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MNEs and new enterprise creation: Do MNEs have a direct impact on the amount of new indigenous high-tech start-ups in Ireland?

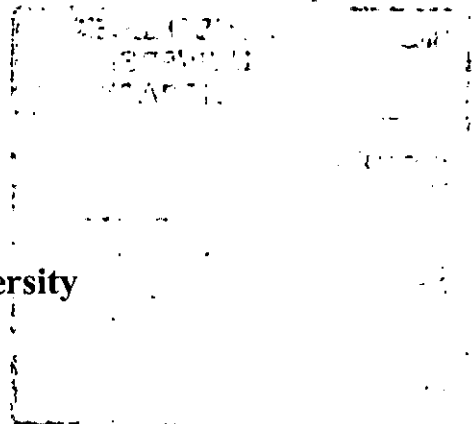
Name: William J.M. O’Gorman

Student Number: 2039201

Thesis submitted in partial fulfilment of the requirements of Middlesex University for the degree of Doctor of Philosophy

Middlesex University

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Abstract

Previous research into the impact of multinational enterprises (MNEs) on their host economies indicated that, in the main, the impact was positive. For example, Turok (1993a and 1993b) and Brand, Hill and Munday (2000) talked about the benefits derived from backward linkages; Barrow and Hall (1995), Fosfuri, Motta, Ronde (2001), Girma and Wakelin (2001), and Kugler (2002) spoke of other aspects of spillover such as the pecuniary, technological, and skills transfer; and Cooper (1981), Gibb and Ritchie (1982), and Birley (1996) delineated the importance of the employment history of the individual (new enterprise founder) in terms of the managerial and technical experience that is required to set up and manage a new enterprise.

However, little research exists identifying exactly to what extent MNEs have a *direct* impact on the level on new high-tech, high-value-add enterprise creation within MNEs' host regions. The purpose of this current research therefore is to identify the extent to which these *direct links* do, or do not, exist.

Starting with a database of over 9,000 enterprises registered in South East and South West Ireland between 1990 and 2001, the researcher identified 37 founders who had a direct link with an MNE prior to starting their enterprises. A triangulation process was employed in order to understand the extent to which MNEs were influential in the setting up of these new enterprises. One element of the triangulation process was to survey and interview founders of the indigenous enterprises; another was to interview senior executives of the MNEs with which the founders had direct links, and that were still operating in Ireland at the time of this research. The third element of the triangulation process involved interviewing CEOs and regional managers of the State enterprise support agencies operating in South East and South West Ireland. This process closed the circle of data gathering into the circumstances under which founders

started their enterprises and the extent to which MNEs had a *direct* impact on the creation of these new enterprise.

Another unique aspect of this current research is that, unlike previous research, it does not focus on just one single industry sector such as software or IT; it focuses on high-tech, high-value-add businesses such as chemicals, computers, electronics, engineering, manufacturing, pharmaceuticals, plastics & rubber, R&D and labs, software and telecommunications. Nor does this research rely on statistical analysis alone, instead it utilises both quantitative and qualitative techniques.

Even though this current research identified that 58% of the founders did have a direct link with an MNE prior to starting their enterprises, nearly half of them did so only because they were let go (made redundant, fired, or resigned by mutual agreement) from an MNE. None of these founders would have started their enterprise if they were not let go from the MNE, if they had not met with a critical incident in their careers (Cope and Watts, 2006). Thus the research also examined for the presence of latent entrepreneurs among the sample of founders.

Of the 15 MNE senior executives interviewed, only one MNE encouraged and supported their employees to start their own businesses when there were no actual (or threats of) redundancies taking place.

Another interesting finding from this research is that the State enterprise support agencies seem to operate more in a reactive than proactive mode. These agencies appear to wait for clients to come to them and/or wait for announcements of plant closures/downsizing before getting involved in encouraging people to start their own businesses. Also, this research highlights that even though 83% of the founders received soft and/or hard support from State agencies, over 80% of them were not happy with the support they received.

In summary, the unique triangulation process utilised in this research has identified that the link between new enterprise creation and the presence of MNEs is more an outcome of unintended consequences than being an output of defined enterprise policies.

This research contributes different and additional knowledge to the existing body of literature in relation to the benefits of FDI, spillovers from MNEs into host economies, and the process of new enterprise creation. The research has implications for enterprise policy in relation to the role governments and their agencies could play in supporting MNEs to create an environment whereby additionality of jobs can occur in the MNEs host economy, as opposed to State enterprise support agencies focusing on job replacement alone.

Key words: Benefits of MNEs, new enterprise creation, enterprise policy, FDI, latent entrepreneur, and additionality

Preface

The main focus of this research is to establish to what extent the presence of multinational enterprises (MNEs) has been instrumental in the creation of new indigenous enterprises. A secondary aspect of this research is to determine the presence of *latent entrepreneurs*¹ among the founders of indigenous enterprises who had a direct link with MNEs, and whether the presence of an MNE was influential and/or instrumental in the setting up of their enterprise. The author of this research has been particularly interested in these themes since he was made redundant from a major MNE and started his own electronics sub-contract business in July 1992.

Before starting his own business, the author had worked for different MNEs for a total of eighteen years, eleven of which he had spent in the MNE from which he was made redundant. It was during his employment with this MNE that the author became very interested in understanding the benefits of foreign direct investment (FDI) and questioning to what extent MNEs have a positive or negative impact on the creation and development of indigenous enterprises.

One of the roles the author was responsible for during his tenure at the MNE was that of External Manufacturing Manager. This involved identifying SMEs that could build and supply sub-parts of the MNE's products. The role also involved working with SMEs to assist them to improve their businesses and manufacturing processes so that they could more effectively supply sub-parts to MNEs. Thus, the author was very familiar with Ireland's National Linkage Programme³, and the electronic and electro-mechanical sub-

¹ For the purpose of this research, a *latent entrepreneur* is defined as a person who is in fulltime employment and would like to be an entrepreneur but has done nothing about it yet (Blanchflower, Oswald, and Stutzer, 2001; Grilo and Irigoyen, 2005).

² The author was a senior executive within a subsidiary of Digital Equipment Corporation based in Clonmel, County Tipperary, Ireland.

³ In the mid to late 1980s, the National Linkage Programme in Ireland played a key role in encouraging and fostering indigenous supplier relationships with MNEs. The programme facilitated the development of a substantial network of sub-supply and service companies, and helped maximise the amount of raw materials, components and services sourced in Ireland by multinationals and other major purchasers (Noel Tracey, T.D., Minister for Science and Technology and Commerce, 1998).

assembly subcontract business sectors in Ireland, Scotland, Wales and England during the 1980s and 1990s.

Over a seven-year period, working in the roles of External Manufacturing Manager and Manufacturing Marketing Manager facilitated the author's learning about multinational and indigenous operations across various industry sectors throughout Europe and the United States of America. During that period of time he learned about, and became familiar with, the industry policies of many different European countries, the role of FDI in the economic development of these countries, and the relationship between indigenous SMEs and foreign owned MNEs.

The interest in the concept of *latent entrepreneurship* came about after the author was made redundant from the MNE and started his own electronic sub-contract business supplying sub-assemblies to both foreign owned MNEs and large indigenous businesses. From time to time, during his eighteen years working for a number of foreign owned MNEs, the author considered that he might start his own business at some stage, but he never actively did anything about doing so until he became redundant.

The announcement to close the MNE was made in February 1991. At that time employees were offered the option of moving (with their jobs) to another facility in Ireland or to another facility abroad owned by the MNE, to take the redundancy package immediately, or to continue working with a core group of people in the existing facility for a year, while the IDA⁴ (Industrial Development Authority) and the MNE had time to source a replacement industry for the facility. The author chose to stay with the core group of eighty-six people and was responsible for the physical wind-down and ultimate closure of the facility.

As part of this role, the author worked very closely with both the IDA and Forbairt⁵ (later renamed Enterprise Ireland); this provided him with further insights into

⁴ In 1949 the Irish government set up an independent economic development agency, the Industrial Development Authority (IDA). In 1952 the agency was "spilt into the IDA proper, to promote new investment, and a new industry board (An Foras Tionscal) which assessed projects and made decisions on development grants (Garvin, 2004).

⁵ The Ireland Industrial Development Act 1993 established three industry support state agencies – Forfas, Forbairt (now called Enterprise Ireland), and the Industrial Development Authority (IDA). In summary

enterprise policy and policy implementation by the relevant State agencies in Ireland. Thus, it was during the year-long closure process that the author crystallised the idea of starting his own business rather than seeking employment elsewhere. The author used the skills and experience he gained at the MNE to set-up the new enterprise. In particular, he used the management and organisation development skills acquired to both structure and manage his enterprise. However, as stated above, before the MNE announced its pending closure, the author had not actively pursued the idea of starting his own business. Therefore, the question arises whether he would ever have started a new enterprise if he had not been made redundant? Could the author of this thesis be described as a *latent entrepreneur*?

In summary, a combination of

- the type of work the author did while working for MNEs,
- his experiences with SMEs,
- his interactions with the IDA and Enterprise Ireland and
- the fact that he often wondered if he would have ever started his own enterprise if he had not been made redundant

inspired the author to commence more detailed research to investigate if there are direct links between the presence of MNEs in a host economy and the creation of new enterprises in that economy.

Forfas is the overall state agency that is responsible for enterprise policy and development in Ireland. The implementer of policy for indigenous enterprise is Enterprise Ireland (formally Forbairt), and the responsibility for attracting “industrial undertakings from outside the State” lies with the IDA.

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List Of Abbreviations

BMW	Border, Midlands and West
CEB	City/County Enterprise Board
CRO	Companies Registration Office
EPP	Enterprise Platform Programme
ESF	European Structural Funds
EU	European Union
FDI	Foreign Direct Investment
FETAC	Further Education and Training Awards Council
GDA	Greater Dublin Area
GEM	Global Entrepreneurship Monitor
GDP	Gross Domestic Product
GT	Grounded Theory
HPSU	High Potential Start-Up
HQ	Headquarters
IBEC	Irish Business Employers Confederation
IDA	Industrial Development Authority
MNE	Multinational Enterprises
NESC	National Economic and Social Council
NDP	National Development Plan
PCB	Printed Circuit Board
R&D	Research and Development
ROI	Return On Investment
SD	Shannon Development

SE	South East
SEEPP	South East Enterprise Platform Programme
SERA	South East Regional Authority
SME	Small to Medium sized Enterprise
SW	South West
SWRA	South West Regional Authority
UCC	University College Cork
U.S.	United States (of America)
VLSI	Very Large Scale Integrated circuits

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Chapter 1

Introduction

Chapter 1 Introduction

At the time of commencing this research, towards the end of 2000, Ireland had already been dubbed the Celtic Tiger because of its extraordinary economic performance over the previous five to six years. As Figure 1.1 shows, at that time Ireland's Gross Domestic Product (GDP) per capita had increased dramatically since the early 1980s and surpassed that of the EU average by the mid-1990s.

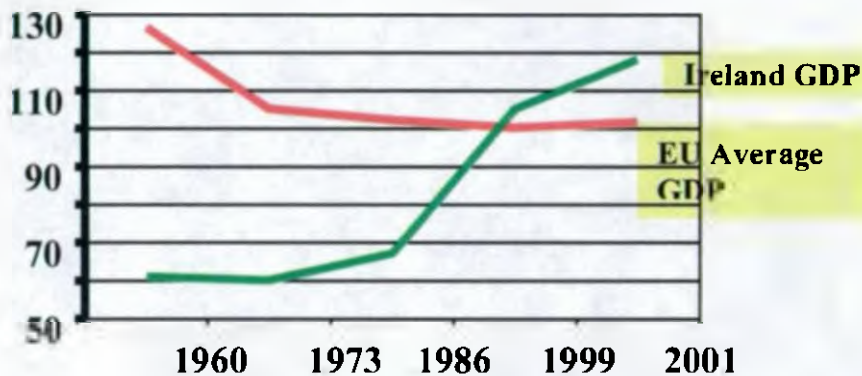


Fig. 1.1 Ireland's GDP per capita as a percentage of the EU average (Source: Walsh, 2005)

However, most of Ireland's GDP was generated by the level of exports from foreign multinational enterprises' (MNEs) manufacturing facilities in Ireland. In the 1980s and 1990s almost 90% of Ireland's export value was generated by the subsidiaries of multinational organisations operating in Ireland (Walsh, 2005). Equally approximately 85% of all foreign-owned MNE manufacturing output was exported (Lyons and McCloughan, 1998; Walsh, 2005). Also, in the late 1990s Ireland's inflow of Foreign Direct Investment (FDI) was higher than the EU average. However, times were changing and some politicians and academics were beginning to express their concern about Ireland's over-dependence on foreign owned MNEs operating in Ireland. For example in March 2001, the then Tanaiste¹ and Minister for Enterprise, Trade and Employment, Ms. Mary Harney, expressed her concerns about Ireland's dependence on MNEs stating, "obviously a downturn in the American economy has a major impact on

¹ The Tanaiste is Ireland's Vice-Taoiseach (or Vice-Prime Minister). He/she acts in place of the Taoiseach if the Taoiseach is abroad or ill. If the Taoiseach were to die or become permanently incapacitated, the Tanaiste would stand in until a new Taoiseach was appointed. The Tanaiste may also hold a ministerial portfolio (OASIS, 2006).

the world economy and clearly it would have an impact as well on the Irish economy” (Irish Times, 2001).

An even more worrying concern in the late 1990s/early 2000s was the fact that the European Union (EU) was discussing many policies that would provide homogeneity in processes and practices across the EU member states. One such policy was to achieve unity in levels of taxation and amounts of state support that could be provided to large corporations and multinational organisations. The concern here was that Ireland’s industrial policy was based on attracting foreign multinationals to the country via incentives such as the export tax relief of 100% in 1956, which was subsequently replaced in 1981 by the policy of 10% tax on profits derived through manufacturing and exports; this policy was due to expire in 1990 but in 1986, financial and other relevant services were added to the 10% on profits scheme and the policy was extended to 2005 (McCarthy, 1990; O’Grada, 1997; Department of Industry Trade and Employment, 2004; Garvin, 2004). The fear was that if Ireland had to increase their tax rates in line with other EU member states, Ireland might not be as attractive to FDI as lower cost based countries such as those that were, at the time, requesting admission to an enlarged EU e.g. Hungary, Poland, Czech Republic, Slovak Republic, Slovenia, Estonia, Latvia, Lithuania, Malta and Cyprus. In 2000 these accession countries posed a real threat to Ireland because their labour costs were much lower, the level of education attained in these countries was as high (or even higher than in Ireland), and because of their capability to reduce their corporation tax rates to the same level as, or less than, Ireland. This concern was justified because in the list (generated by Gilmore, O’Donnell, Carson, and Cummins, 2003) of the top eight motivational factors that attract FDI to an economy, financial incentives (low tax levels and grants) and cheap labour are very high on the list.

An example of the wealth generated by MNEs in Ireland can be demonstrated by the fact that most of the multinationals operating in Ireland throughout the 1990s and early 2000s were American; as Figure 1.2 demonstrates the growth in profits for U.S. owned companies was significant while their effective rate of tax was very low.

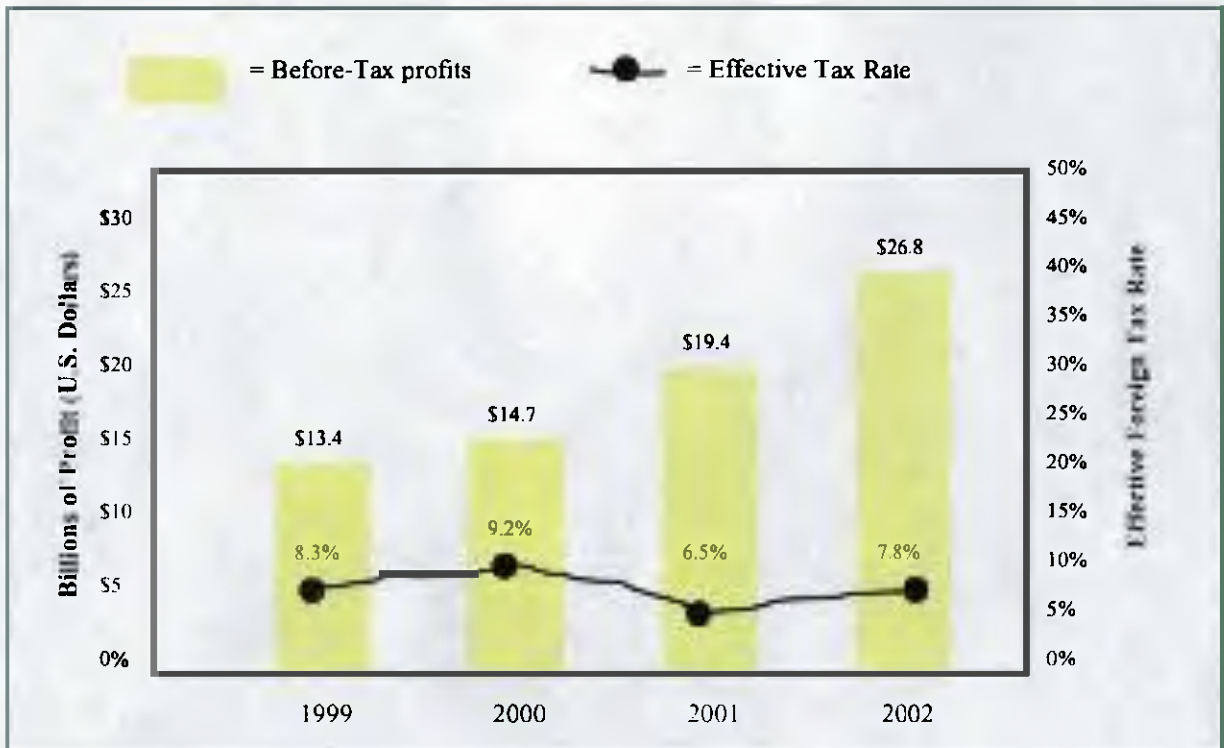


Fig. 1.2 Profits of U.S. Corporations in Ireland (Source: Finfacts, 2005)

As Walsh (2005) pointed out to the attendees at the 2nd Entrepreneurship Development Forum conference in October 2005, as soon as the return on investment (ROI) for U.S. companies in Ireland drops below that of the ROI to be derived from investing in the new countries acceded to the EU in 2004, then the level of FDI into Ireland from the U.S. will most likely decline at a dramatic rate. In 2000 this was already perceived to be a threat to the Irish economy. From Figure 1.3 it can be clearly seen that the rate of convergence between the ROI for U.S. companies investing in Ireland and the ROI for U.S. companies investing in Eastern European countries (the new accession states to the EU) was taking place at an alarming rate since 1998. Thus whilst “in the late 1980s and early 1990s even the most ardent of supporters of branch plant industry would have conceded that they were ‘second best’, and that industrial policy (in Ireland) should concentrate on the development of indigenous industry — but the renewed success with multinational investors in the mid-1990s would again temper that view” (O’Grada, 1998, p.122). However the focus on attracting foreign owned MNEs continued, sometimes to the detriment of indigenous industry, and by the year 2000 researchers and politicians were already questioning Ireland’s over-dependence on FDI (see for example O’Hearn, 1998; and O’Sullivan, 2000). It was because of the perceived over-dependence on FDI, the number of MNE closures in Ireland during the 1990s, and the

threat of more closures based on the economic conditions referred to above, that this researcher decided to examine to what extent MNEs have a direct impact on the level and sustainability of new indigenous enterprises in the MNEs' host economies.

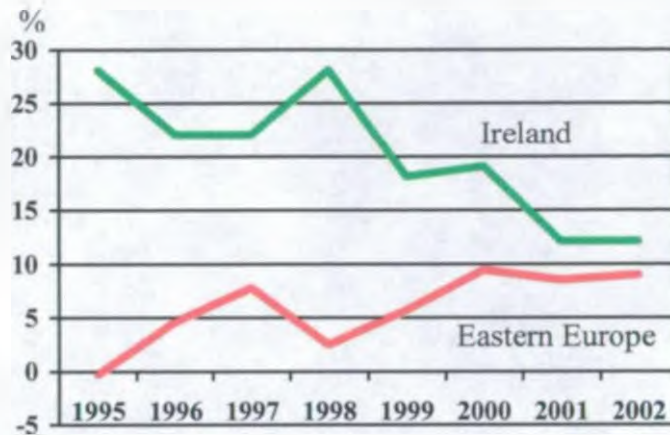


Fig. 1.3 The percentage rate of return on U.S. investments abroad (Source: Walsh, 2005)

In this chapter, Chapter 1, the reader is introduced to this research investigating to what extent do MNEs have a direct impact on the level of new enterprise creation within their host economies. The critical aspects of this research are *direct impact* and *new enterprise*. For this current research the definition of *direct impact* means:

that it can be clearly identified that the founder of an indigenous enterprise started his/her business as a direct result of being involved with an MNE. This involvement may be that the founder worked for an MNE and saw an opportunity to start his/her own business because he/she was working with an MNE; or that the founder was made redundant (or resigned/asked to resign) from an MNE and chose to start a business rather than seek alternative employment; or the founder never worked for an MNE but identified an opportunity to provide a specific product/service to an MNE; or because of downsizing/rightsizing/out sourcing, the MNE supported the founder to start a new business.

The definition of *new enterprise* in the context of this research is:

a business that did not exist prior to the time the founder set up and incorporated that business. It is not an entity that the MNE was dealing with prior to the founder separating from the MNE, nor is it a business/entity that was in existence prior to the MNE locating in the host region. It is an entity that came into being as a result of the founder's separation from an MNE; or it is an entity that came into being post an MNE's arrival into its host region, or after an MNE's departure from that region.

The research is based in the South East and South West regions of Ireland. Therefore one criterion for selection of new indigenous enterprises for this research was that it had to be based in the South East or South West.

Other criteria were that the new indigenous enterprise had to be founded during or after 1990 and before 2001 and that it belonged to one of the following industry sectors – chemical, computer, electronics, engineering, manufacturing, pharmaceutical, plastic & rubber, R&D and laboratories, software, telecommunications, and/or any other relevant high-tech, high-value add industry sector. Because industry sectors such as catering, consultancies, entertainment, leisure, retail, tourism, and other related services industries are not generally supported by the state enterprise support agencies, and because they are not considered to be high potential start ups (HPSUs), they were not considered for this research.

The reason why this researcher selected high-tech, high-value-add enterprises was to develop an understanding as to what extent the economy in South East and South West Ireland has been able to absorb and exploit large inflows of technology into its industrial structure (Andreosso-O'Callaghan 2000, p.69). It was also hoped that the research would shed some light on Kugler's (2002) assertion that MNEs are more likely to set up in economies of limited absorptive capacity and that therefore the level of spin-offs in a similar industry sector would be low. Also, by identifying the level of new enterprise activity in the high-tech, high-value-add industry sector, the validity of Lyons and McCloughan's (1998) statement "thus Ireland, with its limited base of indigenous

manufacturers in high-tech industries, may be seen as less threatening than other more developed locations. Therefore the possibility of know-how staying proprietary is relatively high in Ireland compared to other EU countries” (p.110), may be understood.

1.1 Background

Since the industrialisation of Ireland in the late 1940s early 1950s, the Irish economy has experienced considerable growth through Foreign Direct Investment (FDI). It was after 1965 that the level of FDI became hugely significant for the Irish economy as a whole and changed it from being a rural based to an industrial based economy (Sweeney, 1999). Even though Ireland enjoyed good levels of inward FDI during the late 1960s, 1970s and early 1980s, the country still experienced significant levels of unemployment and emigration. In the late 1980s Ireland began to experience a recession, a recession that was in full swing in the early 1990s. It was not until 1993 that Ireland began to come out of this recession and over the following five to six years, it experienced phenomenal levels of economic growth. In the mid-90s the rate of growth of output had been extraordinary both by comparison with the long-run Irish record and by international standards, and the phrase ‘Celtic Tiger’ was coined to refer to this performance (Walsh, 1999).

In the mid to late 1990s the growth in the economy was such that the rates of unemployment fell dramatically. The country neared rates of full employment, and Ireland began to experience immigration as opposed to emigration. The phenomenal growth in the 1990s was also fuelled by an increase in the level of FDI into Ireland. Accordingly Sweeney (1999) stated

“in the five years to 1998 it (growth of employment in foreign firms) had risen by a very high 20,595 or almost a quarter. Therefore even with the Irish recovery and trend reversal, it seems that, soon after 2000, the foreign MNE manufacturing sector will be a bigger employer of Irish workers than will Irish manufacturing firms. When internationally traded and financial services are added to these manufacturing jobs, the numbers in 1998 were 133,230 in Irish firms

and 136,515 in foreign firms. Thus in 1998, for the first time, the number of jobs in foreign firms in manufacturing and internationally traded and financial services exceeded the number of jobs in Irish firms” (p.142).

In 1998, according to the Central Statistics Office (CSO), foreign firms accounted for 82% of net output and 47% of employment in the Irish manufacturing sector; also these foreign firms exported 92% of their output, this output accounted for 87% of all manufacturing exports from Ireland (Ruane and Ugur, 2002).

In the early 2000s the figures had changed slightly in that the levels of employment in foreign owned MNEs increased slightly as an overall percentage of those employed in Ireland, and the level of exports accounted for by all foreign owned firms was approximately 90% (Walsh, 2005).

Thus, it was generally accepted the existence of MNEs in Ireland brought a significant number of benefits to the economy including employment, increased managerial and technical skills, increased wages, improved terms and conditions of employment, and setting a foundation for the development and growth of the Celtic Tiger. But the question still remained – to what extent does the existence of MNEs have a direct impact on the creation of new indigenous enterprises? The focus of this research is to examine the existence of direct links between MNEs and the creation of new enterprises in the MNEs’ host economy. This research explores to what extent indigenous enterprises have come into being as a direct result of the existence of an MNE in its host economy.

1.2 The development of Ireland’s economic policy

Since Ireland’s independence from Great Britain in 1921 and the first Government of the Irish Free State in 1922, the Government of Ireland has taken very much an interventionist approach to the development of the economy. It would have to be said that maybe because of a lack of plentiful natural resources and probably because of a lack of a sound indigenous industrial base, Ireland’s economic growth could not be

considered to be self-sustaining through internal growth and development. As Kennedy (1995) pointed out “the newly Independent Ireland was heavily reliant on agriculture, with over half of total employment concentrated in that sector. Even more strikingly, food and drink amounted to over 85% of total merchandise export” (p.53). Ireland’s growth from 1922 was (and many still contend that it still is) very much dependant on government intervention, as it was based on a succession of government policies commencing with protectionism and the imposition of tariffs in 1932, the Control of Manufacturers Act (1932), through to the attraction of FDI in the 1950s, and a succession of National Development Plans up to and including the National Development Plan (NDP) 2000 – 2006 (McCarthy, 1990; Kennedy, 1995; Drudy, 1995; O’Grada, 1997; Garvin, 2004). According to Drudy (1995) “the Republic of Ireland is an interesting example of a small open and peripheral economy which has wholeheartedly changed from inward-looking, ‘protectionist’ policies to an ‘outward-looking’ approach in the hope of resolving its various economic and social difficulties” (p.71).

Even though there is a long tradition of trade and commerce in Ireland, most of the trade since Norman times (12th century) has been with England and her colonies. Up until 1922 Ireland was very much part of the British Empire and therefore much of Ireland’s produce was exported to England to help support England’s economy. Moreover, in the 1920s, “Ireland was heavily dependent on one export market, the UK, with over 90% of exports going to that market” (Kennedy, 1995, p.53). For almost 800 years the economic structure of Ireland was very much dominated by landlords and businessmen who had their roots in England. Thus, in general terms, the Irish did not have a sense of trade or commerce in the business ownership sense, and those that did were very much limited to one market – Britain and its Empire.

Since its independence from Britain in 1922, Ireland has had a varying set of industrial policies. During the first ten years of independence, Ireland continued to operate a free trade policy under its new government, Cumann na nGaedheal. In fact the Cumann na nGaedheal government rejected industrialisation through import substitution and monetary experimentation and placed its main hopes on a dynamic agricultural sector specialising in livestock and dairying (O’Grada, 1997). However, when taking the historical and economic background into consideration, it is understandable that the main opposition party, Fianna Fail, was proposing self-sufficiency and the imposition of

high tariffs on imports in order to boost indigenous industry. When Fianna Fail came to power in 1932 it introduced protectionism. Protectionism remained in place, and dominated economic policy, until the introduction of the Anglo-Irish Free Trade Agreement in 1965.

Whereas protectionism and self-sufficiency might have been an ideal to pursue for nationalistic reasons (and the country did well from this policy during World War II), it had a devastating effect on the Irish economy. For example, according to Garvin (2004), the government “had distorted the economy by wholesale subsidisation of economic activities, rather than letting entrepreneurial activity find the correct product for the correct market” (p.33). But this policy was more devastating for economic growth after World War II. Because, not only did it limit competitiveness through importation, it also limited businesses to trading internally within the state. Thus the development of export markets was restrained. Also at the time the view of the then Taoiseach (government leader in Ireland), Eamonn De Valera, was that Ireland should be the home of a people who were satisfied with frugal comfort and devoted their leisure to things of the spirit (Moynihan, 1980). In the words of Kennedy (1995) “according to this line of argument, the Irish failed to hit the economic target of economic development, not because they were bad shots but because they were aiming at a different target” (p.63).

A key aspect of this stifling of export markets and support of the protectionist stance was the Control of Manufacturers Acts (1932). These Acts provided for majority Irish capital holding in Irish companies and were aimed at eliminating British control of Irish Industry (Drudy, 1995; Garvin, 2004). The Acts were put in place because some political parties in the early years of the new State held the view that foreign direct investment (FDI) meant UK owned companies, the presence of which were seen by some to represent a failure on the part of Ireland to establish itself as a viable economic entity (Ruane and Gorg, 1996). It was not until 1958 that the Control of Manufacturers Acts were repealed. However, because of pressure from local manufacturers, the government of the day rescinded only the Acts for industries that exported the bulk of their produce. Thus the title of the Act was changed from a *Repeal of the Control of Manufacturers Act* to an Act for the encouragement of export (Garvin, 2004). It was also around this time that foreign owned companies were encouraged to set up manufacturing facilities in Ireland with the specific aim of exporting most, if not all, of

their outputs. After the Industrial Development Authority (IDA) was set up in 1949, there was a small amount of FDI into Ireland. However, it was only after 1965 that FDI became significant due to its positive promotion as a key industrial policy by the Taoiseach at the time, Sean Lemass. It is stated by O'Grada (1997) that the Lemass era "established some patterns that would prove enduring: a commitment to outward-looking policies, a less restrictive fiscal stance, a willingness to experiment, an economic growth that would make Ireland a largely urban society and would erode the importance of the agriculture sector and the farm lobby" (p.30).

However the person who is accredited as being the real architect of Ireland's economic development is T.K. Whitaker the Secretary of State at the Department of Finance from 1955 to 1965 (McCarthy, 1990). The publication of the Economic Development Plan, the 'Grey Book', the First Programme for Economic Expansion in 1958, engineered and authored by T.K. Whitaker, was a watershed in the transformation of Ireland from a mainly agricultural society into a modern, industrial based economy (Charles J. Haughey, Taoiseach, 1990). According to McCarthy (1990), "Whitaker visualised the open economy which was soon to bear fruit in fifteen years of unprecedented prosperity for Ireland. He called for an end to protectionism and foresaw the responsibilities and opportunities this growth would create..... Incentives designed to attract foreign direct investment in export-oriented, manufacturing industries were the keystone of the plan" (p.12).

As indicated above, the government setup the IDA in 1949 to specifically target foreign direct investment into Ireland. However, in 1952, the IDA was divided into the IDA proper (to promote new investment) and a new industry board (An Foras Tionscal) that assessed projects and made decisions on development grants (Garvin, 2004). According to Meyler and Strobl (2000), Ireland's enterprise policy in the early 1950s was very much focused on regional development in that the IDA distinguished between *designated areas* and *non-designated areas*. The regions classified as designated areas were typically the least wealthy, least populated, least industrialised and most peripheral regions of Ireland. The first *designated areas* categorisation included Sligo, Leitrim, Roscommon, Mayo, Galway, Clare, Donegal, Kerry, and West Cork. This focus on regions seems to vary from decade to decade. For example, the Buchanan Report in 1969 proposed a focus on nine regional development centres to support the regional

growth argument of the 1960s. According to Meyler and Strobl (2000) the regional policy of the 1970s focused on two primary issues: (i) an attempt to avoid the rural-urban drift whereby workers migrate from rural to urban areas in search of higher paid jobs, and (ii) to avoid an over-concentration of foreign owned MNEs in certain areas. The IDA's *Regional Industrial Plans for 1973 – 1977* focused more on towns, albeit they targeted (designated) many more than nine centres for growth. In 1982 however, after the publication of the Telesis Report, the emphasis of enterprise policy changed from being predominantly regionally focused to being predominantly focused on attracting strategic industries into the State.

While there has been a focus on regionality in successive enterprise policies in Ireland, the degree of emphasis on regional development has varied from decade to decade. For example, this current research shows (see Chapters 3 and 4) that, in the early 2000s, the number of MNE facility openings was far more numerous in the 'greater Dublin area' (GDA) compared to the rest of Ireland, and indeed that many indigenous companies were also locating themselves (and in some cases relocating themselves from the regions) into the GDA in order to service the MNEs located there. This trend was of such concern to the government that, in 2001, Enterprise Ireland published a three-year strategy document, *Driving Growth in Regional Enterprise*. The main aim of this strategy was to encourage indigenous organisations based in the greater Dublin area to move out of Dublin and/or to set up subsidiaries in the regions. While the incentives offered were attractive, the actual uptake was poor (this statement is based on both the author's experience and his conversations with key informants within Enterprise Ireland).

Even though regionality has been articulated in enterprise policy, there has been a greater emphasis on attracting and supporting foreign owned MNEs, which by their nature have a tendency (or expressed desire) to locate in urban centres of large concentrations of population. However, pursuant of the Telesis Report (1982) was the National Linkage Programme in 1985. According to the Review on Performance and Policy Report (2003), the National Linkage Programme was established to develop a strong competitive sub-supply base in Ireland that would maximise local purchases of Irish materials, components, and services by foreign owned organisations based in Ireland. Based on the experience and observations of the author of this thesis, it is

arguable that the programme was successful up to the early 1990s and then began to fade away. Part of the reason why the programme began to decline was that foreign owned MNEs operating in Ireland insisted that their supply base would have the capability of supplying all of their (MNEs') facilities throughout the world. At that time, small local Irish companies were not capable of achieving that level of service. Also, the MNEs were content working with their existing foreign suppliers, and in many cases encouraged their sub-suppliers to relocate some of their operations to Ireland.

There is much evidence to suggest that the IDA has performed well in identifying, pursuing, and securing prestigious FDI since the early 1950s. However, there are many commentators and researchers who question Ireland's over-dependence on foreign multinationals (see O'Hearn, 1998; O'Sullivan, 2000; Morgenroth and O'Malley, 2003; and Grimes and Collins, 2006 for examples). During the late 1980s and early 1990s many politicians including Albert Reynolds, who held the ministries of Industry and Commerce in 1987, and Finance in 1988, expressed concern that the IDA (and the government) were overly focused on the attraction, and support of, foreign multinationals to the detriment of indigenous industry. Not alone are these observations based on this researcher's own industry experience during the 1980s and 1990s, but these concerns were also shared by academic researchers including Seme (2004) who provided an in depth analysis of the IDA's role in facilitating the growth of foreign owned MNEs at the expense of the indigenous sector. Reynolds, himself a businessman, made some key changes to address these concerns during his tenure as Taoiseach from 1992 to 1994. One of the most notable changes was the passing of the Industrial Development Act 1993. This Act was influenced by the Culliton Report of 1992 which boldly suggested to split up the IDA. The report urged the government to focus on Irish industry; it particularly suggested that a state agency be set up to focus solely on indigenous industry (Sweeney, 1999).

