatement to say she has virtually been ignored. Even though trends show that women are becoming more involved in entrepreneurship, "little is known about what female youth either understand or think about entrepreneurship" (Kourilsky and Walstad, 1998, p78). Therefore, the reason for the present research is to add to this scarce body of knowledge by undertaking an exploration of female undergraduates' attitudes towards and perceptions of entrepreneurship

In one of the few studies involving female undergraduates Menzies *et al* (2006) found that female students were a lot less likely to take an entrepreneurial module than male students and were even less likely to take a degree in entrepreneurship. The most popular reasons given by female undergraduates for not choosing to study entrepreneurship was they did not feel it fitted their personality. Menzies *et al* (2006) also suggested that female undergraduates see entrepreneurship as male dominated and therefore decide they are the wrong sex for this type of career, noting this may be due to a lack of suitable role models to help inspire young female students. Despite this negative portrayal of entrepreneurship education, Kourilsky *et al* (1998) believed that entrepreneurship education is a particularly important factor in the encouragement of entrepreneurship for the female student, especially during her formative years. Brooksbank *et al* (2005) also recommend a gender specific approach within higher education, believing this is necessary as a means to help promote entrepreneurial activity amongst women.

2.5.1 Perceived barriers

The reluctance of female undergraduates to consider starting a career in entrepreneurship, in contrast with her male counterpart, is noted in a preliminary study by Hazlett, Henderson, Hill and Leich (2005) who found only 35.5% of female undergraduates have ever considered entrepreneurship which is in sharp contrast to 64.3 % of the male undergraduates. Lack of a business idea and obtaining finance were perceived as the most difficult barriers to starting a business. However, Louw *et al* (2003) noted that even though the female undergraduate perceives her interpersonal skills as good she believes herself to be less skilled in the practical areas of business. Wang *et al* (2004) found the female undergraduate considered her lack of business knowledge to be a barrier. Kourilsky *et al* (1998) noted this lack of business knowledge as a constraint to both male and female students however their study found female students were more aware of this omission than male students.

Chowdhury *et al* (2005) found belief in one's own ability was lower in the female undergraduate than her male counterpart, and that women with the same level of education as men believed themselves to have less perceived knowledge than the men. Gender Equality Unit (2003) and Hazlett, Henderson, Hill and Leich (2007) also found female undergraduates expressed less self-confidence than male undergraduates. Kourilsky *et al* (1998) suggested this lack of confidence expressed by female students in their entrepreneurial abilities might result in less interest than their male counterparts to start a business. However, Chowdhury *et al* (2005) noted there is a positive correlation between the higher the level a women is educated and a woman's belief in her own ability to start her own business.

2.5.2 Subject choice

Hagen *et al* (1989) and Minnitti *et al*, (2004) suggested the educational system as well as the social environment should encourage more women to study engineering, science, technical or business related subjects. This deficiency of women taking technical subjects is given an Irish perspective by Goodbody (2002) who noted the lack of female students pursuing science, engineering and technology qualifications, citing these subject choices as having particular importance because they often lead to

entrepreneurial activity. This under participation of Irish female involvement in this male dominated area of study, was further substantiated by McDonagh and Patterson (2002) as cited by Richardson (2002) who noted that even though a hundred females accept third level places for every seventy males, only one female accepts an engineering / technology course for every four males. However, Madsen *et al* (2003) noted in a Danish study that despite an active campaign to encourage female students to undertake technical subjects this has not yet been reflected in an increase of females entering into entrepreneurship in the high-tech sector.

2.6 Summary

After an examination of the literature, it can be concluded that entrepreneurship is extremely important to a country's economic development and the entrepreneur is an important part of this development. However, it was also found that Ireland had a low level of female entrepreneurial activity especially when compared to other countries,

Having established the serious under representation of women participating in entrepreneurship and therefore, acknowledging the potential loss to a country's economic development, there followed an in-depth examination of the female entrepreneurship literature, which in turn led to an examination of the demographic profile of the female entrepreneur and some of the more essential factors associated with women and new venture creation.

This chapter continued with an exploration of the undergraduate. Literature has shown that undergraduates express a definite interest in entrepreneurship as a career at some stage of their career cycle. It also established a correlation between education and entrepreneurship and the role that education has to play in entrepreneurship.

Finally the literature review ended with an examination of the female undergraduate. The most notable aspect concerning the female undergraduate and entrepreneurship is the distinct lack of research in this area as female undergraduates have virtually been ignored! Consequently, there is a need for more research in this field of study

especially as literature has shown female undergraduates are less inclined to perceive entrepreneurship as a viable career path in comparison to their male counterparts.

The next chapter will discuss the current research problem, question and objectives. There will also be an examination of the methodology that was used including the philosophical orientation underpinning the research approach and the eventual method used to gather the primary data for the current research.

Chapter Three

Methodology

Chapter 3: Methodology

3.1 Chapter overview

The purpose of this chapter is to inform the reader of the research methods used in the current study. First, it is necessary to identify the research problem, which leads to the research question and the objectives of the research. Then, there will be a discussion about the importance of a well-planned research process using Saunders, Lewis and Thornhill (2007) *Research Onion* as a template for the present research.

Next, the philosophical orientations of *positivism* and *phenomenology* are examined and the most suitable philosophical approach for the present research is discussed. This will be followed by a debate about the quantitative versus quantitative paradigms and the part they play in the research process.

Finally, this chapter looks at the research instrument and discussed why self-completion questionnaires were chosen as the appropriate method for data collection, thus, enabling the research question to be answered and the research objectives to be met. The advantages and disadvantages to this method along with a summary of the data analysis are also discussed in this chapter.

3.2 Research problem

The research problem is the starting point of all research (Brannick, 1997) and is defined, as an area of which there is some doubt, or is concerned with a difficult question that needs to be answered (Rummel, 1964). The ultimate aim of a research project is to discern what it is you need to know in order to solve problems or at least give further knowledge and therefore a deeper understanding to a particular area of study (Remenyi, Williams, Money and Swart, 1998).

With these criteria in mind the current research study has been undertaken to add knowledge to the comparatively new area of research, female entrepreneurship. Up to relatively recent times there has been little attention paid to the specific needs of the female entrepreneur, with the first academic study on the female entrepreneur being undertaken in the mid to late 1970s (Brush, 1992; Greene, Hart, Gatewood, Brush and Carter, 2003). However, despite the onset of these studies, the female entrepreneur remains largely invisible in mainstream entrepreneurial research (OECD, 2004; WES, 2006). It is particularly difficult to get reliable statistics on female entrepreneurship (Cromie, 1987; Brush, 1992; OECD, 2004). This is further substantiated by de Bruin, Brush and Welter (2006) who found that research with a focus on women entrepreneurs only accounted for 6% to 7% of studies published in the top eight refereed entrepreneurship journals since 1994.

This lack of recognition for women within entrepreneurship literature can have serious implications for a country's economic development and sustainability. Especially, as it is increasingly being recognised that "it is in a country's best interest not to ignore the potential economic contributions of half of their population-namely women" (Weeks, 2007, p.42). Even though there is some evidence to suggest that the importance of women and the part they have to play in enterprise is now being acknowledged, Greene *et al* (2003) believe research on the female entrepreneur has not kept pace with the impact she can make to a country's economic development. Consequently, this is an area that needs to be addressed.

A review of the literature showed that female entrepreneurs have a high level of education (Brush and Hisrich, 1991) with some studies indicating that they often attain a higher educational standard than their male counterparts (Madsen, Neergaard and Ulhoi, 2003). This high standard of education has also been noted in Ireland with more females then males now participating in third level education (CSO, 2005). However, this positive correlation between the educated female and female entrepreneurial activity does not appear to be making the impact in Ireland that it should. The average rate of early stage entrepreneurship for the five-year period 2002-2006 was only 4.8% for Irish females in comparison for 12% of Irish males (Fitzsimons and O'Gorman, 2006). This gender imbalance becomes even more pronounced when you take into consideration established entrepreneurs, with only

3.4% of Irish females being an established entrepreneur in comparison to 12.2% of Irish males. Consequently there are 3.6 times more men than women established entrepreneurs in Ireland (Fitzsimons *et al*, 2006). However, notably for the current research, rates of entrepreneurship increase as the level of educational attainment increases, with women holding post-graduate qualifications having the same rate of early stage entrepreneurial activity as men (Fitzsimons *et al*, 2006). Despite these findings, the under utilisation of a valuable resource as noted by Henry and Kennedy (2003) is central to the research problem of the current study, as there is still a notable deficit of educated women entering into entrepreneurship. Therefore the purpose of the present research is to get a better understanding of the female undergraduate and her perceptions of entrepreneurship with the view of gaining an insight into why so few women enter into entrepreneurship in Ireland.

With this in mind a conceptual framework was designed to help identify areas of relevance to the present research. Evolving from the research question, which is central to the research problem, other topics were identified in the literature as being essential to the present study. A review of these topics was necessary in order to answer the research question and to meet the research objectives. Fig.3.1 Conceptual Framework

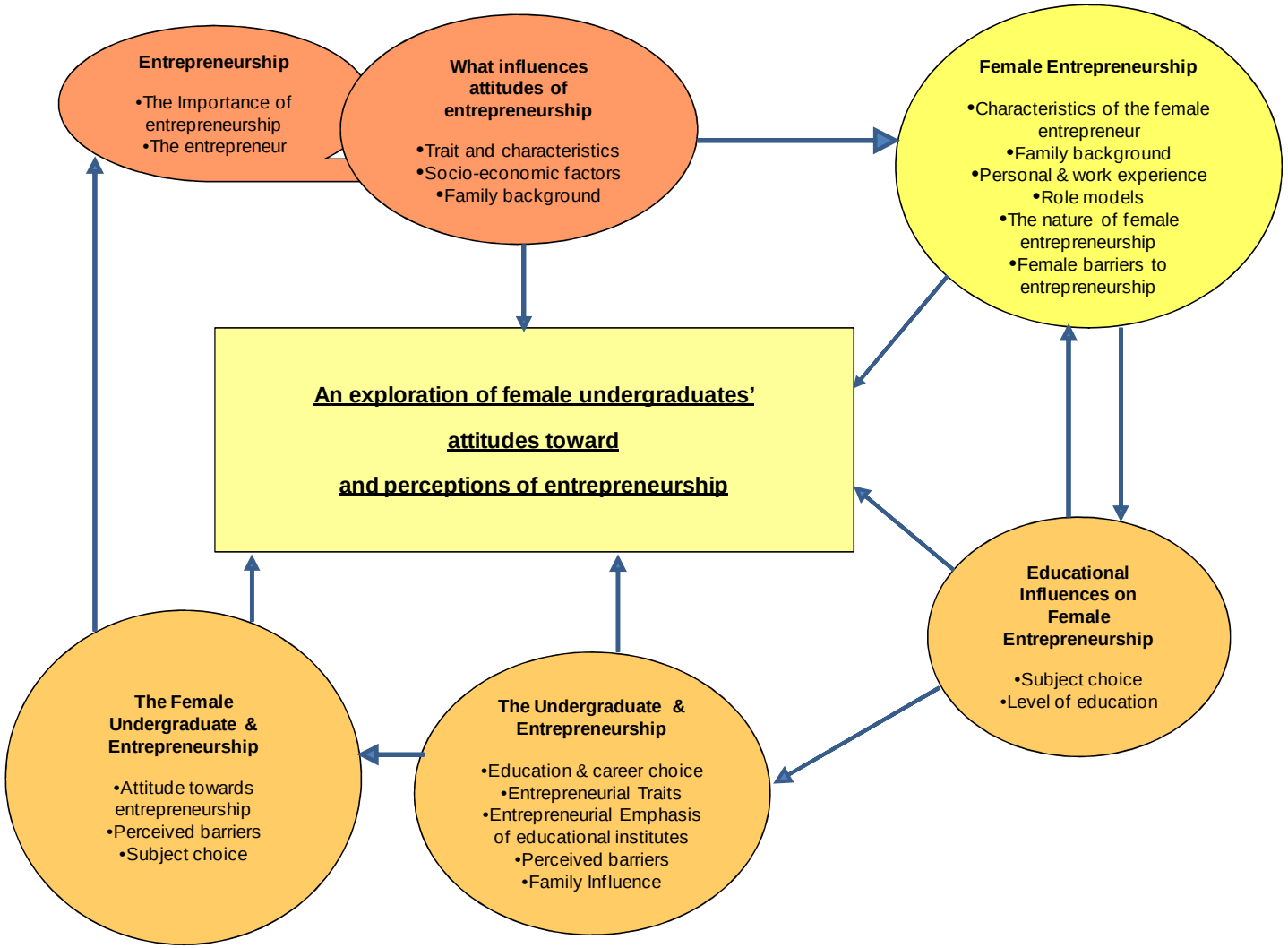

Fig3.1 Conceptual framework (Source: Current Research)

3.3 Research question

According to Blaxter, Hughes and Tight (2004) the choice of research question is the most important decision when it comes to undertaking research, as a poorly formulated research question will lead to poor research (Bryman and Bell, 2003). Saunders, Lewis and Thornton (2007) agree with this train of thought stating that the initial stage of a research study should start with the formulating and clarifying of the research question in order to turn a research idea into a feasible research study, with obtainable research objectives. They believe this is a vital element in the research process, as it will aid with the appropriate choice of research strategy, data collection and analysing techniques.

Another important requirement is a critical review of the literature. This review of literature is essential as it enables the researcher to identify the main areas of importance to the research question. It also helps identify key academic theories within the research question and it enables the researcher to demonstrate their knowledge in the chosen area of research. The literature review also facilitates the use of clear and accurate referencing allowing the readers of the study to find the original publications that are cited in the research (Saunders *et al,* 2007).

The reason for the current study is to examine the attitudes and perceptions of final year female undergraduates towards entrepreneurship in order to get a better understanding of their views of entrepreneurship as a career option. Therefore, for the purpose of the current study the research question is:

'What are the attitudes and perceptions of female undergraduates towards entrepreneurship?'