The Industrial Development Act 1993 established three industry support state agencies – Forfás, Forbairt (now called Enterprise Ireland), and the Industrial Development Authority (IDA). The role of Forfás, as established by the Act, was to:

- (a) Advise the Minister on matters relating to the development of industry in the State,
- (b) Advise on the development and co-ordination of policy for Forbairt (Enterprise Ireland), IDA, An Bord Tráchtála (The Irish Trade Board) and such other bodies as the Minister may designate,
- (c) Encourage the development of industry and technology in the State,
- (d) Encourage the establishment and development in the State of industrial undertakings from outside the State, and
- (e) Advise and co-ordinate Forbairt (Enterprise Ireland) and IDA in relation to their functions.

As an agency of Forfás, the role of Forbairt (Enterprise Ireland) was to:

- (a) Develop industry in the State,
- (b) Strengthen the technological base and the capacity of industry to innovate,
- (c) Provide services which support such development,
- (d) Make investments in and provide supports to industrial undertakings which comply with the requirements of the enactments for the time being in force,
- (e) Administer such schemes, grants and other financial facilities requiring the disbursement of European Community Funds as may from time to time be authorised by the Minister with the concurrence of the Minister for Finance, and
- (f) Carry out such other functions as may from time to time be assigned to it by Forfás with the consent of the Minister.

Finally, as an agency of Forfás, the role of the IDA was to:

- (a) Promote the establishment and development, in the State, of industrial undertakings from outside the State,
- (b) Make investments in and provide supports to industrial undertakings which comply with the requirements of the enactments for the time being in force,
- (c) Administer such schemes, grants and other financial facilities requiring the disbursement of European Community Funds as may from time to time be authorised by the Minister with the concurrence of the Minister for Finance, and

- (d) Carry out such other functions as may from time to time be assigned to it by Forfás with the consent of the Minister.

(Source: Irish Statute Book Database, 1993)

In summary, Forfás is the overall state agency that is responsible for enterprise policy and development in Ireland. The implementer of policy for indigenous enterprise is Enterprise Ireland (formally Forbairt), and the responsibility for attracting “industrial undertakings from outside the State” lies with the IDA.

Another very significant government intervention, in the early 1990s, introduced to boost indigenous industry, was the setting up of the City and County Enterprise Boards. In 1992, against a background of chronic unemployment and vigorous representation by local politicians for the encouragement of enterprise and particularly new start-ups, and partially because of the demise of a major MNE and employer in the West of Ireland (Digital Equipment Corporation), the Irish Government embarked on a fundamental shift in policy. For the first time, policy moved towards a nurturing of the micro sector (under 10 employees) and also embraced the services sector, which up to that time had been excluded from state aid. The Irish Government decided, in 1993, to establish a system of local enterprise agencies, where decision-making would be devolved to Boards representative of local business interests, political representation, local government and the social partners. These became known as City and County Enterprise Boards (CEBs). CEBs were set up in every county and major city in Ireland (Hanley and O’Gorman, 2004, pp.306-307).

However, it was in the midst of much criticism from opposition deputies² in government in 1993, that the Taoiseach, Albert Reynolds, set up these CEBs. By setting up the City and County Enterprise Boards the Taoiseach emphasised a greater, more direct, focus on micro enterprises and SMEs. But much of the criticism directed at the Taoiseach was that the National Economic and Social Council (NESC) Report (issued in November 1993) stated that the variety of agencies involved in the local development process could give rise to confusion or duplication of resources, or wasteful competition

² Deputy is the term used in Ireland for Members of Parliament (UK term)

for resources (Deputy Clohessy, Dail Eireann, 1993). Other criticism levelled at the Taoiseach in relation to the establishment of the CEBs included statements that the CEBs would lead to an “increase in bureaucracy and perhaps a scatter of jobs for the boys but no real jobs for the unemployed; and that agency-driven solutions have failed in the past and will fail in the future” (Deputy Quill, Dail Eireann, 1993). Other deputies such as Deputy Sargent were suggesting that the setting up of the CEBs was a smoke screen for what should be done to tackle the high levels of unemployment in the early 1990s. Deputy Sargent stated,

“the demarcation lines need to be more clearly defined between many of these bodies (the enterprise support agencies). The confusion that seemed to exist prior to setting up the County Enterprise Boards, for instance, was referred to by the Taoiseach when he said that it was perceived that large organisations seemed to be helping the larger operator. Does the Taoiseach recognise that much of the IDA activity, for instance, has been in regard to very small businesses although they do not receive the same attention as the Digitals and Amdahls (two major MNEs and employers in Ireland at the time)? Would the Taoiseach agree that what is happening is in fact a postponement of the radical change in the area of taxation rather than a measure to help reduce unemployment? It is simply postponing the action that is needed in areas such as work sharing, which we discussed earlier, guaranteed basic income and the tax reform that will shift from labour to resources”

(Deputy Sargent, Dail Eireann, 1993)

The Taoiseach’s response to such criticism and questions was:

“In relation to support for small businesses, it was reflected in the Culliton Report (1992) that international companies should be separated from indigenous companies and Forbairt was set up with the sole responsibility of developing indigenous industry. The County Enterprise Boards were established to identify companies who would employ two, three or four people and it is up to the other

agencies, if they progress beyond that, to take those companies on to the next stage. Nobody would deny that gaps existed in this area that needed to be addressed and this restructuring and reorganisation should provide a more focused effort in relation to (enterprise development, and greater levels of employment).

(Taoiseach Reynolds, Dail Eireann, 1993)

And so the Industrial Development Act 1993 was put in place and the City and County Enterprise Boards were born.

According to O'Grada (1995) not many firms created during the era of protectionism prospered under free trade. It could equally be stated that the focus on attracting MNEs into Ireland through the incentive of tax relief on profits from manufacturing and exports may have (a) restricted MNEs from supplying to Ireland's domestic market, and (b) hindered the growth of indigenous industry (O'Grada, 1995; Garvin, 2004). However, as per the outline above, during the mid to late 1990s there was a greater emphasis on the creation, development and growth of indigenous enterprise. Because of this emphasis, many interventions were put in place by government enterprise support agencies to increase levels of awareness and the number of indigenous start-ups. From 1993 on, any time a major MNE closed, a task force was set up to (a) find a replacement industry, and (b) assist displaced employees find employment in another organisation or to consider starting their own businesses. However, as far as the author of this thesis is aware, nobody was asking the question – is there a positive link between the existence of an MNE in a given economy and the level of new enterprise creation in that economy?

1.3 Research aims and objectives

Based on the above background, the primary aim of this research is to establish if:

there are direct links between the existence of MNEs in a given regional economy and the level of new indigenous high-tech, high-

growth, high-value-add (non-service related) enterprise activity in that regional economy.

This research examines the *direct link* in the relationship between the founder of the indigenous enterprise and an MNE. This direct link may be either one or a combination of the following – the founder/owner manager of the new enterprise may have:

- (i) worked for an MNE prior to starting his/her own business;
- (ii) been made redundant by the MNE;
- (iii) never worked for an MNE, but may have seen an opportunity to supply the MNE a required product or service; or
- (iv) availed of an opportunity arising from the MNE rationalising and outsourcing some of its activities.

However it must be stressed that the focus of the study is on *new indigenous enterprise creation*. This research is *not* an examination of backward and forward linkages, a body of research that has been extensively dealt with over the last several decades (see for example Turok, 1993a; Turok, 1993b; Gorge and Ruane, 1998; Lovering, 1999; O'Sullivan, 2000; Crone, 2002; Crone and Watts, 2002; Kugler, 2002; Phelps, Mackinnon, Stone, and Braidford, 2003, to mention but a few).

The overall aim of the study is to consider the relationship between MNEs and indigenous entrepreneurial activity, particularly with reference to new business start-ups.

In particular, with relevance to the industry sectors selected for this research, the study aims to:

- (a) Identify new start-ups which relate to the presence of an MNE in a host economy;
- (b) Identify new start-ups which relate to withdrawal or contraction of an MNE from/in its host economy;
- (c) Assess the dependence of new start-ups on the MNE prior to and during the start-up phase;

- (d) Assess the impact of the prevailing policies of support agencies at the time of start-up;
- (e) Identify lessons that may be drawn from the research to support enterprise creation and development policy; and
- (f) Identify the number of founders in the research sample that could be considered to be latent entrepreneurs.

The sub-questions, in relation to the industry sectors selected for this research, supporting the primary research question are:

- (i) What are the factors that impact on the quantity of and reasons for start-ups during an MNE's presence in its host community?
- (ii) What are the factors that impact on the quantity of and reasons for start-ups after an MNE has departed from or significantly reduced its employment levels in its host community?
- (iii) Is there a difference between the number and type of start-ups during the existence of and after the closure of the MNE?
- (iv) Does the subsidiary autonomy and country of origin of the MNE have an impact on start-up activity?
- (v) To what extent do the prevailing policies of support agencies influence the start-up activity?
- (vi) To what extent is the viability of the start-up dependent on an MNE's existence in its host community?

As well as identifying the level of enterprise activity³ directly linked to the existence of MNEs in the South East and South West Ireland sub-regional economies, an objective of this research was also to identify the quantity of *latent entrepreneurs* among those that met all stages of the research criteria.

³ In the industry sectors selected for this research (chemical, computer, electronics, engineering, manufacturing, pharmaceutical, plastic & rubber, R+D & laboratories, software, telecommunications, and/or any other relevant high-tech, high-value add industry sectors)

Since the 1950s much has been written about entrepreneurship and entrepreneurial characteristics. Probably the most significant element of previous research is the ‘push/pull’ theory proffered by Gilad and Levine (1986). The *push* theory suggests that individuals are pushed into entrepreneurship by negative external forces such as job dissatisfaction, loss of job, difficulty finding employment, insufficient salary, or inflexible work schedule. On the other hand, the *pull* theory suggests that individuals are attracted towards entrepreneurship because of its promise of independence, self-fulfilment, wealth, and control. Of course, additional to this, the debate as to whether entrepreneurs are born or made continues, and even though there has been a significant increase in the number of courses teaching entrepreneurship (Lord, 1999; Charney and Libecap, 2000; Katz, 2003; Klapper, 2004) the attitude of many lecturers in third level academic institutions and universities and CEOs of enterprise support agencies is that entrepreneurs are born not made (Connolly, O’Gorman, Bogue, 2003). Regardless, an aspect of entrepreneurship that has not been dealt with to any great extent is the *latent entrepreneur*. For the purpose of this research the author has defined the *latent entrepreneur* as (for more details see Chapter 2, Section 2.3.1):

A person that may or may not have the innate ability, or know that they have the innate ability or desire to start up their own businesses. It is only when this person is faced with an unemployment situation – because of a company closing down or being made redundant as a result of rightsizing (downsizing) that he/she seriously thinks about and actually does start their own business.

1.4 The research process

The methodology employed in this research was a combination of surveys and interviews. It was a triangulation of (i) understanding founders’ perspectives of why they started their businesses vis-à-vis the impact they felt MNEs had on the creation of their businesses, (ii) MNEs’ perspectives on their espoused and actual support to indigenous start-ups, and (iii) the views of state enterprise support agencies on the role of MNEs in the creation of new indigenous enterprise. The study commenced in late

2001. The research database includes indigenous companies started between 1990 and 2001, and relevant MNEs that existed in Ireland during the same period of analysis. Chapter 4, Conceptual and Methodological Frameworks, explores the research paradigms and methodological process in detail, therefore just a summary of the process is provided here.

In order to answer the research questions it was necessary to identify start-ups whose founders (entrepreneurs) had a direct link with an MNE, the relevant MNEs themselves, and the enterprise support agencies operating in the regions pertaining to this research. The regions selected for this research were the South East and South West of Ireland. The criteria for selecting the research subjects were as per Table 1.1.

Element	Criteria	Criteria to apply
Indigenous Enterprise	Must have been founded between 1990 and 2001 inclusive	All criteria must be met Criteria 1
	Must exist in the South East or South West Region of Ireland	
	Must be wholly Irish owned	
	Must not be a subsidiary of an existing Irish company	
	Must not be a subsidiary of a foreign owned company	
	The business of the enterprise must be in one of the following sectors – chemicals, computers, electronics, engineering, manufacturing, pharmaceuticals, plastics & rubber, R&D and labs, software or telecommunications	
Founder/Entrepreneur	Must have worked for an MNE in South East or South West Ireland prior to starting the enterprise or	At least one of these criteria must be met Criteria 2
	The enterprise must have been started specifically to supply an MNE in Ireland	
MNE	Must have existed in Ireland at any time between 1990 and 2001	Both criteria must be met
	Parent organisation must be a non-Irish company	
State Agency	Must be based in the South East or South West Region	Criteria must be met

Table 1.1 Criteria for selection of research subjects (Source: Current research)

The Companies Registration Office (CRO) database of 170,000 companies registered in Ireland between 1990 and 2001 was used as a starting point for this research. Companies not registered in South East or South West Ireland were eliminated from the data base. This reduced the starting population of enterprise for this research to 9,014.

Also eliminated from the database were registrations for community ventures, schools, clubs and societies, and service related enterprises such as shops, restaurants, bars, and professional entities such as accountants and solicitors. As a result, the number of indigenous start-ups identified for the initial screening survey was 805. Each of these 805 enterprises was phoned to establish date of founding, industry sector, and status of ownership. The phone calls established that 154 of the registered enterprises no longer existed and 153 of the remainder (23.5%) met the initial research criteria. Based on a combination of e-mails and follow-up phone calls, the number of enterprises/founders that met all the research criteria was 37. Of this number, 23 agreed to be interviewed, face-to-face, for the research. The 37 founders that met all the research criteria had direct links with 24 different MNEs, of which only 15 were still operating in Ireland at the time of this research. As part of the research data collection process, senior executives in these 15 MNEs were also interviewed face-to-face. Additional to this, the 14 CEOs of enterprise support agencies operating in the two regions were also interviewed face-to-face.

1.5 Thesis structure

The thesis follows the process as depicted in Figure 1.4 flowing from the Abstract, which outlines the research question, research findings and the conclusions of the research, to Chapter 9 that discusses the implications of this research, its contribution to literature and its findings for policy, policy implementers, entrepreneurs, and MNEs. Chapter 9 also discusses proposed future research in this field.

Chapter 1 introduces the reader to the research problem, research question and outline of the thesis itself. Chapter 2 explores the literature pertaining to this research. The literature review is structured into three main themes (i) literature pertaining to FDI and the location of MNEs in a host region is reviewed; this section also explores both the positive and negative aspects of MNEs to a region's economy, (ii) literature relating to the start-up and entrepreneurial processes is examined; a key aspect of this section is the review of literature related to latent entrepreneurship, and (iii) literature pertaining to policy and new firm formation is reviewed. Chapter 3 provides the reader with insights as to the quantity of new indigenous enterprise creation and MNE plant openings and

closures in the South East and South West sub-regions of Ireland. Chapter 4 details the conceptual and methodological frameworks for this study. It also discusses the paradigms upon which this research is based, and defines the research design. This chapter also details the methods employed in the study.

Chapters 5, 6 and 7 are the data analysis section of this thesis. Chapter 5 examines the data derived from the surveys and interviews with founders of indigenous SMEs. Chapter 6 examines the attitudes and perceptions of MNE senior executives towards the encouragement and support of employees (and/or ex-employees) to start up their own businesses. Chapter 7 examines the views of the CEOs of state enterprise support agencies as to whether MNEs should, can, or do encourage and support employees (and/or ex-employees) to start their own businesses. Chapter 7 also presents the views of these CEOs, as to the role the State enterprise support agencies perform in the new enterprise creation process.

Based on the data analysis, Chapter 8 debates whether or not MNEs have a direct impact on the level of new enterprise creation within the MNE's host region. Chapter 8 also discusses to what extent some of the founders interviewed are in fact latent entrepreneurs. Finally, Chapter 9 discusses the implications of the research for policy in relation to MNEs, latent entrepreneurs and new firm formation. This chapter also proposes future research as a continuation of this current research.

In summary, Chapter I has outlined the basis for this research. The chapter has explored the research problem and identified the research aims and objectives. The chapter has also presented the rationale as to why the research subject is of particular importance to policy makers and academics in developing and emerging economies. It has also informed the reader of the research process and concluded with an overview of the thesis structure.

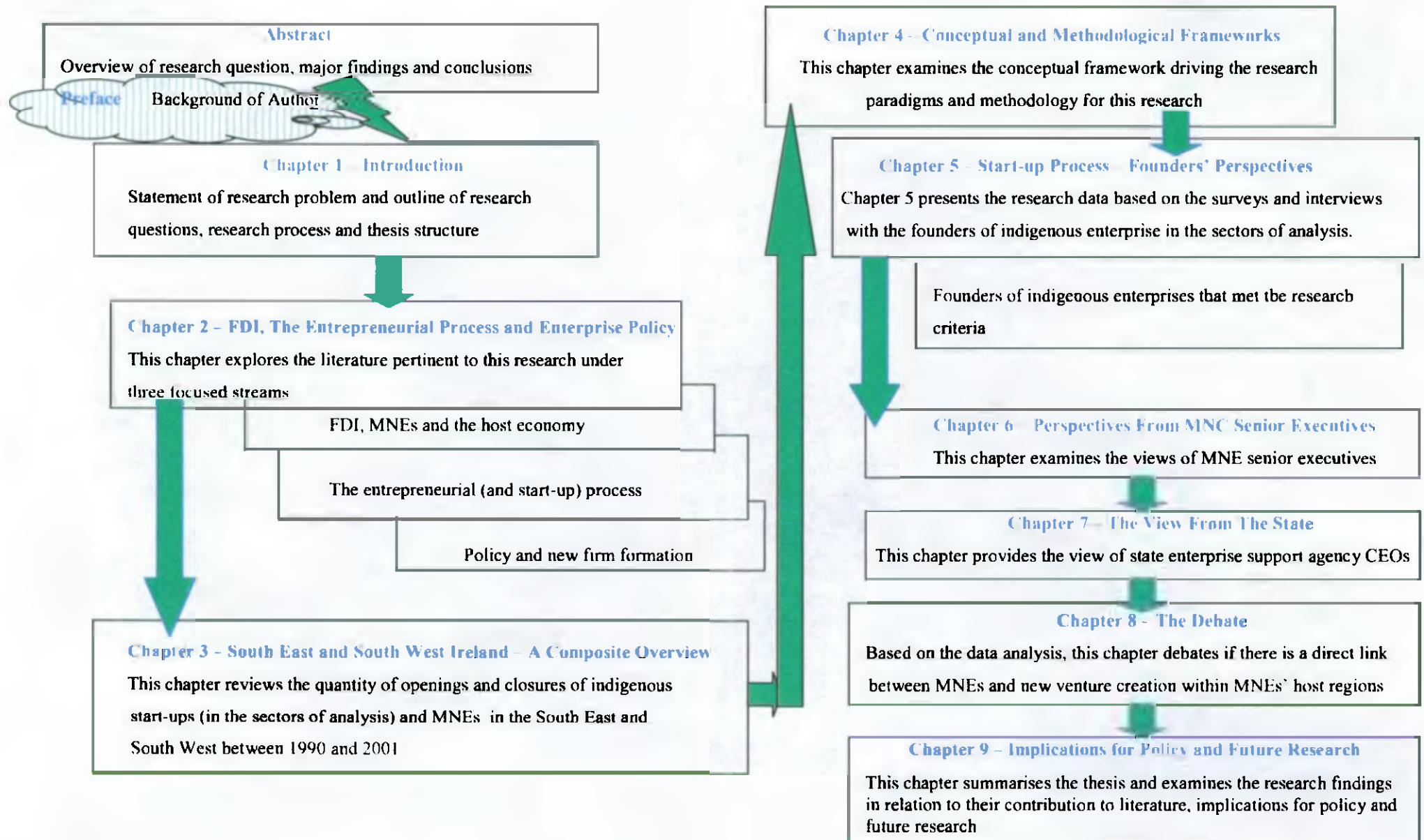


Fig. 1.4 Thesis structure (Source: Current research)

Chapter 2

FDI, The Entrepreneurial Process and Enterprise Policy

Chapter 2 FDI, The Entrepreneurial Process and Enterprise Policy

2.1 Introduction

In order to examine to extent to which MNEs have a direct link on the level of new enterprise creation, it is important to explore and understand the benefits of foreign direct investment (FDI) to a host region, the policies that exit to encourage and nurture new venture creation, and the process of new venture creation itself. Thus this literature review is informed by three main areas of literature, (i) FDI, particularly the benefits derived from MNEs in their host regions, (ii) the entrepreneurial process, and (iii) enterprise policy, however there are two aspects to the review of policy – the exogenous and the indigenous industry aspects. The uniqueness of this current research is that whereas each of these three areas of literature has been extensively researched over the last several decades, and there is a considerable amount of literature exploring various combinations of these areas of literature, the amount of literature combining all three together is limited. The reason for this may be because each of these areas pertains to a specific discipline of study and many researchers may either have not accepted, or have chosen to ignore, the relevance of linking these areas of literature together in an understanding that activity in one of these disciplines can have an effect on the other two. The areas of literature relevant to this current research are diagrammatically presented as in Figure 2.1

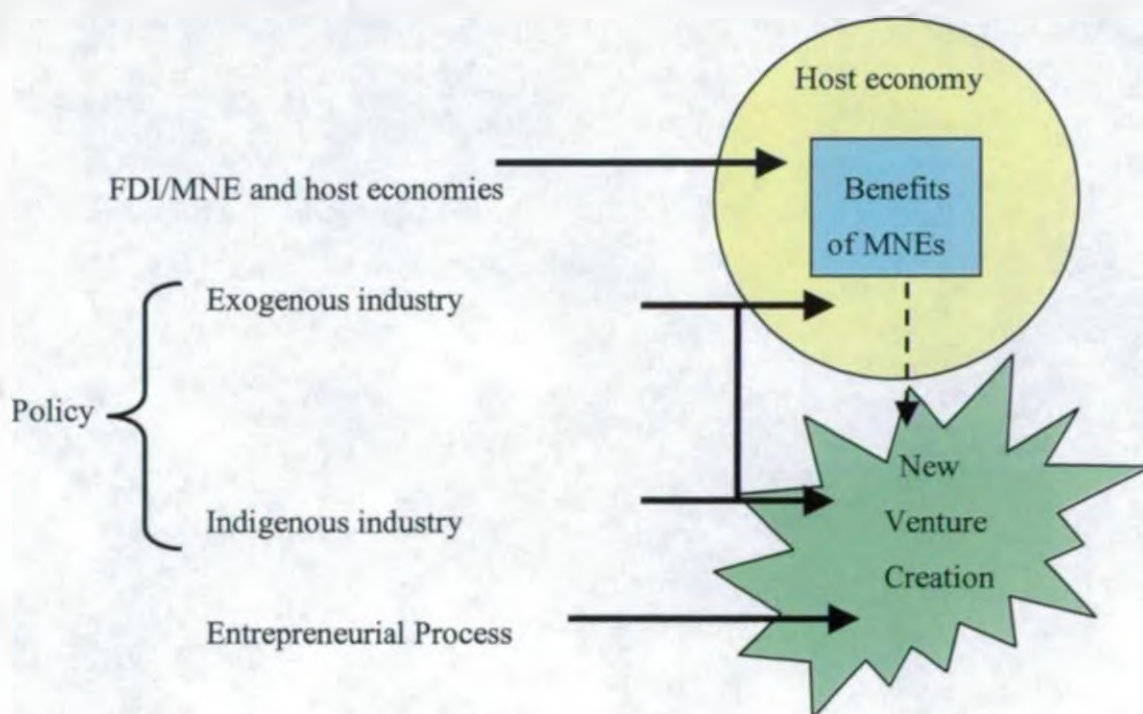


Fig. 2.1 Areas of literature for the current research (Source: Current research)

As shown in Figure 2.1 understanding the whys and nature of the existence of MNEs within a host economy is informed by both literature pertaining to FDI investments and the benefits of MNEs within a host economy, as well as the literature regarding policy and exogenous industry. Literature pertaining to the entrepreneurial process informs us about the nature and essence of new venture creation. And finally policy literature, through the analysis of supports to start-ups, also informs our understanding of the process of new venture creation. As previously stated, these areas of literature have usually focused on specific themes, be it understanding the impact of MNEs within a host region, or governments' policies towards attracting MNEs in order to enhance local economies, or the development of regions through the creation and growth of enterprise, or simply understanding the process of new venture creation. However it, is the bringing of these themes together into one study that will assist us to analyse and understand the direct links between MNEs and new venture creation.

This chapter therefore firstly explores the areas of literature separately, and concludes by drawing key aspects of these areas of literature together to define the research question and explain the contribution of this research to the general body of literature, pertaining to the subject area.

The first section of this chapter reviews what is written about the positive and negative aspects of FDI and MNEs. The section explores the direct and indirect benefits of FDI, outcomes of backward and forward linkages, the fall-out (positive and negative) of plant closures, and the nature of spin-outs/spin-offs from MNEs.

The next section explores the entrepreneurial process, and examines literature that informs the process through which a person becomes, or is identified as, an entrepreneur. The push and pull aspects of entrepreneurship are investigated and the typology of nascent, necessity, opportunity and latent entrepreneurs is also explored and discussed. Also explored in this section is the relationship between new firm formation and MNEs.

The following section examines literature that focuses on policy pertaining to regional development, attracting FDI, and the creation and support of new ventures.

The final section of this chapter draws the key aspects of each of these areas of literature together and demonstrates how the literature informs the research aims and objectives.

2.2 FDI/MNEs and host economies

This section of the literature review explores four key facets of research related to the impact of MNEs on their host regions:

1. It looks at the overall benefits MNEs bring to their host regions,
2. It examines the benefits derived from backward and forward linkages,
3. It explores some of the negative aspects of MNEs by reviewing literature pertaining to plant closures, and finally,
4. It looks at the role of MNEs in relation to the level of spins-offs and spin-outs created by, or derived from MNEs.

Understanding the role and benefits of MNEs in relation to their host regions is important as many developing countries adopt the policy of FDI in order to boost their flagging and underdeveloped economies. For example, in the case of Ireland prior to 1949, it was very much an agrarian and small industry economy, and whereas other economies in Europe were beginning to expand after World War II, Ireland's economy was struggling and continuing to decline further. The general attitude prevailing in the country at that time was that "... an agrarian, static Ireland..... with an idealised 'balance' between agriculture and light industries around the country, looked less and less attractive" (Garvin, 2004, p.170). Thus it was in 1949 that the then government set up a stand-alone economic development agency, the Industrial Development Authority (IDA) to "advise and assist the Government in the intensification of industrial development on the best possible lines" (Garvin, 2004, p.171). But it was not until 1952 that the IDA began to encourage new industrial investments through attracting foreign direct investment (FDI) into the country.

There is strong evidence to suggest that the IDA has been extremely successful in attracting FDI, mainly from the U.S., into Ireland, and that this inward investment has

been essential and integral to Ireland's economic development and set the foundations for Ireland's success as the "Celtic Tiger" (see O'Hearn, 1998; McDonnell, 1992; Sweeney, 1999; Gorg and Strobl, 1999; O'Sullivan, 2000; Ruan and Ugur, 2002; Forfás, 2005a; Walsh, 2005; and Grimes and Colins, 2006). However, even though Ireland's economy was booming, and many attribute the boom years to the benefits derived from successive years of FDI and the attraction of relevant industry sectors at correct times throughout the economic development of the country (Walsh, 2005); there are those that warned of the over-dependence of the economy on FDI and MNEs. For example O'Hearn (1998) asked, "does their (Asian economy) demise in any way foreshadow similar problems for Ireland? Does Ireland have any safety valves against collapse, or are there even factors that might make its collapse deeper or more severe than those of Asia?" (p.157).

In March 2001, the then Tanaiste and Minister for Enterprise, Trade and Employment, Ms. Mary Harney also expressed her concerns about Ireland's dependence on MNEs stating, "obviously a downturn in the American economy has a major impact on the world economy and clearly it would have an impact as well on the Irish economy" (Irish Times, 2001).

Researchers including Ruane and Gorg (1999), and O'Sullivan (2000) attempt to provide a balanced view of the impact of the success of the Celtic Tiger and the role of MNEs vis-à-vis the sustainability of indigenous industry in Ireland. Ruane and Gorg (1999) comment on the positive impact of FDI success and note that because indigenous businesses are prospering through increasing employment and profit rates, in general, there is a reduced concern about the level of dependence on MNEs. However they do suggest, "clearly if Ireland were to suffer a massive outflow of FDI it would be a disaster, given its importance to the economy" (p.84). Similarly O'Sullivan (2000) noted "indigenous enterprises have also enjoyed the fruits of the spillover from the increase in MNE activity in Ireland. To the extent that these factors are predominantly responsible for the growth in the indigenous sector....." (p.282). However, O'Sullivan points out that the likelihood is that the growth may not continue, and if the linkages between the MNEs and indigenous companies have not been of a developmental, learning and sustainable nature then, "if these linkages do not generate

organisational learning processes, they may in the long term create a house of cards if the MNEs contract or pull out” (p.287).

This is merely a summary of the pros and cons of FDI in an Ireland context. However, in order to get a better understanding of the impact of MNEs in their host economies it is necessary to review the issues on a much more global scale.

2.2.1 The basis of FDI

Dicken (2003) explains FDI as:

“‘Direct’ investment is an investment by one firm in another with the intention of gaining a degree of control over that firm’s operations. ‘Foreign’ direct investment is simply direct investment which occurs across national boundaries, that is when a firm from one country buys a controlling investment in a firm in another country or where a firm sets up a branch or subsidiary in another country” (p.51).

FDI therefore is an investment abroad, usually where a foreign corporation controls the company being invested in, or the set-up of a wholly owned subsidiary abroad. In broader terms FDI is the process whereby an organisation owned, and has its headquarters (HQ), in one country invests in facilities and/or processes in another country. Two key elements of FDI considered by this literature review are (i) why do multinational organisations invest, particularly in setting up subsidiary organisations, abroad, and (ii) what are the benefits of FDI to the host region. There are several theories as to how and why multinational organisations invest abroad. But, according to Worth (2005) “ultimately, firms are seeking to maximise their profits, whether by investing abroad or by expanding domestic production and export” (p.78).

Dunning’s (1977) ‘eclectic paradigm’ offers the most comprehensive model for use in understanding why multi-activity firms invest abroad. Dunning’s eclectic paradigm consists of the OLI (Ownership, Location and Internalisation) triad of variables, which

he refers to as a three-legged stool where each leg is supportive of the other and the stool is only functional if the three legs are balanced (Dunning, 1998, p.45). In the eclectic paradigm “O” refers to the Ownership advantage of the organisation such as technology, brands, process, and/or managerial skills; “L” refers to the Location advantage, these are the advantages of the location within which the organisation is choosing to relocate or set up a subsidiary. For example, government incentives could be considered as location advantages. In Ireland’s case, one of these incentives was the 10% tax on profits derived from products manufactured in Ireland. Other incentives might be employment grants and capital grants to the multinational subsidiary, and the ease of repatriation of profits from the host region. Other location advantages are the language spoken by the natives of the host region, and the presence of a large market for the goods and services produced by both the parent organisation and its subsidiary. Finally, the “I” of the eclectic paradigm refers to the Internalisation advantage to the organisation deciding to set up a subsidiary in another market place rather than transferring ownership or licensing manufacture and distribution to a foreign owned organisation. The Internalisation advantage is primarily concerned with reducing transaction and coordination costs, it is the cost of integration into the new location or market, it is also the cost of training and development of staff, and creating a corporate culture among the employees in the new location.

The most common reasons why organisations invest in a country outside of their country of origin have been clearly identified by Lewis (2005) who conducted a comprehensive study as to the factors that influence the levels of FDI into lesser-developed countries, using the World Development Indicator Report. His analysis involved examining 157 countries spread across low-income, middle-income and upper-income categories. The research concluded that the most significant factors that attract FDI into a country are:

- (i) the education of a nation, especially in relation to technological skills and knowledge,
- (ii) the long term economic stability of the host country, as Lewis suggests “by producing long-run economic stability, a country’s government signals to MNEs that it

is capable of producing economic success because it has done so in the past” (p.106), and

- (iii) MNEs are attracted to areas that contain large amounts of people i.e. large urban areas. However these urban areas must have sufficient infrastructure, “an amenity that rural areas lack” (Lewis, 2005, p.106).

Zanatta and Queiroz (2006), based on their comparative analysis of China, India and Brazil in understanding how national policies are significant in attracting MNEs to a region or country, added that MNEs are attracted by a clear, well articulated and consistent set of national policies (p.11).

Because the focus of the research for this thesis is on understanding the direct impact of MNEs on the creation of new enterprises in host regions within Ireland, Ireland will be used here as an example to explain the essence of FDI. At a time when Ireland was planning a much more comprehensive, less restrictive economic policy, and embarking on the process of attracting FDI, Ireland was still very much a non-industrialised, agrarian society, and lacked mass population with significant technical skills. In fact in the late 1950s and early 1960s, many politicians were critical of the need to teach technical skills at second level education (Garvin, 2004). Indeed Ireland was not a large market, and was still declining in population through emigration, throughout the 1950s, 60s, 1970s, and 1980s. But times changed rapidly for Ireland, in the early to mid 1990s, and FDI patterns shifted radically from being simple standardised products (‘screw-driver’ operations), to maturing products and technologies (for example the Intel Pentium IC manufacturing), and Ireland now has the potential to attract higher value-added R&D activity in the areas of new product development (Barry and Bradley, 1997).

Many researchers (Dunning, 1977; Dunning, 1998; Galan and Gonzalez-Benito, 2001; and Gilmore, O’Donnell, Carson and Cummins 2003) have identified the core motivators for FDI as a combination of:

- (i) the realisation on behalf of the investing multinational that it can not only penetrate domestic markets but it can

also gain access to raw materials, diversify its business and rationalise production processes,

- (ii) avoiding trade barriers and transport costs, and
- (iii) overcoming problems and/or market saturation in their country of origin.

In particular, Gilmore et al. (2003) have identified twenty-two motivational factors as to why MNEs invest in building subsidiaries (or having joint-venture collaborations) abroad. Their research was based on surveying senior executives in forty MNEs in Northern Ireland and forty-two MNEs in Bahrain. The motivational priorities obviously differ from country to country, but the top eight motivational factors identified in relation to Northern Ireland (which, in the opinion of this researcher, could just as well apply to the Republic of Ireland also) are:

- (i) the investment (FDI) is a better way to service markets than exporting or licensing,
- (ii) availability of skilled labour,
- (iii) financial incentives,
- (iv) the use of Northern Ireland (or indeed Ireland) as an export base,
- (v) more profitable operations (than exporting or licensing),
- (vi) infrastructure (roads, shipping, health, education, banks, telecommunications, etc),
- (vii) cheap labour, and
- (viii) access to technology (p.205).

Another motivation factor that could be added to this list is what Galan and Gonzalez-Benito (2001) describe as 'cultural affinity' (p.277). In the opinion of the author of this thesis, 'cultural affinity' seems to have played a strong role in attracting U.S. and U.K. owned firms into Ireland.

Thus the evidence provided from previous research indicates that the main motivational reasons why multinationals embark on the process of FDI are:

- (i) To expand market share (through setting up a subsidiary in a large market in order to gain access to that market. However, in the case of Ireland, Ireland itself is a very small market, but having a presence there offers the opportunity to access the vast European market),
- (ii) To increase profitability (through the use of low cost labour, and reducing transport time and the negative effect of trade/tariff barriers), while at the same time protecting their (MNEs') intellectual property (IP) of R&D and manufacturing technologies, practices and processes (through setting up wholly owned subsidiaries and not surrendering their IP and assets to foreign own companies).

Additionally, "the most influential locational advantages for outflows of FDI from the United States are the per capita GDP, the growth rate of GDP, and the market size. This fits with the general observation that most FDI flows to developed countries. FDI not bound for developed countries goes to the few lesser-developed countries (LDCs) with large markets and high growth rates such as China, Mexico and Malaysia" (Worth, 2005, p.80).

In summary, despite what governments may believe or espouse about the benefits of attracting FDI into their countries, and despite the fact that FDI is a form of economic development, the primary reasons why organisations invest in under-developed and developing economies has more to do with the benefits to be gained by that organisation as opposed to that organisation solely supporting development in the host economy. As one researcher, Stevens (1974), suggested the main reason why an organisation sets up a foreign subsidiary is for profit maximisation. Also, as Fiegenbaum and Lavie (2000) suggested, the main reasons MNEs invest in underdeveloped economies (such as China, Latin America and South America) is to gain competitive advantage, to increase market share, and to take advantage of local resources. According to Fiegenbaum and Lavie, MNEs will continue to seek out the most optimum host region benefits to maximise their own profits. In an Ireland context, there is evidence to suggest that U.S. firms "do not invest here (in Ireland) primarily to serve the Irish market but to export to foreign markets" (Ruane and Gorg, 1996, p.67). Or as Driffield, Henry and Love (2006) suggest, "firms will use FDI as a method of entering foreign markets where they possess

some knowledge-based advantage which cannot easily be exploited by some other route” (p.2).