In order to answer this it was necessary to examine antecedent influences, motivational and inhibiting factors as well as the general attitude of the female undergraduate towards entrepreneurship.

3.4 Research objectives

Saunders *et al* (2007) see the research question acting as a basis to generate more detailed research questions or research objectives. They define research objectives as "clear, specific statements that identify what the researcher wishes to accomplish as a result of doing the research" (Saunders *et al,* 2007, p. 610). They go on to explain that from a methodology point of view "objectives are more generally acceptable to the research community as evidence of the researcher's clear sense of purpose and direction" (Saunders *et al,* 2007, p.32).

In light of this, the research objectives of the present study are aimed to establish:

1. If female undergraduates consider entrepreneurship a viable career option.
2. The perceived motivations of female undergraduates for entering into entrepreneurship.
3. The perceived barriers of female undergraduates for not entering into entrepreneurship.
4. The general attitudes of female undergraduates towards entrepreneurship.

The current primary research has been undertaken to address both the research question and the objectives that have arisen from the research problem. An exploration of the research process is now necessary in order to decide on an appropriate research methodology that will enable these aims to be achieved.

3.5 Research process / research design.

The planning and organising of the research study can be difficult and needs good organisation skills (Blaxter *et al,* 2004). Rummel (1964) suggested that once the general problem area has been decided on it is necessary to plan how the actual research is to be conducted in order to have a successful outcome. It is therefore imperative to ensure that the research is conducted within a systematic scientific manner (Rummel, 1964). It is also important that the researcher is aware of the need to always question observations and conclusions thus showing a healthy scepticism, along with an awareness of the ethical issues involved in the research (Robson, 2002).

There is a need to give serious thought to what you are doing and how and why you are doing it (Remenyi *et a,l* 1998). In other words seek the truth about the subject being researched (Robson, 2002). This may best be achieved by using a procedural framework usually referred to as the research methodology (Remenyi *et al,* 1998).

Saunders *et al* (2007) went on to describe this research process as an onion, with it being made up of different layers or processes that need to be understood before a satisfactory methodology can be decided on. Saunders *et al* (2007) identified the different aspects that make up the research process:

- philosophies,
- approaches,
- strategies,
- choices,
- time spans,
- data collection and analysis methods.

The research onion is shown in the figure 3.2

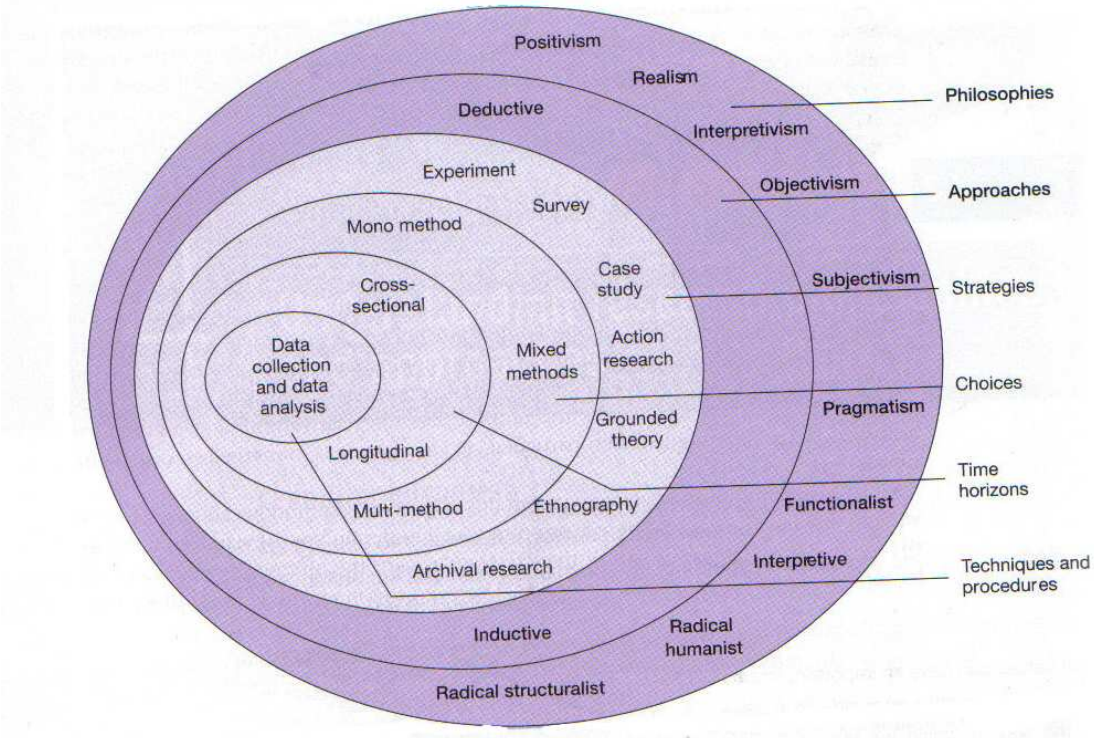

Fig. 3.2 The research onion (Source: Saunders *et al,* 2007, p.102)

However, even though data collection is positioned at the centre of the research onion model, Saunders *et al* (2007) believed it is important to decide on your research philosophy first as "the research philosophy that you adopt contains important assumptions about the way in which you view the world. These assumptions will underpin the research strategy and the methods you choose as part of that strategy" (p.101).

3.6 Research philosophies / approaches

The definition of philosophy in a research context relates to the development of knowledge and the nature of that knowledge. Therefore it is a process of developing knowledge, in a particular area, in a specific way (Saunders *et al*, 2007). This enables the research to be conducted in a scientific manner that "is not based on hunches, experience and intuition alone, but is purposive and rigorous" (Sekaran, 1992, p.9). It is important for the researcher to establish a philosophical orientation early in the research process, as it is through a wisely chosen philosophical approach that the researcher will convince the research audience by addressing philosophically the questions concerning the why, what and how to research. Consequently, this will show that the research undertaken has made a valid contribution to furthering knowledge in the general area of the research (Remenyi *et al*, 1998).

According to Knox (2004) the correlation between philosophy and the most suitable methodology chosen for a research study is a source of much angst and thought provoking debate. However, Arbnor and Bjerke (1997) as cited by Blaxter *et al* (2004) believe it is not possible to scientifically or logically decide on the best philosophical approach to take. This can only be done by reflecting on the research to be undertaken along with consideration of the researcher's own personal philosophy in life.

3.6.1 Positivism and phenomenology

Recognising this dilemma research is inclined to divide the philosophical ideologies into what is often thought of as two opposing or conflicting philosophies positivism

and phenomenology (Rememyi *et al,* 1998). Pawson (1999) as cited in McNeill and Chapmans (2005) stated that by seeing these different philosophies as opposing sides is an over simplification and that "positivism and phenomenology are not polar opposites as they face identical problems and need to adopt common solutions" (p.21). However, there is general agreement that the positivism paradigm, is closely associated with the natural science method (Remenyi *et al,* 1998; Robson, 2002; Bryman, 2004; McNeill *et al,* 2005; Saunders *et al,* 2007), in which the researcher is seen as detached and separate to the research (Easterby-Smith, 2006). The positive approach also believes the world is measurable, controllable and explainable (Knox, 2004). In contrast the phenomenological approach sees each situation as unique in which the researcher is an intrinsic part of the whole process. This is believed necessary in order to gain a deeper understanding of the research (Remenyi, 1998). With these, distinctions in mind the present research will go on to discuss the positivist and phenomenology approaches in order to get a better understanding of their philosophic leaning.

3.6.2 The positivism approach

The French philosopher Augustus Comte (1853) coined the term positivism, which according to Schwandt (2001), encompasses a philosophy of strict empiricism in which genuine knowledge can only be found based on experience. McNeill *et al* (2005) expanded on this concept agreeing positivism is a philosophical concept but stating it refers to a particular set of assumptions about the world and about appropriate ways of studying it. McNeil *et al* (2005) argued that positivists see society as being more important than the individual, stating that individuals are born, live their life and then die but society in the main stays the same. Thus, social forces consisting of cultural values and norms influence people, rather than the individual influencing society. They compare these social forces or laws that govern society to the laws that govern the natural sciences. They believe they affect the individual in much the same way as the natural laws governing the behaviour of the natural world. This particular philosophical outlook leads to the positivist premise that the behaviour of human beings can be objectively and scientifically measured in the same way as the subject matter of the natural sciences, thus arguing that researchers "should adopt the logic and methods of the natural sciences in their exploration of how the social

structure of society shapes peoples behaviour and actions"(p.16). This approach, they argue, "will produce scientific laws of human behaviour" (McNeill *et al*, 2005, p.16), therefore allowing predictions of the social world to be made and enabling the discerning of an absolute truth and the betterment of society.

McNeill *et al* (2005) further add to this, stating the positivist researcher is seen as using a highly structured methodology in order to enable other researchers to check and verify the scientific accuracy of the research. Therefore positivism as a paradigm, is often associated with statistical analysis and is usually associated with quantitative research and therefore, lends itself to using facts and figures and is often associated with statistical analysis (Remenyi *et al,* 1998; Saunders *et al,* 2007)

However the positivist paradigm is not without its shortcomings with Sarantakos (1998), as cited by Robson (2002), believing the over emphasis that positivism places on the natural science model and its need for quantitative measurement, standardisation and distance is inappropriate as it cannot analyse the real meaning of social behaviour. He is also critical of positivism trying to eliminate and neutralise as far as possible the influence of the research in order to achieve objectivity and neutrality. Finally, he questions this concept believing reality cannot be defined objectively but only subjectively and suggests the subjectivity of the researcher is essential to the research process. Consequently, Sarantakos (1998) believes researchers endeavouring to achieve objectivity in their research are failing to get to the core of the research problem. Remenyi et al (1998) express similar reservations fearing an emphasis on objectivity may lead to a loss of interesting and insightful information.

3.6.3 The phenomenology approach

Phenomenology like positivism is a philosophy in its own right and was first used by Edmund Husserl in the early part of the twentieth century. Saunders *et al* (2007) describe this approach as the way we as humans try to make sense of the world by *understanding* human behaviour. This is in direct contrast to the positivist approach, in which the emphasis is on the *explanation* of human behaviour. In other words " the

challenge is to enter the social world of the research subject and to understand their world from their point of view (Saunders *et al*, 2007, p.107). Remenyi *et al* (1998) agreed with this approach stating that in contrast to positivism, phenomenology focuses on subjective consciousness and does not consider the world to consist of an objective reality. Data collected in this way are normally qualitative in form rather than quantitative in that it concentrates on descriptive, verbal or diagrammatical explanations rather than a statistics numerical format (Remenyi *et al*, 1998; Robson, 2002; Chapman *et al*, 2005).

However, like positivism, phenomenology also has its shortcomings with Denscombe (2005) acknowledging that phenomenology research is often criticised for its lack of scientific rigour as it places the emphasis on subjectivity, description and interpretation rather than the more scientific emphasis on objectivity, analysis and measurement. This non-positivism stance is often cited as a fundamental flaw or weakness of phenomenology. This association with an in-depth description of an experience or event rather than analysis is also a cause of criticism as is the fact that phenomenology generally does not involve large population samples and this will always raise queries concerning how representative is the finding and how accurate is the generalisation from a limited sample (Denscombe, 2005). Remenyi *et al* (1998) added to these reservations saying phenomenological research is very time consuming and that control and interpretation of the data accumulated can be very difficult to accomplish successfully. The following table 3.2 summarises the main characteristics associated with the Positivist and Phenomenological Paradigms.

	Positivist Paradigm	Phenomenological Paradigm
Basic Beliefs:	-The world is external and objective -Observer is independent -Science is value free	-The world is socially constructed and subjective -Observer is part of what is observed -Science is driven by human interests
Researcher Should:	-Focus on facts -Look for causality and fundamental laws -Reduce phenomena to simplest elements -Formulate hypotheses and them test them	-Focus on meanings -Try to understand what is happening -Look at the totality of each situation -Develop new ideas through the induction from data
Preferred Methods include:	Operationalising concepts so that they can be measured quantitatively Taking large samples	Using multiple methods to establish different views of phenomena Small samples investigated in depth or over time

Table 3.1 Summary of the positivist and phenomenological characteristics

(Source: Easterby-Smith *et al,* 1997, p.27)

3.6.4 Selection of the research philosophy

The correct choice and understanding of philosophical orientation is of vital importance to enable the selection of the most appropriate methodology to facilitate the gathering of the relevant data (Remenyi *et al,* 1998; Blaxter *et al,* 2004), especially as poor understanding of philosophical issues can seriously undermine the quality of the research (Easterby-Smith, 2006).

Having studied the different philosophical approaches and considered the nature of the current research, the researcher decided an overall view of a respondent's attitude and perception was required in order to get a better understanding of female undergraduates views. This type of research required the participation of a large population sample, which in turn created large amounts of numerical and statistical data and information, which needed to be quantifiably analysed. When all these factors were taken into consideration positivism was decided upon as the most

appropriate philosophical approach to answer the research question and meet the objectives of the current research.

3.7 Research criteria

As this study is underpinned by positivism an appropriate sample of the female population was identified. Therefore, a number of research criteria were decided on to ensure that a suitable research sample and ultimately suitable research respondents were selected for the primary research.

- The respondent must be a student of Waterford Institute of Technology[2]
- The respondent must be a final year honour degree undergraduate student. Final year students were decided on because they are at a critical stage of their career development.
- The degree had to be of 4-year duration to keep the sample as uniform as possible.
- The respondent must be an Irish National in order to ensure that each respondent comes from a similar educational and cultural background.

The use of the above research criteria formed the foundation for the selection of a suitable research sample for the current research. An outline of the current research procedure can be seen in Fig.3.3.