Having said that, host economies can and do derive benefits from FDI into, and MNEs located in, their regions. The next four sub-sections of this chapter explore some of these benefits.

2.2.2 FDI positives and negatives

A considerable amount of research has investigated both the positive and negative impacts of FDI on host economies, but the results, to date, are inconclusive. In fact there are as many proponents of the theory that FDI is positive for developing economies, as there are detractors (for example see Dicken, 1998). This may be the result of researchers viewing FDI from different disciplines, but there are also pro and con arguments within disciplines. For example, economic theorists seem to have a mix of views, those researching spillovers, spin-outs and spin-offs support the positive aspects, and those researching plant closures, and many of those researching issues relating to the growth of indigenous industry, proffer the negative view (Dicken, 1998). As stated by Driffield, Henry and Love (2006), “while much of the early work was based on cross-sectional estimations often at a fairly aggregated level, more recent plant-level panel studies have failed to agree on the existence or extent of spillovers” (p.4).

Throughout the decades many instances have been identified where FDI has been of major benefit to developing economies. For example, in the case of Ireland, it can be seen how setting up the Industrial Development Authority (IDA) to focus on attracting FDI changed the country from being a rural based to an industrial based economy (Sweeney, 1999; Garvin, 2004; and Grimes and Collins, 2006). After World War II, the United States of America and the United Kingdom invested heavily in Germany and Japan in particular in order to rebuild their economies. In current day economic terms, there is a significant amount of FDI taking place in underdeveloped countries such as China, Latin American, South America, and the former Soviet Eastern Bloc countries. Because the main reasons MNEs invest in these countries is to gain competitive advantage, to increase market share, and to take advantage of local resources, MNEs

will continue to seek out the most optimum host region benefits to maximise their own profits (Fiegenbaum and Lavie, 2000).

On the other hand, a major influx of FDI into a national or regional economy may have both strengthening and weakening effects and these may vary over time (Holm, Malmberg and Solvell, 2002). Dicken (1998) illustrated the contested nature of these diverse impacts by stating that MNEs can “either expand national economies or exploit them; they are either a dynamic force in economic development or a distorting influence; they either create jobs or destroy them; they either spread new technology or pre-empt its wider use and so on (...). Virtually every aspect of the MNEs’ operations, economic, political, cultural, has been judged in diametrically opposite ways by its opponents and its proponents” (p.245).

Holm, Malmberg and Solvell (2002) commented on studies on the geography of branch plants by Firm, 1975; Townroe, 1975; Watts, 1981 and Malmberg, 1990 saying that these studies display a rather pessimistic view of the impact of external ownership, and suggested that externally owned/controlled firms were seen to give a smaller contribution to the overall development of a local economy, compared to their indigenous owned counterparts. Holm et al. (2002) stated that foreign ownership can have negative effects for a local economy in that “they make for increased vulnerability since it is easier to close down operations located at a distance from HQ, and that they tend to be geared towards standardised/routinised manufacturing and sales operations rather than explorative types of activities” (p.6). Based on their research, they also suggested that MNEs tend to provide less qualified jobs and give rise to few spin-off-effects.

However Holm et al. (2002) do concede that a body of literature does exist that identifies the positive aspects of FDI, and proposed that some of these positive aspects arise from the fact that MNEs open up increased access to capital, increase the value of local resources, create new job opportunities, give domestic firms access to international markets, and contribute to variety bringing in and transferring new knowledge as regards organisation, management, technology and markets. These positive aspects will be explored in more detail later in this chapter.

Other evidence to date suggests that the benefits of FDI are tenuous and that governments do not pay enough attention to fostering the development of the autonomy of the subsidiary, rather they focus on the quality of affiliate management and the performance of the business, especially its export performance (Taggart and Hood, 1999). Researchers such as O'Hearn (1998) and Feigenbaum and Levie (2000) expressed concerns about, and are critical of, governments' roles in offering monetary enticements to MNEs to locate in their countries. The point being that the monetary enticements do not embed the MNE in the country and if a 'better offer' is proffered by another government the MNE is likely to move location. Feigenbaum and Levie for instance, commented "Intel decides to locate its new production facilities mostly according to the investment conditions that hosting governments offer.....there were cases in which Intel decided to move its facilities to another country after a hosting government had decided to reduce investment grants and tax benefits" (p.95). This scenario of government incentives to attract MNEs combined with the lack of embeddedness of MNEs has the positive impact of providing jobs on the one hand and the negative impact of shedding jobs on the other, sometimes in a short period of time. An example, based on this researcher's experience and personal observation, which demonstrates this is the situation when Seagate Technologies set up a plant in Clonmel, Ireland in the mid-90s. It created as many as 2,000 jobs in less than twelve months. But less than six months after the 'official opening' of the facility, the company had moved its entire Clonmel operation to China – the lifespan of the subsidiary in Clonmel was a mere eighteen months.

Proponents of the view that FDI has a positive impact on host economies are mostly those researchers who have focused on spillovers. These include Markusen and Venables (1999), Fosfuri, Motta, Ronde (2001), Girma and Wakelin (2001), and Kugler (2002) who suggest that spillover can occur in a number of ways including:

- (i) Backward and forward linkages between MNEs and indigenous organisations;
- (ii) MNEs may increase indigenous companies' productivity through 'demonstration effects' (Fosfuri et al., 2001);
- (iii) The imitation of MNEs' practices and technologies by indigenous organisations; for example, higher levels of pay

and terms and conditions of employment means that indigenous organisation need to 'up their ante' in order to retain key staff;

- (iv) Through the MNEs' extensive training of their staff, which transfers into explicit and tacit knowledge transfer.

Fosfori et al. (2001) stated that spillovers from FDI can take two forms – technological spillovers arise when a trained employee of an MNE is employed by an indigenous organisation, and pecuniary spillovers arise when the MNE pays the employee a higher wage preventing him/her from moving to a local competitor (p.207). Girma and Wakelin (2001), based on their research on the electronics industry sector in the UK, using the UK Annual Business Inquiry Respondents Database (ARD), which takes a stratified sample of 14,000 to 19,000 organisations every year, found that positive spillovers do occur from foreign firms. However, they indicated that these positive spillovers are limited to the region within which the MNE is located, and that developed regions are more likely to have more and better positive spillovers than underdeveloped regions (even within the same country).

Kugler's (2002) research, based on manufacturing industries in Columbia using the Columbian Manufacturing Census (1974 – 1998) and the Columbian Central Bank records of MNEs engaging in FDI activity in Columbia during the same period of time, also concluded that positive spillover occurs from FDI, but that the impact of FDI depends on the characteristics of the sectors in which the MNE operates. He stated that inward investment has the potential to be an engine of growth if it goes to leading sectors, "even if the foreign investment does not generate technological externalities, it can promote the sectors that constitute the engine of growth through upstream input demand" (p.31). However, not only do existing upstream indigenous companies benefit but it is also an opportunity that new enterprises may provide goods and services that were not supplied in the host region prior to the existence of the MNE in that region. FDI tends to foster specialisation by local suppliers. Therefore MNEs can induce local availability of new intermediate services and inputs, and thereby a nexus between FDI penetration and growth in the productivity of downstream manufacturers (Markusen and Venables, 1999).

2.2.3 Spillovers from MNEs into the host region

Andreosso-O'Callaghan (2000) stated that the policy of 'industrialisation-by-invitation' promoted by the Irish government since the late 1950s has helped to establish a technological base in a traditionally agrarian economy. She also points out that while the economies of Eastern Asia have been able to absorb and exploit large inflows of technology into their industrial structure, Ireland has failed to do this comprehensively and successfully.

Spillover is not just the purchase of goods and services within the host region, but the purchase of goods and services from organisations within the host region that meet certain standards, standards that are set by the MNEs and applicable to all suppliers to multinational organisations. In order for companies to achieve these standards, they often have to change and/or improve their business management practices, and their manufacturing and delivery processes – it is this upgrading of management, processes and quality that is one of the most common forms of positive spillover from an MNE to its host region. This type of spillover (or backward linkage) falls into the category of technological spillover.

In an Ireland context, this spillover was facilitated through the National Linkage Programme set up in the mid-1980s. In 1998, Ireland's Minister for Science and Technology and Commerce declared the importance of the National Linkage Programme by stating:

“Enterprise Ireland manages the National Linkage Programme, which plays a key role in encouraging and fostering supplier relationships and is facilitating the development of a substantial network of sub-supply and service companies. The National Linkage Programme helps maximise the amount of raw materials, components and services sourced in Ireland by multinationals and other major purchasers. The programme

objectives are to increase the level of business to business linkages, expand the number of sub-supply companies, support linkages and networks between Irish sub-supply companies and major customers based in Ireland and overseas, and develop the scale, capability and exports of the Irish sub-supply sector” (Noel Tracey, T.D., Minister for Science and Technology and Commerce, 1998).

It is often considered that backward linkages to indigenous firms are one of the main ways in which benefits from inward investment filter through to the host region (Turok, 1993b). Turok’s (1993a) research into the development of the printed circuit board (pcb¹) industry in Scotland also supports this argument. Turok (1993a) maintained that the significant growth of the pcb industry in the 1990s was a direct result of the level of MNE customers in that region and states “demanding local customers have encouraged several pcb firms to improve their product performance, which has provided the basis to expand into wider geographical markets” (p.1800), and that some sub-contractors have grown rapidly to employ hundreds of people (Turok, 1993b, p.415).

However, when MNEs began to get into market difficulties, the subcontractors that were serving them got into serious trading difficulties, demonstrating that the links with indigenous suppliers corresponded with the dependent model rather than the development scenario (Turok, 1993b; and O’Sullivan, 2000). According to O’Sullivan (2000)

“from a developmental perspective a critical reason why linkages are so important is because they potentially provide a basis on which indigenous capabilities can be improved over time. On the strength of these linkages, indigenous enterprises may be able to learn how to develop collective and cumulative learning processes that allow them to compete in more and more complex activities and ultimately go beyond their dependency on the

¹ Printed Circuit Boards (PCBs) are used in the electronics industry to mechanically support and electrically connect electronic components using conductive pathways etched from copper sheets laminated onto a non-conductive substrate

MNEs that they supply.....If these linkages do not generate organisational learning processes, however, they may in the long term create a house of cards if the MNEs contract or pull out” (p.287).

In summary, the dependant model is when the indigenous enterprise depends on the MNE for its existence, in economic terms, with little to no transfer of knowledge or know-how. On the other hand, the development model is where the indigenous enterprise gains not only financially from the MNE but also that it gains through process, technology, and knowledge transfer from the MNE (O’Sullivan, 2000).

However, even though there is evidence to suggest that MNEs purchase quantities of goods and services within the host region, the nature of these purchases is still not clear. For example, the amounts of goods and services purchased by MNEs in Ireland doubled in value from 10% to 20% between 1987 and 1990 (O’Sullivan, 2000), but unfortunately the content and context of these purchases is not clear. It is not clearly known what percentage of these purchases is from subsidiaries of MNEs. Nor are the value-added level or technical content of these purchases known. For example, it is not known what proportion of these purchases are services such as utilities, cleaning, canteen services, security, and so on, as opposed to products and intellectual property manufactured and generated in Ireland. In other words, it is not clear exactly to what extent “foreign multinationals create linkages with the host economy or whether they operate in the so-called “enclave sector” with no links to the domestic economy that surrounds it” (Gorg and Ruane 1998, p.2).

The enclave concept refers to a situation in which MNEs may provide relatively high levels of direct employment but where the degree of integration with the local economy remains limited (Lovering, 1999). Gorg and Ruane’s (1998) research into the linkages between MNEs in the electronics sector and indigenous firms concludes that foreign firms have fewer backward linkages than their indigenous counterparts, and that large firms and growing firms have fewer linkages than other firms. According to Phelps, Mackinnon, Stone and Braidford (2003), this scenario appears to be similar to what is happening in Wales and North East England. They found that their survey results “demonstrated that levels of local sourcing remain low, collaborative R&D linkages are

limited in scope, and relationships with organisations and firms within the regions are of minor importance in attracting further investments” (p.37). Equally, Crone (2002) concludes in his research that, in general, it is not common for MNEs in the UK regions to form extensive material-input linkages with their immediate host region.

Previous research literature demonstrates that the degree to which MNEs purchase from local indigenous suppliers is very much directed by:

- (i) the behaviour of the MNE subsidiary being geared toward the enterprise of which it is a part (Dunning 1974),
- (ii) the sourcing strategies of MNEs (Crone, 2002),
- (iii) the MNE corporate filter (Crone and Watts, 2002), and
- (iv) the fact that increases in local sourcing goes against global trends which see the continued growth of large multi-locational firms with global operations, operations which promote non-regional sourcing at the expense of regional sourcing (Crone and Watts, 2002).

Apart from the purchase of goods from indigenous enterprises, there are many other aspects of spillover that can be achieved through the degree of embeddedness of an MNE within a host region. Brand, Hill and Munday (2000) support Hirschmann’s (1958) view that embeddedness is multi-faceted, and that backward linkages are an important measure of embeddedness from an economic development perspective, but only one of the facets. According to (Fosfuri, Motta, Ronde, 2001; Girma and Wakelin, 2001; and Kugler, 2002) other facets of spillover are the pecuniary, technological, and skills transfer.

Brand, Hill and Munday (2000) also stress that backward linkages potentially form a foundation for the transmission of new knowledge, in terms of products and processes and new management ideas. Thus, as Barrow and Hall (1995) did in their research, considering the qualitative aspects of FDI is a very important when considering the effects of MNEs on their host economies and their (the MNEs’) degree of embeddedness. Barrow and Hall (1995) judged that the impact (of MNEs) has been beneficial (p.652). They categorise the positive impact under two sets of effects:

1. The diffusion of skills, expertise, technology and business practice to other businesses, local governmental agencies, sectors of the labour force, and/or the community at large, and
2. The contributions to the overall economic evolution and development of the locality, including improving/lobbying for improvement in local infrastructure, improving the image of the locality in the eyes of outsiders, and improving the morale and general business confidence. (p. 648)

In an Ireland context there are a limited number of research papers that indicates there is a direct link between the presence of MNEs and new venture creation. The most notable of these is that of McKeown, Henry, Johnston and Sands (2004). The focus of their research was an examination of MNEs as catalysts for innovation and growth among indigenous software companies. They selected ten indigenous businesses and ten MNEs for their research. In their conclusions they stated, “three of the ten SMEs surveyed were established as a direct result of an MNEs presence, i.e. as corporate spin-offs” (p.18). Later in the same paper they said “the majority of the SME founders had multinational backgrounds and rated this, along with the range of skills they gained, as being very important to their company” (p.19). Thus their research suggests that multinational corporations can be creators of innovation across national boundaries (Cantwell and Lammarino, 1998). However, McKeown et al.’s (2004) research did not establish that there was a direct link between the indigenous companies and the MNEs surveyed/interviewed.

This current research into the impact of MNEs on the level of new enterprise creation considers to what extent the embeddedness of MNEs has an impact on the generation of new indigenous enterprises. However, a significant influence on the generation of new enterprises in the MNEs’ host regions may be the level of autonomy an MNE subsidiary possesses (see 2.2.5).

2.2.4 Positive and negative effects of plant closures and the closure process

The downsizing and closure of MNEs is another aspect of the impact MNEs have on their host regions that needs to be reviewed as part of this current research. Even though plant closures overall have a devastating effect on local economies, there can also be positive effects to an MNE facility closing its operations in a host region. For example, in the aftermath of a plant closure, the local economy does suffer from the negative multipliers generated by irregular and insecure work and reduced incomes (Tomaney, Pike and Cornford, 1999). However, in contrast to this, the closure can release valuable skills and resources to the labour market, and, in some cases, generate new business ventures.

According to O'Farrell and Crouchley (1983), plant closures are a natural feature of the economy and a means by which resources are released for growth in more productive sectors and regions. For instance, in the case of the Swan Hunter closure on Tyneside in 1993, "one of the firm's key assets, the design team, discovered substantial demand for its skills" (Tomaney, Pike and Cornford, 1999, p.410). Another positive effect of plant closures is that when faced with the prospect of unemployment or having to uproot the family from what may have been their only domicile, a redundant employee may choose self-employment instead of unemployment. Parson and Walsh (1999) state that generally people will look for self-employment instead of under-employment or unemployment. Apart from these references, this researcher has not identified further relevant material that discusses the positive aspects of plant closures. Some researchers may argue that the positive aspect of plant closures is covered by literature discussing spillover, however in the spillover literature, there are no direct links made between plant closures and spillover of technology and skills into the host region.

The majority of the literature pertaining to plant closures is based on the negative aspects of the displacement of labour, the shattering of jobs, financial security and vision of the future (Norris, 2003); a mistrust in the reliance on MNEs as the "centre-piece of the region's economic development strategy" (Pike, 1999, p.568); and the risk of unemployment (Fieldhouse, 1996; Tomaney, Pike and Cornford, 1999).

Other research on plant closures has focused on the factors leading to plant closure. Factors such as labour issues, outdated production facilities, low technological base, distance from parent organisation, lack of use of sophisticated equipment, technologies and processes (Kirkham and Watts, 1998; Kirkham, Richbell and Watts, 1999; and Colombo and Delmastro, 2001). Other factors including cutting costs in order to maintain or raise profits are also cited (Watts, 1991), and plants that close as a by-product of a company's decision on the location of a new investment are also discussed (Richbell and Watts, 2000).

Another facet of plant closures that may have an influence on new venture creation may be the factors that have had an impact on the plant's closure in the first place. Harris and Hassaszadeh (2002), based on their research into the impact of plant ownership and ownership change in the UK as a factor for plant closure, point out that foreign owned plants are nearly 50% more likely to close once they have been in operation for over ten years. They also noted that single enterprise plants are less likely to close than multi-plant firms. In fact multi-plant firms prefer to close a plant rather than spreading the reduction in capacity across all plants belonging to a given enterprise.

One of the most significant influences on the decision to close a plant is its distance from the corporate HQ, the location where the closure decision is normally made (Watts, 1991; Kirkham and Watts, 1998; Watts and Kirkham, 1999; Kirkham, Richbell and Watts, 1999; and Richbell and Watts, 2000). According to these researchers, the further the distance the greater the likelihood the plant may close. As Richbell and Watts (2000) asserted "it is always easier to cut back abroad than at home" (p. 85).

These observations link into the discussions, following this section, on autonomy and embeddedness. The evidence suggests that no matter how much a host government, regional authorities or employees feel that the MNE is embedded within the host region, nor how much they feel that they have a say in the process, ultimately the decision for closure will be taken at the 'home country' HQ. As Kirkham and Watts (1998) explained, following their research on 33 UK firms that made a decision to have selective closures (of facilities in the UK) during the 1990s,

“the nature of the decision-making process makes clear that this is very much a top-down decision. In just over half the cases, branch management was not involved in the closure decision; about one quarter were consulted; and a further quarter had some degree of participation in the closure decision itself.....Where branch management was involved, it was often to input information for the decision or to assist in carrying out the closure once the decision had been made” (p.1566).

Distance from HQ is not the only factor influencing closure decisions. Other significant factors include labour relations, labour productivity, outdated production facilities, low technical sophistication of the facility, limited space for expansion and high local taxes (Kirkham, Richbell and Watts, 1999).

There is also evidence to suggest that host communities that are very dependent on an MNE in their areas are less likely to have the plant closed than those communities that have a policy of diversification and reduction of community dependence on a particular plant (Watts and Kirkham, 1999). This research was based on 97 firms that closed their facilities in the UK during the late 1980s and covered a range of medium to large enterprises, a mix of UK-owned and MNE firms. Also, the sample was taken across various industry sectors. On the other hand, Pike (1999) suggested that a community that is reliant upon inward investment, as the centrepiece of its region’s economic development strategy, will always be waiting for the ‘inevitable’ day of plant closure.

Holm, Malmberg and Solvell (2002) in their research on the impact of MNEs on local clusters in Sweden stated,

“a common argument stating that foreign ownership can have negative effects for a local economy is that they make for increased vulnerability since it is easier to close down operations located at a distance from corporate HQ, and that they tend to be geared towards standardised/routinised manufacturing and sales operations rather than explorative types of activity, since external control is easier to exert on the previous type of operations.

Furthermore, foreign-owned firms have been argued to create less qualified jobs (mainly as a consequence of the argument above), and to give rise to fewer economic spin-off-effects and since they are less embedded in the local milieu” (p.5).

The results of their research support this statement in the sense that, based on the responses from 530 subsidiary managers in Sweden, they concluded that the more dynamic the local subsidiary business, the more resources and capabilities it (the subsidiary) will build up, and the more autonomy the subsidiary will receive to make its own strategic decisions, thus the “potential negative effects of foreign ownership identified in the literature are less likely to materialise” (p.25). However they do point out that the reverse is also true i.e. the less dynamic the local subsidiary business the more control exists at HQ, the more vulnerable the subsidiary. This is an interesting point for the current research in that it could be construed that the more dynamic the local business, the more autonomy it has and therefore the less likely it is to generate spin-offs or spin-outs, as employees are more likely to stay with a growing, sustainable, dynamic business rather than engage in the high risks of self-employment.

2.2.5 Autonomy of MNE subsidiaries and new venture creation

In this subsection of the Literature Review the researcher examines the impact a subsidiary MNE’s autonomy may have on new venture creation. The degree to which MNE subsidiaries get involved with local sourcing and/or the degree to which they become embedded in their host regions will be inextricably linked to the degree of autonomy the subsidiary is permitted to have by its parent company. The level of autonomy will be very much influenced by the *subsidiary mandate* the MNE headquarters (HQ) permits the subsidiary to have and on the level of control of the MNE HQ over its subsidiaries (Zahra, Dharwadkar and George, 2000; and Holm, Malmberg and Solvell, 2002). In other words, it depends on the actual level of autonomy the subsidiary really has as opposed to the amount of autonomy it thinks it has.

Picard (1978) defines autonomy as the power or right to self-management. However, in his longitudinal research, based on 72 respondent companies, examining centralisation and autonomy in international marketing decision-making of US MNEs located in Europe between 1973 and 1993, Picard (1997) pointed out that there are varying degrees of autonomy exercised by MNE HQs. For instance, he found that the EU (European Union) regional headquarters of US multinationals had autonomy over advertising, promotion and pricing decisions, while at the same time the US headquarters remained in control over the product related decisions. Contrary to this, however, Picard concluded, “these results suggest that, when the percentage of products produced in the European Union increases, there is a decreasing number of U.S. MNEs for which product and distribution decisions are made in the United States. Similarly, under those circumstances, there are a higher number of enterprises in which local subsidiaries dominate pricing and distribution decisions, and in which local subsidiaries or regional headquarters dominate product decisions” (p.10).

Kugler (2002) identified in his research that,

“indeed, most recent empirical studies have found that local producers fare badly in the aftermath of FDI in their own sector. The result is not surprising if we take into account that the MNE requires incipient monopoly power to recover its sunk investment and will, thus, avoid strong competition. In equilibrium, the sectoral pattern of FDI is likely to feature concentration in industries where local firms in the subsidiary’s own industry have limited *absorptive capacity* to adopt advanced techniques that could be imitated given the proximity of the MNE operation. As FDI is targeted to sectors in which the domestic competitive fringe is restricted by the scarcity of specific human capital and by limited access to equipment and machinery embodying frontier technology, *intra-industry* spillovers to domestic producers are unlikely even if MNE affiliates deploy novel techniques” (p.3).

Thus, this fear of competition may lead MNE HQs to be restrictive or selective in the degree of autonomy they allow their subsidiaries exercise. Contrary to this, MNEs do recognise the contribution their subsidiaries can provide, through their cultural diversity, innovation, and knowledge of local market dynamics, a significant positive impact on their (MNEs') global performance (Zahra, Dharwadkar and George, 2000).

Also there are times when it is beneficial to the MNE HQ to allow the subsidiary more autonomy in decisions as regards local sourcing, especially if there are cost opportunities (for MNE corporate) involved, or where there are low levels of absorptive capacity required, or where outsourcing of services or products is profitable to the subsidiary. In these cases MNE management will encourage knowledge sharing within the subsidiary and with suppliers to the subsidiaries (Kugler, 1982). However, in Ireland's case, Lyons and McCloughan (1998) stated that "thus Ireland, with its limited base of indigenous manufacturers in high-tech industries, may be seen as less threatening than other more developed locations. The possibility of know-how staying proprietary is relatively high in Ireland compared to other EU countries" (p.110).

Having discussed reasons why MNEs may wish to keep a tight control on their subsidiaries and limit their mandate, it must be pointed out that some MNE HQs have encouraged their subsidiaries to be more proactive in their operations, and in reaching the market with innovations well ahead of their competitors. For example, Philips' subsidiary in Canada created the company's first colour TV; Philips of Australia created the first stereo TV; and Philips of the UK created the first TV with teletext capabilities. Philips' headquarters encouraged innovation in their subsidiaries and later leveraged them for the global network (Lightfoot, 1992).

However, Zahra, Dharwadkar and George (2000) pointed out that other subsidiaries have been less able to engage in entrepreneurial activities or have been constrained in their efforts by corporate headquarters' controls. For instance, Beckton Dickinson's Japanese subsidiary required approval to develop a specific type of medical equipment to satisfy local market needs but their HQ was unwilling to support such local innovative activities. Zahra, Dharwadkar and George, (2000) further suggested that when subsidiary managers have more autonomy from their parent MNE, they are better

empowered to support entrepreneurship within their organisations (this is also classified as intrapreneurship).

“These managers have incentives to encourage and support entrepreneurship to strengthen their subsidiary's track record and accomplishments, further increasing its potential bargaining power with its parent MNE. Successful entrepreneurship can also improve the subsidiary's reputation, thereby increasing the professional standing of subsidiary managers. Entrepreneurship can also safeguard against the potential loss of the subsidiary's global mandate” (p.24).

Whereas the author of this research agrees with some of the sentiment expressed by Zahra et al., he also supports Roth and Morrison's (1992) comment that even with a global mandate, the subsidiary does not have complete autonomy from the MNE HQ. This support is based on this researcher's experience with MNEs that were leaders in technology development, design and plant efficiencies, but when corporate rationalisation needed to occur, it was the successful plants that were closed in order to 'keep jobs alive' in the MNE's home country.

However it may be contended that the level of entrepreneurship (intrapreneurship) existing within the subsidiary may contribute to the level of new enterprise creation within the MNE's subsidiary host region. This would seem to be the case for Digital Equipment International (Digital) when operating their two manufacturing facilities in Ireland (from 1972 to 1993 in Galway, and from 1979 to 1992 in Clonmel). Digital was considered to be a creative, innovative environment with state of the art manufacturing technologies, processes and systems. Both facilities also housed R&D centres, one for network communications products, the other for very large-scale integrated circuits (VLSI). When these facilities closed in the early 1990s, ex-employees created twelve new enterprises in the high-tech, high-value-add industry sectors. This 'wealth' of new venture creation may have been as a result of the level of autonomy and entrepreneurial activity of both facilities. However, regardless of the level of autonomy and entrepreneurial activity and the contribution of the two Ireland subsidiaries to the profit

maximisation for Digital corporation world wide, it was corporate HQ, in the US, that made the decision to close both facilities.

Taggart and Hood (1999) suggested, based on their research on the determinants of autonomy in MNE subsidiaries, that there is a tenuous link between high autonomy and affiliate longevity, however their results appear to be inconclusive. Taggart and Hood used a database comprising of German and Japanese subsidiaries operating in the UK and Ireland. Their sample included 268 German manufacturing facilities in the UK, and 141 in Ireland; the Japanese subsidiaries consisted of 230 in the UK and 86 in Ireland. Their results suggest that there was a greater focus on successful product transfer (between subsidiary and parent or other subsidiary) rather than building up autonomy. From their research they indicated that “from an economic development perspective the desired position of subsidiary autonomy is readily identified, in that high-autonomy firms are much more export-oriented and carry out significantly more complex R&D locally” (p.234). Based on general research into autonomy, an untested extrapolation of Taggart and Hood’s findings suggests that the more export-oriented the subsidiary is and more complex the R&D activity in the subsidiary, the less likely it is to close.

However, it is also not clear if autonomy or longevity leads to new enterprise creation. In fact the opposite may be true, that is if management enjoy high degrees of autonomy and are ‘assured’ of longevity within an organisation, then they are probably less likely to leave ‘safe employment’ to take up the risks and uncertainties of self-employment. Coupled to this is the added complexity that the more autonomous the senior management team is in the MNE subsidiary, the more likely the “...behaviour of affiliates of multinational enterprises is geared not to meeting their own objectives (which may be very similar to those of indigenous companies), but to the enterprise of which they are part (which may be very different)” (Dunning, 1974, p.364). Therefore they are probably less likely to leave the MNE.

The next section of this chapter explores literature pertaining to the entrepreneurial process. It also examines both the push and pull aspects of entrepreneurship and discusses the typology of nascent, necessity, opportunity and latent entrepreneurs. Finally, the section explores for links between new firm formation and MNEs.

2.3 The entrepreneurial (and start-up) process

Conceptualising entrepreneurship as a process represents a major advance in our understanding of entrepreneurial activity (Morris, Kuratko, and Schindehutte, 2005). The purpose of this section of the literature review is to give a general overview as to why some people start their own business. In particular, this section will look at the reasons, and the motivational factors that influence people to start their own businesses.

The focus of this current research, however, is to identify the extent to which MNEs have a direct impact on the level of new indigenous enterprises creation. Therefore this section of the literature review will not be exploring the essence of entrepreneurship, the psychological characteristics or traits of entrepreneurs, nor will it explore the antecedents of entrepreneurship in detail. Rather, this research focus on the direct links between founders of new enterprises and MNEs

There are a number of ways in which there might be a direct link between the founder of a new company and an MNE. These are:

- The founder may have worked for an MNE for a number of years and having gained enough experience decided to leave the MNE of his/her own volition to start a business,
- The founder, while working with an MNE may have seen an opportunity to provide a product or service to the MNE, and then decided to leave of his/her own volition to start a business to supply that product/service,
- The founder may have started a business as a result of the MNE deciding to 'out source' a service(s) from their organisation/process,
- The founder may have started a business because he/she was made redundant (received a redundancy package), let go (no redundancy package), or fired from an MNE, and/or
- The founder may have seen an opportunity to provide a product or service, which never existed in the host region before, to a

MNE. Providing this product or service to the MNE may be the founder's only link with an MNE because he/she never worked with an MNE before founding the business.

Cooper (1981), in his paper examining the strategic management aspects of new ventures and small businesses in the United States, suggested that the decision to start one's own business (no matter what the reason is) is a strategic decision in its own right. He continued "the decision to found a new firm seems to be influenced by three broad factors. They are:

- (1) the entrepreneur, including the many aspects of his background which affect his motivations, his perceptions, and his skills and knowledge;
- (2) the organisation for which the entrepreneur had previously been working, whose characteristics influence the nature of new firms, as well as the likelihood of spin-offs; and
- (3) various environmental factors external to the individual and his organisation, which make the climate more or less favourable to starting a new firm" (p.40)

However, as Segal, Borgia, and Schoenfeld (2005) in their research to understand the motivation to become an entrepreneur expressed, "logically, there is no reason to expect a direct relationship between (these) external forces and entrepreneurial activity. For example, job displacement may be a triggering event leading to entrepreneurship. However, displaced workers will not pursue this career unless there is a more direct, process-oriented linkage. Although external forces may provide a more conducive environment supporting entrepreneurship, it may be just as likely that other career options may be pursued" (p.44).

2.3.1 Entrepreneurial types

Entrepreneur is the term that is generally used to classify a person who starts his or her own business. However, there are many definitions of what exactly an entrepreneur is, and of describing what an entrepreneur does. Researchers and business writers define and describe entrepreneurs from their own experiences and perspectives. In this way,

the entrepreneur is like the elusive, fictional animal in Winnie the Pooh – the heffalump (Kilby, 1971). Two dichotomous definitions of entrepreneurship are those from Schumpeter (1934) and Kirzner (1973). Schumpeter described the entrepreneur as a special person, as an innovator. For Schumpeter, only certain extraordinary people have the ability to be entrepreneurs and they bring about extraordinary events (Deakins and Freel, 2003). Kirzner, on the other hand, sees the entrepreneur as a person who takes advantage of market conditions. For Kirzner, the entrepreneur is someone who is alert to profitable opportunities for exchange. Recognising the possibilities for exchange enables the entrepreneur to benefit by acting as a ‘middleman’ who facilitates the exchange (Deakins and Freel, 2003).

From the plethora of definitions that exists for entrepreneurs, Skuras and Stathopoulou (2000) cite Herbert and Link (1988) who distilled twelve main roles of entrepreneurs. These twelve roles and the associated researchers are tabulated in Table 2.1.

Roles of entrepreneurs	Researchers
The entrepreneur is the person who assumes the risk associated with uncertainty	Cantillon, Thunen, Mill, Hawley, Koight, Mises, Cole, Shakle
The entrepreneur is an innovator	Baudeau, Bentham, Thunen, Schmoller, Sombart, Weber, Schumpeter
The entrepreneur is an industrial leader	Say, Sain-Simon, Amasa Walker, Francis Walker, Marshall, Wieser., Sombart, Weber, Schumpeter
The entrepreneur is an organiser and coordinator of economic resources	Say, Walras, Wieser, Schmoller, Sombart, Weber, Clark, Davenport, Schumpeter, Coase
The entrepreneur is an employer of factors of production	Amasa Walker, Francis Walker, Wieser, Keynes
The entrepreneur is an arbitrageur	Cantillon, Walras, Kirzner
The entrepreneur is the person who supplies financial capital	Smith, Turgot, Pigou, Mises
The entrepreneur is a decision-maker	Cantillon, Menger, Marshall, Wieser, Amasa Walker, Francis Walker, Keynes, Mises, Shakle, Cole, Schultz
The entrepreneur is a manager or superintendent	Say, Mill, Marshall, Menger
The entrepreneur is the owner of the enterprise	Quesnay, Wieser, Pigou, Hawley
The entrepreneur is a contractor	Bentham
The entrepreneur is an allocator of resources among alternative uses	Cantillon, Kirzner, Schultz

Table 2.1 Role of entrepreneurs categorised by researcher (Source: Skuras and Stahopoulou, 2000)

Additionally researchers, up until recently, have described three types of entrepreneur:

- (i) the nascent entrepreneur (a person who is considering a career as a self-employed person, but has not yet started the process of setting up the business or becoming self-employed),
- (ii) the necessity entrepreneur (a person that feels they have no other career choice except to start up their own business), and
- (iii) the opportunity entrepreneur (a person that sees an opportunity to provide a product/service to customers, and therefore starts his/her own business to supply this product/service).

The terms 'necessity' and 'opportunity' entrepreneur are derivatives of Gilad and Levine's (1986) 'push/pull' theory. Where the 'push' theory suggests that individuals are pushed into entrepreneurship by negative external forces such as job dissatisfaction, loss of job, difficulty finding employment, insufficient salary, or inflexible work schedule. On the other hand, their 'pull' theory suggests that individuals are attracted towards entrepreneurship because of its promise of independence, self-fulfilment, wealth, and control.

Then again, whether entrepreneurs can be neatly classified into these two distinct categories is still not clear. For example, a person who is made redundant from a job may chose to start his/her own business suggesting that they have been 'pushed' into entrepreneurship. However, even without the prospect of securing another job this person may not start their new venture if they are not attracted to it to some degree. So whether the 'push' and 'pull' theories are dichotomous or not still needs further research and debate.

It is only within the last five years or so that another entrepreneurial personality type has emerged in this field of research – the latent entrepreneur. There are many different interpretations of what constitutes a *latent entrepreneur*. One of those definitions is derived from a clinical viewpoint and is proffered by Gilbertson (2003) in her article suggesting that ADHD (Attention Deficit Hyperactivity Disorder) should instead be called 'Latent Entrepreneur Personality Type'. In her article, Gilbertson parallels the

characteristics of an ADHD child to those of an entrepreneur, including an insatiable curiosity, bored by mundane tasks but enthusiastic to explore new ideas, adaptability, learning as they go to overcome difficulties, intense bursts of energy, and impatient for early results. In the opinion of author of this thesis, these words also describe entrepreneurs and the use of the word 'latent' in this case suggests that the person does not yet have the 'capital', i.e. age and resources, to be an entrepreneur.

Other researchers including Blanchflower, Oswald, and Stutzer (2001), and Grilo and Irigoyen (2005), have also studied latent entrepreneurship by asking the question 'Suppose you (were working and) could choose between different kinds of jobs. Which would you prefer: being an employee, or being self-employed?' Both sets of researchers agree that this hypothetical question is fraught with limitations, however the data they have produced suggest that there are large proportions of populations across Europe who wish they were entrepreneurs but as of yet they have done nothing about it.

Blanchflower et al. (2001), based their study on a sample size of approximately 25,000 individuals across 23 countries found that in the UK 45% of their sample population said they would prefer to be self-employed. Blanchflower et al. did not include Ireland in their list of 23 countries. Grilo and Irigoyen (2005), based on their sample of 8,500 individuals across fifteen EU member states, found that in the UK, almost 50% of the sample population would prefer to be self-employed. Grilo and Irigoyen, in the same research, identified that in Ireland approximately 64% of the sample population would prefer to be self-employed. Unfortunately though, the overall figures in Grilo and Irigoyen's research are not clearly presented.

This debate on 'latent entrepreneurship' is important to this current research because it is one of the suppositions of the research that latent entrepreneurs do in fact exist. It is envisaged that this research may identify the existence of latent entrepreneurs in a more tangible way. This aspect of entrepreneurship is discussed in more detail later in Chapter 5, section 5.2.

2.3.2 Motivation to become an entrepreneur

Kolvereid (1996) suggested that the reasons potential entrepreneurs offer for getting into business should have a significant influence on whether they actually engage in entrepreneurial activity or not. Cambell (1992) posited that entrepreneurship is an aversive career choice where one is faced with everyday situations that are fraught with uncertainty, blockages, failures, and frustrations associated with the process of new firm creation. With this negative scenario in mind, why would anybody consider entrepreneurship as a career choice?

However, Gartner, Shaver, and Gatewood (2000), who, in their research to understand the motivational differences of career choice between nascent entrepreneurs and non-entrepreneurs (those seeking to work for employers), surveyed 368 nascent entrepreneurs and 171 non-entrepreneurs. The nascent entrepreneurs offered reasons for starting businesses that are similar to reasons offered by non-entrepreneurs for choosing jobs, namely, financial success and personal growth. Gartner et al. stated that business start-up or 'a job in an organisation' are both pathways to meeting the same goal. They uphold the validity of their findings by stating that "reasons offered for getting into business are prospective, rather than retrospective" (p. 9). In fact, they continue "because these findings are based on prospective reasons, rather than retrospective reasons, we believe that the results of this study should take precedence over any previous studies where retrospective reasons for start-up have been offered. In short, the stereotype of the highly independent, financially-driven, risk seeking entrepreneur may be nothing more than a distillation of the retrospective stories that entrepreneurs have told researchers in the past" (pps.9 and 10).

In contrast, researchers such as Segal, Borgia and Schonfeld (2005) stated "being an entrepreneur, one who is self-employed, and who starts, organises, manages and assumes responsibility for a business, offers a personal challenge that many individuals prefer over being an employee working for someone else" (p.42). However, they do recognise that "not all people viewing themselves as efficacious, and seeing self-employment as a path to acquiring desirable outcomes, intend to become self-employed" (p.47).

Based on their research into previous work completed by other researchers, Segal et al. (2005) proposed a new model of entrepreneurship motivation. As they stated “this model of entrepreneurship motivation introduces new constructs and uniquely combines them in specifying that the intention to become an entrepreneur is a function of three variables: the perceived net desirability of self-employment (NDSE), the perceived feasibility (self-efficacy) of self-employment (SE), and the tolerance of risk (TR)” (p.48). Segal et al. (2005) validated their model by using 227 undergraduates at Florida Gulf Coast University. They interviewed these students at two different stages in their education cycle. The model is depicted in Figure 2.2.

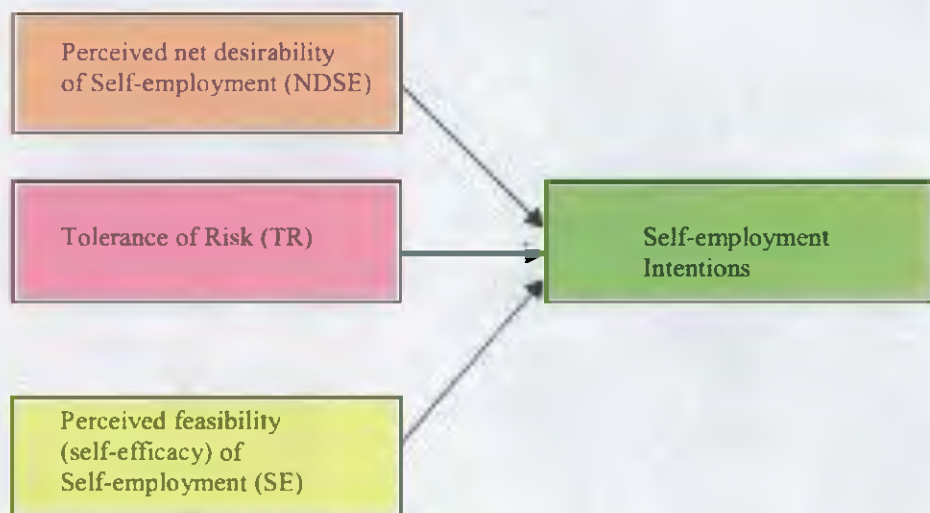


Fig 2.2 Model of Entrepreneurship Motivation (Source: Segal et al, 2005, p.48)

In contrast again, researchers such as Shaver and Scott (1991) emphasised that new ventures emerge because of deliberate choices made by individuals. This, to some extent, is supported by Littunen (2000) who stated “the will to act, besides being in part the product of experience, is probably connected with the entrepreneur’s training and the resources under his/her control. These factors shape the values and attitudes of the entrepreneur. They can also be seen as factors bringing the entrepreneur closer to what he/she expects from life, or causing these expectations to disappear” (p.295). Littunen surveyed 123 firms in Finland in order to understand the links between entrepreneurship and the characteristics of the entrepreneurial personality. This statement from Littunen links in with what Cooper (1981) refers to as the ‘incubator organisation’ (p.41), in that

for many entrepreneurs, the training in managerial skills and industrial knowledge may have been accumulated during the entrepreneurs employment within that organisation. For the purposes of this current research, MNEs could also be considered as 'incubator organisations'.

In 2000, Dahqvist and Davidson set about testing Steinberg and McMillan's (1988) research in a Swedish context. Steinberg and McMillan (1988), according to Dahqvist and Davidson, based on a sample of 1,402 owner managers, found that the six main motivators for starting a business were:

- (i) need for approval,
- (ii) perceived instrumentality of wealth,
- (iii) degree of communitarianism,
- (iv) need for personal development,
- (v) need for independence, and
- (vi) need for escape.

Dahqvist and Davidson (2000) based on a sample size of 7,256 new start-ups in Sweden in 1994, with a response rate of 87.9%, found that the top five motivators for their respondents were:

- (i) to realise my ideas,
- (ii) unemployment or risk of,
- (iii) to work independently,
- (iv) to make money, and
- (v) needed on the market.

See Table 2.2 for a comparison between Dahqvist and Davidson, and Steinberg and McMillan's findings.

Thus it is evident that the motivation for entrepreneurial activity is varied and researchers differ as to the base motivational factors that influence a person to start their own business. The last part of this section examines some of these influencing factors.

Response Alternatives	Dahlqvist and Davidson		Steinberg and McMillan's
	Frequency	Per cent	
To realise my ideas	1451	24.6	Need for personal development
Unemployment or risk of	1405	23.8	Need for escape
To work independently	1400	23.8	Need for independence
To make money	934	15.8	Perceived instrumentality of wealth
Needed on the market	366	6.2	
Other (open ended)	338	5.7	
Total	5894	100.0	

Table 2.2 Motives for starting a business (Source: Dahlqvist and Davidson, 2000)

2.3.3 Factors influencing start-ups

Every year, millions of new firms are started in market economies around the world. There is a strong view that those starting new firms are unique individuals or are in distinctive situations. The efforts, however, in the opinion of this researcher, to understand how, or which, individuals decide to become involved in a new firm start-up have not been successful or satisfying. There is, for example, very little overlap between “entrepreneurial success stories and the systematic efforts to explore factors leading to entrepreneurial behaviour (e.g. self-employment) in large scale random samples” (Reynolds, 1997, p.449). Also, as far as the author of this current research can ascertain, there is very little, or no, evidence to identify if multinational corporations are a factor leading individuals to self-employment.

Reynolds (1997) and Shutt and Sutherland (2003) do not agree that unemployment generates significant levels of self-employment. For example, Reynolds (1997) stated, “it is clear that the majority of efforts to start new firms are *not* initiated by the unemployed” (p. 460); also Shutt and Sutherland (2003) have identified that “the percentage of the unemployed who make the transition to self-employment is small (3–5%)” (p.97). However these researchers were looking at the general unemployed group as opposed to those that had recently become unemployed as a result of organisation rightsizing or firm closure.

Gibb and Ritchie (1982), and Birley (1996) agree that the employment history of the individual is particularly important and relevant in terms of the managerial and technical experience that is required to set up and manage a new enterprise. Gibb and Ritchie

(1982), and Shutt and Sutherland (2003) come closest to identifying a link between new venture creation and large companies. In their research, they have contradicted the assumption that 'would-be entrepreneurs' come from a small business background, as a substantial proportion of their sample came from large companies where they (the entrepreneur) held middle and senior management positions (Gibb and Ritchie, 1982, p. 35). Gibb and Ritchie, however, point out that on the one hand, "going into business may also, however, be in resistance to geographical mobility. For a substantial minority of the sample the establishment of a business was a means of underwriting existing location" (p. 35). Contrary to this, they continue, "yet geographical inertia had not characterised earlier careers" (p. 35). Finally Gibb and Ritchie dispel the notion that it is dissatisfaction with the current employer, or dissatisfaction with the job itself, or threat of redundancy that led the majority of their research participants to pursue an avenue of self-employment. In fact, the majority of their participants expressed satisfaction with their work environment.

Shutt and Sutherland (2003) mention that "industrial restructuring and business reengineering – especially as businesses divested and downsized – were important factors in this (self-employment) growth, both adding to the potential supply of self-employed workers and increasing the demand for their services" (p. 97). However, apart from identifying that MNE rightsizing or closure may lead to the potential supply of self-employed workers, neither set of researchers have identified any other direct links between MNEs and the creation of new enterprise activity.

Ashcroft, Love and Malloy (1991) through their research into new firm formation in Scotland, identified that "new firm formation was positively related to wealth, relevant entrepreneurial skills in the population, the expected income foregone by the entrepreneur and the probability of his attaining this income" (p.404). Gorg and Strobl (1999) confirmed this assertion when they stated that their research indicated that foreign firms have indeed had positive effects on the entry level of indigenous firms (p. 13). However Gorg and Strobl are only "measuring the incidence of entry" (p. 19). Their data is based on the number of new business registrations, over a given period of time versus the number of MNEs setting up in Ireland over the same period of time, as opposed to actually identifying a direct link between MNEs and new venture creation. Their research is based on statistical correlation which does not necessarily mean that

there is in fact an actual link between new venture creation and the existence of MNEs in a given host region.

Then again, based on Barbosa and Eiriz's (2006) study into the relationship between inward direct investment and domestic entrepreneurship, suggested there is "weak evidence on the positive effects of MNEs on domestic entrepreneurial activity, measured by net entry rates" (p.19). Barbosa and Eiriz's study is based on a comprehensive analysis of firm level data in Portugal between 1986 and 2000. Their analysis examined the number of new firms as well as the levels of output from all firms on the register. They stated that the "mandatory nature of this survey (Quadros de Pessoal) ensures that virtually the whole population of firms with wage earners in Portugal are included in the data set" (p.7). This statement would suggest that their findings are valid. They surmise that whereas there is a significant positive effect to the economy in the initial phases of FDI that this peters out over time, and as the MNEs become more dominant in the economy. Thus Barbosa and Eiriz (2006) concluded "the role of MNEs in assisting (Portuguese) entrepreneurial activity is somewhat weak" (p.17).

Could it be, as established by Ashcroft, Love and Malloy (1991), that the average wage per employee is negatively related to new firm formation? If the average wage is high and the prospects of continuous employment is also high, then employees will be less likely to take the risk of reducing their income and their prospects of longevity in employment. Interestingly, this ties in with the comments in relation to autonomy and longevity in section 2.1.5 above, that managers are less likely to leave an MNE if they are working in a creative, autonomous environment, and are assured a degree of longevity in employment.

2.4 Policy and new firm formation

There are many factors that encourage new firm formation, ranging from government policy, economic conditions, attitudes of entrepreneurs, and the relative importance they place on the factors affecting start-up (Corman, Lussier and Nolan, 1996). As Birch (1987) pointed out, the key to job creation is entrepreneurial firms. Economies that

provide the proper environment for start-ups, and for existing firms to expand, grow and flourish whereas those that fail to provide such an environment languish (Corman, Lussier and Nolan, 1996, p.43). Stevenson and Lundstrom (2001) made the point that “historically, entrepreneurship was rarely a stated economic policy objective (of governments) – at best, it was a by-product of the economic development process” (p.17). However, they continue to state, “government attention to the SME policy agenda was considerably heightened following the breakthrough research of Birch (1979) in which he discovered that over 80% of new jobs were being generated in small (entrepreneurial) rather than large US firms and that, in fact, new young firms were the engines of growth in the US economy” (p.17).

In more recent times, SMEs are being given much more attention by governments because of their importance to local and national economic development. Many researchers and economic research organisations have written about the economic importance of SMEs (Lauder, Boocock, and Presley, 1994; European Commission, 1992 and 1998; OECD, 1998; Verheul, Wennekers, Audretsch, and Thurik, 2001; Jenssen and Havnes, 2002; and Massey, 2003, are just a few examples). Lauder et al. (1994), in their comparative study analysing the support systems and institutions for SMEs in the UK and Germany, noted that approximately 66% of businesses in Germany and 60% of businesses in the UK employ less than 500 people. Stevenson and Lundstrom (2001) in their research examining the patterns and trends in entrepreneurship and SME policy and practices in ten different national economies demonstrated that over 98% of private sector organisations are SMEs. Dee (2004) also showed that approximately 98% of indigenous, and 82% of foreign owned private sector organisations (i.e. MNE subsidiaries), operating in South East Ireland (part of the area of analysis for this current research), employ less than 200 people. Based on Stevenson and Lundstrom’s (2001) analysis, these figures are fairly representative of countries across Europe. To add to the debate about the importance of SMEs in national economies, Verheul, Wennekers, Audretsch, and Thurik (2001) stated “government intervention within the field of entrepreneurship is inspired by the importance of the small business sector for economic growth and job creation” (p.24).

It is no surprise, therefore, that the European Commission has, within the last decade, been putting more emphasis on entrepreneurship, enterprise creation and SME

development. Some of the key EU policy documents have come from the Amsterdam Summit (1997), which made a significant breakthrough in linking economic and employment policy in the same agenda. The core policy of the Amsterdam Summit focused on employability, entrepreneurship, and adaptability (Henriksen, 1999). More recent EU policy comes from the Lisbon (2000) and Barcelona (2002) Agendas. In 2000 the European Union Heads of Government met in Lisbon to discuss the economic future of Europe, this resulted in a set of ambitious policies and reforms directed at both national and European levels. The main focus of these policies and reforms was to develop an effective internal market by boosting research and innovation through education. The overall objective of the Lisbon Agenda was to shape Europe into *the most dynamic and competitive knowledge-based economy in the world by 2010*.

These policy objectives were reiterated at the 2002 Barcelona meeting of European Union Heads of Government, with particular focus on upgrading 'knowledge' and increasing technology diffusion at the regional level in the belief that this may prove to be a particularly efficient route to economic growth (EURAB, 2004). However, between 2000 and 2005 very little progress had been made on the Lisbon Agenda; therefore the European Commission aggressively re-launched the Lisbon Agenda in 2005 by setting up the Competitiveness and Innovation Framework Programme with a budget of €4.2 billion. The overall aim of this Framework Programme was to increase indigenous competitiveness and innovation across the regions of Europe through research, education and technology diffusion.

The dual mandate of most government policies towards entrepreneurship and new venture creation is to increase innovation and reduce levels of unemployment. But, in the views of some experts, these aspects are closely linked. For example, according to Henriksen (1999) "there is no doubt that if the job challenge is to be met, we must stimulate the growth of firms. We should target our support at small firms....." (p.216), and "not only are new firms necessary to replace businesses and jobs, which are lost due to the disappearance and downsizing of existing businesses, but are critical to innovation activity" (Stevenson and Lundstrom, 2001, p.18). And "as entrepreneurship is considered by many to be a recipe for economic prosperity there is an obvious need to increase the supply of entrepreneurial talent to create and grow new businesses that will generate employment and create wealth for the local economy" (Henry, Hill, and

Leitch, 2003, p.5). Furthermore, Stevenson and Lundstrom citing Wennekers and Thurik (2001) and De (2001) stated that they “suggest a role for government in stimulating culture or social capital and creating the appropriate institutional framework at the country level to address the supply side of entrepreneurship i.e. focusing on the number of people who have the motivation, the financial means and the skills to launch a new business” (p.18).

Market forces obviously have an impact on the level of entrepreneurial activity within a national economy. However, government policy makers and politicians are aware of the critical role SMEs and new ventures play in national economies, and therefore governments are inclined to intervene in market conditions in an attempt to stimulate entrepreneurial activity and growth. But, according to Jenssen and Havnes (2002), if governments want to promote entrepreneurship, they have to focus on the factors that make individuals entrepreneurs, and not just focus on the traditional approach of financial assistance. Equally there seems to be a belief that “entrepreneurship can be developed and fostered by government action so that even the most economically deprived regions can be developed” (Henry, Hill and Letich, 2003, p.5).

Even though the European Union has provided an overall framework for entrepreneurial activity and support, and in particular has articulated a set of policies and objectives aimed at stimulating further wealth creation in Europe and its regions through entrepreneurial activity, research, innovation and new venture creation, each country has its own set of policies. As Bianchi and Labory (2006) stated “in fact industrial policy is generally a government’s strategy of industrial development implemented through a variety of measures. We use the term ‘industrial policy’ (singular) to mean the strategy or programme, and ‘industrial policies’ to mean the various measures that compose it” (p.3). Policies at national level are influenced by many factors such as the nation’s wealth, culture, and politics. An example of the variances in national-specific policies is demonstrated by Lauder et al., (1994) by comparing the systems of supports for SMEs in the UK and Germany. Their paper, primarily based on secondary data, identified that

“policies towards SMEs in both countries share the common objective of maintaining a healthy and competitive SME sector

within a free market economy. However, there are subtle differences in the policy instruments employed to achieve these goals. While German policy-making is based on attempts to improve economic efficiency by compensating SMEs for recognised disadvantages of small scale, British policy-making is based on the belief that intervention is only justified when it is used to remove or to compensate for perceived market imperfections” (p.10).

In Ireland, up until the early 1990s, there was no defined, focused policy for SMEs (most of the emphasis was on attracting FDI). Support to small businesses up to that time was extremely fragmented, and very much focused on large businesses with export potential. It was only in the early 1990s that there was a much more concise focus on SMEs and micro-enterprises, and in particular there was a move away from solely supporting enterprises qualifying under national policy criteria to a more regionally based dimension aimed at supporting and developing local economies (Hanley and O’Gorman, 2004).

Even though enterprise policy is influenced by a nation’s specific needs at a given point in time, and by global competitiveness, Verheul et al., (2001) in their paper dealing with the determinants of entrepreneurship, developed an eclectic theory that provides an integrated framework which enables a better understanding of the different roles that entrepreneurship plays in different countries at different times. In their paper they argue that

“government is able to influence the rate of entrepreneurship through five different groups of determinants of entrepreneurship:

G1 Government intervention on the demand side of entrepreneurship; influencing the number and type of entrepreneurial opportunities.

G2 Government intervention on the supply side of entrepreneurship; influencing the number and type of potential entrepreneurs.

G3 Government policies aimed at influencing the availability of resources, skills and knowledge of individuals. These policies generally deal with the input factors of entrepreneurship, i.e., labour, finance and information.

G4 Government policies aimed at influencing the preferences, i.e., values and attitudes, of individuals.

G5 Government policies (directly) aimed at the decision-making process of individuals.

Given certain opportunities and individual characteristics, this type of government intervention directly influences the risk-reward profile of entrepreneurship” (p.25).

Bianchi and Labory (2006), based on their analysis of the development and evolution of industrial policy in eight different countries (four from Asia and four from Europe), stated that most countries tend to be protectionist and interventionist at earlier stages of development and it is only when the country reaches a “certain level of development (that) industrial policy (becomes) less interventionist and market forces (are) more relied upon” (p.3), culminating in what they call the “new industrial policy” which “can be defined as composed of both measures to guarantee the competitive game (antitrust and incentive-based regulation) and measures to promote the orientation of industry towards new sectors” (p.10).

Traditionally, the Ireland government have been involved with G2 and G3 type policy, and in more recent times (2004/2005/2006) has become more involved with G4 type policy. However policy in Ireland is still centralised, and while there may be some element of local interpretation of national policy by regionally based policy

implementers to meet regional specific needs, the degree of interpretation does not stray much beyond national policy guidelines (Hanley and O’Gorman, 2004).

As stated above, policy means different things to different governments. Therefore what is needed to fully comprehend, develop and implement policy is to understand the context of policy in different country settings (Gibb, 2000). Equally, there are some commonalities and underlying principles such as creating and maintaining a sustainable healthy and competitive SME sector within a free market economy (Lauder, Boocock, and Presley, 1994). Lundstrom and Stevenson (2001) defined entrepreneurship policy as:

- policy measures taken to stimulate entrepreneurship,
- that are aimed at the pre-start, the start-up and post-start-up phases of the entrepreneurial process,
- designed and delivered to address the areas of Motivation, Opportunity and Skills,
- with the primary objective of encouraging more people to start their own businesses.

This generic definition of entrepreneurship policy, however, does not convey the reality in most countries where the focus is on those firms that have the potential to succeed. For example, this author’s experience has been that the focus of Enterprise Ireland² since they were officially formed in 1992 has been on HPSUs³ (high potential start-ups). This observation supports Morgenroth and O’Malley’s (2003) research into the unbalanced economic growth of regions in Ireland which identified an official report from the Department of Industry and Commerce (1990) that highlighted, as an objective of industrial policy, the need to “build companies of sufficient quality, scale and strength to win and sustain profitable positions in their chosen international markets” (p.52). Morgenroth and O’Malley continued “it was argued that this should take priority, rather than providing unnecessary and often wasteful support to small firms or

² Enterprise Ireland is Ireland’s state agency that is responsible for the creation and development of indigenous enterprises.

³ HPSUs are high-growth enterprises, with significant export potential. Incidentally, prior to 1992 the Ireland government did not consider any form of service industry (e.g. software development, or financial services) eligible for state support.

new start-ups that would never engage in internationally traded activities” (p.170). In fact, Enterprise Ireland’s (2005) most recent publication, *Transforming Irish Industry: Enterprise Ireland Strategy 2005 – 2007*, is still totally focused on high potential start-ups, with internationalisation and export growth potential.

The concept of state enterprise support agencies ‘picking winners’ is not isolated to the Republic of Ireland alone. This seems to be the pattern in most European countries that have government agencies supporting enterprise development. For example Hart, McGuinness, O’Reilly, and Gudgin (2000) in their study on public policy and SME performance in Northern Ireland, using a database of 1,600 businesses comprising of both growth and established clients of the Local Enterprise Development Unit, found that “a greater concentration of effort on firms with growth potential would appear to have been successful” (p.27). They also reported that one way for the state enterprise support agency in Northern Ireland to maximise the benefits of its resources was by “backing’ firms who have demonstrated some degree of movement along a growth trajectory” (p.29). Even though there is no general agreement among researchers as to the validity of supporting just the ‘high flyers’, many enterprise support agencies are focusing more on ‘picking winners’ (Freel, 1998). As Freel pointed out in his study analysing the sensibility of picking winners, there are innumerable factors influencing growth of firms at different times of their development. Although his research was based on a longitudinal study of a small sample size of six firms, he demonstrated that developing a predictive model was implausible, “but yet, public policy continues to be developed based upon the increasingly untenable proposition that we can ‘pick winners’” (p.30).

Thus, is it a case that firms that use assistance programmes do become more effective and contribute to the economy as a whole (Massey, 2003), that market forces are not working efficiently with regard to new business development (Jenssen and Havnes, 2002), or is it that these firms are going to succeed anyway and therefore supporting these firms gives them an unfair advantage over others (Storey, 1992), or is there a need for intervention in the process of new venture creation (Henry, Hill and Leitch, 2003)? This is an extremely difficult question to answer because there is a general lack of clarity on policy objectives, and an even greater lack of defined methodology to measure these objectives (Storey, 1998), and that “the lack of business specific

performance measures only serve to complicate further the evaluation process” (Henry et al., 2003, p.6). Spilling (1998), in his review on the effectiveness of public measures designed to stimulate entrepreneurship, also questions the effectiveness of such interventions. Jenssen and Havens (2002), concur by concluding their study of three Norwegian entrepreneurs saying, “we know these same entrepreneurs would have done without the support of the (enterprise support) programmes” (p.185).

Researching public intervention in the entrepreneurial process, Jenssen and Havnes (2002) summarised their extensive literature review by stating that the focus of public policy towards entrepreneurship may be aimed at:

- Entrepreneurs in general or targeted groups of entrepreneurs in the idea development, the planning, and/or the establishment phase(s),
- Newly established businesses/small businesses of entrepreneurs in general or of targeted groups of entrepreneurs,
- The national, regional, and local entrepreneurial environment (culture and infrastructure) (p.178).

This may be so, but sometimes it seems as if governments view entrepreneurship and the entrepreneurial process as separated, corralled, measurable entities. From the research to date, in this current study, a complete comprehensive, seamless, all embracing enterprise support policy does not appear to exist, except maybe in the case of Switzerland (Gibb, 2000). Certainly in Ireland’s case, while there are different policies for different aspects of the entrepreneurial process, enterprise policy is not fully integrated into the nations economic fabric, nor are all the various aspects of policy fully comprehensive, coherent, or compatible with each other.

2.5 Summary

According to Verheul, Wennekers, Audretsch, and Thurik, (2001), the level of entrepreneurship differs considerably across countries and periods. Both the causes and

consequences of entrepreneurship are a matter of extensive scientific debate as well as of great policy importance.

Entrepreneurship is a key element of this particular research, but it is not the core issue. This research is an in-depth examination of the *direct link* between the existence of multinational organisations in a host region and the level of *new* venture creation within that region. The key words for this research are *direct link* and *new*. Previous research has extensively examined backward and forward linkages, and the impact MNEs have on their host regions through various types of spillovers, however extensive research on the direct link between MNEs and new venture creation in MNEs' host regions has not been performed to date.

In order to understand to what extent a direct link does exist between MNEs and new venture creation, there was a need to explore literature pertaining to (i) understanding the impact of MNEs within their host regions, (ii) understanding the process of new venture creation, and (iii) examining governments' policies towards attracting MNEs to enhance their local economies and the development of regions through the creation and development of enterprise. However these three areas of literature, namely, FDI, the entrepreneurial process, and policy, have not been drawn together before in an effort to analyse and understand the direct links between MNEs and new venture creation. Even though policies and supports do exist to assist new ventures through the start-up and developmental stages of business, and there are many educational programmes existing geared towards both educating entrepreneurs and creating awareness among young people of entrepreneurship as an equitable (and indeed attractive) career choice, there does not appear to be an explicit, expressed policy towards working with MNEs to either encourage employees start their own businesses, or to directly assist in the creation of new businesses (that is to say new independent businesses that are not subsidiaries of MNEs).

The complexity of this research is also highlighted by the fact that the three key areas of literature, FDI, the entrepreneurial process, and policy are embedded in very different philosophies and disciplines. The disparate nature of the philosophies and disciplines informing this research include economics (regional and geographic), psychology (in understanding why people start their own businesses), and sociology (in understanding

the whole integrative, systemic nature of policy, economic development and the entrepreneurial process).

The areas of literature and disciplines mentioned above have, in the past, been researched independently and in varying combinations but rarely have all three aspects been combined together into one study. This is one unique element of this research and its contribution to literature i.e. in order to understand to what extent direct links exist between MNEs and the level of new venture creation in the MNE's host region, there is a need to integrate these disciplines and aspects of literature.

The next chapter, Chapter 3, sets the context of the research by describing the regions studied, their locations and the quantities of indigenous and MNE activity in these regions during the period of analysis, 1990 to 2001.

Chapter 3

South East and South West Ireland – A Composite Overview between 1990 and 2001

Chapter 3 South East and South West Ireland – A Composite Overview between 1990 and 2001

3.1 Introduction

The purpose of this chapter is to provide the reader with an overview of the two sub-regions constituting the area of analysis for this research, namely South East and South West of Ireland. Thus, this chapter sets the context for the research by providing the reader with a description of the South East and South West sub-regions, and detailing the level of indigenous start-up and MNE activity in both these sub-regions during the period of analysis (1990 to 2001). The chapter also compares the levels of employment in foreign owned MNEs and indigenous companies during the period of analysis.

3.2 General overview

According to the World Fact Book (2006), Ireland is a small, modern, trade-dependent economy with growth averaging at 7% per annum between 1995-2004. Agriculture, once the most important sector, is now dwarfed by industry and services. Industry accounts for 46% of GDP, about 80% of exports, and 29% of the labour force. Although exports remain the primary engine for Ireland's growth, the economy has also benefited from a rise in consumer spending, construction, and business investment. Per capita GDP is 10% above that of the four big European economies and the second highest in the EU behind Luxembourg. Over the past decade, the Irish Government has implemented a series of national economic programmes designed to curb price and wage inflation, reduce government spending, increase labour force skills, and promote foreign investment.

The island of Ireland, which is 84,288 sq km (32,544 sq. mi.), is divided into four provinces: Ulster, Leinster, Connacht, and Munster (see Figure 3.1). Each province is subdivided into counties. There are a total of 32 counties, six of which (in Ulster) are part of the United Kingdom (UK) (Northern Ireland).



Fig. 3.1 Map of Ireland (Source: Adapted from 1.2 Travel, 2006)

From an economic development perspective though, and under European Union (EU) criteria for funding, Ireland is divided into two major regions the Southern and Eastern region and the Border, Midlands and West (BMW) region (see Figure 3.2). These broad regions are further subdivided into eight sub-regions: Border, Dublin, Mid-East, Midlands, South East, South West, Mid-West and West (see Figure 3.3). These sub-regions come under the auspices of the Regional Authorities that were established by the 1991 Local Government Act and came into existence in 1994. Under this Act, the Regional Authorities have two main functions:

- (i) to promote the co-ordination of public service provision and
- (ii) to monitor the delivery of EU Structural Fund assistance in the sub-regions.

The Regional Authorities have specific responsibility for:

- Reviewing the development plans of local authorities in their sub-region and adjoining sub-regions;
- Preparing regional planning guidelines and regional economic and social strategies; and
- Promoting cooperation, joint actions, arrangements and consultation among local authorities and other public bodies.

(Irish Regions Office, 2006(b))

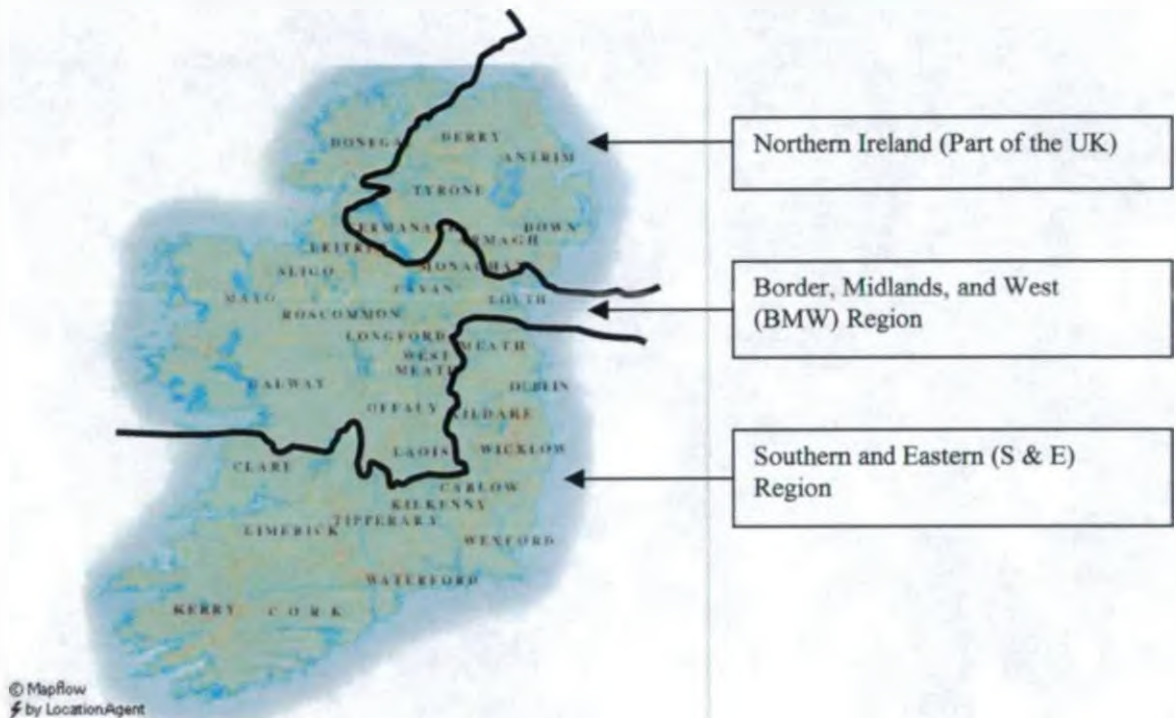


Fig. 3.2 Regional Structure for Ireland under the ESF 2000 – 2006 programme (Source: 1.2 Travel, 2006)



Fig. 3.3 The Economic sub-regions of Ireland (Source: Irish Regions Office, 2006(a))

The two sub-regions that are of particular interest to this current research are the South East and South West. The next two sections of this chapter provide an overview of these sub-regions.

3.3 South East

The area of Ireland known as the South East consists of five counties (see Figure 3.4), Kilkenny, Carlow, Wexford, Waterford and South Tipperary. This sub-region has an area of 9,406 sq. kms (approximately 13.5% of the area of the Republic of Ireland), with a population of 425,000 (10.8% of the total population of the Republic of Ireland).

According to the Irish Regions Office (2006(b)), this sub-region is predominantly rural with main urban centres at Waterford City, Kilkenny City and the towns of Carlow, Clonmel and Wexford. The sub-region has a well-balanced urban structure with the main urban centre in each of the five counties having a population exceeding 17,000. In addition, it has a range of smaller towns and villages evenly distributed across the sub-region and a strong rural settlement pattern.

The sub-region's economy is based primarily on the more traditional industries such as agriculture, engineering, manufacturing, tourism, fishing, and aquaculture. The

agriculture and food sector account for a significant proportion of output and employment, with the sub-region having a higher than average reliance on this sector (O’Gorman and Bowe, 2006).

The number of multinational enterprises (MNEs) in this sub-region is small compared to other sub-regions in Ireland. Most of these MNEs are in the pharmaceutical, healthcare, manufacturing, and engineering industry sectors. A high proportion of industry in the South East is made up of foreign owned MNEs. However, the level of technology-based industry in the South East is considerably lagging that of other sub-regions in Ireland (Dee, 2004). According to the South East Regional Authority (SERA) (2006) there are 80 MNEs in this sub-region (see Table 3.1) employing over 11,937 people (Forfas, 2006). In 2004, out of 210,200 people employed in the sub-region, 20,000 (9.5%) were employed in agriculture, 61,000 (29%) were employed in industry, and 129,200 (61.5%) were involved in the services sector (Irish Regions Office, 2006). These figures show a huge decline in agriculture, once the major industry in this sub-region. The figures also show the importance of indigenous Irish owned industry to the sub-region in that it makes up 80% of industry employment.