The use of the above research criteria formed the foundation for the selection of a suitable research sample for the current research. An outline of the current research procedure can be seen in Fig.3.3.

[2] For ease of access to a research sample it was decided to use only one of three higher-level educational institutes situated in the South East Region of Ireland. However, limiting the research to one institute may raise concerns about bias and the generalising of the results. The researcher strove to overcome this limitation and add validity to the study by administering the questionnaire over a wide range of courses involving five of the six schools within Waterford Institute of Technology.

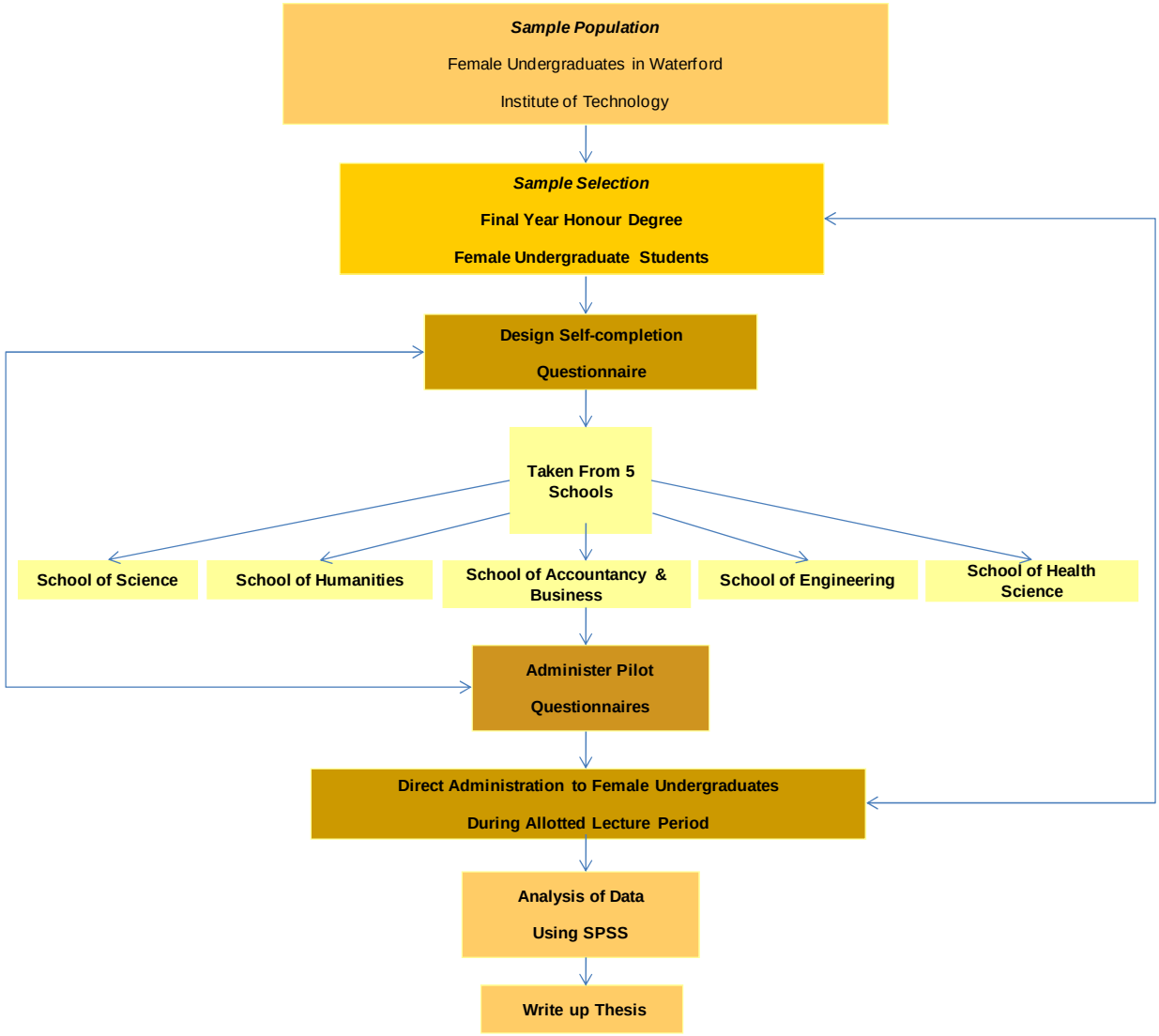

Fig 3.3 Research process (Source: Current Research)

3.7.1 Sample selection

According to Williams (1997) it is necessary to select a subsection of the elements from the population under consideration to make the research more manageable. If this subsection is chosen following the correct principals it should be "possible to draw inferences about the characteristics of the population on the basis of the statistics derived from the sample" (Brannick, 1997, p.62). In the case of the current research it was decided to take the sample selection from one of three Institute of Higher Education situated in the South East region of Ireland. This was Waterford Institute of Technology (WIT). Final year degree female students were chosen to participate in the study. Because the researcher studied and currently works in WIT, and is

therefore familiar with the structures and process of WIT, the sampling technique employed can be considered *convenience sampling.* Convenience sampling is a non-probability sampling procedure that involves choosing the nearest and most convenient persons to act as respondents. The process is continued until the required sample size has been reached (Robson, 2002 p.265).

- Students from Waterford Institute of Technology were chosen due to the accessibility of a large number of students undertaking studies that fit the research criteria
- As only one educational institute was used in the study the sample population was taken from five schools within the Institute in order to provide a representative sample and thus reduce the level of bias :

    1. School of Business
    2. School of Engineering
    3. School of Health Sciences
    4. School of Humanities
    5. School of Science

By adhering to the above format the researcher was able to compile a representative sample of credible size, as noted by Remenyi *et al* (1998) as being essential for the successful conclusion of a research project.

The School of Education was omitted from the sample selection, as they did not have any students that met the criteria decided on for the current study.

3.8 Selection of research method

When the sample selection was completed a suitable research method had to be decided on. After taking into consideration the theoretical approach and the nature of the research question, the positivism paradigm using a quantitative method was chosen as the most suitable approach for the collection of the data. According to Easterby-Smith (2006) there are four main ways of gathering quantitative data:

- Interviews
- Questionnaires
- Test/Measures
- Observation

After taking into consideration the large number of potential respondents in the sample size along with the information required to meet the research objectives the research instrument decided on was a questionnaire.

3.8.1 Questionnaire

The questionnaire as defined by Hutton (1990) and cited by Blaxter *et al* (2004) "is the method of collecting information by asking a set of formulated questions, in a predetermined sequence, in a structured questionnaire, to a sample of individuals drawn so as to be representative of a defined population" (Blaxter *et al*, 2004 p.77). With these factors taken into consideration the importance of a well thought out research instrument cannot be over stressed, as according to Rowley (2004) a well-designed questionnaire will only ask the questions to which you want an answer.

3.8.2 Advantages of a questionnaire

The main advantages of using questionnaires as a research instrument as noted by various researchers are:

- They are considered quicker, less expensive and requiring less skills than the interview method (Sekaron, 1992).
- There is also less chance of influence or subjective bias by the researcher as the *interviewer effect is eliminated* (Bryman, 2004).
- They are one of the most common methods of data collection, are highly respected by researchers and are extremely useful as a method to reach a lot of people (McNeill *et* al, 2005).

- They provide a relatively simple and straightforward approach to the study of attitude, values, beliefs and motives and allow anonymity, which may encourage more truthful responses especially if dealing with sensitive topics (Robson, 2002).
- It is also an easy way to obtain standardised data thus enabling responses to be easily coded (Sekaron, 1992).
- They are simple to replicate so are beneficial in aiding future research (Sekaron, 1992).

3.8.3 Limitations of a questionnaire

All methods of research have limitations associated with them and the directly administered self-completion questionnaire is no exception (Robson, 2002).

- They typically have a low response rate.
- It is difficult to get in-depth information.
- Ambiguities can arise in the questionnaire both for the respondent while filling out the questionnaire and the researcher during the analysis of the data and these are unable to be addressed due to no personal contact between the two.
- Respondents may not take the exercise seriously and give inaccurate information.
- Due to the nature of the questionnaire respondents don't necessarily report their beliefs, attitudes, opinions etc. accurately.
- There is likely to be a *social desirability response bias*, as respondents may answer the questions in the way that shows them in a good light.

However, bearing the advantages and disadvantages in mind the questionnaire was still deemed the more suitable method to employ for the current research. Using a questionnaire as the research instrument allowed the research to be conducted in the systematic scientific manner required to answer the research question and to meet the research objectives. The questionnaire was constructed in such a manner so as to reduce the effect of the limitations and biases outlined above.

There are four main ways to administer a research study conducted by questionnaire:

- ***Self-Completion*** Respondents fill in the answers themselves. They are often sent by post, enabling a large sample to be reached with relatively little problem. The questionnaire may also be handed personally to the respondent if the situation is appropriate and a structure is put in place to enable ease of delivery and collection.
- ***Face-To-Face-Interviews*** An interviewer asks the questions in the presents of the respondent, and also completes the questionnaire.
- ***Telephone Interview*** The interviewer contacts respondent by telephone, asks the questions and records the responses.
- ***Computer-Administered Questionnaires*** The respondent fills in the answers themselves by accessing an electronic questionnaire via E-Mail or web sites on the Internet.

After taking into consideration the different methods available to administer a questionnaire, the self-completion questionnaire was deemed as the most suitable research instrument for the current study. This method was decided upon because it would enable the collection of large quantities of data from a sizable population sample with relative ease and therefore aid the administration process.

3.8.4 Questionnaire content

Questionnaires in general will contain two types of questions open ended or closed. With open-ended questions the researcher leaves it to the respondent as to how they word their answer leaving the way open to a more in-depth answer. However they are more difficult to organize into categories to enable ease of analysis. A closed question will limit the response that may be given and usually asks the respondent to make choices among a set of alternatives given by the researcher. However, closed questions help the respondent to make quick decisions and so aid ease of completion. They also help the researcher to code the information easily when it comes to analysis of the data (;Sekaran, 1992; McNeil *et al*, 2005).

Taking these criteria into consideration along with the research question and its objectives, a research questionnaire was designed for the current study. This questionnaire consisted of five different topics:

1. **Demographics-**This section consisted of questions relating to general background information; Age, nationality, location, educational discipline within Waterford Institute of Technology and any other 3rd level qualification that the student may have achieved.
2. **Family Background-**This section consisted of questions that were aimed at establishing family background including entrepreneurial family influences, such as business ownership by family members, sibling order in family, parents educational background and parents occupation.
3. **Enterprise Education-**This section consisted of questions that were designed to establish if any enterprise training had been received during their education up to this point. The question was also asked if they would like more entrepreneurial /knowledge to be included in their higher level education.
4. **Career Aspirations Including Entrepreneurship**-This section of the questionnaire was aimed at establishing what were the career intentions of the students, with the intention of finding out if they considered entrepreneurship a viable career option. If they did consider entrepreneurship as a suitable career the questions continued in this section in order to establish:
    - The age they would consider the best age for starting a business and why.
    - The type of business they would like to start.
    - Whom would they consider influential in this decision.
5. **Attitudinal Questions-** The final section is divided into 3 subsections consisting of:
    - Attitudinal questions specifically designed for the student who would consider entrepreneurship as a career. They were aimed at

establishing why she would choose this option and what were her motivations

- Attitudinal questions specifically designed for the student that would not consider entrepreneurship a viable career option. They were aimed at establishing why she would not consider entrepreneurship as a career and what was the reason for this decision.
- General attitude questions aimed at establishing the student's attitude and perception towards entrepreneurship in the wider context.

It was decided more beneficial for the current research to have mainly closed questions with a small selection of open-ended questions when it was deemed necessary (see Appendix 1).

3.9 Pilot questionnaire

The administration of a pilot questionnaire is an essential stage of questionnaire-based research and should never be left out of the research process (Murphy, 1997). The correct piloting of a questionnaire will enable the researcher to detect and correct any defects, omissions or confusion found in the draft questionnaire and so helping to ensure the successful collection of data (Murphy, 1997). It is important that the respondents of pilot questionnaires are similar to the respondents that will be involved with the actual research, hence comparing like with like (McNeill, 2005). In the current study a pilot questionnaire was administered to eight female undergraduates, which, according to Murphy (1997) is a suitable number of respondents for a pilot questionnaire. The respondents were in the final year of an honour degree course and were taken from two different schools within Waterford Institute of Technology:

- The School of Business
- The School of Humanities

This selection of students ensured a suitable representation of the sample population required for the actual research questionnaire as recommended by (McNeil *et al*, 2005). The eight respondents completed the questionnaire in a situation adhering to as near as possible the actual circumstances arranged for the completion of the actual research questionnaire. Following a discussion with the respondents and checking the responses given on the questionnaire, it was found, with the exception of two minor issues concerning the wording of a question, there were no changes needed to the questionnaire.

3.10 The administration process

The administration of the questionnaire involved five different schools within Waterford Institute of technology and required the personal attendance of the researcher at 23 lectures. With these logistic requirements in mind a systematic process was put in place. This was necessary in order to successfully administer the self-completion questionnaire to the eligible respondents, with the least disruption possible to lecturers and students alike. A summary of the administration process is outlined below:

- Permission was sought and given from the Head of each Department, within the different schools in Waterford Institute of Technology to conduct the research.
- Contact details of the course leader of all the relevant degree courses was sought and given. This was necessary in order to seek their cooperation to help administer the questionnaire to the students during a lecture period.
- A list of courses was drawn up. A suitable lecture period was agreed with the lecturer where the self-completion questionnaire was administered to the students and collected by the researcher, upon completion, during that lecture. This process took between 20 to 30 minutes depending on the number of students in the class and was conducted before the end of the lecture.

This personal delivery of the questionnaire was found to be a considerable advantage as the questionnaires could be completed and collected in a relatively

short period of time and the researcher was present to answer any query the respondents had regarding completion of the questionnaire. Notably, the response rate was 100% of the female students present at the lecture on the day of delivery.