SERA (2006) stated that the South-East Region is rapidly emerging as a preferred location outside Dublin for the financial services industry sector with a cluster of financial services companies developing a significant presence in Waterford, Kilkenny and Wexford. SERA also claimed the South East to be an attractive area for investment because of its quality of transport and other economic infrastructure, three third-level education institutes, a young and highly educated labour force, and the network of industrial and technology parks available in the region.



Fig. 3.4 The South East Region of Ireland (Source: South East Regional Authority, 2006)

Industry Sector	South East	South West	Total
Chemicals	1	11	12
Computers	0	3	3
Electronics	9	29	38
Engineering	20	20	40
Manufacturing	20	26	46
Pharmaceuticals	13	13	26
Plastic&Rubber	4	6	10
R + D & Labs	0	6	6
Software	10	27	37
Telecomms	0	6	6
Other	3	1	4
Total	80	148	228

Table 3.1 Number of MNEs operating in the South East and South West by industry sector (Source: IDA 2004)

3.4 South West

The South West Region (SWR) comprises of the two counties of Cork and Kerry (see figures 3.5a and 3.5b). This sub-region comprises of 12,161 sq. kms (approximately 20% of the Republic of Ireland), and a population of 580,400 people representing 14.8% of the population of the Republic of Ireland. However, 22% of the population (126,000) live in Cork City, which is the sub-region's largest area of population and is often referred to as Ireland's second capital. In total, the urban population of the South West sub-region comprises of approximately 54 % of the sub-region's total population. Dublin County is the only other county in Ireland with a higher rate of urbanisation. Cork County, with a population of over 250,000 inhabitants, is the second largest conurbation in the country. Large towns outside the Cork City include: Mallow, 8,937; Youghal, 6,597; Bandon, 5,161; and Fermoy, 4,804.

County Kerry has two substantial urban areas: Tralee, with a population of 21,987; and Killarney, with a population of 13,137. Outside of these conurbations, the population lives in small towns, villages and rural areas. Given the geographic spread of this sub-region, many of the medium-sized towns in North and West Cork and in Kerry play a critical role as residential and service centres for their respective hinterlands (SWRA, 2004).

According to the South West Regional Authority (SWRA, 2006), this sub-region is an attractive area in which to live and work. It has a highly developed, modern, high-technology-based economy, supported by a high-quality environment. The past decade has witnessed sustained investment in new roads, sanitary services, telecommunications and related infrastructures (SWRA, 2006). In 2004, the 148 IDA supported foreign owned MNEs (source: IDA 2004) (see Table 3.1) employed a total of 22,658 people (Forfás, 2006). At that time the, total workforce in this sub-region was 255,800 of which 23,000 (9%) were employed in agriculture, 79,300 (31%) were employed in industry, and 153,500 (60%) were employed in services (Irish Regions Office, 2006). Again, as with the South East, these figures show a huge decline in agriculture and that a significant amount of those employed in the sub-region are working in service related industries. The figures also show the importance of the indigenous industry sector to

this sub-region in that 71% of those employed in industry are employed in indigenous companies. This compares with the 80% employed in indigenous companies in the South East.

According to the Irish Regions Office (2006), the South West Region is one of Ireland's premier sub-regions in terms of growth and employment. The regional population is steadily growing with many people migrating to the South West because they perceive it to be an excellent location in which to work and live. SWRA (2006) state that the mild climate, excellent educational infrastructure, with one large university and two major regional institutes of technology, coupled with a high-quality and scenic environment, all contribute to the attractiveness of this sub-region. This sub-region is the headquarters for a wide range of multi-national companies specialising in sectors such as electronics and pharmaceuticals. The food industry is also a key sector in this sub-region in that many large food cooperatives producing very well known international brands are headquartered in the sub-region. As stated by SWRA (2006), these industries are mainly concentrated around Cork City and its environs.

SWRA (2006) also stated that the sub-region's stringent policies in relation to industrial development and the excellent standards operated by industry in this sub-region, clearly demonstrate that a region can have high levels of development and yet retain its pristine environment. SWRA continued that because the region's agriculture and other traditional primary sector activities are in continual decline, a key priority is to develop its knowledge-based economy with a strong emphasis on the growth of small indigenous companies.



Fig. 3.5a Regional Authorities Map (Source: Irish Regions Office, 2006)



Fig. 3.5b Map of South West Region (Counties Kerry and Cork) (Source: Ireland-guide, 2006)

3.5 MNE activity in the South East and South West from 1990 to 2001

This section of the chapter provides a brief overview of MNE activity in the South East and South West regions from 1990 to 2001 in relation to the numbers of MNE facilities opening and closing, the levels of employment and the numbers of job losses.

The number of multinational facility openings in the South East and South West from 1990 to 2001 is shown in Figure 3.6. Because the start-up employment numbers for these MNE subsidiaries in Ireland is restricted information, this data was not available for this current research.

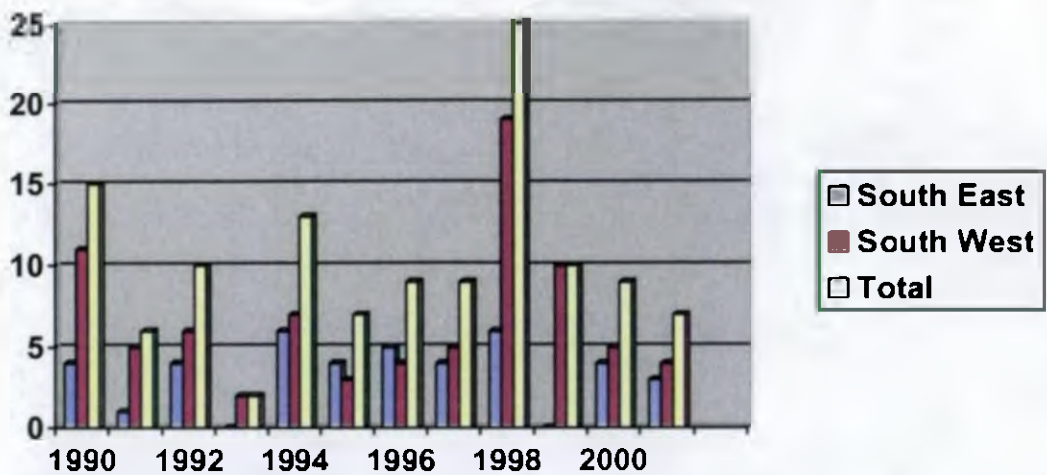


Fig. 3.6 Level of MNEs opening facilities in South East and South West. 1990 – 2001 (Source: IDA)

The total number of MNEs opening facilities, in the areas of analysis, during the period 1990 to 2001 inclusive was 122. Of these 41 (33.6%) were in the South East and 81 (66.4%) were in the South West. In the early part of the 1990s, Ireland was still in a recession and it was not until 1995 that Ireland began to emerge from this recession. This was the start of the period known as the ‘Celtic Tiger’ (Walsh, 1999). Overall, throughout the period of analysis, the number of MNEs opening facilities in the South East averaged less than four per year. Some years (1991 and 1999) had no MNE openings in this sub-region. The South West had a good start to the period with ten MNE openings in 1990, but only averaged four openings per annum between 1991 and 1997. The South West had a peak of sixteen openings in 1998, did well with nine openings in 1999 and then settled back to approximately four openings in 2000 and 2001.

In contrast, the total number of MNE openings in the greater Dublin area (GDA¹) (consisting of Dublin City and County, Kildare, Meath, and Wicklow) during the same period of analysis was 265, with an annual opening rate between 18 and 32 MNE

¹ For the purpose of this research, it is important to consider Dublin City and County and the Mid East (Counties Meath, Kildare and Wicklow) together as the Greater Dublin Area because of the proximity of these counties to Dublin, and because there is a large commuting workforce between these counties and Dublin. For example, INTEL employ over 5,000 people at their facility in Leixlip, County Kildare, which is less than a half-hour drive from the centre of Dublin.

facilities per annum. The peak MNE opening periods for the GDA were 1995 - 1996 with 32 openings and 1997 - 1998 with 27 openings. Because of both the number of MNE facility openings in the GDA compared to the rest of the state, and the trend of indigenous companies moving to the GDA to service these MNEs, Enterprise Ireland published a three-year strategy *Driving Growth in Regional Enterprise* in 2001. The main aim of this strategy was to encourage indigenous organisations, based in the GDA, to move out of Dublin and/or to set up subsidiaries in other regions outside the capital (Dublin) and the Mid-East sub-region (Enterprise Ireland, 2001). The incentives offered were considered to be attractive. Based on interviews with key informants within Enterprise Ireland, it is evident that the actual number of businesses availing of these incentives was miniscule.

As can be derived from the above figures, the total number of MNE subsidiary openings in the South East and South West was only 46% of the number of openings in the GDA. However, the population of the South East and South West is 69% of the population size of the greater Dublin area (CSO, 2002). This seems to indicate that there is an imbalance in the distribution of MNE openings across the state. Maybe, as suggested earlier in Chapter 2, the trend in MNE openings in Ireland does correlate with previous research which states that MNEs are more attracted to urban areas of population than to rural, or less densely populated areas.

For example, Table 3.2 shows the number of MNE facility openings by county and by year between 1990 and 2001. The evidence is that Cork City has performed well compared to other counties within the South East and South West sub-regions, with most of these MNEs locating in or near Cork City. On the other hand, when it is considered that Cork City constitutes 22% of the population of the South West and Dublin City constitutes 73% of the GDA, this may be a factor as to why there were nearly twice as many MNE openings in the GDA. For instance, the population in Dublin County alone is 1,219 people per square km as compared to 60 per square km in Cork County, the most densely populated county in the South East and South West (derived from CSO, 2002).

In total, MNEs opened 122 facilities in the South East and South West during the period of analysis, 1990 - 2001 (see Table 3.2), of which twenty-two (18%) closed. On the

other hand, during the same period of analysis the total number of MNEs that closed their facilities was 102 (see Figure 3.7 and Table 3.4). The total number of job losses is difficult to estimate as there were no figures available from the IDA for the years 1990, 1991 and 1992. However, based on the data available, there were 5,121 job losses between 1993 and 2001 (see Table 3.3). This is an average of 71 job losses per closure. Nevertheless, this average is notional as some of the MNEs that closed had less than 10 job losses and others had as many as 800 to 900. The vast majority of these job losses were in labour cost sensitive industries with many of these jobs being relocated to lower cost countries such as China, India, and some of the ex-Eastern Bloc countries such as Hungary, Czech Republic and Poland.

County	SE/SW	'90	'91	'92	'93	'94	'95	'96	'97	'98	'99	'00	'01	Total
Carlow	SE	0	1	0	0	1	0	0	0	1	0	0	0	3
Kilkenny	SE	1	0	0	0	2	0	0	1	0	0	2	1	7
South Tipperary	SE	1	0	1	0	0	2	1	2	1	0	2	1	11
Waterford	SE	0	0	2	0	1	1	2	0	4	0	0	1	11
Wexford	SE	2	0	1	0	2	1	2	1	0	0	0	0	9
Cork	SW	10	4	5	2	4	5	3	5	16	9	5	4	71
Kerry	SW	1	1	1	0	2	0	1	0	3	1	0	0	10
Total		15	6	10	2	13	7	9	9	25	10	9	7	122

Table 3.2 Number of MNEs locating in the South East and South West by county, 1990 – 2001 (Source: IDA)

It is also very likely that some of the new MNE entrants replaced many of the job losses. The number of job losses per year is illustrated in Table 3.3, while Figure 3.7 and Table 3.4 show the number of plant closures by year over the period of analysis.

	'90	'91	'92	'93	'94	'95	'96	'97	'98	'99	'00	'01	Total
Number of job losses SE	n/a	n/a	n/a	136	59	0	364	110	995	190	480	294	2628
Number of job losses SW	n/a	n/a	n/a	113	12	345	89	298	94	227	347	968	2493
Total job losses SE and SW	n/a	n/a	n/a	249	71	345	453	408	1089	417	827	1262	5121

Table 3.3 Number of job losses by sub-region by year 1990 to 2001 (Source: IDA)

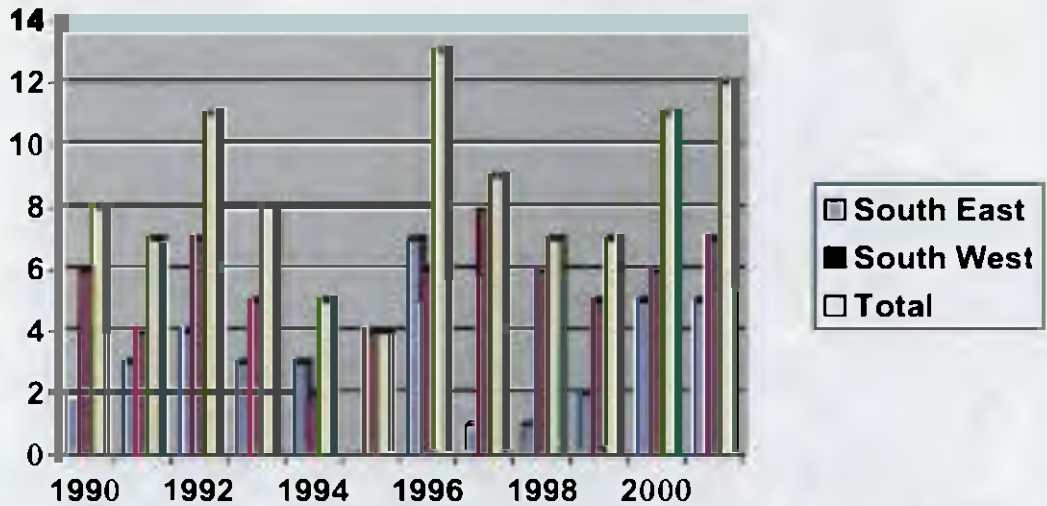


Fig. 3.7 MNE plant closures in South East and South West 1990 – 2001 (Source: IDA)

County	SE/SW	'90	'91	'92	'93	'94	'95	'96	'97	'98	'99	'00	'01	Total
Carlow	SE	0	1	0	0	0	0	0	0	0	0	0	0	1
Kilkenny	SE	0	0	0	1	1	0	1	0	0	0	2	0	5
South Tipperary	SE	0	0	1	1	1	0	2	1	1	2	0	1	10
Waterford	SE	2	2	2	0	0	0	2	0	0	0	2	1	11
Wexford	SE	0	0	1	1	1	0	2	0	0	0	1	3	7
Cork	SW	5	3	7	5	2	3	5	7	4	4	4	7	56
Kerry	SW	1	1	0	0	0	1	1	1	2	1	2	0	10
Total		8	7	11	8	5	4	13	9	7	7	11	12	102

Table 3.4 Number of facilities closed by MNEs in the South East and South West by county, 1990 – 2001 (Source: IDA)

Over the period of analysis, the number of MNE facility openings exceeded the number of closures by twenty. Then again, it must be pointed out that data pertaining to the number of jobs created by county versus the number of jobs lost during the period of analysis is not available. On a national basis, based on Annual Employment Survey reports (Forfás, 2000, 2002, 2003, 2005 and 2006), the number of MNE job gains and losses between 1990 and 2002 are shown in Tables 3.5(a) and 3.5(b).

	'90	'91	'92	'93	'94	'95	'96
Job Gains	9,058	8,275	8,499	9,135	11,493	12,985	14,985
Job Losses	- 6,447	- 6,926	- 7,947	- 6,629	- 6,321	- 5,865	- 7,312
Net Change	2,611	1,349	552	2,506	5,172	7,120	7,673

Table 3.5(a)

	'97	'98	'99	'00	'01	'02	Total
Job Gains	16,202	17,637	19,309	24,678	14,640	11,755	178,651
Job Losses	- 6,194	- 8,519	- 10,596	- 9,610	- 19,508	- 17,865	- 119,739
Net Change	10,008	9,118	8,713	15,068	- 4,868	- 6,110	58,912

Table 3.5(b) National employment trends in foreign own firms between 1990 and 2002 (Source: Forfás, 2000, 2002, 2003, 2005 and 2006)

Tables 3.5(a) and 3.5(b) show that, on a national basis, there has been an overall increase in full-time employment within foreign owned firms (MNEs). The net gain of 58,912 full-time jobs in MNE subsidiaries operating in Ireland between 1990 and 2002 (inclusive) represents a gain in employment of 63% (this figure is based on calculating a starting employment level of 93,124 at the beginning of 1990, as per the figures presented in the Forfás Annual Employment Survey, 2000). A 63% increase in employment levels over a thirteen-year period would generally be considered acceptable by most economies. But unfortunately, as can be seen from Table 3.6, the increase in employment levels was not evenly spread throughout Ireland. It is evident from Table 3.6 that the growth in the GDA has been far greater than that in the South East and South West. The GDA in total grew by 119%, the Mid East² alone grew by 166%, the South West grew by 56%, and the South East grew by a mere 22%.

The job losses in the South East and South West due to the closure of MNE facilities during the period 1990 to 2001 are shown in Figure 3.8. The high level of job losses in 1998 is attributable to one MNE facility, Seagate Technologies (995 job losses). The job losses in 2001 are also attributable mostly to one MNE, General Semiconductor (853 job losses). Both of these companies were U.S. multinationals that decided to relocate

² The Mid East consists of counties Meath, Kildare and Wicklow. As stated earlier, for the purposes of this current research Dublin City and County combined with the Mid East is considered to be the Greater Dublin Area (GDA)

their Irish facilities to a lower cost country – China. The details of the plant closures and job losses by county are tabulated in Appendix 3

Sub-region	'90	'91	'92	'93	'94	'95	'96	'97	'98	'99	'00	'01	'02	Net Gain
Dublin	25,933	26,125	26,021	26,419	27,868	30,747	34,150	38,752	43,838	50,266	57,609	55,011	54,003	28,070 (108%)
Mid East	5,803	5,912	6,309	7,163	8,138	9,621	11,145	13,280	13,386	14,143	16,012	15,140	15,408	9,605 (166%)
Total GDA	31,736	32,037	32,330	33,582	36,006	40,368	45,295	52,032	57,224	64,409	73,621	70,151	69,411	37,675 (119%)
South East	9,928	9,885	9,707	9,696	9,700	9,963	10,851	11,300	11,188	11,311	11,335	11,206	11,001	2,143 (22%)
South West	14,379	14,588	14,277	15,534	15,600	16,056	16,861	17,356	18,595	20,281	22,788	23,614	22,508	8,129 (56%)
SE/SW	24,307	24,473	23,984	25,230	25,300	26,019	27,699	28,656	29,783	31,612	34,123	34,820	33,509	10,272 (42%)
Total														

Table 3.6 Full-time employment levels in foreign owned businesses in the GDA and South East and South West sub-regions (Source: Forfas, 2000, and 2003)

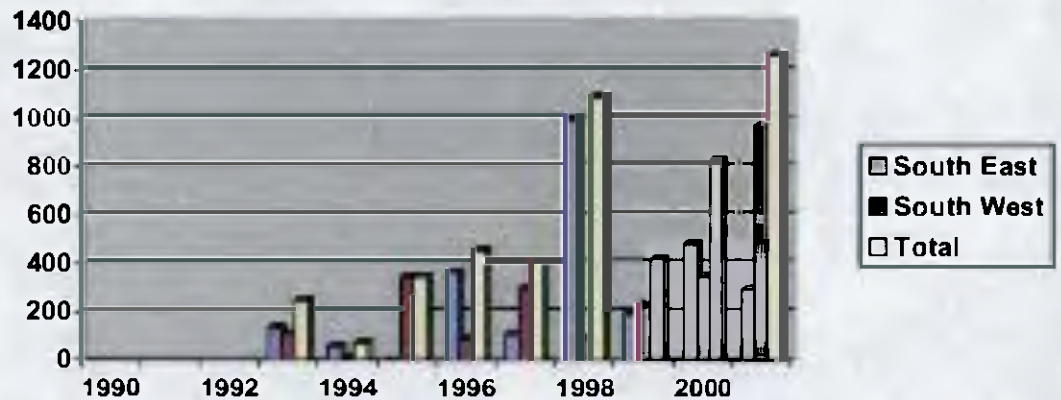


Fig. 3.8 Number of job losses in South East and South West Ireland between 1990 to 2001 (figures were not available for 1990, 1991, and 1992) (Source: IDA)

3.6 Indigenous start-ups in South East and South West from 1990 to 2001

Of the 805 companies registered in the South East and South West, 153 were founded between 1990 and 2001, each of which was in one of the industry sectors relevant to this research³. An analysis of these start-ups is presented in Figure 3.9 and Tables 3.7 and 3.8. An interesting point to note from this data is that there has been a steady quantity of start-ups in South East and South West since 1990, with a significant

³ The industry sectors relevant to this research are: chemicals, computers, electronics, engineering, manufacturing, pharmaceuticals, plastics & rubber, R&D and labs, software, and telecommunications

increase in activity in 1995 and 1997, and a slow tail-off from 1997 onwards. This trend is more or less in line with the high level of economic activity nationally during the same period of time (see Chapter 1).

A point to note at this stage is that this data are based on companies that were still in business during the time of data gathering for this research. Therefore not included in the data are enterprises that commenced after 1990 but ceased their business activities prior to 2002.

Even though evidence exists that indicates the South East sub-region is the poorest performing sub-region in the country as regards the number of start-ups, and GDP per capita (Dee, 2004), the data in this current research shows that the level of start-ups in the South East is greater than that of the South West for every year except 1990, 1997, and 2000.

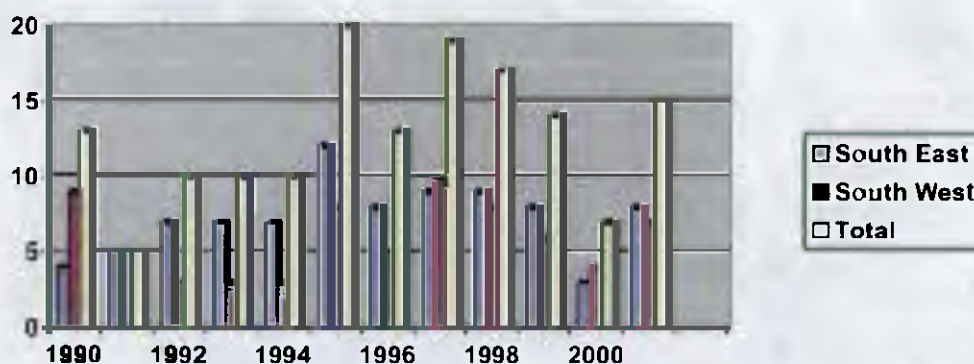


Fig. 3.9 Number of indigenous start-ups by sub-region by year from 1990 – 2001 (Source: Enterprise Ireland, County Enterprise Board, Shannon Development, and Company Registration Office data)

Sub-region	'90	'91	'92	'93	'94	'95	'96	'97	'98	'99	'00	'01	Total
SE	4	5	7	7	10	12	8	9	9	8	3	8	87
SW	4	0	3	3	3	8	5	10	8	6	4	7	66
Total	13	5	10	10	10	20	13	19	17	14	7	15	153

Table 3.7 Number of indigenous start-ups by sub-region by year (Source: Enterprise Ireland, County Enterprise Board, Shannon Development, and Company Registration Office data)

An explanation for this anomaly may be that the South East has fewer MNEs than the South West (80 versus 148), and as shown in Table 3.6 the increase in the level of full-time employment in MNEs in the South East is much lower than that in the South West, therefore the South East economy is less reliant on MNEs and as a result has to be more reliant on indigenous industry creation and development.

From Table 3.8 it can be seen that the highest level of SME start-up activity in the South East is in the engineering sector, followed by manufacturing. Most of the engineering activity is precision engineering, and a significant amount of these engineering businesses provide services and products to the agricultural related industry sector. The total number of 'high-tech' type businesses created in both sub-regions is relatively low for the twelve-year period investigated.

Industry Sector	South East	South West	Total
Chemicals	2	0	2
Computers	0	2	2
Electronics	4	2	6
Engineering	32	14	46
Manufacturing	24	20	44
Pharmaceuticals	0	2	2
Plastic&Rubber	2	0	2
R + D & Labs	5	4	9
Software	15	20	35
Telecomms	3	2	5
Total	87	66	153

Table 3.8 Number of start-ups by industry sector by sub-region during the period 1990 to 2001 (Source: Enterprise Ireland, County Enterprise Boards, Shannon Development, and Company Registration Office)

For comparative purposes, Table 3.9 shows the profile of the number of MNE openings and closures during the period 1990 to 2001, as well as the number of job losses and quantity of indigenous start-ups during that period.

	'90	'91	'92	'93	'94	'95	'96	'97	'98	'99	'00	'01	Total
MNE closure SE	2	3	4	3	3	0	7	1	1	2	5	5	36
Number of job losses SE	n/a	n/a	n/a	136	59	0	364	110	995	190	480	294	2628
Indigenous start-ups SE	4	5	7	7	7	12	8	9	9	8	3	8	87
MNE openings SW	11	5	6	2	7	3	4	5	19	10	5	4	81
MNE closures SW	6	4	7	5	2	4	11	8	6	5	6	7	66
Number of job losses SW	n/a	n/a	n/a	113	12	345	89	298	94	227	347	968	2493
Indigenous start-ups SW	9	0	3	3	3	8	5	10	8	6	4	7	66
Total SE+SW indigenous start-ups	13	5	10	10	10	20	13	19	17	14	7	15	153

Table 3.9 Profile of MNE start-ups, closures and job losses, and level of indigenous start-ups in South East and South West Ireland 1990 – 2001 (Source: Enterprise Ireland, County Enterprise Board, Shannon Development, and Company Registration Office data)

Based on the data derived from this table, there does not appear to be any direct correlation between the number of plant closures and job losses to the number of new indigenous start-ups in the sub-regions. Nor, contrary to Gorg and Strobl's (1999) findings, does there appear to be a direct relationship between the number of MNE facility openings and the level of indigenous start-ups, even if time-phased start-up is taken into consideration. Gorg and Strobl's (1999) research tested Barry and Bradely's (1997) assertions that "spin-off benefits of FDI (in Ireland) might also include a role as 'incubators' for new entrepreneurs" (p.1803), and the "the model developed by Markusen and Venables (1999)" (Gorg and Strobl, 1999, p.1). Gorg and Strobl's (1999) research also examined the claim in Ruane and Gorg's (1997) study as well as in Irish academic and policy debate, namely that MNEs play a role as incubators to new entrepreneurs.

Gorg and Strobl (1999) used Markusen and Venables' model because, in their opinion, "the model predicts that, if linkages exist (between foreign owned multinationals and domestic firms), indigenous intermediate and final goods producing firms will benefit

and the entry rate of indigenous firms will increase” (p.7). Using Forfás employment survey data, Gorg and Strobl calculated the “entry rate of indigenous firms and the presence of foreign multinationals in Irish manufacturing over the period 1974 to 1995” (p.7). Overall, they found “a positive and statistically significant effect of the presence of foreign multinationals on the entry of indigenous firms in the same sector _____ these results indicate that there is evidence that, ceteris paribus, foreign firms have indeed had positive effects on the entry of indigenous firms...” (p.13). However, Gorg and Strobl do caution that they were “only measuring the incidence of entry” (p.19).

But, based on the data presented in this current research, there is no clear evidence to suggest that MNE facility openings, closures, and the number of people that lose their jobs as a result of a closure will equate (directly) to a related quantity of start-ups. This observation, (especially with regards to plant closures and indigenous start-ups), is validated later, in Chapter 7, where comments from CEOs of state enterprise support agencies about the number of start-ups that are created, in their respective sub-regions, as a result of plant closures and job losses are examined.

3.7 Conclusion

The purpose of this chapter was to provide a context for the current research by presenting a brief summary of the research area of analysis, namely the South East and South West sub-regions of Ireland. The brief regional overview was followed by an outline of the MNE and indigenous activity in the sub-regions in relation to openings, closures, job losses and start-ups.

Contrary to evidence presented by other researchers such as Gorg and Strobl (1999), that there is a positive effect of the presence of foreign multinationals on the entry rate of new firms, the data provided in this chapter does not demonstrate a clear correlation between the number of multinational start-ups and the number of indigenous start-ups in the sub-regions of analysis. Also the data does not demonstrate a clear correlation between the number of multinational closures, job losses and the number of indigenous start-ups.

Establishing the direct links between MNEs and new indigenous enterprise creation is the essence of this current research. But before analysing the data, in Chapters 5, 6 and 7, the methodological paradigms underpinning this research and the research methods themselves, will be explored.

Chapter 4

Conceptual and Methodological Frameworks

Chapter 4 Conceptual and Methodological Frameworks

4.1 Introduction

From Chapter 2, it is evident that, whilst a considerable amount of research investigating the benefits of FDI to host regions, forward and backward linkages from/to MNEs, and the spillover and spin-off effects from MNEs into host economies, there is little evidence of any research that examines for the *direct* links between the presence of an MNE in a host region/sub-region and the level of new enterprise creation in that region/sub-region. The aim of this current research is to explore the relationship between new venture creation and the presence of MNEs within a host region/sub-region.

The Culliton Report (1992) expressed concern that the Irish Government's focus on FDI was such that the Irish indigenous industry base was not being catered for adequately. Similarly, Chapter 1 outlined that academic researchers such as O'Hearn, 1998; O'Sullivan, 2000; Morgenroth and O'Malley, 2003; Sterne 2004; and Grimes and Collins, 2006, who, based on their research into the influences of FDI and MNEs on the Ireland economy, also expressed concerns about Ireland's over dependence on FDI and MNEs. It was the Culliton Report, in fact, that formed the basis of the Industrial Development Act 1993 which set up, the Irish Government enterprise support agencies, Enterprise Ireland to focus on the creation and development of the small, medium and large indigenous industry sector, and the City and County Enterprise Boards to focus on the creation and development of the micro indigenous industry sector in Ireland.

In part, it was this expressed concern of Ireland's over dependence on MNEs, and the implementation of government policy attempting to rectify this scenario, that urged this researcher to explore the extent to which MNEs have a direct impact on the level of new enterprise creation in their (MNEs') host economy.

The purpose of this chapter is to outline the research problem, objectives and questions pertaining to this study. The chapter also discusses the research philosophy, approach,

and strategy used to conduct the research. Finally, the chapter explains the implementation of the research design in detail.

4.2 Selecting the area and time span of analysis

As outlined in Chapter 1, Ireland's economy has been performing well especially since the mid 1990s. Because of Ireland's extraordinary performance (for example in 2002 its GDP per capita was 122% of the EU average (Briefing paper, 2003)) the EU, through its European Structural Funds (ESF)¹, was planning to reclassify Ireland from Objective 1² status to Objective 2³ (ESF Report, 1999). At the time, most politicians, and economic commentators considered that this change in status would have serious repercussions for Ireland's economy, because it would mean that the minimum matching funding for EU sponsored projects required to be supplied by government, or public sector organisations, would change from 25% under Objective 1 to 75% under Objective 2 (Department of Enterprise, Trade and Employment, 2001). This would mean that, in future, it would be much more difficult to fund major developmental projects.

¹ Regions within the EU are classified for financial support depending on the economic difficulties they encounter. There are three types of regions (referred to by the EU as objectives -- Objective 1, Objective 2, and Objective 3) that receive financial support from European Structural Funds. The most significant objective, in terms of resources allocated, is Objective 1 (ESF Report, 1999).

² Objective 1 – Assists regions, whose development is lagging behind, i.e. those regions whose GDP per capita is less than 75% of the EU average, to catch up by providing them with the basic infrastructure or encouraging investments in business economic activity. Within Objective 1, relevant projects receive up to 75% funding from the EU, with the other 25% coming from national government or the private sector (ESF Report, 1999).

³ Objective 2 – Supports economic and social conversion of industrial, rural, urban, or fisheries-dependent areas experiencing structural difficulties. However, the maximum funding provided by the EU for eligible projects is 25%, and the balance has to be provided by national government or the private sector (ESF Report, 1999).

Jim O’Leary (Chief Economist, Davy Stockbrokers Ireland), highlighted the inequitable nature of changing the whole of the Republic of Ireland from Objective 1 to Objective 2 status by stating “between 1993 and 1999 Ireland qualified for full structural funding across the entire country because at the start date the average GDP per capita was just 75% of the EU average. While clearly the West, Midlands and Border regions are in a different position (economically) to the east coast and parts of Munster and therefore Ireland should not be treated as one region” (O’Mahony, 1998).

Because of the inequitable manner in which Ireland’s economic growth has evolved throughout the 1990s, and in particular that Dublin’s and the GDA’s economic performance has overshadowed the underperformance of sub-regions such as South East and South West Ireland, this researcher decided to focus on the latter sub-regions. The main reason for this focus was to analyse to what extent MNEs have a direct impact on the creation of indigenous enterprises in underperforming and less developed regions.

As outlined in Chapter 3, Section 3.5, the inequitable nature of Ireland’s growth is obvious when increases in employment in foreign owned businesses alone (and therefore the flow of inward FDI into and across Ireland) are observed. For example, as Table 3.6 of Chapter 3 demonstrates the GDA has performed far better than the South East and South West sub-regions, in terms of full-time employment in foreign owned businesses. As regards FDI, the number of facility openings and closures is another indicator as to how well the GDA has performed compared to other sub-regions, such as the Mid West and the South East and South West (SE/SW) combined. Table 4.1 shows the number of MNE facility openings and closures in these sub-regions between 1990 and 2001.

MNE Facility Openings	'90	'91	'92	'93	'94	'95	'96	'97	'98	'99	'00	'01	Total
GDA	18	18	21	22	23	32	32	27	27	7	20	18	265
Mid West	4	3	6	3	3	2	1	4	3	1	0	0	30
SE/SW	15	6	10	2	13	7	9	9	25	10	9	7	122
MNE Facility Closures	'90	'91	'92	'93	'94	'95	'96	'97	'98	'99	'00	'01	Total
GDA	13	16	19	10	15	10	7	10	12	11	21	33	177
Mid West	4	3	1	4	2	3	2	3	0	5	4	2	33
SE/SW	8	7	11	8	5	4	13	9	7	7	11	12	102

Table 4.1 MNE facility openings and closures between 1990 and 2001 (Source: IDA Data)

From Table 4.1 it can be seen that the number of MNE openings in the GDA was far greater than the Mid West and the SE/SW combined. Equally, the table shows the number of closures in the GDA was lower, in relative terms (in relation to the number of openings), than the Mid West and SE/SW combined. This scenario impacted on the levels of employment in the different sub-regions. Table 4.2 indicates that the levels of unemployment in the South East and South West were higher than that in the GDA (CSO, 2000)

Region	Unemployment level	Employment Participation Rate
State	5.4%	59.5%
Greater Dublin Area (GDA)	4.2%	63.0%
Mid West	5.4%	60.0%
Midlands	6.5%	55.7%
South East	7.3%	58.0%
South West	5.2%	57.2%
Border	8.6%	54.7%
West	4.6%	58.3%

Table 4.2 Levels of unemployment and participation rates in the labour force by region in 1999
(Source: CSO, Quarterly National Household Survey, 2000)

Another factor contributing to the selection of the area for analysis was the drift of population towards the GDA away from the other sub-regions. For example, between 1996 and 2002, the overall population of the Republic of Ireland increased by 8%, but the GDA increased by 9.2% and the rest of the Southern and Eastern region and the Borders Midland and West region increased by less than 7% (CSO, 2002). Considering birth rates were evenly spread across the country (CSO, 2002), this indicates that there was a move of population towards the GDA, away from the other sub-regions.

Thus, it is acknowledged by this researcher that analysing Ireland's largest area of civil, industrial and enterprise population, i.e. the GDA would have yielded greater numerical choice of MNEs and indigenous start-ups; for example as per Census (2002) the population of the GDA in 2001 was 1,535,250, compared to 1,005,400 for the South East and South West combined; the number of people employed in foreign owned

businesses in the GDA was 70,151 compared to 35,320 in the South East and South West combined (see Table 3.6); and there were 143 more MNE openings and 75 more MNE closures in the GDA than in the South East and South West combined during the research time period of analysis (see Table 4.1). Also, it was assumed that since the GDA represented 39% of the total population of the Republic of Ireland in 2001, it was likely that approximately 39% of the registrations with the Companies Registration Office (CRO) would also be based in the GDA (approximately 66,300 registrations compared to the 9,014 used as the starting point for this research (see Figure 4.4)).