The minor difficulties encountered administering this research were:

i) Due to the administration of the questionnaire infringing on lecture time and the respondents need during the second semester to concentrate on their final year preparation for exams. The first semester was deemed the only suitable time slot in which to distribute the questionnaire. This precise time slot left no room for error in the preparation and administration processes of the questionnaire.

ii) Respondents rushing to other lectures sometimes added to the time pressure to complete the questionnaires.

3.11 Data analysis

Due to the quantitative nature of the current research it was decided to use SPSS (Statistical Package for the Social Sciences) to analyse the data obtained from the questionnaires. SPSS is a data analysis programme specially designed for statistically analysing and performing data management tasks (Norusis, 1990), enabling detailed statistical analysis of large amounts of data and thus aiding to the validity of the data. However, before any data could be entered into the SPSS program it was first necessary to examine the individual questionnaires in order to assess their suitability for inclusion in the research.

After assessment of the questionnaires it was found the total number of questionnaires administered was 326 (88%) out of a potential sample size of 370 female students enrolled on the relevant courses. This represented as previously stated 100% response rate of female students attending the lecture on the day of the administration of the

questionnaire. However on closer inspection this number was reduced to an actual usable sample size of 273 female students or 83% of the sample size. This was due to administering the survey to Erasmus students who due to their nationality did not fit the selection criteria, consequently invalidating 38 of the questionnaires. In addition 15 questionnaires were incorrectly completed and as a result deemed ineligible for use.

- The remaining eligible research questionnaires were then separated into the 23-degree courses selected for participation in the research. Each degree course was then numerically coded
- The responses were further categorised by individual student and numerically coded.
- Each question and response was numerically coded.
- All the numerically coded data was entered into an excel spreadsheet for ease of input.
- When the input of data was complete it was downloaded directly into SPSS.

The findings were then analysed by using tests of *statistical* significance:

- *Frequency*-This tests how frequently the value occurs or the percentage of times they occur (Norusis, 1990)
- *Independent t-test*-This tests the hypothesis that two groups have the same mean in the population (Norusis, 1990).
- *Chi-square-test*-This test is based on a comparison of observed frequencies with expected frequencies. From it, you can obtain an observed significance level for the hypothesis that two proportions are equal (Norusis, 1990).

Through use of SPSS as an analytical tool the current research produced some interesting findings as presented in the findings chapter.

3.12 Summary

In conclusion this chapter explained what the current research problem is, which in turn lead to a discussion about the research question and what the objectives of the research were. This was followed by an examination of the research process including the philosophical approaches of positivism and phenomenology leading to a debate on the nature of the current research resulting in the quantitative method being decided on. Research criteria were then drawn up and an appropriate representative sample was chosen for the study followed by an explanation about how the researcher overcame bias and adds validity to the study. After an examination of the research method the self-completion questionnaire was decided on as the research instrument. This led to an exploration of the advantages and limitations of the questionnaire and a discussion about the contents of the questionnaire. Followed by an explanation on the necessity of piloting the questionnaire before delivering the study and a discussion about the rationale behind the administration process used for the distribution of the questionnaire. Finally the chapter finished with an explanation about how SPSS enabled the statistical analysis of the data.

The next chapter presents the research findings.

Chapter Four

Research Findings

Chapter 4: Research findings

4.1 Introduction

The aim of this research was to examine the attitudes and perceptions of female undergraduates towards entrepreneurship. The findings from the study will be presented in this chapter.

The sample population in the present research is comprised of 326 honour degree 4th year female undergraduate taken from five of the six different schools within Waterford Institute of Technology (WIT), Ireland. It is of interest to this current research to note the under representation of female students in the schools of Science and Engineering and can be seen below in (Table 4.1) This is in line with previous research findings on the subject choice of female entrepreneur in which it was found that a minority held degrees in engineering and technical subjects. (McCelland, Swail, Bell and Ibbotson, 2005) However, contrary to this current study McCelland *et al* (2005) also noted a lack of business degrees being held by the female entrepreneur

	Total number of 4th year students male & female undertaking an honour degree course	**Total %**	**Total number of 4th year female students undertaking an honour degree course used for current research questionnaire**	**Total %**
School of Humanities	212	33%	169	46%
School of Business	187	29%	105	28%
School of Health & Science	113	18%	64	17%
School of Science	87	14%	28	8%
School of Engineering	37	6%	4	1%
	636+	100%	370	100%

Table 4.1 Number of 4th year honour degree student numbers attending the different schools within WIT (Source: Current Research)

The current research questionnaire was administered to the female students who attended the relevant lectures on the days assigned for delivery of the survey. The response rate was 100% of female students who attended these lectures. However, some of the respondents were found to be ineligible for this research due to they being Erasmus students and therefore did not meet the selection criteria. Also some of the questionnaires were incorrectly completed. Therefore the actual number of useable responses was 273 (83%) of the sample size and can be seen below in (Table 4.2)

Total Population	Sample Size	Ineligible female respondents	Usable Responses
370	326	53	273

Table 4.2 Population and sample size (Source: Current Research)

The first topic to be discussed in this chapter is the general characteristics of the sample group of 4th year honour degree female students. Then there will be a presentation of the findings based on the female students that said they wanted to start their own business, followed by a presentation of the findings based on the female students that said they do not want to start a business. This in turn will lead to an examination of the respondents' general attitudes toward and perceptions of entrepreneurship. Finally the chapter will conclude by putting forward an analysis of the differentiating factors between the two distinct groups of students that is those that expressed the desire to start their own business and those that expressed that they had no intention to start their own business.

4.2 Characteristics of the sample group

The majority of the sample (93%) came from the Schools of Humanities, Business, Health and Science with the remaining (7%) being distributed between the Schools of Science and Engineering. This lack of female students pursuing science and engineering is corroborated by Goodbody (2002) who noted these subject choices are of particular important because they often lead to entrepreneurial activity. (see Table 4. 3).

School N=273	Actual usable responses of students in the different schools within WIT	%	%
Humanities	128	47%	93%
Business	77	28%	
Health & Science	48	18%	
Science	17	6%	7%
Engineering	3	1%	

Table 4.3 Number of actual female students surveyed in each of the schools in WIT (Source: Current Research)

Eighty-eight percent of the sample has been in college for 4 continuous years and the vast majority of the respondents are in the age group 20-25 years (see Table 4. 4).

Age N=273	Quantity	%
20-25	252	92%
26-30	10	4%
31-40	8	3%
41+	3	1%

Table 4.4 Age group of students (Source: Current Research)

Most of the respondents are from Ireland (96%) with the remaining 4% coming from the UK. Over two thirds of the students come from Waterford and its neighbouring counties Kilkenny, Wexford, Tipperary and Carlow, therefore the attitude and perception of the student sample in this study will be mainly based on respondents from the South East region of Ireland as seen in (Table 4.5).

Home County N=273	**Quantity**	**%**	**%**
Waterford	61	22%	70%
Wexford	65	24%	
Kilkenny	35	13%	
Tipperary	25	9%	
Carlow	4	2%	
Other 13 counties	87	30%	

Table 4.5 Students home counties (Source: Current Research)

4.3 Students that expressed they want to start their own business

As previously noted the usable responses consisted of 273 female final year undergraduate honour degree students. Out of that number 87 (32%) of the respondents expressed the desire to start their own business. Over half of these students believe that between the age 26-30 years is the ideal age to start a business. (see Table 4.6).

Ideal age to start a business N=84	**Quantity**	**%**
20-25	3	3.6%
26-30	43	51.2%
31-40	35	41.7%
41-50	3	3.6%
51	0	0.0%

Table 4.6 Ideal age to start a business (Source: Current Research)

The most common reason why this age slot was chosen was because many respondents believed they needed time to gain more experience before starting a business.

There was a wide variety of responses as to the type of business these respondents would like to start (see Table 4.7).

Type of Business N=80	**Quantity**	**%**
Leisure & Fitness	11	13.8%
Hospitality & Tourism	10	12.5%
Business Related Services	9	11.3%
Retail	9	11.3%
Health & Social Care	7	8.8%
Agriculture/Horticulture/Animal Breeding & Training	5	6.3%
Law	4	5.0%
Architecture	2	2.5%
Art & Craft	2	2.5%
Health & Beauty	2	2.5%
Education	1	1.3%
Entertainment Industry	1	1.3%
Food Industry	1	1.3%
ICT	1	1.3%
Variety of Ideas	3	3.8%
Unsure	12	15.0%

Table 4.7 Type of business students would like to start (Source: Current Research)

In response to the question about whom or what influences female graduates to start their own business, 90% of the respondents said that they would be (are) influenced by entrepreneurs they know. Respondents also indicated that they were influenced by parents, other family members and friends. With 80% of the respondents stating that the education system had a positive influence on their decision to become an entrepreneur (see Table 4.8).

Parents & Family N=82			
Essential Influence	55	67%	99%
Mainly Positive	26	32%	
Don't Know	1	1%	
Education System N=74			
Essential Influence	17	23%	80%
Mainly Positive	42	57%	
No Influence	6	8%	
Don't Know	9	12%	
Career Advisors N=73			
Essential Influence	12	16%	63%
Mainly Positive	34	47%	
Mainly Negative	4	5%	
No Influence	16	22%	
Don't Know	7	10%	
Friends N=79			
Essential Influence	29	37%	86%
Mainly Positive	39	49%	
Mainly Negative	1	1%	
No Influence	7	9%	
Don't Know	3	4%	
Entrepreneurs I know N=76			
Essential Influence	38	50%	90%
Mainly Positive	30	40%	
Mainly Negative	1	1%	
No Influence	6	8%	
Don't Know	1	1%	
Media N=73			
Essential Influence	16	22%	62%
Mainly Positive	29	40%	
Mainly Negative	4	5%	
No Influence	10	14%	
Don't Know	14	19%	

Table 4.8 Important influencers in the encouragement or discouragement of starting your own business (Source: Current Research)

When asked why they wanted to start their own business. It was found that almost 100% of the students either strongly agreed or agreed that they would like to start their own business because it would permit them to be their own boss. This response is in agreement with the findings of Brindley and Richie (2000) who acknowledged that being your own boss was a key positive feature for the undergraduate when considering starting their own business. The vast majority (96%) of these students also believe that by starting their own business it would enable them to use their education to the best advantage. Over 90% of the students expressed the belief that by choosing entrepreneurship as a career it would give them self-fulfilment and a career that would challenge them. This corresponds with findings from studies conducted by Buttner and Moore (1997) and Gasse, Camion, Ghamgui and Tremblay (2006) in which self-fulfilment and a challenging career were considered highly motivational when starting your own business. Most of the students in this current study agreed (94%) they would like to start their own business because it would enable them to use their business ideas and business skills. Furthermore 90% of the respondents agreed that to start their own business would enable them to make the best use of their personal skills and competencies. Over 70% of respondents believed they had the assertive strong personality necessary for business ownership.

The belief that entrepreneurship would allow them to work in the area of their own choice was seen as an essential reason for starting your own business with 94% of these undergraduates agreeing with this idea. This is in line with Oakey, Mukhtat and Kipling (2002) who noted 'flexibility of choice in the work environment' as an important feature for those wanting to start their own business. This need for freedom of choice was given further credence with 85% of the entrepreneurial-minded undergraduate agreeing entrepreneurship would enable them have more control over their life. This finding is in agreement with Nearchou-Ellinas and Kountouris (2004) who noted the desire to have control was an important motivator for starting a business.

This present study also identified the undergraduate's need to do things their own way as a reason to start their own business with over 80% of the respondents believing this to be an important factor when considering entrepreneurship as a career. It was also noted by many of the respondents (80%) that entrepreneurship as a career would have

less boundaries than if they worked for someone else. However flexibility to combine a career with their family life and being able to achieve a better work life balance while found to be important reasons for starting a business are of less importance to the undergraduate when compared with the previous reasons for entering entrepreneurship. This might not be so surprising considering the predominant age group of the respondents involved in this research is 20-25 years and possibly the need to consider family responsibilities and their implications have not yet been taken into consideration.

Over two thirds of the respondents (69%) see entrepreneurship as a way of gaining respect from others as was also noted in the Fitzsimons and O'Gorman (2006). There was also a positive response to the idea that by starting your own business it would enable you to give something back to society with 78% of the students believing this. Out of this number a third of the students *strongly agreed* (34%) with this idea of entrepreneurship enabling you to give back to society. This interest in contributing to society was also noted by Kourilsky and Walstad (1998) who found in their study of young females that there was nearly unanimous agreement it was very important or somewhat important to give something back to the community beyond providing jobs.

Finally only 18% of the respondents *strongly agree* entrepreneurship, as a career is a way to make a lot of money. Interestingly this is very similar to findings from a study undertaken by Postigo, Lacobucci and Tamborine (2006) in which it was found that earning money was not as important as non-economic reasons for starting a business. The findings from the current study can be found in Table 4.9.

I would like to start my own business because:	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree	Don't Know
I want to be my own boss. N=85	50%	47%	0.0%	1%	0.0%	2%
I have an assertive strong personality that is necessary for business ownership. N=85	22%	49%	20%	7%	0.0%	2%
It would enable me to make best use of my personal skills and competencies. N=87	28%	62%	9%	0.0%	0.0%	1%
It would enable me to make a lot of money. N=87	18%	47%	24%	8%	0.0%	3%
It would enable me to do things my way. N=87	23%	62%	5%	8%	0.0%	2%
It would enable me to have more control over my life. N=87	26%	59%	8%	6%	0.0%	1%
It would enable me to pick my own working time. N=87	23%	38%	18%	17%	3%	1%
It would give me the flexibility to combine my career with my family life. N=86	28%	44%	12%	13%	2%	1%
It would give me better work / life balance. N=86	27%	38%	20%	11%	3%	1%
It would give me a career that would challenge me. N=86	56%	36%	6%	1%	0.0%	1%
There would be less boundaries to my career than if I worked for someone else. N=86	35%	45%	6%	12%	0.0%	2%
I would be able to use my business ideas(s). N=87	38%	56%	5%	0.0%	0.0%	1%
I would be able to use my business skills. N=87	43%	51%	6%	0.0%	0.0%	1%
I would be able to use my education to the best advantage. N=87	45%	51%	1%	2%	0.0%	1%
It would give me self-fulfilment to own and run my business. N=87	55%	37%	6%	1%	0.0%	1%
It would enable me to give something back to society. N=86	34%	44%	17%	4%	0.0%	1%
It would gain me respect from others. . N=87	25%	44%	17%	8%	0.0%	6%
It would enable me to work in the area of my choice. N=86	58%	36%	4%	1%	0.0%	1%

Table 4.9 The reasons students would like to start a business (Source: Current Research)

4.4 Students that expressed they do not want to start their own business

This sub section of the chapter will present the findings relating to the female students who do not want to start their own business. Out of the sample of 273 eligible responses the majority of the students, 186 (68%) said that they did not want to start their own business.

The present study has found that a fear of risk is the most predominant inhibiting factor for the students that do not want to start their own business, which supports the findings of Wang and Wong (2004) who also noted fear of risk as a key reason for the undergraduates reluctance to enter into entrepreneurship. This fear of risk was further emphasised with over two thirds of the undergraduates in this current study stating they were afraid their business would fail and had a fear of running into debt. This is in agreement with Goodbody (2002) in which it was found business failure and bankruptcy were cited as the principal demotivating factors for the undergraduates reluctance to enter into new business creation. It was also found in this current study that 79% of the respondents agreed that a lack of a secure income is the main reason they would not enter into entrepreneurship. Therefore maybe not so surprisingly 72% of the students in this current research agreed it would be easier to work for someone else.

Not having the relevant experience was also cited as a barrier to starting your own business with 71% of the respondents agreeing with this. This factor should also be taken into consideration when looking at the fact that 63% of the students saw a lack of a good business idea as an inhibitor to entrepreneurship. This is in agreement with Scott and Twomey (1988) who noted that students that had relevant work experience were more inclined to have a business idea than students that did not have work experience and that a good business idea is a main trigger factor in the encouragement to enter entrepreneurship.

Over half the students thought the responsibility of running a business too difficult, they perceived the pressure to be too stressful. They also believed it could take up too much of their time and therefore entrepreneurship could take over their life. Many of

the respondents (61%) also believed entrepreneurship would be too difficult if they had family commitments. Lack of business skills needed to run a business is also seen as a problem with 50% of the students agreeing they do not have the business skills required to run their own business. This lack of business skills was also found by Robertson, Collins, Medeira, and Slater (2003) as a reason for not starting a business.

Conversely 60% of the students in the present study *disagree* that they do not have the personal skills and competencies required for entrepreneurship which is in line with the findings of Eeden Van, Louw and Venter, (2005) who noted in their study that female undergraduates perceive their interpersonal skills as good.

This present study also found that 59% of the students that don't want to start their own business *disagreed* with the notion that one would have to work too hard if one owned one's own business. This is of particular interest, as there would appear to be an anomaly when this finding is compared to the finding from the combined group of students. Namely those that want to start a business and those that don't want to start a business. It was found 95% of the combined respondents believe that one would need to work extra hard when one owns one's own business.

There were mixed opinions from the students that did not want to start their own business on the difficulty of obtaining finance to start one's own business with 41% agreeing that it would be too difficult to obtain finance. This finding is in agreement with Hazlett, Henderson, Hill and Leitch (2005) who found it a major barrier to start up. Of the remaining students 30% were unsure of the difficulty to obtain finance and 27% disagreed with it being difficult.

Just over half of the students thought that they did not have the contacts or networks to start a business. However, there was an almost equal divide between respondents knowing and not knowing how to access business information or support structures. This difficulty in accessing business information was also recognised by Goodbody (2002) to be a major problem for the undergraduate when considering starting entrepreneurship.

Business external influences do not appear to have a major impact on the discouragement of entrepreneurship with only 48% of the students considering "too much red tape" a reason for not entering entrepreneurship and over 50% *disagreeing* that the Irish market is too small and therefore not having enough potential for starting a business. Even though these respondents are not interested in starting their own business over 70% of them disagree that entrepreneurship does not have the same status and respect as other careers.

There is also some disagreement over the educational system and whether it encourages young people to enter entrepreneurship as seen in the table (Table 4.10)

The educational system does not encourage starting your own business	
Disagree	40%
Agree	30%
Unsure	25%
Don't Know	5%

Table 4.10 Students attitude towards the influence of the education system on the encouragement of students to start their own business (Source: Current Research)

However, there is more unanimity in the response to the statement "the educational area that they studied as not being suitable to start a business" with almost half of the students disagreeing with this idea. This is in contrary to the findings of McCelland *et al* (2005) in which it was found that most of their respondents had established their business in an area that had no connection to the subject area that they had studied. These findings from the current research can be found in Table 4.11

I do *not* want to start my own business because:	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree	Don't Know
I would find the responsibility of running a business too difficult. N=184	11%	45%	9%	27%	8%	0.0%
I would find the pressure too stressful. N=184	15%	47%	7%	25%	5%	0.5%
I do not have the personal skills and competencies necessary. N=185	5%	20%	15%	45%	15%	0.5%
There is too much red tape e.g. legal and employment regulations required when running a business. N=186	9%	39%	18%	27%	5%	1%
The Irish market is to small and does not have enough potential. N=183	4%	15%	26%	43%	11%	2%
I am afraid of running into debt. N=185	18%	51%	8%	16%	6%	1%
It would take up too much of my time. N=186	14%	38%	9%	30%	8%	2%
It would be easier to work for someone else. N=185	21%	51%	8%	12%	7%	2%
I don't have a good business idea. N=185	20%	43%	17%	15%	6%	0.0%
I do not have the relevant experience needed to run a business. N=185	18%	53%	7%	14%	5%	1%
I don't have the business skills required to run a business. N=186	16%	34%	14%	29%	8%	0.0%
I would be afraid of the lack of a secure income. N=184	24%	55%	5%	11%	4%	0.0%
I would have to work too hard. N=183	10%	19%	12%	43%	16%	0.5%
It could take over my life. N=185	17%	35%	12%	27%	9%	0.5%
It would be too difficult to run a business if I had family commitments. N=184	22%	39%	13%	20%	5%	0.5%
Entrepreneurship does not have the same status or respect as other careers. N=184	5%	5%	16%	46%	26%	2%
I would be afraid that my business would fail. N=183	21%	54%	12%	9%	4%	0.0%
It would be too difficult to obtain the finance necessary. N=181	12%	29%	30%	22%	5%	2%
The educational area that I studied is not suitable to start a business in. N=184	18%	19%	15%	38%	10%	1%
I do not have the contact or networks necessary to start a business. N=181	16%	39%	17%	18%	8%	3%
I do not know how to access business information or support structures. N=183	9%	33%	18%	27%	12%	2%
The educational system does not encourage starting your own business. N=185	12%	18%	25%	28%	12%	5%

Table 4.11 Reasons students do not want to start their own business (Source: Current Research)

4.5 Students' attitudes towards and perceptions of entrepreneurship

This sub section of the chapter will present the findings relating to all 273 respondents.

The vast majority of respondents (87%) perceived that one required special characteristics or traits if one want to start one's own business, which is in agreement with Postigo *et al* (2006) whose research found entrepreneurs are seen as people with specific attributes. The need to work extra hard was also seen as a basic requirement when entering entrepreneurship with 95% of the students agreeing with this. There was almost unanimous agreement on the need to be very determined to run a successful business with 99% of the students sharing this opinion. This is in agreement with Gasse (1990) who found determination an important trait for entrepreneurship. Support from family and friends was also acknowledged as important when starting a business, with the vast majority (95%) of the respondents supporting this view. This need of support was also noted by Kirkwood (2007) who found females are also more inclined to seek family advice than their male counterparts.

However, only 17% of the respondents agreed that society in general encourages women to start their own business. McClelland (2003) believed there is a lack of support from Irish society and sees this as a barrier to female entrepreneurship. In addition only 26% of the respondents in the current study believe the media encourages women into entrepreneurship by giving positive coverage of successful women who own their own businesses. This lack of recognition of the female entrepreneur was further emphasised in the current studying in which it was found over half the respondents believed there is a general lack of female role models who own their own businesses. This lack of female role models in Irish society has been previously recognised by Goodbody (2000).

It was also found in this present study that almost three quarters of the respondents agreed that women have the same confidence as men. And when it comes to starting a business just less than half of these students (44%) disagreed with the suggestion that female business owners are taken less seriously than their male counterpart which is

very similar to the findings of Lim, Smith and Bottomley (2003) who found there was a 50/50 split between women business owners on the issue of women not being taken seriously when conducting business.

There was a definite disagreement when it came to the question of risk, with over three quarters (78%) of the respondents rejecting the idea that women do not like taking risks. This is in complete contrast to the previous finding in section 4.4 in which over two thirds of the students who do not want to start their own business stated fear of business failure, running into debt and lack of a secure income as the reasons for not entering into entrepreneurship. The response to the suggestion it is more difficult for a women than a man to obtain finance was somewhat less definite with just over half (52%) of the respondents disagreeing it is more difficult for a woman to obtain finance than a man. It might be worth noting here that 41% of the students that *did not want to start a business* believe it would be too difficult to obtain the finance necessary to start a business and see this as an inhibitor to starting a business

Making a profit was found to be important to the combined group of students in this present study with over three quarters of the respondents stating they don't believe making a profit was less important to a woman than a man. This finding is in contradiction to the findings of Buttner *et al* (1997) in which it was found making a profit was of lesser importance to the female business owner than her male counterpart.

Customer service and quality of work was found in this current research to be of lesser importance than making a profit. Which is contrary to the findings of Brush (1992) who suggested that women considered these important performance measures and were therefore less concerned with making a profit. However, when it came to the suggestion that work/life balance was more important than making a profit there was an equal divide of opinion with a third of the students agreeing with this suggestion and a third disagreeing.

Interestingly this present research established that over three quarters of the female students disagreed with the suggestion that a woman is less likely to grow her

business than a man, which is in direct contrast of the findings of Rosa, Carter and Hamilton (1996) who found women were less eager to plan expansion or to own multiple businesses than her male counterpart.

Over half of the respondents (56%) in this present study disagree that a woman is less likely to start a hi-tech company than her male counterpart. This response would suggest that there should be more females starting hi-tech businesses. However, according to Madsen, Neergaard and Ulhoi (2003) very few women start a hi-tech company in comparison to her male counterpart.

It was also found the majority of the female students in this current research do not believe that it is necessary to be ruthless (60%) or selfish (67%)to own a successful business. This is similar to the view expressed by Kalafatelis and McMillen (2004) in which it was found that 65% of the female respondents surveyed disagreed that business owners only cared about the success of their business and did not care about any negative impact they may have on society or the environment.

Over three quarters of the collective group of students (76%) agreed a good support system would encourage more women to start a business. Interestingly for this current research 79% of the students *who don't want to start a business* agreed a good business support system would encourage more women to start a business. This is in line with Oakey, Mukhtar and Kipling (2002) who noted that even students who did not want to start a business would reconsider if there were suitable support systems in place. An overall view of the findings presented in this sub section can be seen in Table 4.12.

	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree	Don't Know
You require special characteristics or traits to start your own business. N=273	37%	50%	6%	7%	0.4%	0.0%
Female business owners are taken less seriously than male business owners. N=270	7%	25%	24%	36%	8%	0.0%
Women have the same confidence as men to start a business. N=273	35%	39%	13%	11%	2%	0.0%
Women do not like taking risks. N=270	1%	7%	12%	55%	24%	1%
A woman starts a business to combine career and family responsibility. N=273	4%	21%	33%	31%	9%	2%
It is more difficult for a woman than a man to obtain finance. N=272	4%	5%	35%	38%	14%	4%
You need to work extra hard when you have your own business. N=271	60%	35%	3%	0.3%	0.7%	1%
You need to be very determined to run a successful business. N=273	67%	32%	0.0%	0.7%	0.3%	0.0%
To own a successful business you need to be selfish. N=273	3%	11%	18%	52%	15%	1%
To own a successful business you need to be ruthless. N=271	4%	16%	18%	44%	16%	2%
Making a profit is less important to women than men. N=272	0.0%	3%	15%	46%	35%	1%
A female business owner thinks customer service is more important than making a profit. N=271	2%	11%	25%	47%	11%	4%
A female business owner thinks quality of work is more important than making a profit. N=268	2%	17%	32%	36%	9%	4%
A woman thinks life/work balance is more important than making a profit. N=268	5%	29%	29%	27%	7%	3%
A woman is less likely than a man to grow a business. N=267	0.0%	7%	14%	54%	23%	2%
Women are less likely than a man to start a high-tech company. N=266	2%	19%	22%	36%	19%	2%
A good business support system would encourage more women to start a business. N=270	23%	53%	16%	4%	1%	3%
Women are more likely than men to know how to access business information. N=271	4%	16%	28%	38%	10%	4%
Support from family and friends is important when starting a business. N=272	60%	35%	2%	2%	0.0%	1%
There is a lack of female role models, who own their own business. N=272	22%	35%	20%	18%	3%	2%
Society in general encourages women to start their own business. N=270	3%	14%	38%	34%	7%	4%
The media encourage women to start their own business by giving positive coverage of successful woman who own their business. N=271	4%	22%	34%	29%	7%	4%

Table 4.12 General attitudes towards and perceptions of entrepreneurship (Source: Current Research)

4.6 Differentiating factors and similarities between the two groups of students

This sub section of the chapter will concentrate on an analysis of the differentiating factors and similarities found between the two distinct groups of students i.e. those who expressed a desire to start their own business and those that said they had no desire to start their own business. In order to do this the current research has used the Chi-square to test for association between two categorical variables. The T-test was also used to test for differences between two groups in relation to the mean level of a normally distributed variable.