Consequently, a third factor considered when selecting the area of analysis was the availability of and accessibility to data. Whereas analysing the GDA would have yielded more data to work with, it was this researcher's opinion that accessing and analysing such large volumes of data, generated from the GDA, would have been unmanageable for this current research.

Taking into consideration that the industry mix in the GDA and the SE/SW combined is similar, and that there are no regional specific enterprise policies, this researcher decided to adopt the more manageable approach to this research. However, future research should consider the influence of industry mix, size of population, and region specific characteristics, in relation to the question to what extent do MNEs have a direct impact on the creation of new indigenous enterprises.

Also, as outlined in the Preface section of this thesis, because of the researcher's industry background, connectivity with enterprise agencies in, and familiarity with the South East and South West sub-regions, it was believed that selecting the SE/SW would yield richer data and a greater depth of analysis than if the GDA or any other sub-region in Ireland were selected.

Thus, the South East and South West, because of their size of population, the distribution of MNEs and Irish owned industry base, the level of MNE and indigenous activity in the sub-regions, the underperformance these sub-regions compared to the GDA (see Chapter 3), and this researcher's knowledge of these sub-regions and their industries, made these sub-regions the most accessible and manageable sub-regions for this current research.

With regards to the selection of time span for this research, the time period 1990 to 2001 was selected because:

- (i) There was a recession in the early 1990s,
- (ii) Ireland's economic performance improved greatly from the mid-1990s, and
- (iii) The dot.com bubble bursting in the late 1990s, early 2000s, had major implications for industry worldwide.

The period of analysis therefore covers a complete economic cycle. It was envisaged that analysing MNE and indigenous start-up activity during the different phases of the cycle in Ireland would yield distinct, measurable, analysable patterns of behaviour of and attitudes towards the creation of new indigenous enterprises in South East and South West Ireland. The 1990s was also a period of active restructuring by MNEs in Ireland with many of them either ceasing operations altogether or, at a minimum, moving their labour intensive manufacturing operations from Ireland to lower cost economies. It was also in the mid-1990s that the Government embarked on a policy of attracting more capital intensive and knowledge-based (including financial services) MNEs into Ireland.

4.3 Research question and objectives

The focus of this research is to examine to what extent MNEs have a direct impact on the level of new enterprise creation within the MNEs' host region(s), the critical phrases for this research being *direct impact* and *new enterprise creation*. This research did not intend to explore the already much researched backward and forward linkages between MNEs and indigenous enterprises. Nor did the research intend highlighting the equally well-researched aspects of the benefits of MNEs to their host economies. Rather this research focused on examining for direct links between MNEs and new enterprise creation. Thus the aim of this research is to:

Investigate if there are direct links between the presence of MNEs in a host regional (sub-regional) economy and the creation of new enterprises in that economy

The direct links relevant to this research can be either, or a combination of, the following aspects of a new enterprise founder's relationship with an MNE:

- (i) Worked for an MNE prior to starting his/her own enterprise;
- (ii) Was made redundant by an MNE and then started an enterprise;
- (iii) Never worked for an MNE, but identified an opportunity to supply an MNE with a required product or service; or
- (iv) Availed of an opportunity based on an MNE rationalising and outsourcing some of its activities.

In particular, the study aimed to:

- (i) Identify new start-ups which relate to the presence of an MNE in a host economy;
- (ii) Identify new start-ups which relate to withdrawal from, or contraction of an MNE in its host economy;
- (iii) Assess the dependence of new start-ups on the MNE prior to and during the start-up phase;
- (iv) Assess the impact of the prevailing policies of support agencies at the time of start-up;
- (v) Identify lessons that may be drawn from the research to support enterprise creation and development policy;
- (vi) Identify the number of founders in the research sample that could be described as latent entrepreneurs.

The sub-questions, in relation to the industry sectors selected for this research⁴, supporting the primary research question are:

⁴ The industry sectors selected for this research were the chemical, computer, electronics, engineering, manufacturing, pharmaceutical, plastic & rubber, R+D & laboratories, software, telecommunications, and/or any other relevant high-tech, high-value add industry sectors

- (i) What are the factors that impact on the quantity of and reasons for start-ups during an MNE's presence in its host community?
- (ii) What are the factors that impact on the quantity of and reasons for start-ups after an MNE has departed from or significantly reduced its employment levels in its host community?
- (iii) Is there a difference between the number and type of start-ups during the presence of and after the closure of an MNE?
- (iv) Does the MNE autonomy and country of origin of the MNE have an impact on start-up activity?
- (v) To what extent do the prevailing policies of support agencies influence the start-up activity?
- (vi) To what extent is the viability of the start-up dependent on the presence of an MNE in its host community?

Having outlined the research aims and objectives, the next step in the process was to identify the research paradigm and implement a research design best suited to answer these questions.

4.4 Conceptual framework

The approach adopted in this research was to define the concepts, hypothesis/propositions and theory/explanations/interpretations as outlined in Curran and Blackburn (2001). In other words, "the main concepts related to the topic and hypothesis or initial propositions about how the concepts are linked" (p.37) are defined, and "the theory (sometimes labelled alternatively as 'explanation' or 'interpretation'), is simply the hypothesis(es) or proposition(s) together with additional statements which collectively suggest *why* something occurs" (p.43). In this current research the term 'interpretation' will be used. The 'interpretation' is an extrapolation of the hypothesis/proposition (hypotheses/propositions) that suggests why there is a direct link between MNEs and new venture creation (see Table 4.3). The 'concept' is a basic element of the theory/explanation/interpretation. As Gill and Johnson (1991) pointed out concepts are the building blocks of theories and hypotheses in that they are "abstract

ideas which are used to classify together things sharing one or more common properties” (Krausz and Miller, 1974, p.4).

In this current research, one ‘concept’ is the MNE, another is ‘new enterprise’. The ‘hypothesis’ or ‘proposition’ is a statement that identifies the links between two or more of the concepts. The use of the term ‘hypothesis’ or ‘proposition’ is very important at this juncture because ‘hypothesis’ suggests a positivist methodology and ‘proposition’ suggests a non-positivist research approach. According to Curran and Blackburn (2001), defining a research question or conceptual framework at an early stage in the research process does not confine the research to one research philosophy or another, nor does it confine the researcher to one style of methodology. Also, whereas conceptual frameworks do provide boundaries they do not need to work as straight jackets (Miles and Huberman, 1984).

Table 4.3 describes the concepts, hypotheses/propositions and interpretation relevant to the current research question: *are there direct links between the presence of MNEs in a host regional (sub-regional) economy and the creation of new enterprises in that economy*. The conceptual framework (Figure 4.1) was derived from identifying the concepts, stating the hypotheses/propositions and identifying the interpretations underpinning this research.

The key aspects of this conceptual framework are:

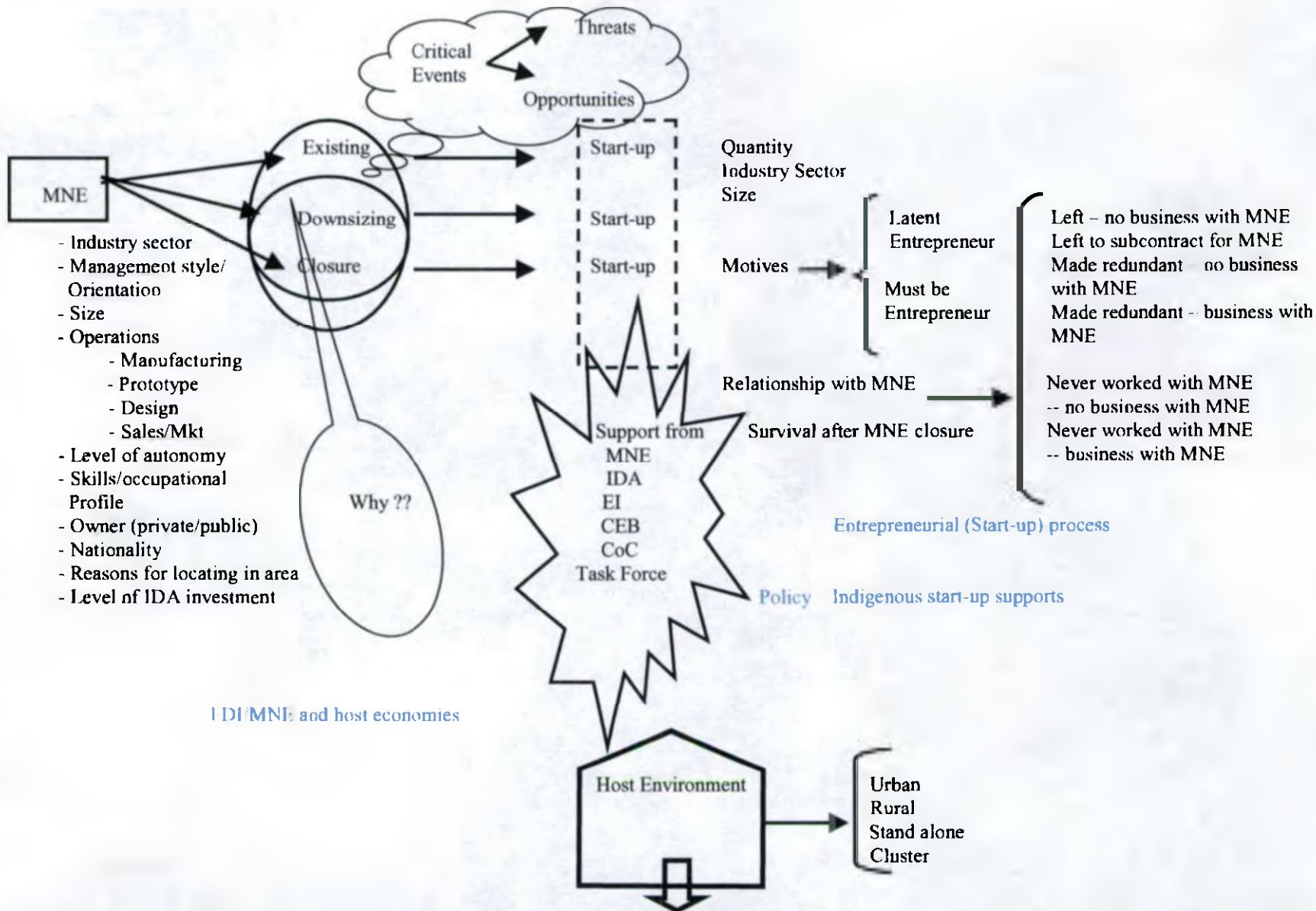
- (i) the MNE which is defined by its characteristics as listed in the conceptual framework,
- (ii) the possible links between the MNEs and indigenous start-ups,
- (iii) the relationship between the founder of an indigenous enterprise and an MNE,
- (iv) the reasons why people start a business,
- (v) the supports that may be in place to encourage indigenous start-ups, and
- (vi) the environment within which all aspects interact.

Aspects (i) and (ii) were informed by literature pertaining to FDI, spillovers, and plant closures. The entrepreneurial process literature informed aspects (iii) and (iv). Finally,

both enterprise support policy and regional economic development policy were particularly relevant to the final two aspects (v and vi) of the conceptual framework.

Element	Identification	Definition
Concept	MNE	A foreign owned business that has set up a wholly or partially owned business in Ireland.
	Direct link	A tangible reason that clearly identifies that the reason why a person started a business was directly related to an MNE.
	Host economy	This is the sub-region or locality within which an MNE subsidiary is operating.
	Creation	The starting of a new business.
	New enterprise	An enterprise that did not exist before the arrival and setting up of a particular MNE in the host region (sub-region). For the purposes of this research the new enterprises must be located in the South East or South West sub-regions of Ireland.
Hypothesis/proposition	1. There is a direct link between the presence of MNEs in a host economy and the level of new enterprise creation in that economy	That there is a direct link between founders of some new enterprises and MNEs in that the founder either worked for an MNE and was made redundant (or dismissed) from the MNE and utilised his/her skills learned at the MNE to start a new business; or the founder worked for an MNE identified an opportunity to supply that (or other) MNE(s) and left the MNE to found a company to supply this need; or the founder started a company specifically to supply a need to an MNE.
	2. There is no direct link between the presence of MNEs in a host economy and the level of new enterprise creation in that economy	That the creation of new enterprises is as a result of reasons that are in no way linked to the presence of MNEs in the geographical area in which the new enterprise is created.
Interpretation	MNEs have an impact on the level of new enterprise creation within given host economies	This is the purpose of this research i.e. to identify if there is a direct link between the presence of MNEs in a host regional (sub-regional) economy and the level of new enterprise creation. Based on the identification of such links (or no links) the research analysis will interpret why these links exist (or do not exist).

Table 4.3 The concepts, hypotheses/propositions and interpretation pertaining to this research (Source: Current research)



Number of MNE, number of indigenous companies, existing companies as sub-suppliers to MNEs, education structure, level of industry, markets served, distance to offices of - CEB (County Enterprise Boards), EI (Enterprise Ireland), IDA (Industrial Development Authority), LEADER, Chambers of Commerce (CoC)

Fig. 4.1 Conceptual framework for this current research (Source: Current research)

The conceptual framework identifies a number of reasons why indigenous enterprises may start up as a result of the presence (or departure) of an MNE within (from) a host regional (sub-regional) economy. The start-ups may be the result of a threat or opportunity; what Cope and Watts (2006) refer to as a 'critical incident'. The threat may have been an actual, perceived, or pending closure or downsizing activity. The opportunity may have been something observed, perceived, or a particular knowledge that an employee had in relation to a product and/or service required by an MNE, but that was not being supplied locally to date. Or the opportunity may have been as a result of an MNE deciding to outsource some of its non-core business activities, and an employee may have seized the opportunity to start a new business to supply the product/service being outsourced. Equally, the opportunity could have been an observed or perceived need, or based on specific knowledge that a non-employee of an MNE may have had about the requirements, of an MNE.

The relationship between the founder of the indigenous enterprise and an MNE could have been that the founder was an employee of an MNE and he/she either left of his/her own accord, by mutual agreement, was fired, or was made redundant. The new enterprise created may have or may not have business with that MNE. Or an employee decided to accept an opportunity of setting up a business to supply a service or product to an MNE based on that MNE's decision to outsource a product or service. Or yet again, it may have been that the founder never worked for an MNE but he/she identified an MNE need and set up an enterprise specifically to supply that need.

The creation of a new enterprise may have been influenced by a combination of the following factors;

- (i) the MNE's characteristics,
- (ii) the support infrastructure available for new enterprise creation,
- (iii) the general economic environment prevailing at the time of new enterprise creation,
- (iv) national and/or regional/sub-regional enterprise policy, and
- (v) the entrepreneur's (enterprise founder's) own motivations, be they a *must be* or *latent* entrepreneur.

Once the research question was established and the conceptual framework developed, the next step in the process was to design the methods to be used to conduct the research.

4.5 Research design

Saunders, Lewis and Thornhill (2000) created a simple analogy to describe and explain the research process. They likened the research process to an onion with its many layers, suggesting that each layer of the process needed to be identified and dealt with in order to get to the core essence of the research at hand. Figure 4.2 has adapted Sanders' et al. (2000) "research process onion" (p.85) to depict and explain the research process employed in this current research.

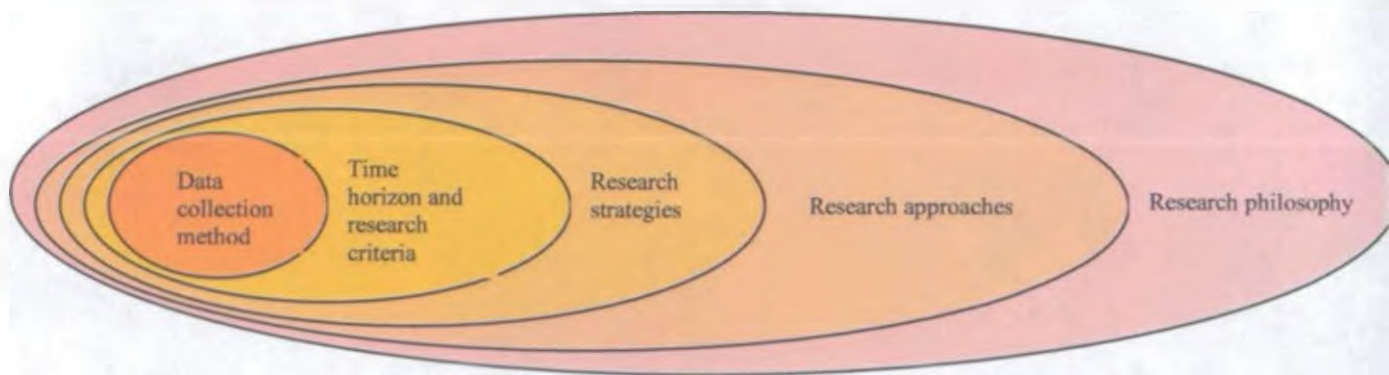


Fig. 4.2 The research process 'onion' (Source: Adapted from Saunders, Lewis and Thornhill, 2000, p.85)

Each of these onion layers will be examined in turn in order to explain to the reader the methodological approach adopted for this research.

4.5.1 Research philosophy

According to Easterby-Smith, Thorpe, and Lowe (1991) "the relationship between data and theory is an issue that has been hotly debated by philosophers for many centuries. Failure to think through philosophical issues such as this, while not necessarily fatal,

can seriously affect the quality of management research” (p.21). Understanding the philosophical base for research is very important as it does influence the approach the researcher takes when examining the research problem and question. There are two basic philosophical paradigms from which research designs and methodologies can be derived. They are the positivists (deductive) and phenomenological (inductive) paradigms. Easterby-Smith et al. (1991) have tabulated the features of these paradigms as shown in Table 4.4.

	Positivist (Deductive) Paradigm	Phenomenological (Inductive) Paradigm
Basic beliefs:	The world is external and objective	The world is socially constructed and subjective
	Observer is independent	Observer is part of what is observed
	Science is value free	Science is value laden
Researcher should:	Focus on facts	Focus on meanings
	Look for causality and fundamental laws	Try to understand what is happening
	Reduce phenomena to simplest elements	Look at the whole of the phenomenon
	Formulate hypotheses and then test them	Develop ideas through induction from data
Preferred methods include:	Experimental, surveys, structured interviews	Using multiple methods, unstructured interviews, case studies
	Taking large samples	Interviews, unstructured, in-depth, case studies

Table 4.4 Key features of positivist and phenomenological paradigms (Source: Easterby-Smith, Thorpe, Lowe, 1991, p.27 – highlights added)

As Curran and Blackburn (2001) pointed out, research can be a mix of deductive and inductive approaches. Thus the highlighted areas in Table 4.4 indicate the philosophical approach taken in this current research. This research in fact draws upon elements that are found within both the positivist and phenomenological paradigms. The researcher is independent, focused on facts and is seeking to identify the number of indigenous companies in the South East and South West that have been created as a direct result of MNEs being present in these sub-regions. The researcher has also operationalised concepts (MNEs and new indigenous enterprises) so that the number of new indigenous enterprises that have been created as a direct result of the presence of an MNE in the host sub-regions can be measured. On the other hand, the researcher is attempting to identify the essence of new indigenous enterprise creation within the South East and South West. In interviewing the founders of these new enterprises, senior executives of the MNEs to which the founders were linked, and CEOs of enterprise support state

agencies the researcher is taking cognisance of the human aspects, social constructs, and subjectivity of the situation. Equally, in order to understand what is happening and how it is happening, this research has adopted a multi-method approach, including in-depth interviews, to establish different views of the direct relationship between new indigenous enterprise creation and the presence of MNEs.

From the literature reviewed to date, it has not been clearly established that there is 'a direct link' between the presence of MNEs in a host region/sub-region and the level of new enterprise creation in that region/sub-region. Therefore this research is not set on previously researched (or defined) measurements, instead it seeks to understand the social construct from an individual's perspective as to whether the presence of an MNE influenced his or her decision to create a new enterprise. Thus the output of this research may point towards relevant factors to be considered in the development of such measurement instruments.

The purpose of this research is not to test a hypothesis such as – people who have worked in an MNE are more likely to start a new enterprise than those people who have not worked in an MNE. Rather this research is attempting to interpret to what extent MNEs do have (or do not have) a direct impact on the level of new enterprise creation within their host environments. Therefore, this research is seeking facts about and causality between MNEs and new enterprise creation, but the way it will identify this causality is by understanding why the founder of a new enterprise started that business.

In order to perform this research, the key concepts – MNE, direct link, host economy, creation, and new enterprise – are all observable and measurable from a data collection point of view. Thus the concepts of this research were operationalised (Curran and Blackburn, 2001). At the same time, however, multiple methods needed to be used so as to establish different views of the phenomenon, 'the direct impact (or non impact) of MNEs on new enterprise creation in their host economies'.

In summary, different philosophical approaches have informed different aspects of this current research. For example, the positivist (deductive) paradigm was used to research the number of new enterprises that have been created as a direct result of MNEs in their host regions. Also, elements of the phenomenological (inductive) paradigm were used

to understand the perspectives of founders of new enterprises, and the views of senior executives of MNEs, and CEOs of state enterprise support agencies in relation to their views as to the extent to which MNEs do (or do not) have a direct impact on the level of new enterprise creation within the MNEs' host regions.

4.5.2 Research approaches

Usually the inductive (phenomenological) approach is associated with qualitative methodology and the deductive (positivist) approach is associated with quantitative methodology. This dichotomy is also referred to as the understanding (or hermeneutic) tradition and the empiricist (or deductive-nomological or hypothetico-deductive) tradition (Brannick and Roche, 1997). Gill and Johnson (1991) define the approaches as being at two ends of a spectrum, one end being ideographic (inductive) and the other end being nomothetic (deductive). In particular, Gill and Johnson state

“as a heuristic device, it is possible to construct a continuum of research methods that allows us to differentiate between different methods in terms of the various logics they bring to bear in conducting research. That is, we can discriminate between different methods in terms of their relative emphasis upon deduction or induction, their degree of structure, the kinds of data they generate and the forms of explanation they create” (p.36).

Thus, research can be a mix of deductive and inductive approaches (Curran and Blackburn, 2001).

This particular research is not located at either end of the spectrum. As outlined in section 4.5.1, this research is focused on understanding the nature of the relationship between the presence of MNEs in a host economy and the level of new enterprise creation in that economy. To achieve this understanding, there was a need, at a minimum, to discuss the reasons for start-up with the founders of new enterprises and to establish to what extent (and how) MNEs were a catalyst to the creation of these new

enterprises. Equally, as stated in 4.5.1, the views of MNE senior executives and CEOs of the state enterprise support agencies, operating in the areas in which the new enterprises were created, were required. This process of interviewing, understanding, and searching for meaning lies within the inductive (qualitative) methodological approach. Conversely, in order to understand the level of new enterprise creation, there was a need to adopt a quantitative methodological approach to operationalise and measure this concept. The desired output from this mixed methodology approach was an understanding as to the existence, or non-existence, of a direct link between MNEs in a host region and the level of new enterprise creation within that region. In summary this methodology may best be described as a descriptive qualitative analysis.

Curran and Blackburn (2001) define the descriptive qualitative analysis as “descriptive statistics in quantitative research.....to carry out an initial exploration of an area not previously researched. The level of analysis will be relatively low and the extent of theorising limited. The prime aim will be to delineate the universe of meanings, attitudes and values of a group of respondents” (p.104).

This research did start with developing a conceptual framework (see Fig. 4.3), and as suggested by Gill and Johnson (1991), “a deductive research method entails the development of a conceptual and theoretical structure prior to its testing through empirical observation” (p.28). However, even though Sekaran (1992) agreed that the theoretical framework is the basis on which the entire research rests, she also stated that, “even if testable hypotheses are not necessarily generated, developing a good theoretical framework is central to examining the problem under investigation” (p.64). Therefore, even though a conceptual framework was generated for this research, the research does not follow a deductive path. An a priori interpretation has not been made that MNEs do or do not have a direct impact on the level on new enterprise creation within their host economies.

4.5.3 Research strategies

The strategy considered for this research was generally based on, but is not actually, grounded theory (GT). The process employed did not follow the strict, in depth

guidelines as outlined by Glaser and Strauss (1967). The conclusions that evolved from this research were based on the interplay between the interviewing process of different cohorts of informants, the broader process of data collection and the data analysis (Goulding, 2002). However, the process employed did not follow the sequence of interviewing, develop theory, and re-interviewing in order to enhance the theory as per the grounded theory process (Glaser and Strauss, 1967; Glaser, 1978; Strauss and Corbin, 1997; Lock, 1996, 2001; Goulding, 2001). Whereas the conclusions generated from this research were not “accomplished by the many rigorous steps of GT woven together by the constant comparison process, which is designed to generate concepts from all data” (Glaser, 2002, p.2), it does identify “an emergent social pattern grounded in research data” (Glaser, 2002, p.4). As Curran and Blackburn (2001) pointed out:

“despite the frequent claims by later researchers....that their work was inspired by grounded theory, there are few examples in small business research which clearly show, stage by stage, the approach at work and how the final theoretical result emerged from the analytical strategy. This is probably due to grounded theory as propounded in Glaser and Strauss (1967) and later methodological tests clashing with the untidy realities of the research process. Analysis often tends to be a much more haphazard process than is admitted by either researchers or in books on research methods” (p.107).

Also the reality of the situation was such that time and circumstances did not permit frequent entry and re-entry into the field.....(therefore) the data collection ran ahead of the theory building (Curran and Blackburn, 2001, p.112).

The sub-strategy used to develop the theory/interpretation/explanation was a mixed methodology. It was a combination of (a) quantitative methodology to identify the number of indigenous enterprises that had a connection with MNEs and (b) qualitative methodology, through surveys and interviews, to gain understanding as to what the links were between enterprise founders and MNEs, and to appreciate the impact of the prevailing economic conditions at the time of indigenous enterprise start-up and the

support mechanisms in place at that time. Therefore this research is a combination of *content analysis* and *grounded theory*. Where, according to Easterby-Smith, Thorpe, and Lowe (1991) in “content analysis, the researcher ‘goes by numbers’ and ‘frequency’in grounded theory, the researcher goes by feel and intuition, aiming to produce common or contradictory themes and patterns from the data which can be used as a basis for interpretation” (p.105)

However, care had to be taken in selecting the most suitable methodologies for this research, because, as pointed out by McGrath, Martin and Kulka (1981), the methodology one uses does have an impact on the conclusions of and theories derived from the research. Not only were multiple methods used in this research but also, in an attempt to increase the validity of the findings, triangulation in the form of interviewing three different cohorts of key informants (entrepreneurs/founders of indigenous enterprises, senior executives of MNEs, and senior executives of State enterprise support agencies) was utilised.

The research strategy chosen meets the evaluation criteria as outlined by Gill and Johnson (1991, p.121) in the following ways:

- Internal validity – the process of identifying indigenous enterprises that have/had links with MNEs and the survey method used to gain insights from entrepreneurs, MNEs and State enterprise support agencies’ senior executives were designed to identify if MNEs are a *stimuli* to the *cause/effect/response* equal to “new enterprise creation”.
- External validity – the research process was designed in such a manner that the methodology derived from the research can be used in other sub-regions in Ireland to examine the extent to which MNEs have a direct impact on new enterprise creation in those regions also. The methodology will also be valid for other regions (economies) that have adopted similar FDI and indigenous SME support policies as Ireland (i.e. many of the developing and/or emerging economies around the world).

- Reliability – using the detailed process described in section 4.5.5, it is likely that other researchers will be able to replicate this research process in many economies worldwide. Assuming the same conditions as regards FDI and indigenous enterprise policies apply, the derived theory from this research could be investigated further.

The two key instruments used in this research were surveys and interviews. “Surveys usually entail the careful random selection of samples that enable results to be generalised to wider populations with a high degree of confidence” (Gill and Johnson, 2001, p.123). However, random sampling was not utilised in this research, what was used was a combination of purposive and judgement sampling (Sekaran, 1992). The informants (founders of indigenous enterprises, senior executives of MNEs and CEOs of State enterprise support agencies) were specifically selected because it was assumed that they had the information that would help develop a view as regards the presence or not of a direct link between MNEs and new enterprise creation. In summary, the key informants and why they were selected for this research are shown in Table 4.5.

The process used to identify the founders of the indigenous enterprises was also selective and purposive (see section 4.5.5). Quota sampling (Easterby-Smith et al., 1991; Sekaran, 1992; and Curran and Blackburn, 2001) was originally considered as a means to identify the founders of the indigenous enterprises, however as the process unfolded, most of the relevant founders identified were interviewed.

Key Informant	Reason for selection
Entrepreneur/founders of indigenous enterprises established between 1990 and 2001	These were selected because they had a direct link with an MNE prior to starting their enterprises. It is they who know why they started their enterprise and to what extent an MNE was a significant factor in their decision to start the enterprise.
Senior executives of MNEs	This cohort consisted of a combination of Managing Directors (MD) and Human Resource (HR) Directors in the MNEs that were directly linked to the founders of the indigenous enterprises analysed. The MD or HR director was selected because of their seniority in the MNE organisation, their broad breadth of knowledge of their MNE's policies and directives, and their longevity in the MNE organisation (most of those interviewed worked in the relevant MNE from prior to 1990).
Senior executives of State enterprise support agencies in South East and South West Ireland	This cohort consisted of all the Chief Executive Officers (CEOs) of the regional Enterprise Ireland offices and the City and County Enterprise Boards of the regions analysed. They were selected because it is these organisations that support the creation and development of indigenous enterprises in South East and South West Ireland. Also the CEOs interviewed were long serving members of these organisations and therefore have region specific knowledge as regards enterprise creation over the period of analysis.

Table 4.5 Key informants and the reason for their selection (Source: Current research)

Interviewing is often claimed to be the best method for gathering (qualitative) information, however its complexity is often underestimated (Easterby-Smith et al., 1991). Also, interviewing can be intimidating and daunting for both interviewer and interviewee alike, because usually in an interview setting people have never met previously and it is a complex and sometimes lengthy encounter (Curran and Blackburn, 2001, p.79). However, this was not a major issue for this research because, once the interviewees were aware of the industrial experience and background of the researcher, there was an empathy and understanding between interviewer and interviewee. The interview strategy used in this research was semi-structured interviews; the questions were arranged in such a way as to commence dialogue and to act as prompts during the interview. Whereas it is often suggested that interviewing is a good technique to employ where the information required is sensitive and where the “interviewee may be reluctant to be truthful” about certain issues (Easterby-Smith et al., 1991, p.74), McClelland (1965) points out that people cannot really be trusted to say exactly what their motives are, because often it is the case that the interviewee may say what they think is the most appropriate response, or say what they are most comfortable with. For example, in the case of this research, some of the interviewees were reluctant to admit that they were made redundant.

4.5.4 Time horizon and research criteria

For reasons outlined in sections 4.1 and 4.2 of this chapter, the selected time span of this research is between 1990 and 2001. The research looked for indigenous enterprises that commenced operations between 1990 and 2001. This provided the researcher with a large database within which to identify founders of indigenous enterprises that had a direct link with an MNE in South East or South West Ireland. The presence, inflows and outflows of MNEs were also examined over the same period of time. Limitations of such a time span were that (a) entrepreneurs that founded their companies in the early to mid 1990s may not have the same level of recall as to why they started their businesses, and remember what the prevailing economic conditions were at the time of start up, as entrepreneurs of more recent start-ups, and (b) MNE subsidiaries that had closed down during that period of time had either gone out of business completely and/or very few of the senior managers that were involved in the closure process were available for interview. Another limiting factor was that the national and global economic conditions varied greatly during the period of analysis, for example the early 1990s started in recession, the world economy began to improve around 1993 but the Irish economy did not begin to improve until 1995, and toward the end of the 1990s and early 2000s the dot.com industry collapsed.

The research criteria for this research are shown in Table 4.6. All of the criteria specified for the indigenous enterprise must be met. Either of the criteria specified for the entrepreneur can be applied. Finally, all the criteria for the MNE and the State enterprise support agencies must be met in order to be considered as a key informant for this research.

According to McGrath, Martin, and Kulka (1981), most research reports in the social sciences contain a fairly extensive description of methods chosen, but few of them provide a very informative account of the processes by which these choices came about (p.44). What follows is the detailed methodological framework for this research. The framework outlines the steps employed to gather the data for this research, and the reasons why these steps were chosen.

Element	Criteria	Criteria to apply
Indigenous Enterprise	Must have been founded between 1990 and 2001	All criteria in this section must be met
	Must exist in the South East or South West Region	
	Must be wholly Irish owned	
	Must not be a subsidiary of an existing Irish company	
	Must not be a subsidiary of a foreign own company	
	The business of the enterprise must be in one of the following sectors – chemicals, computers, electronics, engineering, manufacturing, pharmaceuticals, plastics & rubber, R&D and labs, software or telecommunications	Criteria 1
Entrepreneur	Must have worked for an MNE in Ireland prior to starting the business	At least one of these criteria must be met
	The business must have been started specifically to supply an MNE	
		Criteria 2
MNE	Must have existed in Ireland at any time between 1990 and 2001	Both criteria must be met
	Parent organisation must be a non-Irish company	
State Agency	Must be based in the South East or South West sub-regions	Criteria must be met

Table 4.6 Research criteria (Source: Current research)

4.5.5 Data collection methods

According to Curran and Blackburn (2001) “one of the key problems in research designs for small business research is the lack of suitable, high-quality, sampling frames from which to recruit small businesses” (p.87). For this research the first dilemma encountered was deciding how to identify entrepreneurs and indigenous enterprises that met the research criteria. The initial strategy of taking a random sample of all the SMEs in South East and South West Ireland was quickly discarded as soon as it became evident that (i) it was very difficult to get a comprehensive list of all the indigenous enterprises in the South East and South West sub-regions (the researcher did not want to just focus on enterprises that were supported by Enterprise Ireland and/or the City and County Enterprise Boards, as it was assumed that this might have added bias to the results), and (ii) the number of enterprises and entrepreneurs fitting the research criteria could be very small. The other possibility of finding the entrepreneurs and enterprises through MNEs and State enterprise support agencies was also discarded, because any leads identified from discussions with two MNEs and two of the CEOs from County

Enterprise Boards proved to be 'dead ends' in that neither the entrepreneurs or their enterprises complied with the research criteria as stipulated in Table 4.6.

Instead, the strategy adopted was to focus on the entrepreneur and the enterprise, and to use this as the starting point of the research process. Therefore, the sequence was to identify entrepreneurs who had worked for an MNE prior to starting their enterprise (or who had started their enterprise specifically to supply a product or service to an MNE), who started their enterprise between 1990 and 2001, and that the enterprise was in either of the following categories: chemicals, computers, electronics, engineering, manufacturing, pharmaceuticals, plastics & rubber, R&D and labs, software or telecommunications. Once the relevant entrepreneur, meeting the research criteria, was identified, then the MNE he/she was working for (or the MNE they specifically set up to supply to) was traced. A senior executive in that organisation was then identified and interviewed, in order to determine the MNE's attitude towards both supporting their employees start new enterprises and supporting new enterprises themselves. All the CEOs of Enterprise Ireland and the City and County Enterprise Boards in the South East and South West sub-regions were also interviewed as part of the process to determine if there were direct links between MNEs and the creation of new enterprises, and to understand their support to entrepreneurs that may have had a direct link with MNEs. The above process is depicted in a process flow diagram in Figure 4.3.