The present research found that even though 59% of the collective group of students (273) viewed entrepreneurship as an attractive career there was a highly significant difference found ($t = 8.793$, $df = 265$, $p = .000$) in the view of the students that want to start their own business and the students that had absolutely no intention of starting their own business. The students who expressed the desire to start a business are much more likely to consider entrepreneurship an attractive career.

There was yet again a highly significant difference ($t = 5.132$, $df = 265$, $p = .000$) between the two groups in the perception of their knowledge and understanding for starting and managing a business with the students that want to start their own business believing they had good knowledge and understanding for starting a business. This was despite the fact 43% of the total group of respondents did not perceive themselves as having good knowledge and understanding for starting a business.

Even though over half of the students (57%) would like more entrepreneurial education/knowledge included in their 3rd level education, there was yet again a highly significant difference (Chi =26.161b, $df = 1$, $p = .000$) found between the two groups of students, with the students that want to start a business expressing a greater desire for more entrepreneurial education to be included in their 3rd level education

A relatively high percentage of the combined group of students (66%) had a family member who owned a business. Importantly for this current research there was found to be a highly significant difference (Chi = 16.093b, df = 1, p = .000) between the respondents who wanted to start a business and those that do not. The results of the study showed respondents who want to start a business are more likely to have had immediate or extended family members who have owned a business

However on closer examination of the results it was the immediate family rather than the extended family that appeared to have a positive influence on respondents who want to start a business.

The father of the respondents was found to be of particular importance in the influence of entrepreneurship as the results of the present study noted a significant difference (Chi = 11.243b, df = 1, p = .001) between the two groups of students. When a father of the respondent owned a business the respondent was more likely to want to enter into entrepreneurship. This is supported by the findings of Watkins, and Watkins (1984) who established a positive link between female entrepreneurship and their fathers owning a business.

While acknowledging the importance of the father to the present study it was also found other members of the immediate family had a positive impact on the influence towards entrepreneurship. Interestingly the current study established that when a respondent had a brother who owned a business they appear to have the same influence as a father in the encouragement of entrepreneurship (Chi = 11.371b, df = 1, p = 001). Consequently the students who had a brother in business are therefore more likely to want to start their own business than the students who did not. However this influence did not extend to the sister of the respondent owning a business, as there was no difference found between the two groups if a sister owned a business. Notwithstanding this finding the current study also established when the respondents had a mother owning a business they were more likely expressing a wish to start a business (Chi = 7.886b, df = 1, p = .005).

The importance of the influence of the respondents' parents was further emphasised when the current research further noted that 81% of the total group of students (273)

believe their parents would not discourage them from starting a business. However there was no significant difference found between the two distinctive groups of respondents to the statement would your parents discourage you from starting your own business with the students who did not want to start their own business being no more likely to have parents that would not discourage entrepreneurship.

When all 273 respondents of this study were asked about their immediate intention after completing their present degree course it was found that over half of these students (53%) wanted to continue further with their education. This could have a positive impact on future female entrepreneurship as Fitzsimons *et al* (2003) suggested the more educated a woman is the more likely she is to start her own business. However only 3% of the combined group of undergraduates stated that they would like to start their own business immediately on the completion of their degree. They cited such reasons as ”if you start early you have lots of time to improve the business if it fails” and “If you start straight away while you are young you do not have as many responsibilities and commitments”.

Only 9% of the combined group of respondents expressed a wish to work in a small or medium company (SME) this could be perceived as a negative factor towards the encouragement of entrepreneurial activity as working in an SME has been found to be an influencing factor towards the encouragement of entrepreneurship (Oakey *et al*, 2002). Especially as the present research found that the student who expressed the wish to start her own business is no more likely to want to work in an SME than those that do not want to start their own business. The immediate intentions of the respondents after the completion of their degree course can be seen in Table 4.13.

Career intentions immediately after degree N=273	Frequencies	%
Continue further with your education?	145	53%
Work with a company and obtain a professional qualification?	39	14%
Work for the public sector e.g. civil service?	37	14%
Work with a Small or Medium Company?	24	9%
Work with a large Irish company?	14	5%
Work with a large multi-national company?	26	10%
Start your own business?	7	3%

Table 4.13 Immediate intentions after completion of present degree course (as the respondents could give more than one answer the percentage column will not total a hundred percent) (Source: Current Research)

The present study also found that even though some of the students had participated in previous entrepreneurial education predominantly in secondary school or in WIT it did not appear to have any particular influence on their desire to start their own business. The main areas in which some of the respondents had undertaken entrepreneurial education can be seen in Tables 4.14.

Secondary School work experience N=273		
Yes	108	40%
No	165	60%
Young entrepreneur awards N=273		
Yes	52	19%
No	221	81%
Met entrepreneurs N=273		
Yes	54	20%
No	219	80%
Start your own business project N=273		
Yes	64	23%
No	209	77%
WIT work experience N=273		
Yes	107	39%
No	166	61%

Table 4.14 Secondary School and WIT entrepreneurial education including work experience (Source: Current Research)

4.7 Summary

This chapter has presented a summary of the findings from the current research in which it was found that out of the 273 respondents a third of the undergraduates surveyed for the present study expressed a wish to start their own business. Which subsequently means two thirds of the respondents do not want to start a business. The majority of the respondents came from the Schools of Humanity and Business with a small minority of students coming from the Schools of Science and Engineering. Most of the potential businesses chosen by the students who want to start a business are in the business service area. This current study has established a distinct sense of confidence in the students who wish to start their own business in the perception of their skills and abilities. These students almost unanimously wish to enter entrepreneurship because they want to be their own boss. They also believe entrepreneurship will enable them to have more control over their life while

permitting them to have a career that they perceive as both challenging and self-fulfilling. This is in direct contrast to the findings concerning the students who do not want to start a business, as they appear to have a distinct lack of confidence in their own skills and abilities along with a strong aversion to risk. In disparity to the findings of the entrepreneurial students they perceive entrepreneurship as giving them less control over rather than more control over their life. However this disparity disappears when it comes to examining the differences between the combined group of students (273) in which there was collective agreement on the general attitudes and perceptions shown towards entrepreneurship. The collective group of undergraduates were in particular agreement that you need to work very hard and be very determined to start your own business. There was also a common belief expressed among the respondents that you required special characteristics and traits to start your own business and that support from family and friends was of particular important when starting a business

These results are discussed in more detail in the following chapter and will be examined in relation to the literature reviewed in Chapter Two.

Chapter Five

Discussion

Chapter 5: Discussion

5.1 Introduction

The purpose of this chapter is to discuss the findings of the current research presented in Chapter Four. The present research was undertaken with the view to try and gain more insight into what, educated females, in this case, final year female undergraduates think about entrepreneurship. This is needed in order to get a better understanding of why so few women choose entrepreneurship as a career.

As the study involved three distinct areas the following chapter is divided into:

1. A discussion about those female undergraduates who expressed the desire to start their own business.
2. A discussion about those female undergraduates who expressed they do not want to start their own business.
3. A discussion about the general attitude towards and perception of the collective group of female undergraduates and their views of entrepreneurship

5.2 Answering pattern of respondents

There were some differences found between those female undergraduates who expressed the wish to start a business and those that do not. The majority of female students that want to start a business consistently strongly agreed or agreed to reasons as to why they would like to enter into entrepreneurship. These reasons are common reasons as identified in literature as to why entrepreneurs consider entrepreneurship attractive. They include reasons such as:

- It would give me a career that would challenge me (Delmar, 2000)
- It would enable me to have more control over my life (Morrison, 1998)
- It would enable me to do things my way (Johannison, 1990) and
- It would give me self-fulfilment to own and run my own business (Buttner and Moore, 1997).

The female students who do not want to start a business had a wider range of responses as to why they did not want to enter into entrepreneurship. These reasons are also standard reasons recognised in the literature as to why entrepreneurship may not be considered an attractive career. They included reasons as:

- My business might fail (Goodbody, 2002)
- I would be afraid of the lack of a secure income (Robertson, Collins, Medeira, and Slater, 2003)
- It would be too difficult to get the finance necessary to start a business (Carter and Marlow, 2007)
- I don't have a good business idea (Scott and Twomey, 1988).

5.3 Students that expressed the wish to start their own business

Female students that want to start a business are in agreement with many of the traditional reasons identified *as typical entrepreneurial reasons* for business start up (see Section 5.2). Therefore, displaying a positive attitude towards entrepreneurship. This positive attitude was given further credence in the current study with evidence of a difference found ($t = 8.793$, $df = 265$, $p = .000$) between female students who are not entrepreneurially inclined and female students that are. Female students who want to start a business were more likely to consider entrepreneurship an attractive career.

The main advantage stated, almost unanimously (97%), by these undergraduates as to why they want to start their own business is because it will enable them to be their own boss. This desire to be their own boss was previously noted by Goodbody (2002); Henderson and Robertson (2000) Brindley and Richie (2000) who also found in their studies conducted with undergraduate students that being their own boss was a strong motivation for entering into entrepreneurship. The vast majority of female students (85%) in the current study also believe by being their own boss it would let them do things their own way and importantly they see entrepreneurship as a means of giving them more control over their life. Ninety-two percent of these female students see entrepreneurship as giving them a career that will both challenge them and give them self-fulfilment. These motivations were also found by Buttner and

Moore (1997) to be important for women starting their own business. The female students in the current study also see entrepreneurship as allowing them to choose their specific area of work and that it will give them the flexibility to combine a career and a family. This is in agreement with Still and Walker (2006) who found entrepreneurship was a means used by female entrepreneurs to combine the dual role of family responsibility and career. Entrepreneurship is also seen by 80% of the students as having less boundaries for their career than if they worked for someone else.

Over 90% of these undergraduates would like to start their own business because they believe that entrepreneurship will permit them to use their business skill as well as allowing them to make best use of their personal competencies. This positive perception towards the use of their skills required for business start up was further substantiated with evidence of a difference found between the two groups of female students ($t = 5.132$, $df = 265$, $p = .000$) concerning perception of their knowledge and understanding for starting and managing a business. Female students that want to start a business were more likely to perceive themselves as having good knowledge and understanding for starting and managing a business than the female students that do not want to start a business. This self-assured response from the students concerning their knowledge and skill to start a business is important for female entrepreneurship. Langowitz and Minniti (2007) believed that if a woman feels she has the skill and knowledge to engage in entrepreneurship and therefore perceives herself as capable of running a successful business, she is more likely to consider entrepreneurship as a career.

It was noted by the present research that the majority of female students that want to start a business (63%) believe they require more work experience before actually embarking into entrepreneurship. This is in line with the findings of Carter and Collinson (1999) who also found entry into entrepreneurship delayed because of the belief that respondents required more work experience. This requirement of more work experience is of particular interest to the present research because work experience is often acknowledged as an important factor in the development of a business idea (Scott and Twomey, 1988; Madsen, Neergaard and Ulhoi, 2003). However, in the current study lack of work experience did not appear to impinge on

these undergraduates' perception of their ability to develop a business idea, as 94% stated being able to use their business idea(s) as an important reason to start their own business.

5.4 Students that expressed they do not want to start their own business

The fear of risk is by far the major inhibiting factor for the majority of female students who do not want to start a business. This is in line with Wang and Wong (2004) who also noted risk as a serious inhibitor to business start up. Almost three quarters of the female students in the current study agree they are afraid that if they started their own business it could fail and they could run into debt. They are also unhappy with the concept of not having a secure income with 79% of female students agreeing this would be a reason for not starting their own business. Therefore, these students perceive entrepreneurship as leading them into a career situation in which they feel they have little or no control over. Interestingly, this is in direct contrast to female students that want to start a business who perceive entrepreneurship as giving them more control over their lives. When one combines these factors with their perception that the responsibility of owning a business is too difficult, too stressful and it could take over their lives, it is easy to understand why 72% of these female students believe that it would be easier to work for someone else rather than start a business of their own, therefore confirming the notion that entrepreneurship is not readily considered a career (Henderson and Robertson, 2000).

There would appear to be a distinct lack of confidence in these female students' perceptions concerning their ability to start a business. Many believe they do not have the business skills necessary to enter entrepreneurship. This is in line with Robertson, Collins, Medeira, and Slater (2003) who also found female students cited lack of business skills as a reason for not starting a business. Female students in the present research also stated not having a suitable business idea as a reason for not starting a business. This is often cited in literature as a deterrent to business start up (Carter and Collinson, 1999; Klapper, 2004). Lack of support and information is also found to be a problem for those not wanting to start a business, with many female students believing they do not have the contacts or networks necessary to start a business. A

surprising amount of female students also agree they do not know how to access business information or support structures.

Interestingly, it was found that 79% of female students in the current study who stated they do not want to start a business believe that a good business support structure would encourage more women to start a business. Therefore, it is logical to conclude that the availability of a good network of advice would help to encourage the less confident or reluctant female students to reconsider starting their own business. This is in line with Oakey, Mukhtat and Kipling (2002) who believe that the availability of more business support would encourage more students to consider entering into entrepreneurship.

5.5 The general attitudes and perceptions of the collective group of students towards entrepreneurship

When the attitudes of the collective group of students (273) towards entrepreneurship in general were examined some interesting issues emerged. Surprisingly there would appear to be no evidence to suggest a significant difference between those that want to start a business and those that don't. In other words it is found that they share similar views on women and entrepreneurship at a more general level in a way they do not share at an individual level.