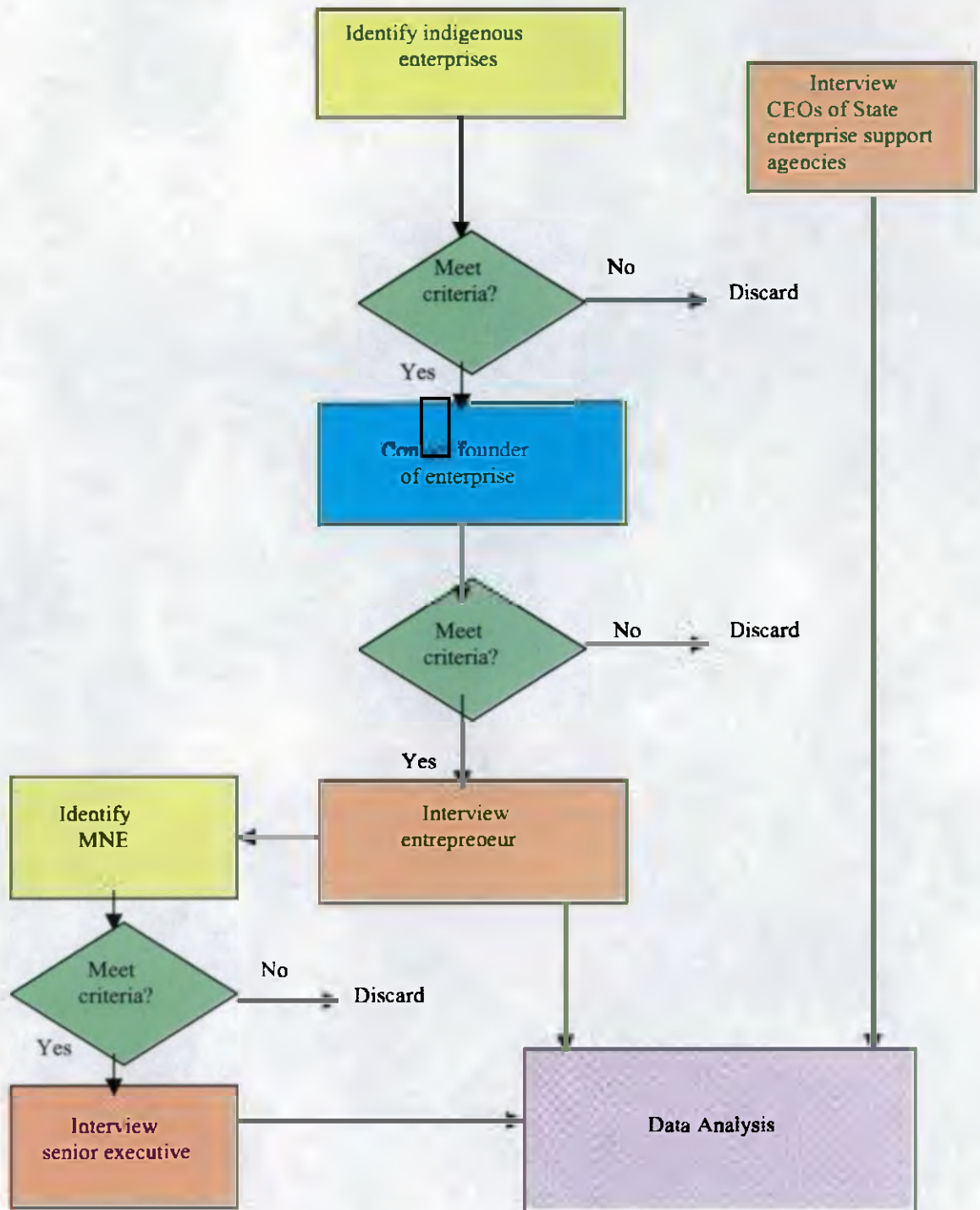


Fig. 4.3 Process flow diagram of current research (Source: Current research)

The sequential step-by-step process employed in this research is as per Figure 4.4.

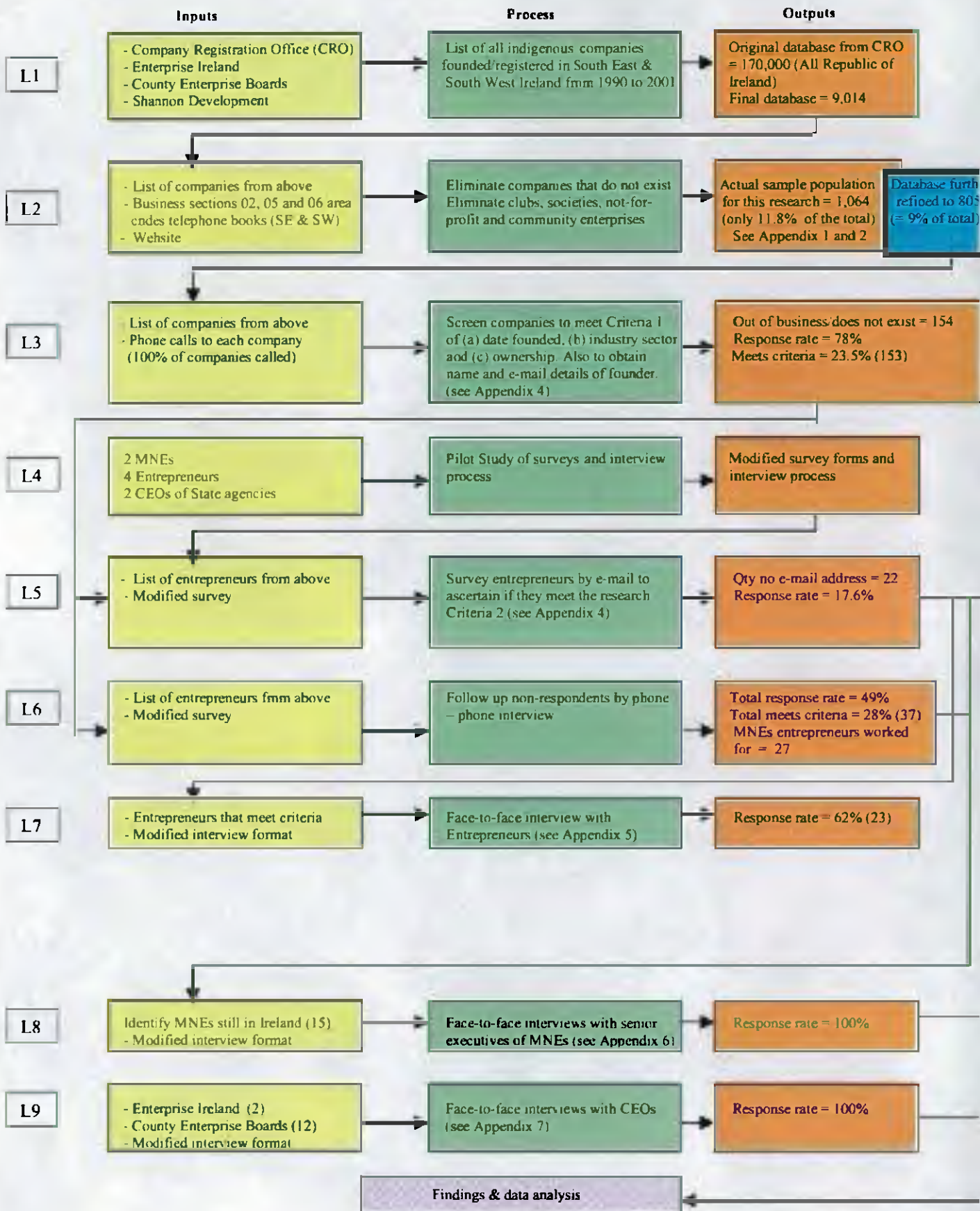


Fig. 4.4

Methodological Process for this research (Source: Current research)

After much consideration, it was decided to approach this research from the entrepreneur's perspective. It was considered that the more valid approach to take would be to first of all, identify the founders of businesses (entrepreneurs), ascertain if they had a direct link with an MNE prior to starting their business (or that the reason they started their business was specifically to supply an MNE), and then interview the founders that met the criteria to establish why they started their business, rather than trying to identify founders from the MNEs' or State enterprise support agencies' perspectives.

Thus the first step in the process was to narrow down the database from the Company Registration Office (CRO) of over 170,000 registrations in the Republic of Ireland between 1990 and 2001. By focusing on companies that had addresses in the South East and South West sub-regions, this database was reduced to 9,014. However not every business in Ireland is registered with the CRO. Therefore, in order to make the initial sample population as comprehensive as possible, it was decided to obtain records from Enterprise Ireland, the City and County Enterprise Boards and Shannon Development (the State enterprise support agencies) and add all the businesses they had supported between the years of 1990 and 2001 to the sample population. Because the City and County Enterprise Board were only incorporated in 1993, obviously their records did not start until 1993 (some in fact did not start until 1995, see Chapter 1, Section 1.2).

After eliminating duplications, sports clubs, community groups, not-for-profit organisations, and societies from the four databases, the sample population was reduced to 1,064. This number was further refined by eliminating logistics (transport and warehousing) enterprises, and a number of other enterprises such as textiles, glass manufacturing, boat building, printing & packaging, and wood processing as it was considered that these businesses were not high-tech, high-growth, high-value add enterprises. These refinements reduced the starting sample population for this research down to 805 enterprises. These 805 enterprises were CRO registered and/or assisted by State enterprises support agencies, and were in the chemical, computer, electronics, engineering, manufacturing, pharmaceutical, plastic & rubber, R+D & laboratories, software, telecommunications, and/or any other relevant high-tech, high-value add industry sectors (for further details see Appendix 1 and Appendix 2).

Diamantopoulos and Schlegelmilch (1997) cautioned about sampling 100% of the population (such as a census) because of the cost and time involved in such a process. As they stated, if a census is necessary to justify a conclusion, then the conclusion is probably not justified (p.10). Nevertheless, it was decided that the best approach to take, for this research, was to contact all the companies to establish whether or not they fit the criteria. The justification for this decision was this researcher's estimate that the number of subjects fitting the criteria would be very small. Consequently, it was this researcher's concern that if a random sample was taken from the population of 805 enterprises, it may not have yielded a sufficient number of subjects to enable the research to be viable. The estimate was based on both the researcher's industry experience and the number of dead-end leads received from the senior executives of the two MNEs and the CEOs of two state enterprise support agencies that were interviewed as part of the pilot study for this current research (L4 in Figure 4.4). This view may be considered to be researcher bias and may be a limitation of the research. However as it transpires, it was a good decision as only 4.6% (37 out of 805) of the population fit all the research criteria.

Levels L3, L5, L6, and L7 in Fig. 4.4 depict the process of arriving at the point of identifying the 37 entrepreneurs that met all the research criteria, and the subsequent 23 entrepreneurs that were interviewed face-to-face.

Level 4 (L4) in Fig. 4.4 shows that the research instruments i.e. the survey and the interview questions were subjected to a pilot study so as to address any anomalies and to improve the instruments. The pilot study was performed with four entrepreneurs (former colleagues of the researcher who had left MNEs to start their own businesses), two MNE organisations (based on personal contacts the researcher had with these MNEs), and two state enterprise support agencies (again former colleagues of the researcher). Because the content and structure of the surveys and interview questions were altered as a result of the pilot studies, the data from the entrepreneurs and MNEs used in the pilot study does not form part of the research findings, data analysis and subsequent discussion and conclusions. However, the data derived from the CEOs of the state enterprise support agencies were used.

The MNEs identified for the research (L8) were identified through the e-mails and telephone surveys with the entrepreneurs. Once it was established which MNE the entrepreneur worked for, or the MNE the new enterprise was set up specifically to supply, these MNEs were traced to ascertain if they were still operating a subsidiary in Ireland. Also, all of the MNEs that were asked to take part in the research were linked to at least one of the 23 entrepreneurs that were interviewed face-to-face. Any MNE that was associated with an entrepreneur who declined to take part in the interviews was discarded from the research sample.

Researchers such as Saunders, Lewis and Thornhill (2000) refer to the process of interviewing informants from different cohorts as triangulation. Triangulation is generally considered an appropriate method to increase research validity and reduce variances between methods employed in a given research. Even though McGrath, Martin and Kulka (1982) seriously question the validity of the triangulation process itself, it was felt that this current research would be lacking if the viewpoint of entrepreneurs, as to their perceptions regarding the level of impact MNEs had on the creation of their enterprises, was the only viewpoint considered. Therefore, as part of the validation process for this research, senior executives of MNEs were also interviewed (see L8 in Fig. 4.4) to establish both the MNEs' attitudes and support towards employees wishing to start their own business (equally to establish to what extent MNEs were willing to actively support new enterprises). A stipulation in the research criteria as regards MNE selection was that there had to be a connection between the MNE and at least one of the entrepreneurs interviewed. It proved to be too difficult to interview senior executives in MNEs that had left the country (except for one MNE that had recently closed, but whose Chief Financial Officer was still residing in the South East sub-region), therefore, the selection focused mostly on MNEs that were still operating in Ireland. In all, a total of fifteen MNEs were selected to be part of the research. All fifteen agreed to take part in the interview process.

Finally, the third dimension of the triangulation process was to interview the CEOs of the two main state enterprise support agencies (Enterprise Ireland and the City/County Enterprise Boards) operating in the South East and South West (see L9 in Fig. 4.4). The main reason for interviewing the enterprise support agencies was to get an understanding of policy aimed at encouraging and supporting (and/or identifying

opportunities) MNEs engage in the process of new enterprise creation. The two Regional Managers of Enterprise Ireland were interviewed as were the CEOs of the twelve City and County Enterprise Boards.

The new indigenous enterprise founder's screening survey, and the interview surveys for the founders, senior executives of MNEs, and the CEOs of the State enterprise support agencies are in Appendices 4, 5, 6, and 7 respectively.

In summary, this research has primarily adopted a mixed methodology using both deductive and inductive philosophies, within a descriptive qualitative analysis context in order to develop an interpretation of the relationship (of a direct link) between MNEs and new enterprise creation within the MNEs' host economies. The research is a combination of content analysis and, to a certain extent, a degree of grounded theory. The study has analysed the research from three different aspects: entrepreneurs/founders, MNEs and State enterprise support agencies.

Chapter 4 set the context for the data collection, Chapters 5, 6 and 7 provide the research findings and data analysis for each of these three cohorts of key informants. Chapter 8 draws these findings and data analysis together to interpret to what extent there is a direct link between MNEs and new enterprise creation.

Chapter 5

Start-up Process – Founders' Perspectives

Chapter 5 Start-up Process – Founders' Perspectives

5.1 Introduction

This chapter analyses the founders' perspectives as to the existence of direct links between MNEs and new enterprise creation. Therefore, the main body of (and focus on) data for this chapter are the interviews with the twenty-three founders that met the research criteria and agreed to be interviewed as part of the research process.

The chapter commences with looking at the level and nature of the indigenous enterprises that have been founded during the research period of analysis and ascertains if they were founded as a result of the existence of an MNE or because of an MNE's rationalisation programme. This is followed by an exploration of the reasons why the founders started their business and identifies the number of 'must be' and 'latent' entrepreneurs in the sample. Following this, the chapter identifies the founders' perspectives as to what extent an MNE had a direct impact on the creation of their enterprise. Next, the prevailing economic conditions and support policies available to the founder at the time of start-up are examined. Finally, the founders' views as to what state agencies and MNEs could/should do to support indigenous start-ups are presented.

The first part of this chapter reports the findings based on conducting a number of statistical tests on the data gathered as part of this research. In particular, Chi-square tests were used to test for associations between two categorical variables, and t-tests were used to test for differences between two groups in relation to the mean level of a normally distributed variable. The non-parametric Kruskal-Wallis test was used to test for differences between more than two groups in relation to the average level of a variable that was not normally distributed.

5.2 Profiles of the start-ups

From a database of 805 enterprises a total of 153 founders met Criteria 1 for this research (see Table 5.1). Survey 2 (Appendix 4, Section B) was sent to these 153 founders. The response rate was 42% (n = 64) from which thirty-seven founders fit the research Criteria 2 (see Table 5.1), twenty-three of whom agreed to be interviewed. A summary of these founders and the MNEs they worked for (or supplied to) is shown in Table 5.2.

Element	Criteria	Criteria to apply
Indigenous Enterprise	Must have been founded between 1990 and 2001	Criteria 1 All criteria in this section must be met
	Must exist in the South East or South West sub-region	
	Must be wholly Irish owned	
	Must not be a subsidiary of an existing Irish company	
	Must not be a subsidiary of a foreign own company	
	The business of the enterprise must be in one of the following sectors – chemicals, computers, electronics, engineering, manufacturing, pharmaceuticals, plastics & rubber, R&D and labs, software or telecommunications	
Entrepreneur	Must have worked for an MNE in South East or South West Ireland prior to starting the enterprise or	Criteria 2
	The enterprise must have been started specifically to supply an MNE	At least one of these criteria must be met

Table 5.1 Details of Criteria 1 and Criteria 2 (Source: Current research)

When analysing Table 5.2, it is evident that there is almost a fifty-fifty split of the 37 indigenous enterprises between the South East and South West sub-regions. Five (13%) of these enterprises supplied the MNE they were working for from an early stage of start-up. An interesting statistic worth commenting on is that only 2 of the 37 founders were female (5%). Coincidentally, this ties in with the ratio of female founders versus male founders in the 805 enterprises that passed the first stage of the screening process where only 29 (4%) of the 805 founders were female. This number is significantly less than Ireland's national average that between 7.5% and 15% of entrepreneurs are female (depending on the research database being used) (Henry and Kennedy, 2002).

Sur No. ¹						Reason for start-up ⁶	Current status of MNE ⁷	MNE supplied ⁸		
15	8	Waterford				Not supplied	Waterford	Redundancy	Closed	Rover
18	N/A ⁹	Wexford				INTEL	Dublin	Left of own accord	Still in operation	Information not provided
24	5	Cork		1				Never worked for MNE		Striker, Homedica, Pfizer
47	N/A	Cork		1				Never worked for MNE		Name not provided
48	4	Waterford				Honeywell	Waterford	Left of own accord	Still in operation	Waterford Crystal, Argos, Marks & Spencer
52	9	Waterford				Siekman	Waterford	Redundancy	Closed	
63	N/A	Cork		1				Never work for MNE		Banta, Apple, Sensormatic
70	N/A	Tipperary				Moulinex	Tipperary	Redundancy	Closed	
90	11	Cork		1		Ferrareo	Cork	Left of own accord	Still in operation	Pfizer, Yves Rocher
92	10	Waterford				Chemie Pelzer	Waterford	Redundancy	Closed	
95	N/A	Kerry		1		Alps	Kerry	Left of own accord	Closed	
96	N/A	Cork		1		Carra Communications	Dublin	Redundancy	Closed	
100	N/A	Cork		1		E-Map Publishing	Dublin	Left of own accord	Still in operation	
108	N/A	Cork		1		IBM Ireland	Dublin	Left of own accord	Still in operation	
152	N/A	Kilkenny	1					Never worked for MNE		Mainly companies in U.S.
153	N/A	Cork		1		Motorola Cork	Cork	Mutual agreement	Still in operation	
154	6	Cork		1		Glaxo Smith Kline	Cork	Mutual agreement	Still in operation	Alps (Irl), Scolastics (UK)
155	1	Tipperary	1			Merck Sharp & Dome	Tipperary	Left of own accord	Still in operation	

¹ Each screening survey was coded. The screening survey identified those founders that had a direct link with an MNE prior to starting their enterprise

² Interview code for the founders

³ Location of the indigenous enterprise operation

⁴ Name of the MNE for whom the founder of the indigenous enterprise worked

⁵ Location of the MNE subsidiary in Ireland

⁶ Reason why the founder left the MNE

⁷ Identifies whether or not the MNE subsidiary was still in operation at the time of this research analysis

⁸ Name of the MNE to whom the new indigenous enterprise is supplying goods and/or services

⁹ N/A indicates that these founders could not be contacted, or declined to be interviewed

158	N/A	Kerry			Ansaldo Ireland	Kerry	Redundancy	Closed	
183	2	Cork			Pepsi Cola	Cork	Left of own accord	Still in operation	Pepsi Cola
185	7	Waterford			Allied Signals(Garrett Irl)	Waterford	Redundancy	Still in operation	Information not supplied
191	23	Waterford					Did not work for MNE		Information not supplied
195	3	Carlow			Lapple, Carlow	Carlow	Redundancy	Still in operation	Lapple
207	16	Carlow					Never worked for MNE		Braun, Lapple
227	18	North Tipp			Kostal	Limerick	Left of own accord	Still in operation	Kostal
233	N/A	Cork					Never worked for MNE		FMC, Snap on Tools
419	19	Cork			Glaxo Smith Kline	Tipperary	Redundancy	Closed	All multinational pharmas in Ireland
529	N/A	Cork			Seagate Technologies	Tipperary	Redundancy	Closed	Intel, and pharmaceutical companies
573	13	Tipperary			Clonmel Health Care	Tipperary	Redundancy	Still in operation	Various
574	22	Kerry			Aughinish	Limerick	Redundancy	Still in operation	Aughinish
576	17	Tipperary			Boan Hard Metals	Limerick	Left of own accord	Closed	None
606	21	Kerry			Not supplied		Left of own accord	Still in operation	Information not supplied
704	12	Tipperary			Seagate Technologies	Tipperary	Redundancy	Closed	Lucent, Benchmark, Nycomed Amersham, Wythe Medica
713	20	Cork					Never worked for MNE		Pfizer, Elan, Novartis, etc
723	15	Waterford			Kromberg & Schubert	Waterford	Redundancy	Closed	Kromberg & Schubert (initially)
756	14	Waterford			Bausch & Lomh	Waterford	Never worked for MNE	Still in operation	
798	N/A	Carlow			Name not provided		Left of own accord	Closed	Name not provided

Table 5.2 Summary of founders' details (Source: Current research)

All the MNEs that the founders worked for were very large organisations employing several hundred people in their subsidiaries in Ireland. Of the 37 founders listed in Table 5.2, fourteen (38%) were made redundant or were in the process of being made redundant, two (5%) parted company by mutual agreement, and thirteen (35%) left of their own accord (however one of those who stated they left of their own accord was aware of the fact that the MNE was about to commence downsizing the business. It was this threat that encouraged him to look for other opportunities). Eight (22%) of the founders did not work for an MNE in Ireland. Of the 27 MNEs that the founders worked for, only fourteen (52%) were still in operation in Ireland at the time of this research. However, one of the MNE executives interviewed for this research was from an MNE that closed down during this research programme. In relation to the fifteen MNEs, whose executives it was possible to interview (see Chapter 6), nine (60%) of the founders of the indigenous enterprises left of their own accord, five (33%) started their enterprise because the MNE was downsizing, and one (7%) left the MNE by mutual agreement. However, the focus of this section of the research will be on the composition of the 37 founders profiled in Table 5.2.

Based on the evidence presented above, it is clear that MNEs do have a positive effect on the host environment through the process of spin-offs, both while the MNEs still exist in the host environment and when MNEs are downsizing or closing their subsidiary altogether. As O'Sullivan (2000) put it, the South East and South West have enjoyed the "fruits of spillover from the increase in MNE activity in Ireland" (p.282). The evidence also concurs with the assertions of Fosfuri, Motta, Ronde (2001); Girma and Wakelin (2001); and Kugler (2002) that the facets of spillover include pecuniary, technological, and skills transfer. Also, as O'Farrell and Crouchly (1983) have indicated, there is a positive side to plant closures, namely they (plant closures or downsizing) release resources for growth in more productive sectors and regions.

The evidence presented in Table 5.3 supports both these comments and the above statistics. The table demonstrates that there is a link between MNEs and indigenous start-ups in that out of the 153 founders/enterprises that met Criteria 1, 64 (42%) responded to the Survey 2, which established if the founder met Criteria 2. Of this 64, 37 (58%) had in fact a direct link with an MNE prior to starting their business (see

Table 5.2). Assuming these respondents are representative of the 153 founders/enterprises that met Criteria 1, the figures suggest that 58% of businesses founded in South East and South West Ireland between 1990 and 2001 in the following industry sectors: chemicals, computers, electronics, engineering, manufacturing, pharmaceuticals, plastics & rubber. R&D and labs, software or telecommunications, had of a direct link with an MNE prior to the founder starting the enterprise.

Meets Criteria 1 ¹⁰	Response rate ¹¹	Meets Criteria 2 ¹²	Worked for MNE (% of total that meet Criteria 2) ¹³		Set-up to supply MNE (% of total that meet Criteria 2) ¹⁴
153	64 (42%)	37 of 64 (58%)	29 of 37 (78%)		8 of 37 (22%)
			Let go	Left of own accord	
			16 (55%) ¹⁵	13 (45%) ¹⁶	

Table 5.3 Links between MNEs and indigenous start-ups (Source: Current research)

Based on this current research, of the 37 businesses that did have a direct link with an MNE prior to start-up 29 (78%) were because the founder actually worked for an MNE in Ireland, and 8 (22%) were because the founder saw an opportunity to supply products and/or services to an MNE.

For the purpose of this research, however, it is important to examine the number of start-ups in relation to the numbers of MNE openings and closures during the period of analysis and within the area of analysis for this research. Thus, Table 5.4 illustrates the spread of MNE and indigenous enterprise start-up activity by county. While the table does show a spread for each activity, it is difficult to ascertain if there is

¹⁰ Out of the 805 companies identified for this research, 154 were no longer in business. Of the 651 businesses still operating, 153 (23%) met the first stage of the research criteria, Criteria 1 (Survey 1)

¹¹ The response rate to the 153 surveys issued, seeking to establish if the founder had any direct link with an MNE before starting his/her enterprise, was 64 (42%) (Survey 2)

¹² Of the 64 respondents, 37 (58%) had a direct link with an MNE prior to they starting their enterprises. The founders either worked for an MNE, or set up their enterprise specifically to supply products and services to an MNE

¹³ Twenty-nine of the founders worked for an MNE before they started their enterprise

¹⁴ Eight founders never worked for an MNE and their initial reason for starting their enterprises was to supply services and/or products to MNEs

¹⁵ For the purpose of this research, 'let go' means the founder was either made redundant (received some form of redundancy package from an MNE), or the founder and MNE parted company by 'mutual agreement' (the founder was asked to leave, fired, etc). Two of the founders parted company by 'mutual agreement'

¹⁶ For the purpose of this research, 'left of own accord' means that the founder identified an opportunity to start their own business and decided to leave the MNE to pursue this opportunity

significant evidence of associations between critical research variables, such as size of population to the level of start-ups, or number of MNE openings or closures and start-ups, nor indeed the number of job losses to start-ups. Equally, when the data is viewed using scatter plots, it is still difficult to state if there is correlation between start-ups, MNE activities, job losses and size of population (see Plots 5.1, 5.2, 5.3, 5.5 and 5.5).

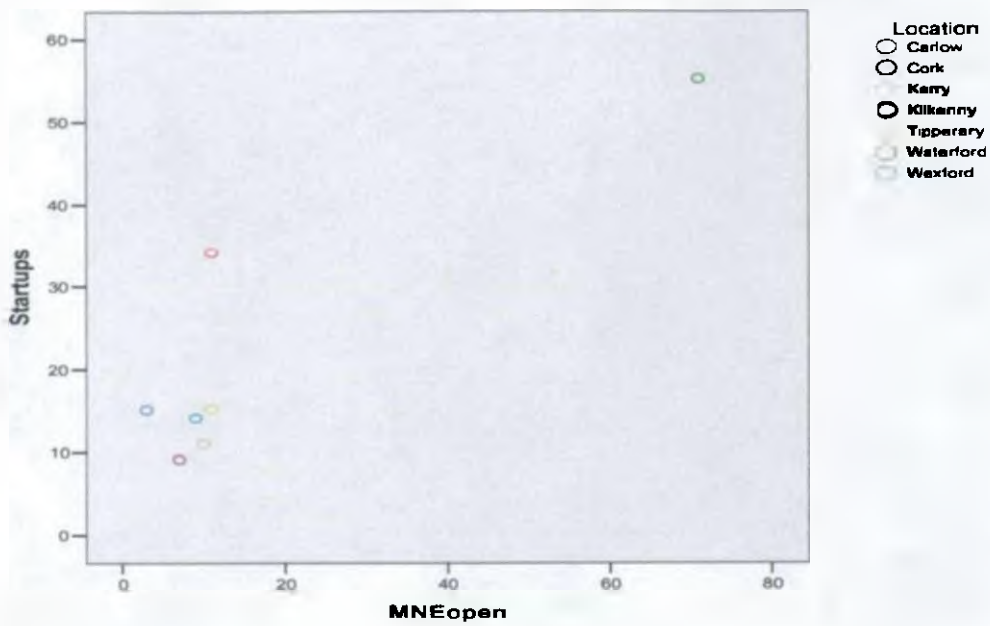
County	MNEs opening ¹⁷	MNEs closed ¹⁸	Net MNE activity	Job Losses	Indigenous start-ups ¹⁹	Population **
Carlow	3 (3%)	1 (1%)	2	0 (0%)	15 (10%)	41,616 (4%)
Cork	71 (58%)	56 (55%)	15	2,239 (44%)	55 (36%)	425,510 (43%)
Kerry	10 (8%)	10 (10%)	0	254 (5%)	11 (7%)	126,130 (13%)
Kilkenny	7 (6%)	5 (5%)	2	222 (4%)	9 (6%)	75,336 (7%)
Tipperary	11 (9%)	10 (10%)	1	1,602 (31%)	15 (10%)	133,535 (13%)
Waterford	11 (9%)	11 (10%)	0	463 (9%)	34 (22%)	94,680 (9%)
Wexford	9 (7%)	9 (9%)	0	341 (7%)	14 (9%)	104,371 (10%)
Total	122 (100%)	102 (100%)	20	5,121 (99%)	153 (100%)	1,001,178 (100%)
SE	111 (91%)	91 (89%)	20	4,778 (93%)	148 (96%)	1,100,578 (110%)
SW	11 (9%)	11 (11%)	0	343 (7%)	5 (3%)	351,640 (35%)

Table 5.4 MNE openings, closures, job losses and indigenous start-ups by county (Source: Current research, state enterprise support agencies, CRO, and CSO). (** Population is as per the 1996 Census of Ireland)

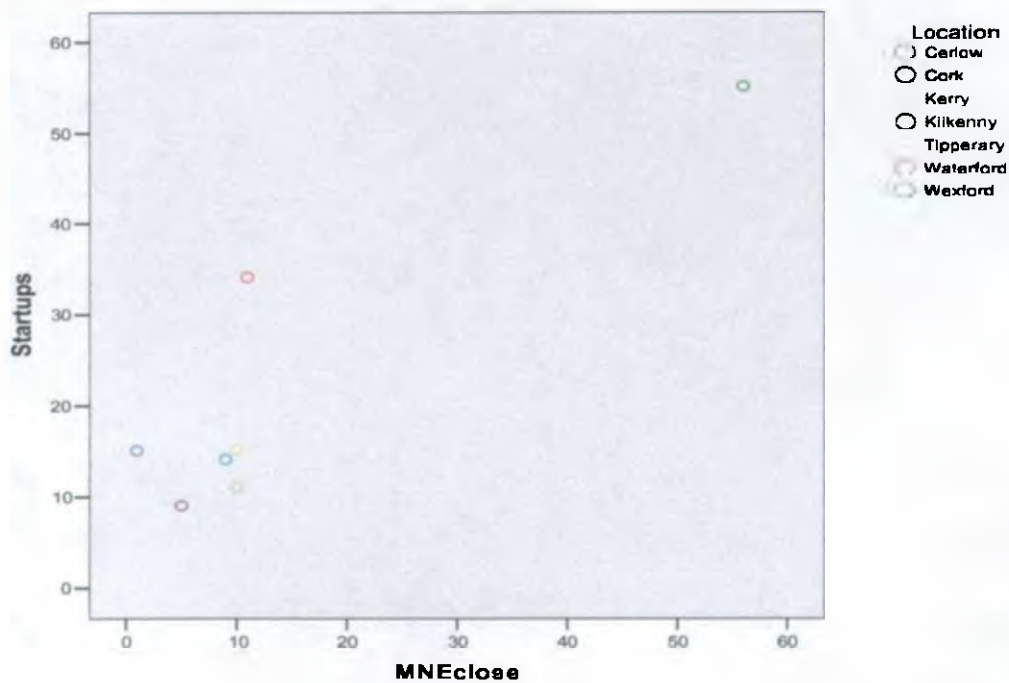
¹⁷ See Appendix 8 for a full list of MNE facility openings, between 1990 and 2001, and their locations in South East and South West Ireland

¹⁸ See Appendix 3 for a full list of MNE closures and job losses by year and location.

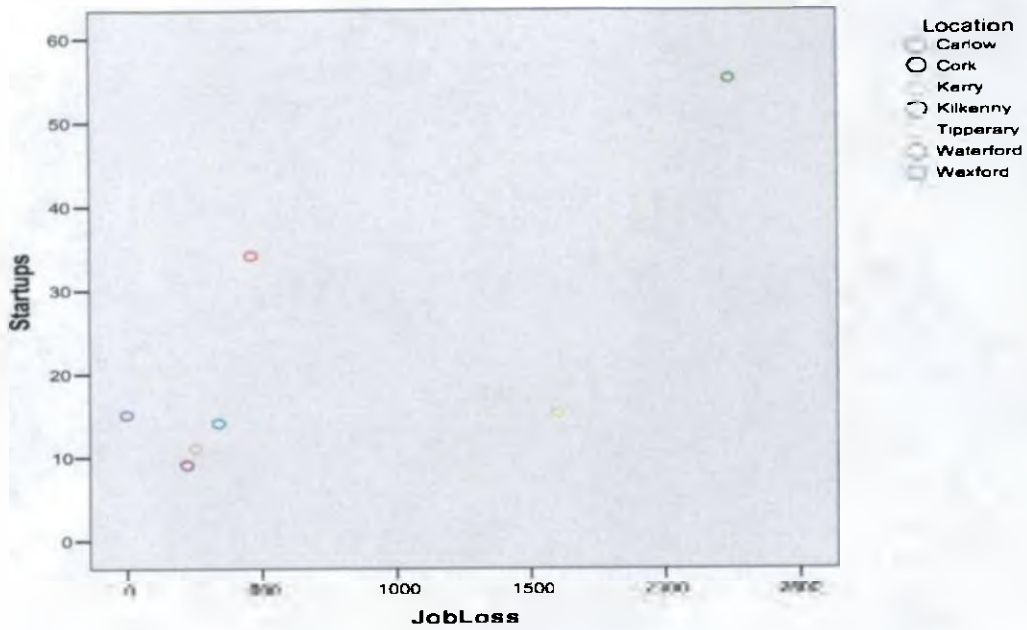
¹⁹ Appendix 9 lists the 153 enterprises that meet Criteria 1 of this research, by start-up date, industry sector, and location



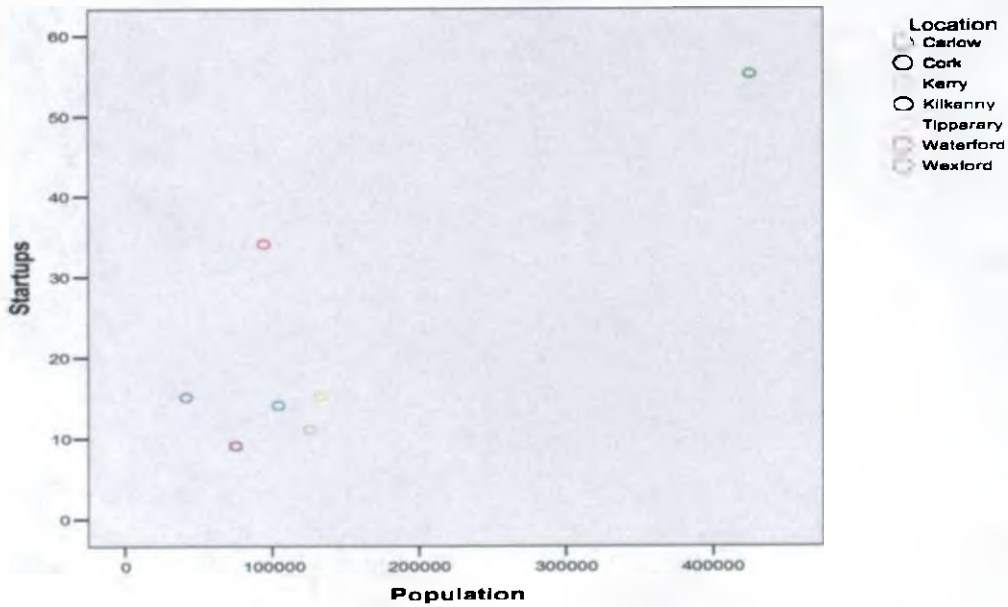
Plot 5.1 Number of indigenous enterprise start-ups per number of MNE openings by county (Source: Current research)



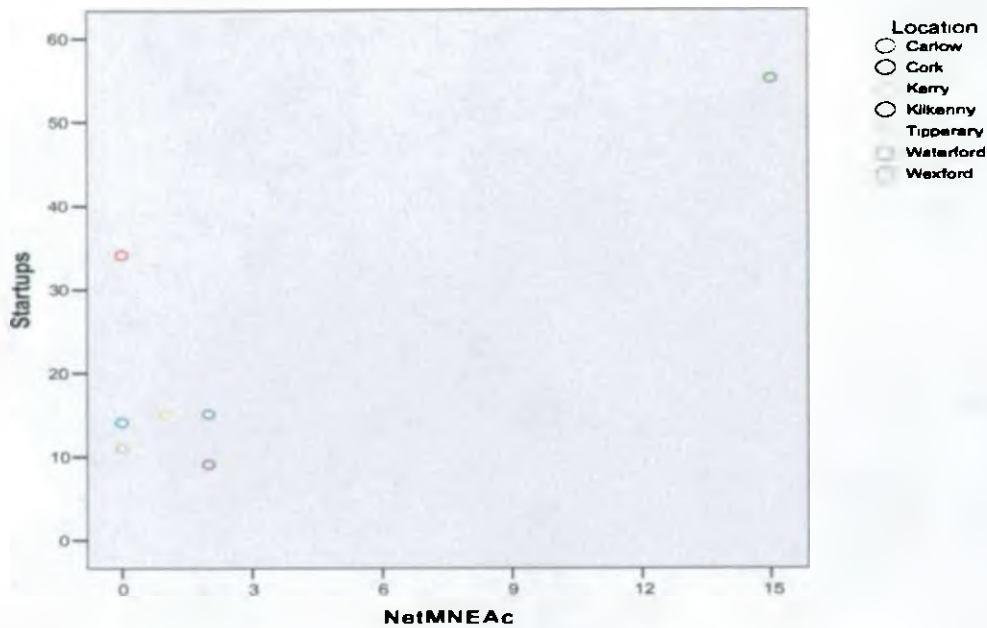
Plot 5.2 Number of indigenous enterprise start-ups per number of MNE closures by county (Source: Current research)



Plot 5.3 Number of indigenous enterprise start-ups per job losses by county (Source: Current research)



Plot 5.4 Number of indigenous enterprise start-ups per size of population by county (Source: Current research)



Plot 5.5 Number of indigenous enterprise start-ups per Net MNE activity by county (i.e. net differences between MNE openings and closures) (Source: Current research)

Even though Cork has the highest level of MNE openings, MNE closures, start-ups, and the highest population of all of the seven counties, there is no significant evidence emerging from this research to establish a correlation between these variables. One set of data that appears to be unusual relates to Waterford. For example, with the exception of Cork, Waterford has a similar level of MNE opening and closing activity as the other counties; the level of job losses for Waterford is not significantly higher than Kerry, Kilkenny or Wexford, but it is considerably higher than Carlow, and much lower than Tipperary (but it must be pointed out that one MNE closure in Tipperary accounts for approximately 62% of that county's job losses); however the level of indigenous enterprise start-ups in Waterford is far greater than the other counties analysed in this research.