The most outstanding belief shared by these undergraduates is the notion one needs to be very determined to run a successful business with (99%) of the undergraduates agreeing with this notion. Interestingly, this characteristic is cited by Gasse (1990) as one of the basic traits required for successful business ownership along with the need for energy. This need for energy is also perceived as necessary in the current research as the vast majority of the students (95%) believe one needs to work extra hard when owning a business. Interestingly, this belief one needs to work extra hard, was in contrast to students who do not want to start a business, as these students disagreed with the perception that one needs to work extra hard when starting a business. When one combines these perceptions with the notion, held by 87% of the collective group of undergraduates, that one requires special characteristics or traits to start a business, it is easy to see how these perceptions may contribute to the reason why many

students self-select themselves out of entrepreneurship. As Menzie and Tatroff (2006) found, female undergraduates were less likely to undertake entrepreneurial education than male undergraduates believing they do not have the personality required for business ownership.

The findings on risk were interesting as they indicate an anomaly in perceptions across the group. The vast majority of the collective group of students disagree with the notion women do not like taking risk. However, this is in complete contrast to the belief expressed by students who do not want to start a business. This group stated fear of the risks involved in entrepreneurship as the main reason for not considering entrepreneurship a suitable career.

This inconsistency continues when it comes to discussing the confidence required to enter into entrepreneurship. Even though there is a constant lack of confidence displayed in the ability to start a business by the students that do not want to start a business, the vast majority (74%) of the collective group of students are of the opinion that women have the same confidence as men to start a business. This is in contradiction to the findings of Hazlett, Henderson, Hill and Leitch (2007) in which women were found to display less confidence than men when considering business start up.

Nevertheless, despite these contradictory findings, when the subjects of risk and confidence are probed a little deeper many of the students that are not interested in business ownership displayed some insecurity in these aspects of entrepreneurship. For example, fear of business failure, running into debt and not having a secure income is cited by these students as the principal reasons for not starting a business. When you add to this the belief they do not have the business skills or the relevant experience required for running a business, it is not difficult to surmise that lack of confidence may be an issue for these students when it comes to business ownership. This connection between fear of risk and lack of confidence has previously been acknowledged by Brindley (2005) who noted, “if an individual is confident the situation or decision may seem less risky but if an individual lacks confidence then

they may perceive more barriers and anticipate the decision to be a more risky business" (p.153).

However, there is unequivocal agreement from this collective group of students on the influence of family and friends with 95% of the students agreeing their support is important when starting a business. This influence of family and friends and its importance to business start up is further substantiated with over 85% of the students that want to start a business believing family and friends are an essential or mainly positive influence when entering into entrepreneurship. It is therefore possible to argue that this support and influence from family and friends is particularly significant for students in the current research as 92% of these students are in the age group of 20-25 years and likely to be still within the influence of their families and relying on their support. Especially as it is acknowledged in previous research that women perceive the support from their family important (Kirkwood, 2007; Hagen, Rivchun and Sexton, 1989).

The importance of the family and its positive influence on the encouragement of business start up is given further credence as family entrepreneurial background is found to be a major differentiating factor between the two distinct groups of respondents namely those that want to start a business and those that don't. Notably, those who expressed the wish to start a business are significantly more likely to have a father who owns a business than those who do not want to start a business. This trend is also noted throughout literature (Watkins and Watkins, 1984; Scott *et al*, 1988 and Postigo, Lacobussi and Tamborini, 2006)

The family is often considered a critical element in the encouragement of business ownership as noted by Postigo *et al* (2006) who found entrepreneurial family background more influential than any other factor in the encouragement of entrepreneurship. In particular, the current research found that the *immediate family* rather than the *extended family* has more influence on the female undergraduates expressing a desire to become an entrepreneur. Consequently students coming from a non entrepreneurial background are perceived to be at a disadvantage having no

immediate role model and less access to available business information (Oakey *et al*, 2002 and Wang *et al*, 2004).

The current research highlighted that fathers are a key influencing factor on female undergraduates thinking about starting a business. Female undergraduates who expressed they wanted to start a business were significantly more likely to have a father owning his own business than the female undergraduates who stated they do not want to start a business. This positive correlation between female entrepreneurship and having a father that owned a business has been noted previously by other researchers such as (Watkins *et al*, 1984; Hisrich and Brush, 1984; Birley,Moss and Saunders, 1987; Kirkwood , 2007).

A finding of particular interest in the present research noted that a brother with an entrepreneurial background has the same influence as a father with an entrepreneurial background on the students who want to start a business. Remarkably, this influence did not extend to a sister owning a business. A mother who owns a business was also found to be influential in the encouragement of business ownership but to a lesser extent than a father or a brother.

This support from family and friends may be of particular importance, when one takes into consideration over a third of the students believe that society does not encourage women to enter into entrepreneurship. These students also believe little positive media coverage is given to successful businesswoman and there is a lack of female role models owning their own business. This perceived lack of encouragement from society and more specifically lack of media coverage of successful female entrepreneurs is in agreement with the findings of Ljunggren and Alsos (2007) who believed the under representation of female entrepreneurs in the media reflects the views of society in general and its lack of support to businesswomen. Therefore, when one notes this perceived lack of encouragement from society as expressed by students in the present study, it is possible to see how these factors may impinge, in a negative fashion, on students' perceptions of entrepreneurship and its suitability as a career choice.

Contrary to what is sometimes cited in literature that women are believed to be less interested in making a profit than men (Buttner and Moore, 1997), the collective group of students do not believe making a profit is more important to a male entrepreneur than a female entrepreneur. It was also found that very few students believe quality of work, customer service and work life balance are more important than making a profit. This is different to the suggestion by Brush (1992) who believed women see these intrinsic goals more important than making a profit. Nor is there agreement in this current research with the suggestion by Rose, Hamilton and Carter (1996) that a woman is less likely to grow her business than her male counterpart. When one combines these factors together it is not difficult to conclude that this group of final year female undergraduates perceive business ownership as a serious intent. This serious business intent is in contrast to what is often portrayed in literature, for example women are sometimes characterised as not taking entrepreneurship seriously with female business ownership seen as a means to balance career and family or supplement a household income (Brush, Carter, Gatewood, Green and Hart, 2007).

In this current study the vast majority of students who want to own their own business come from the Schools of Humanities, Business or Health & Science (93%) with the Schools of Science and Engineering (7%) producing the minority of students interested in starting their own business. This compares with findings of Hisrich *et al*, (1984) who found most of their female respondents had a liberal arts degree with a business degree being the most popular choice and only a small minority having a degree in engineering or science. Interestingly, almost all of the students who want to start their own business see it as enabling them to use their education to the best advantage. Whereas over a third of students who do not want to start a business believe the subject area they have studied is not suitable to starting a business and that the educational system as a whole does not encourage one to enter into entrepreneurship. Klapper (2004) also noted this deficiency in the educational system finding little had been done to prepare students for an entrepreneurial career. With this in mind it would appear there is a need to re-examine the educational curriculum presently used for the promotion of entrepreneurial activity including consideration of gender specific entrepreneurial education aimed at female students as suggested by

Brookbank and Jones-Evans (2005). However, it should also be noted that the present study also found that even though some of the students had participated in previous entrepreneurial education predominantly in secondary school or in WIT it did not appear to have any particular influence on their desire to start their own business.

The lack of females taking up higher level education in engineering and science as identified in the current research is perceived as a major restriction to women entering into what is generally acknowledged as traditional male dominated industrial sectors (Bruni, Gherardi and Poggio, 2004) that are frequently associated with hi-tech, high growth industries (OECD, 2004). Consequently, as recognised in the present research the majority of undergraduates wishing to start a business perceive their future businesses to be in what are traditionally seen as typical female sectors involving service related businesses or retail (Still *et al*, 2006; Fitzsimons and O'Gorman, 2006) with only 1.3% stating they would like to start an ICT business. These figures can be seen in Table 4.7.

5.6 Summary

There is a very strong belief within the combined group of students namely those that want to start a business and those that do not that there is a need to be very determined, work very hard and have special characteristics to enter into entrepreneurship. However, interestingly, there is somewhat of a difference when it comes to discussing attitudes and perception towards risk and self-confidence as the collective group express little risk aversion and perceive women as having the same confidence as men to start a business. In contrast students who do not want to start a business perceive risk as a major inhibitor and displayed lack of confidence in their ability to start a business.

The support of family and friends with a particular emphasis on the influence of an entrepreneurial family background is of importance when starting a business especially as there is a belief that society in general does not encourage women into business ownership. Profit is also found to be an important element of entrepreneurship for these students as is the belief that women are no less likely than men to want to grow there businesses. However, there is slightly more reservation

shown to the likelihood of women entering the hi-tech sector compared to men. This may be due to some extent to the area of study selected by the students and their lack of science and engineering degrees.

The next and final chapter of the thesis presents the overall conclusions of the current research. It draws attention to a number of limitations in this study and makes recommendations for future research in this area of study.

Chapter Six

Conclusion

Chapter 6: Conclusion

6.1 Introduction

The basis of this study was to get a better understanding of female undergraduate students and their views of entrepreneurship through the following research question.

'What are the attitudes and perceptions of female undergraduates towards entrepreneurship?'

This chapter starts with an outline of the objectives of the current research, followed by the reasons and motivations agreed by one third of the respondents as to why they would like to start a business. The reasons and obstacles identified by the majority of students as to why they would not like to start a business are then outlined. The chapter continues with a discussion about the general attitude displayed towards entrepreneurship by the combined group of students and finally, concludes with the limitations of the study, and recommendations for future research.

Bearing in mind the fundamental aim of the current study is to gain a better understanding of female undergraduates' attitudes towards entrepreneurship; the research began by identifying the basic objectives required to answer the research question. These were to establish:

1. If female undergraduates consider entrepreneurship a viable career option.
2. The perceived motivations of female undergraduates for entering into entrepreneurship.
3. The perceived barriers of female undergraduates for not entering into entrepreneurship.
4. The general attitudes of female undergraduates towards entrepreneurship.

These objectives were chosen in order to obtain more knowledge and a better understanding of female undergraduates' views about entrepreneurship and why so

few female undergraduates consider entrepreneurship as a career. This current study has exposed just how little is known about female undergraduates' needs, motivations and reservations concerning business ownership, therefore, confirming the topic of female undergraduates and their views on entrepreneurship to be a seriously neglected and under developed research area. This neglect has significant implications for female business ownership especially, as Fitzsimons *et al* (2003) found a positive correlation between education and female entrepreneurship. Notably, this study is the first of its kind to be undertaken in the Republic of Ireland and has revealed some very interesting facts and produced some unique findings within the Irish context. Having taken these factors into consideration, it is apparent that the study could have serious implications for academics, educators, policy makers, enterprise support agencies and ultimately female business owners themselves not only nationally but internationally also.

6.2 Implications of the current research

Academics specialising in the area of female entrepreneurship should find this research valuable as it is adding new knowledge and statistical evidence to a much neglected and under researched subject as noted throughout literature (OECD, 2004; de Bruin, Brush and Welter, 2006). This research should also influence educators in entrepreneurship to rethink how they currently teach entrepreneurship to female undergraduates.

This research should be particularly relevant to the educators of female students as many of the findings have specific implications for the present educational system in Ireland. The study found that entrepreneurial educational as it is taught at the moment does not appear to be making the impact on female students that it should as regards expanding their career choices and viewing entrepreneurship as a viable option. Maybe it is now necessary to revise the present curriculum at all levels of education to include a gender specific approach as recommended by Brooksbank and Jones-Evans (2005) who believe this is necessary as a means to help promote more entrepreneurial activity amongst women.

Although this current study has shown female undergraduates view entrepreneurship in a positive light two third of the respondents *would not* consider starting a business. Many of the students who expressed *they did not want* to start a business believe they do not have the contacts or networks necessary to enter entrepreneurship nor do they know how to access business information or support structures. This difficulty for undergraduate students in gaining access to business information was previously recognised by Goodbody (2002). With these constraints in mind, policy makers and enterprise support agencies could benefit from this study by implementing suitable support systems aimed specifically at young educated women and actively publicising their availability. Especially, as this study has shown 79% of respondents who *did not want to start a business* agreed a good support system would encourage more women to enter into entrepreneurship. This is in line with the findings of Oakey, Mukhar and Kipling (2002) who also found the availability of more support would encourage undergraduate students to reconsider entrepreneurship as a career option.

The current research also creates awareness of the perceived difficulties and advantages the undergraduate student associates with entrepreneurship as a career. By highlighting these factors it is hoped that the future female entrepreneur will be encouraged to find a way around these difficulties by concentrating on the benefits and attraction of entrepreneurship as a career, as opposed to viewing it as an arduous obstacle course.

6.3 Students that expressed the wish to start their own business

One third of the respondents in the current research expressed the wish to start their own business. The main advantage stated almost unanimously by these undergraduates as to why they want to start a business is because it will enable them to be their own boss. This in turn will enable them to do things their way such as letting them use their business idea(s) and work in an area of their own choice. Ultimately these undergraduates perceive business ownership as giving them more control over their life. This need for control was also recognised by Nearcho-Ellinas and Kountouris (2004) who found it an important reason for women starting a business. Students in the present study also show a confidence in their ability to start a business by believing they have the personal and business skills required for running

a business. This confidence was further substantiated by 71 % of these students agreeing they have an assertive personality, which they perceive necessary for business ownership. They also see entrepreneurship as making the best use of their education, while giving them a career that will both challenge them and give them self-fulfilment, Buttner and Moore (1997) noted these as important motivational factors for women starting their own business. Interestingly one of the main differentiating factors found between the two diverse groups of students was that the students who want to start a business were more likely to have an entrepreneurial family background (Scott and Twomey, 1988; Kirkwood, 2007). It was also found in the present research that a father and a brother are particularly influential in the encouragement of entrepreneurship of the female undergraduate.

6.4 Students that expressed they do not want to start their own business

This current research found fear of the risk involved when starting your own business as the key inhibitor to business start up. The vast majority of these students agreed they are afraid their business would fail and they could run into debt. There is also fear of lack of a secure income and therefore they believe it would be easier to work for someone else.

These students showed a lack of confidence in their ability to start a business not only by not having a good business idea but they also believe they do not have the skills or experience required to enter entrepreneurship. It could be argued these undergraduates, in contrast to the students that want to start a business, perceive entrepreneurship as a career in which they have very little control over. More than half of the students believed entrepreneurship would take up too much time and could take over their lives. Overall, the attitude of these students towards entrepreneurship as a career could be described as negative, as they perceive the responsibility of running a business too difficult and the pressure too stressful. Surprisingly, they do not see entrepreneurship as a career in which they would have to work too hard. They also showed a confident attitude towards their own personal skills and competencies and interestingly they believe a good support system would encourage more women to enter into entrepreneurship.

Over a quarter of the female undergraduates who expressed they do not want to start a business believed that the present educational system does not encourage entrepreneurship. This inability by the educational system to provide adequate preparation and encouragement to help students consider entrepreneurship as a potential career option is in agreement with Klapper (2004) who found little was been done in higher educational institutes to prepare students for business ownership.

6.5 The general attitudes and perceptions of the collective group of students towards entrepreneurship

Though there are differences between the two groups of students concerning entrepreneurship and its perceived viability as a career option at an individual level, these differences are not so obvious when it comes to the attitudes expressed towards entrepreneurship in general. Interestingly there is a perception among the combined group of students (273) that one requires special characteristics or traits and needs to be very determined to run a successful business. This may lead some students to self-select themselves out of entrepreneurship. The support of family and friends is believed to be extremely important when starting a business especially as there is a perception that society in general does not encourage women into entrepreneurship.
There is some evidence to suggest the collective group of students perceive business ownership as a serious undertaking, disagreeing with the idea that making a profit is less important to women than their male counterparts. When one adds to this that students believe a woman is no less likely to grow her business than a man, it is not difficult to surmise, as a combined group, these students perceive entrepreneurship as an earnest pursuit.

There is some disparity noted between the attitudes and perceptions expressed by the students that do not want to start a business and those expressed by the collective group of students when discussing their attitude to entrepreneurship in general. The vast majority (78%) of the collective group of students disagree that women do not like taking risks and they believe that women have the same confidence as men to start a business. It is also noted there is a perception that one needs to work extra hard when owning a business. These perceptions are contrary to the views as previously expressed in the current research by many of the students who do not want to start a

business. However, despite these anomalies there was no evidence found of a significant difference in general attitude towards entrepreneurship between students who want to start a business and those that do not. Therefore, it should be possible with the correct intercession it may be possible to encourage more women to consider entrepreneurship as a career. However, worryingly it was found even though many of the combined group of students had participated in previous entrepreneurial education this did not appear to have any influence on they choosing business ownership as a career option.

6.6 Limitations of the current research.

As with any research there are a number of limitations associated with this study. These limitations can be summarised as follows:

- The students that participated in the current research were limited to one academic institution. A more extensive study could have been conducted had the students been selected from all three higher-level institutions within the South East region.
- Part of the questionnaire divided the students into two distinct groups namely those that want to start a business and those that do not. This was to enable them to answer two different sets of attitudinal questions. Therefore, it was not possible to *directly* compare the results from the two groups against each other.
- The division of the questionnaire also led to a further problem as a small proportion of respondents proceeded to answer the wrong section. This resulted in a number of invalid questionnaires (4.6%) from the total sample size of 326.
- There seems to have been some confusion in the questionnaire concerning family occupation and the terminology of self-employed and business ownership. It would have caused less misunderstanding if one term or the other had been used as some of the students, understandably, perceived them as having different meanings which sometimes resulted in contradictory responses.

6.7 Recommendations for future research

While undertaking the present study it became evident there is very little known about female undergraduates and their views on entrepreneurship. Therefore, there is a need to gain more knowledge about the young educated women and her views on entrepreneurship. Especially as research has shown there is a direct positive correlation between education and entrepreneurship (Brookbanks and Jones-Evans (2005) and current industrial trends are towards a knowledge-based environment (Postigo, Lacobucci, and Tamborini, 2006).

Many different factors influence women who are not a homogenise entity *per se*. Therefore, it would be of benefit if any future research in this area was conducted in a variety of higher educational institutes across wide geographical range. This would add more information to a seriously under researched topic by gaining an overall picture of the female undergraduate attitudes towards and perceptions of entrepreneurship.

Recommendations for future research include:

- The present research could form the basis for a longitudinal study. This would require follow up research to be undertaken in five and ten years time on a similar sample population within Waterford Institute of Technology. It would be of interest to see if there is any change in attitude and perception of female undergraduates both at an individual level and general attitude level towards entrepreneurship, over time.
- More immediate research could be undertaken by extending the current research to different higher-level institutions across the Island of Ireland. This would enable a comparison of attitudes to be made between different Institutes of Technology and Universities. This could lead to a better understanding of the attitude and perception of female undergraduates towards entrepreneurship within the different educational institutions. Such an understanding is

important, in order to obtain, more knowledge and a broader understanding of why so few women consider entrepreneurship as a career option.

- It would also be of interest to do a comparative study of higher-level institutions across the different regions in Ireland, in order to see if there is any difference in attitude of the female undergraduate towards entrepreneurship depending on where the respondents are geographically situated
- It would also be of benefit to compare female undergraduates with male undergraduates and their attitudes and perceptions towards entrepreneurship. This would establish if attitudes towards entrepreneurship were different between male and female students at this stage in their career development. Further research in this area would enable a better understanding of the gender division as presently observed in entrepreneurship in Ireland.
- Finally, it would be of benefit when considering these recommendations for future study to take into consideration the advantage that could be gained by employing a qualitative methodology in addition to the quantitative research process. Such an approach would achieve a more in-depth exploration into female undergraduates' attitudes towards and perceptions of entrepreneurship leading to a deeper understanding and insight into this research area.

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Appendices

Appendix A

Questionnaire

A Survey of Final Year Female Undergraduates in Waterford Institute of Technology

1. Please indicate your age:
   20-25 ☐ 26-30 ☐ 31-40 ☐ 41-50 ☐ 50+ ☐

2. Nationality**:** _____

3. County of family home within Ireland: _____

4. What Degree Course are you presently undertaking? _____

5. Have you been in college for 4 continuous years? Yes ☐ No ☐

6. If the answer to Q5 is **NO** please explain what you did in the intervening period.

_____

_____

_____

_____

7. Have you any other 3rd level qualification**?** _____

_____

_____

8. Which best describes your father and mother's highest formal qualification?
   (Please tick box)

	Father	**Mother**
Primary		
Secondary		
Third Level		
Post Graduate		
Professional Qualification e.g. Accountant, Solicitor		
Trade Qualification		
Don't Know		
Other *(Please Specify)*		

9. Which of the following best describes your father and mother? (**Please tick box)**

	Father	**Mother**
Self employed		
Full-time salary or wage earner		
Part-time salary or wage earner (less than 30 hours a week)		
Retired		
Full-Time Home Maker		
Student		
Unemployed		
Other (*Please specify)*		

10. Which is the current occupation of your father and mother, or previous occupation if retired? **(Please tick box)**

	Father	**Mother**
Clerical or Sales Employee		
Factory Operative		
Trades Person e.g. Plumber, Electrician, Hairdresser etc.		
Technician		
Engineer		
Business Manager or Executive		
Business Owner or Self-Employed		
Teacher, Nurse, Police or other Trained Service Worker		
Professional e.g. Doctor, Solicitor etc.		
Civil Servant		
Manual Worker		
Farm Owner, Manager or Agricultural Worker		

Other *(Please specify)*		

11. Has any of your immediate or extended family ever owned a business? **(Please tick box)**
Yes ☐ **No** ☐

12. If you answered *YES* to Q11, what is their relationship to you, e.g. brother, sister, aunt, cousin?

_____

13. What is your sibling order within your family? **(Please tick box)**

First Born	
Second Born	
Third Born	
Only Child	
Other (please specify)	

14. Would your parents discourage you to start your own business?
Yes ☐ No ☐ Don't know ☐

15. Have you participated in any of the following enterprise programmes?
If **YES,** please indicate at what stage of your education.
MORE THAN ONE ANSWER IS POSSIBLE. ***(Please tick box)***

	Primary	**Secondary**	**WIT**	**Other 3rd level**
Specific enterprise training modules				
Junior Achievement				
Work experience in a small or medium size company				
Young enterprise awards				
Opportunity to meet and be inspired by entrepreneurial people				
Start your own business projects				
Other *(Please Specify)*				

16. Would you like more entrepreneurial education/knowledge included in your 3rd level education? Yes ☐ No ☐

17.What are your immediate intentions when you have completed your present degree course: ***(Please tick box)***

Continue further with your education?	
Work with a company and obtain a professional qualification?	
Work for the public sector e.g. civil service?	
Work with a Small or Medium Company?	
Work with a large Irish company?	
Work with a large multi-national company?	
Start your own business?	
Continue with a business that you have already started?	
Other (*Please specify)*	

18. ***Please tick*** the response that best describes your reaction to the following statements:
Entrepreneurship (starting your own business) is an attractive career option?

1	2	3	4	5	6
Strongly Agree	**Agree**	**Unsure**	**Disagree**	**Disagree Strongly**	**Don't Know**

I have good knowledge and understanding for starting and managing a business.

1	2	3	4	5	6
Strongly Agree	**Agree**	**Unsure**	**Disagree**	**Disagree Strongly**	**Don't Know**

19. Do you intend to start your own business at some stage? Yes ☐ No ☐

If you answer *No* to question 19 go straight to question 24 on page 6
If you answer *Yes* continue with question 20 on next page
20. If **YES** you do intend to start your own business at some stage, what would you consider the ideal age to start starting your business?
20-25 ☐ 26-30 ☐ 31-40 ☐ 41-50 ☐ 50+ ☐

21. Please explain why you chose this age slot**:**

_____

_____

_____

22. If you would consider starting your own business, what type of business would you like to start? _____

23. If you would consider starting your own business, whom would you judge as influential in the encouragement or discouragement of starting your own business?

Influencers	Essential Influence	Mainly Positive	Mainly Negative	No Influence	Don't Know
Parents & Family					
Educational System					
Career Advisers					
Friends					
Entrepreneurs that you know					
Media (TV, Radio, Internet) coverage of businesses & business people.					
Other					

24. **All respondents** ***Please tick*** the response that best describes your reaction to each of the following statements:

	1	2	3	4	5	6
	Strongly Agree	**Agree**	**Not Sure**	**Disagree**	**Strongly Disagree**	**Don't Know**
You require special characteristics or traits to start your own business.						
Female business owners are taken less seriously than male business owners.						
Women have the same confidence as men to start a business.						
Women do not like taking risks.						
A woman starts a business to combine career and family responsibility.						
It is more difficult for a woman than a man to obtain finance.						
You need to work extra hard when you have your own business.						
You need to be very determined to run a successful business.						
To own a successful business you need to be selfish.						

To own a successful business you need to be ruthless.						
Making a profit is less important to women than men.						
A female business owner thinks customer service is more important than making a profit.						
A female business owner thinks quality of work is more important than making a profit.						
A woman thinks life/work balance is more important than making a profit						
A woman is less likely than a man to grow a business.						
Women are less likely than a man to start a high-tech company.						
A good business support system would encourage more women to start a business.						
Women are more likely than men to know how to access business information.						

Support from family and friends is important when starting a business.						
There is a lack of female role models, who own their own business.						
Society in general encourages women to start their own business.						
The media encourage women to start their own business by giving positive coverage of successful woman who own their business.						

If you **want to start your own business**

at some stage in your career please answer question

25 page 7

If not answer question **26 page 8**

25. If you **WANT to start your own business,**

please tick the response that best describes your reaction to each of the following statements.

I *would like* to start my own business because:	1	2	3	4	5	6
	Strongly Agree	**Agree**	**Not Sure**	**Disagree**	**Strongly Disagree**	**Don't Know**
I want to be my own boss.						
I have an assertive strong personality that is necessary for business ownership.						
It would enable me to make best use of my personal skills and competencies.						
It would enable me to make a lot of money.						
It would enable me to do things my way.						
It would enable me to have more control over my life.						
It would enable me to pick my own working time.						
It would give me the flexibility to combine my career with my family life.						
It would give me better work / life balance.						
It would give me a career that would challenge me.						
There would be less boundaries to my career than if I worked for someone else.						
I would be able to use my business idea(s).						
I would be able to use my business skills.						
I would be able to use my education to the best advantage.						

It would give me self-fulfilment to own and run my business.						
It would enable me to give something back to society.						
It would gain me respect from others.						
It would enable me to work in the area of my choice.						

26.If you **do <u>NOT</u> want to start your own business,**
please tick the response that best describes your reaction to each of the following statements.

I do *<u>not</u>* want to start my own business because:	1	2	3	4	5	6
	Strongly Agree	**Agree**	**Not Sure**	**Disagree**	**Strongly Disagree**	**Don't Know**
I would find the responsibility of running a business too difficult.						
I would find the pressure too stressful.						
I do not have the personal skills and competencies necessary.						
There is too much red tape e.g. legal and employment regulations required when running a business.						
The Irish market is to small and does not have enough potential.						
I am afraid of running into debt.						
It would take up too much of my time.						
It would be easier to work for someone else.						
I don't have a good business idea.						
I do not have the relevant experience needed to run a business.						
I don't have the business skills required to run a business.						
I would be afraid of the lack of a secure income.						

I would have to work too hard.						
It could take over my life.						
It would be too difficult to run a business if I had family commitments.						
Entrepreneurship does not have the same status or respect as other careers.						
I would be afraid that my business would fail.						
It would be too difficult to obtain the finance necessary.						
The educational area that I studied is not suitable to start a business in.						
I do not have the contact or networks necessary to start a business.						
I do not know how to access business information or support structures.						
The educational system does not encourage starting your own business.						