One reason for the higher level of activities in Waterford may be because Waterford has always been considered as the main urban centre in the South East sub-region. For example, the regional offices of the State enterprise support agencies (IDA and EI), and representative bodies (e.g. Chambers of Commerce and the Irish Business

Employers Confederation (IBEC)) are based in Waterford. Waterford also has the largest business park and industrial estates in the South East sub-region.

When a Chi-square test is run on the data, it can be demonstrated that all variables but *closures* have different distributions compared to the population. For *openings* (chi-square = 14.15, df = 6, p = 0.028), the distribution was different primarily due to higher numbers than expected in Cork and fewer than expected in Kerry. For *job losses* (chi-square = 1828.08, df = 6, p < 0.001), the distribution was different primarily due to far higher numbers than expected in Tipperary and fewer than expected in Carlow and Kerry. For *start-ups* (chi-square = 45.42, df = 6, p < 0.001), the distribution was different primarily due to higher numbers than expected in Waterford and Carlow.

Table 5.5 depicts the levels of MNE openings and closures, job losses and indigenous start-ups by year from 1990 to 2001. No correlation between the variables is apparent from the data listed in Table 5.5. For example, 1998 was the year of highest MNE openings and highest net activity of MNEs, but this does not correspond to highest level of indigenous start-ups in 1995. Equally, neither the highest level of MNE closures (13 in 1996) nor the highest net negative MNE activity (-6 in 1993 (i.e. six more MNEs closed that year compared to the number of openings)) do not yield the highest number of indigenous enterprise start-ups.

Also the years with the highest level of job losses (1,262 in 2001, and 1,089 in 1998) do not yield the highest level of indigenous enterprise start-ups (again it must be pointed out that one MNE closure accounted for 91% of the job losses in 1998, and one MNE closure accounted for 68% of the job losses in 2001)²⁰. In fact, the year of the highest level of indigenous enterprise start-ups was 1995 (20), which was the year of the second lowest level of MNE openings (7), the lowest level of MNE closures (4) and the second lowest level of job losses (345). The year before, 1994, only had 13 MNE openings, a small number of MNE closures (5), and a very small number of job

²⁰ Both of these MNEs were considered high-tech, high-value-add companies and employed a large number of professional people such as senior managers, engineers, technicians, and materials and financial experts.

losses (71). However, even based on this evidence, it is difficult to ascertain if a lag or knock-on effect accounts for the high level of indigenous enterprise start-ups in 1995.

Year	MNEs opening ²¹	MNEs Closed ²²	Net MNE Activity	Job Losses	Indigenous start-ups ²³
1990	15 (12%)	8 (8%)	7	No data	13 (9%)
1991	6 (5%)	7 (7%)	-1	No data	5 (3%)
1992	10 (8%)	11 (11%)	-1	No data	10 (7%)
1993	2 (2%)	8 (8%)	-6	249 (5%)	10 (7%)
1994	13 (11%)	5 (5%)	8	71 (1%)	10 (7%)
1995	7 (6%)	4 (4%)	3	345 (7%)	20 (13%)
1996	9 (7%)	13 (13%)	-4	453 (9%)	13 (9%)
1997	9 (7%)	9 (9%)	0	408 (8%)	19 (12%)
1998	25 (20%)	7 (7%)	18	1089 (21%)	17 (11%)
1999	10 (8%)	7 (7%)	3	417 (8%)	14 (9%)
2000	9 (7%)	11 (11%)	-2	827 (16%)	7 (5%)
2001	7 (6%)	12 (11%)	-5	1262 (25%)	15 (10%)
Total	122 (100%)	102 (100%)	20	5121 (100%)	153 (100%)
SE	41 (33%)	36 (35%)	5	2628 (51%)	87 (57%)
SW	81 (67%)	66 (65%)	15	2493 (49%)	66 (43%)

Table 5.5 MNE openings, closures, indigenous start-ups by year (Source: Current research, state enterprise support agencies, and CRO)

As outlined in Chapter 1, Ireland was in a recession in the early 1990s. One factor that helped Ireland to move from the recession was its decision (in the late 1980s early 1990s) to change its enterprise policy to focus more on high-technology, knowledge-based, and service-related industries (such as IC manufacture, communications development, software development, and financial services) and to defocus on attracting high-labour intensive, cost-sensitive industries such as hardware manufacturing. Another factor that may have contributed to Ireland's growth in the mid-90s was the continuance of its 1986 enterprise policy to include financial and other relevant services in the 10% on profits scheme (Department of Industry Trade and Employment, 2004; Garvin, 2004). However, according to Tansey (2004), the

“seeds of Ireland's economic transformation were sown in the rough ground of the 1980s. In the first place, the external deflation imposed on the Irish economy by the combined forces of excessive domestic inflation and an

²¹ See Appendix 8 for a full list of MNE facility openings, between 1990 and 2001, and their locations in South East and South West Ireland

²² See Appendix 3 for a full list of MNE closures and job losses by year and location

²³ Appendix 9 lists the 153 enterprises that meet Criteria 1 of this research, by start-up date, industry sector, and location

over-valued exchange rate – an appreciating real exchange rate – squeezed inflation out of the Irish economic system. Consumer price inflation, 20.4% in 1981, had fallen to just 2.1% by 1988. Moreover, despite the steep pick up in activity levels during the 1990s, low inflation persisted right up to 2000 and provided one of the cornerstones on which the boom was built” (p.2).

Tansey continued,

“In the second place, the deceleration in inflation, combined with a severe loosening in the labour market, as evidenced by rapidly-rising unemployment, created conditions in which pay settlements would have been low, whether or not national collective bargaining had been resumed in 1987. The principal long-run economic payoff from the reintroduction of national pay deals arose in a different area entirely – in the reduction of days lost as a result of industrial disputes, particularly in the public sector.

Finally, the unilateral devaluation of the Irish Pound within the Exchange Rate Mechanism of the European Monetary System in the Summer of 1986 helped to correct the exchange rate's overvalued status at a time when domestic inflation was subsiding quickly. In combination, these three factors prepared the way for the regaining of Irish cost and price competitiveness that triggered the boom (of the mid-90s)” (p.2).

Be that as it may, the author of this thesis has not found further research or analysis that clearly explains why 1998 was a boom year for the South East and South West sub-regions of Ireland. Charts 1 and 2 indicate that the levels in employment in Ireland began to improve in 1994, and accelerated from 1995 onwards.

Trends in Permanent Full-Time Manufacturing Employment 1990-1999 (Overall/Irish and Foreign-Owned Components, IDA Ireland, Enterprise Ireland, Shannon Development and Udarás na Gaeltachta)
Chart 1

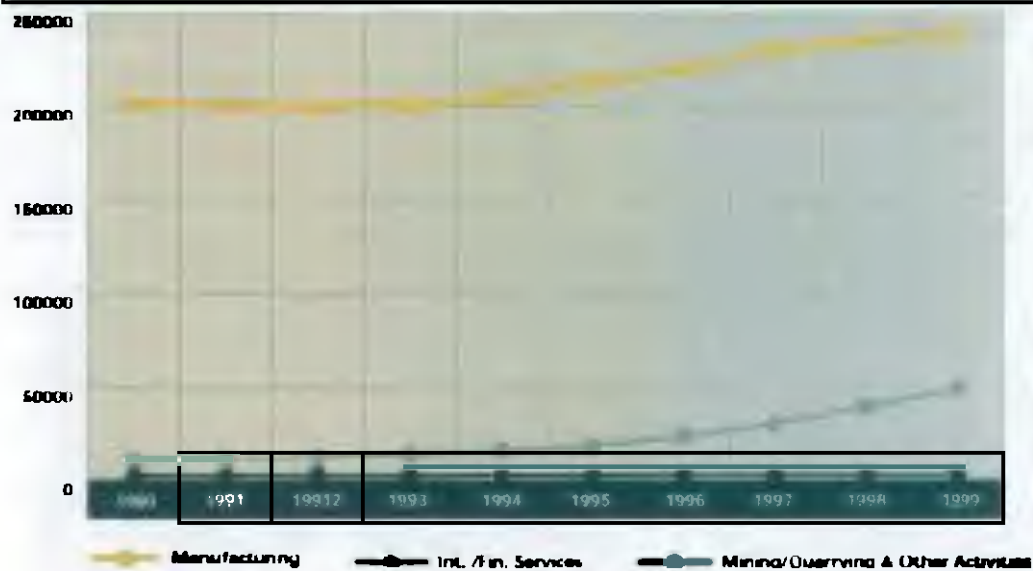


Chart 1 Trends in full-time manufacturing employment 1990 – 1999 (Source: Forfas, 2000)

Trends in Permanent Full-Time Internationally Traded and Financial Services Employment 1990-1999, Overall/Irish and Foreign-Owned Components, IDA Ireland, Enterprise Ireland, Shannon Development and Udarás na Gaeltachta
Chart 2

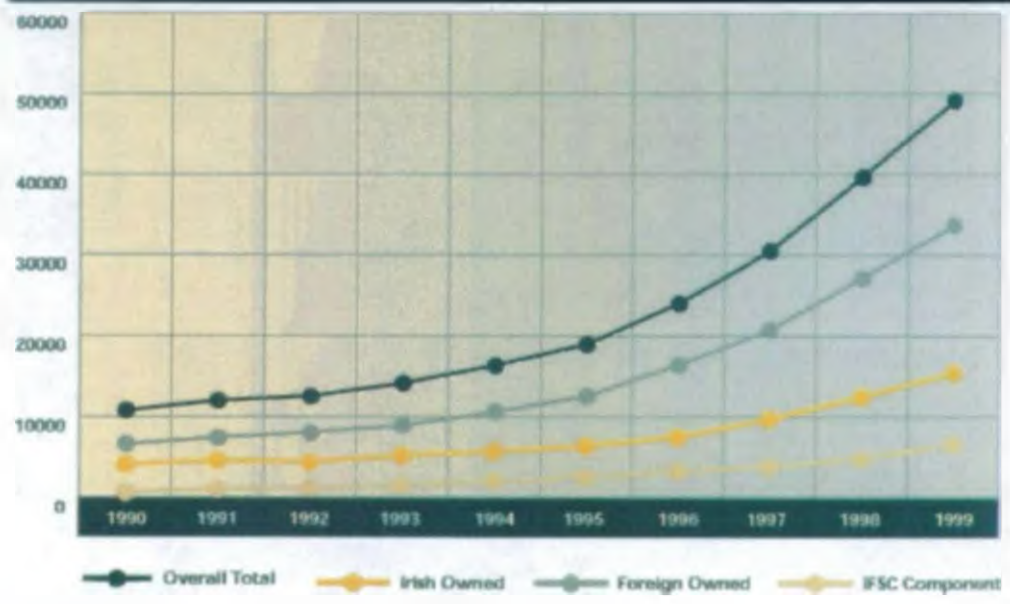
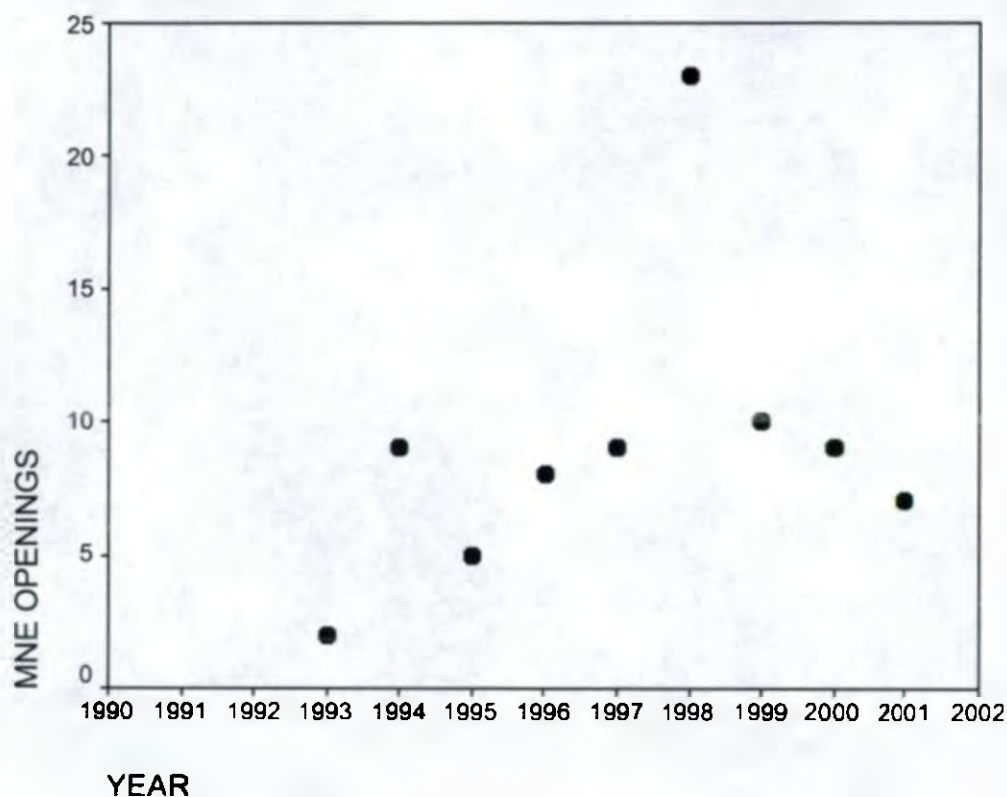


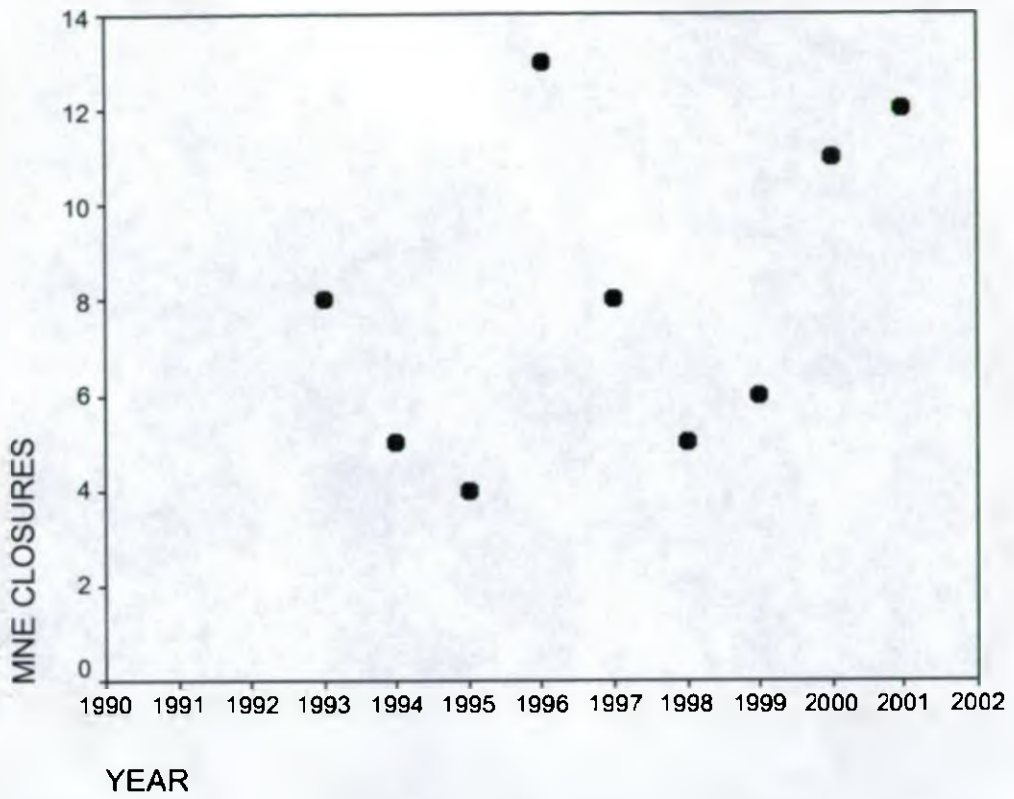
Chart 2 Trends in full-time employment in Internationally Traded and Financial Services 1990 – 1999 (Source: Forfas, 2000)

In particular, Chart 2, Internationally Traded and Financial Services, indicates that the acceleration in employment growth is far greater in foreign owned businesses than in Irish owned businesses (See Chapter 3 for more details about rates of employment and job losses between 1990 and 2001).

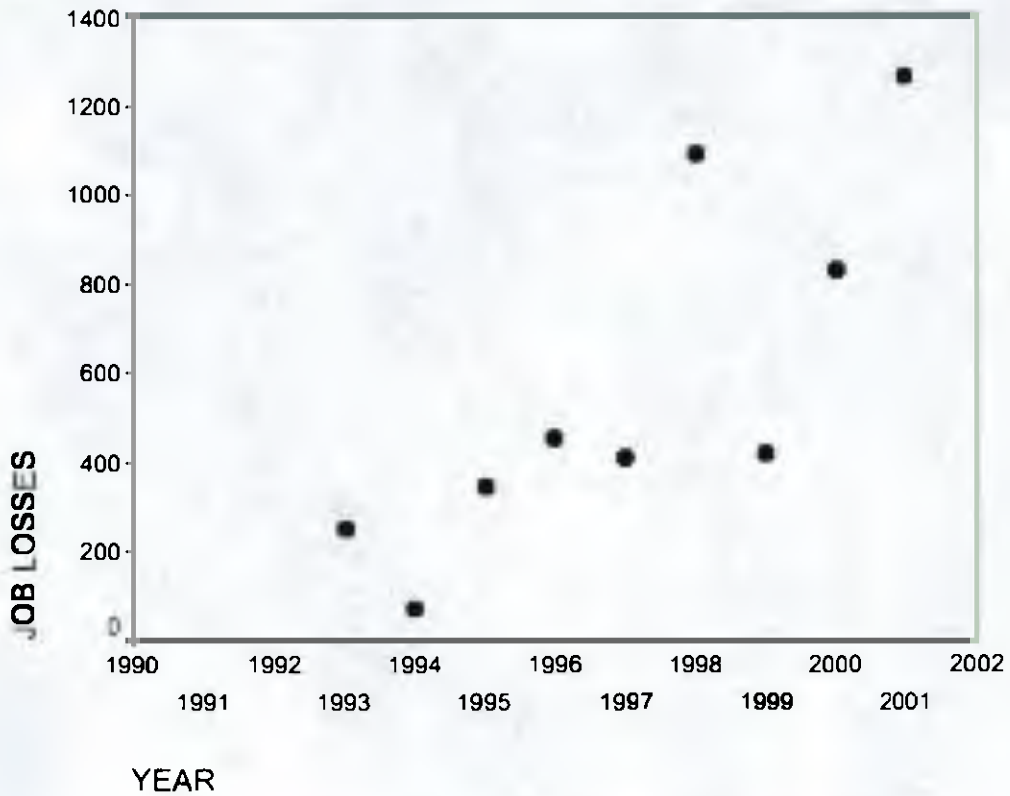
When the data in Table 5.5 is presented in scatter plots, the following patterns can be seen when comparing the variables year to, MNE openings, MNE closures, job losses, and the level of start-ups (see Plots 5.6, 5.7, 5.8, 5.9).



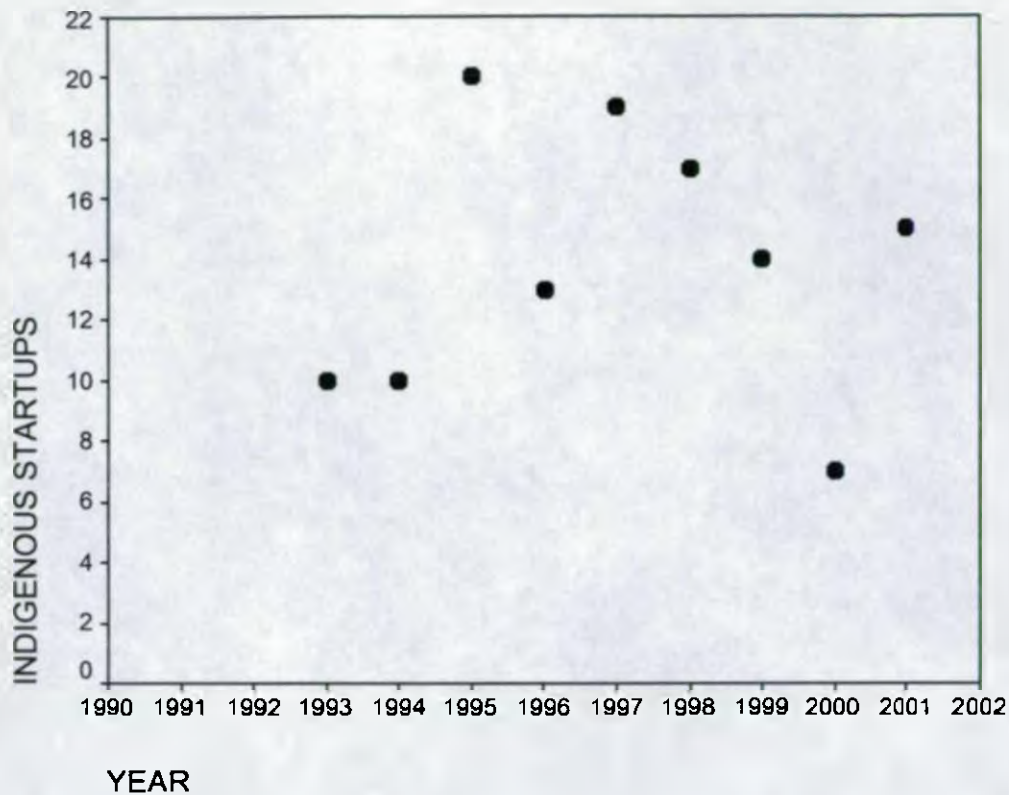
Plot 5.6 MNE Openings by year (Source: Current research and state enterprise support agencies)



Plot 5.7 MNE Closures by year (Source: Current research and state enterprise support agencies)



Plot 5.8 Job Losses by year (Source: Current research and state enterprise support agencies)



Plot 5.9 Indigenous start-ups by year (Source: Current research, CRO, and state enterprise support agencies)

Despite the limited number of years, there was significant evidence of a linear trend in the number of job losses (Spearman’s rho=0.867, p=0.002), whereby the number of job losses increased over the study period (see Table 5.6). On the other hand, the correlation matrix shows that there were no other significant linear trends or associations between the variables (see Table 5.6).

		YEAR	MNEOPEN	MNECLOSE	JOBLOSS	STARTUP
YEAR	Spearman's rho		0.424	0.387	0.867	0.075
	p-value		0.256	0.304	0.002	0.847
MNE OPEN	Spearman's rho	0.424		-0.222	0.305	0.026
	p-value	0.256		0.565	0.425	0.948
MNE CLOSE	Spearman's rho	0.387	-0.222		0.479	-0.397
	p-value	0.304	0.565		0.192	0.291
JOBLOSS	Spearman's rho	0.867	0.305	0.479		0.126
	p-value	0.002	0.425	0.192		0.748
STARTUP	Spearman's rho	0.075	0.026	-0.397	0.126	
	p-value	0.847	0.948	0.291	0.748	

Table 5.6 Test for trends between year and MNE openings, MNE closures, job losses and indigenous start-ups (Source: Current research)

In summary, Table 5.7 provides the breakdown of the start-ups directly linked to MNEs based on this current research. Considering them as a proportion of the 64 respondents to Survey 2 (inquiring if the subjects meet Criteria 2) enables the researcher infer that 25% of all businesses in the industry sectors pertinent to this research and founded between 1990 and 2001 were as a direct result of MNEs downsizing, and/or closing their facilities in Ireland; 20% were as a result of the founder gaining experience in an MNE and deciding to leave the MNE of their own accord, and 13% were as a direct result of the founder identifying an opportunity to supply an MNE with products and/or services. However, the author of this thesis suggests that there is a need to do a more in depth analysis covering more sub-regions in Ireland and a longer time span before it could be concluded that these figures are representative of MNE/new enterprise creation activity in Ireland as a whole.

Number of Start-ups 1990 to 2001	Number of responses	Number meeting Criteria 2	Founders Let go	Founders left of own accord	Start-up to supply MNE
153	64	37	16	13	8
Projected % of total Start-ups	N/a	58%	25%	20%	13%

Table 5.7 Start-ups directly related to MNEs 1990 – 2001 (Source: Current research)

Much previous research (see for example Cooper, 1981 and 1985; Barrow and Hall, 1995; Birley, 1996; and Brand, Hill and Munday, 2000) suggested links between MNEs and start-ups, in that the MNE industry sector, and the role the founder had in an MNE, has an influence on the industry sector of an indigenous start-up. However, this current research was not able to comprehensively establish such a direct link, because, for example, senior managers in some of the MNEs did not always start enterprises in the same industry sector as the MNE. The progression from MNE industry sector to indigenous sector incorporating the founders' roles in the MNE is as per Table 5.8. Of the 29 founders that worked for an MNE, one chose not to name the MNE for whom he worked.

Sur No. ²⁴	FNDR ²⁵	Location ²⁶	MNE worked for ²⁷	Location ²⁸	Role at MNE ²⁹	MNE Industry Sector ³⁰	Indigenous ³¹ Start-up Industry Sector	Employees at start-up ³²	Employees now ³³
15	8	Waterford	Not supplied	Waterford	Operations Manager	Engineering	Engineering	2	14
18	N/A ³⁴	Wexford	INTEL	Dublin	Buyer	Computers	Engineering	6	15
24	5	Cork	Did not work for MNE		Did not work for MNE	Did not work for MNE	Manufacturing	2	7
47	N/A	Cork	Did not work for MNE		Did not work for MNE	Did not work for MNE	Computers	2	47
48	4	Waterford	Honeywell	Waterford	Service Engineer	Electronics	Telecommunications	1	22
52	9	Waterford	Siekman	Waterford	Financial Controller	Telecommunications	Telecommunications	1	10
63	N/A	Cork	Did not work for MNE		Did not work for MNE	Did not work for MNE	Computers	2	5
70	N/A	Tipperary	Moulinex	Tipperary	Maintenance operator	Manufacturing (Electronics)	Manufacturing (fabrication)	3	2
90	11	Cork	Ferraro	Cork	Waste Management	Pharmaceutical	Other (environmental)	3	8
92	10	Waterford	Chemic Pelzer	Waterford	Manufacturing Manager	Pharmaceutical	R&D and Labs	1	1
95	N/A	Kerry	Alps	Kerry	Head of Marketing	Electronics	Software	1	5
96	N/A	Cork	Carra Communications	Dublin	Director	Telecommunications	Software	1	2
100	N/A	Cork	E-Map Publishing	Dublin	Sales Director	Manufacturing	Telecommunications	2	16
108	N/A	Cork	IBM Ireland	Dublin	Engineering Manager	Computers	Computers	1	22
152	N/A	Kilkenny	Did not work for MNE		Did not work for MNE	Did not work for MNE	Software	9	9

²⁴ Number of the screening survey used to establish what links the founder of the indigenous company had with an MNE

²⁵ Interview code to identify the founder that met the research Criteria 2

²⁶ Location of the indigenous enterprises' operations

²⁷ Name of the MNE for whom the founder worked prior to setting up his/her own enterprise

²⁸ Location, in Ireland, of the MNE subsidiary for whom the founder worked

²⁹ Last role the founder had in the MNE prior to setting up his/her enterprise

³⁰ Industry sector of the MNE

³¹ Industry sector of the indigenous enterprise

³² Number of employees in the indigenous enterprise at start-up

³³ Number of employees in the indigenous enterprise at the time of this research

³⁴ N/A indicates that the founder declined being interviewed or could not be contacted for interview

153	N/A	Cork	Motorola Cork	Cork	Technical Manager	Software	Software	2	11
154	6	Cork	Glaxo Smith Kline	Cork	Financial Accountant	Pharmaceuticals	Other (Call Centre)	5	92
155	1	Tipperary	Merck Sharp & Dome	Tipperary	Supervisor (materials)	Pharmaceuticals	Other (Call Centre)	12	97
158	N/A	Kerry	Ansaldo Ireland	Kerry	Engineering Manager	Telecommunications	Electronics	2	9
183		Cork	Pepsi Cola	Cork	Laboratory Technician	Manufacturing	R&D and Labs	2	17
185	7	Waterford	Allied Signals(Garrett Irl)	Waterford	General Operative	Manufacturing	Software	3	3
191	23	Waterford	Did not work for MNE		Did not work for MNE	Did not work for MNE	Telecommunications	2	2
195	3	Carlow	Lapple, Carlow	Carlow	Tool Maker	Engineering	Engineering	1	1
207	16	Carlow	Did not work for MNE		Did not work for MNE	Did not work for MNE	Software	1	10
227	18	North Tipp	Kostal	Limerick	Managing Director	Electronics	Electronics	10	25
233	N/A	Cork	Did not work for MNE		Did not work for MNE	Did not work for MNE	Electronics	1	11
419	19	Cork	Kentz and Glaxo	Tipperary	Engineers	Engineering	Engineering	5	220
529	N/A	Cork	Seagate Technologies	Tipperary	Financial Controller	Computers	Other (High-Tech Dry cleaning)	1	15
573	13	Tipperary	Clonmel Health Care	Tipperary	Formulation Specialist	Pharmaceuticals	R&D Labs	1	1
574	22	Kerry	Aughinish	Limerick	Filter	Chemicals	Engineering	1	4
576	17	Tipperary	Boart Hard Metals	Limerick	Machine Operator	Engineering	Engineering	3	6
606	21	Kerry	Not supplied		Chief Financial Officer	Unknown	Other (Financial Services)	5	25
704	12	Tipperary	Seagate Technologies	Tipperary	Engineering Director	Computers	Software	3	14
713	20	Cork	Did not work for MNE		Did not work for MNE	Did not work for MNE	Software	2	47
723	15	Waterford	Kromberg & Schubert	Waterford	Software Engineers	Manufacturing	Software	2	8
756	14	Waterford	Bausch and Lomb		Software Engineer	Manufacturing	Software	4	20
798	N/A	Carlow	Not supplied		Not supplied	Unknown	Telecommunications	2	9

Table 5.8

List of founders that meet Criteria 2, their roles in the MNEs for whom they worked, industry sectors of the MNE and indigenous enterprise, and levels employment in the new enterprises at start-up and at time of this research (Source: Current research)

Only eight (28%) of the founders ($n = 28$) set up a business in the same industry sector as that of the MNE for which they worked. Table 5.8 also indicates that, for as many as 18 (64%) of the founders, the role they performed in their respective MNEs was a key factor in the type of enterprise they eventually set up. This is discussed in more detail in section 5.3, Benefits of MNEs to start-ups, (see Tables 5.11 and 5.12).

There was one particular aspect, however, where significant evidence linking MNEs to founders of indigenous enterprises was established; this was in examining the growth of indigenous enterprises. In essence, it was established that indigenous enterprises whose founder worked for or was in any other way directly linked to an MNE grew more than enterprises whose founders did not have any connection with MNEs. The factor that was used to measure growth was increase in employment levels between start-up date and the date of this research. The reason for choosing this factor, above any other growth factor such as revenue turnover or profitability, was that all 64 respondents completed the question on changes in levels of employment (see Table 5.8), whereas very few of the respondents provided information with regard to increases in revenue turnover or profitability.

The Kruskal-Wallis test was used to investigate differences in the levels of employment growth between the following three categories of indigenous start-ups:

- (i) founder worked for an MNE prior to start up
- (ii) founder never worked for an MNE and had no contacts at all with an MNE
- (iii) founder never worked for an MNE but started his/her business specifically to supply products and/or services to an MNE

This test indicated there was significant evidence of a difference ($\text{Chi} = 10.88$, $\text{df} = 2$, $p = 0.004$) between those founders that had a link with an MNE and those that had not. On average, indigenous enterprises that were founded by entrepreneurs that had no connection what-so-ever with an MNE demonstrated lower levels of growth in employment compared to the two groups that did have a direct link with MNEs (those that worked for MNEs and those that set up their enterprises specifically to supply MNEs). For example, whereas 24 of the 29 (83%) enterprises whose founder had

worked for an MNE grew, and 5 (62%) of those that supplied products or services to an MNE grew. Equally, when using the Chi-square test to analyse the relationship between the founders/enterprises that were directly connected to MNEs and those that were not, there is significant evidence to suggest that the existence of an MNE was influential in the founder deciding to start up his/her enterprise (Chi-square = 24.35, $df = 2$, $p < 0.001$). For example, of the 29 founders that worked for an MNE 26 (90%) stated that the existence of an MNE did influence their decision to start their own enterprise. On the other hand the founders that neither worked for, nor supplied services or products to, MNEs stated that the existence of MNEs did not have any influence on their decision to start their enterprises.

5.3 Start-up process

This section of the data analysis examines the start-up process for the founders of the indigenous enterprises. In particular, this section looks at the reasons why the founders started their own businesses. It will explore if it is the case that these founders always wanted to start their own business or was it a case that people generally will look for self-employment instead of accepting under-employment or unemployment (Parson and Walsh, 1999). The 'push/pull' (Gilad and Levine, 1986) aspects relating to business start-up will also be explored. Finally, the analysis will examine for evidence of 'latent entrepreneurs' (Blanchfower, Oswald, and Stutzer, 2001; Grilo and Irigoyen, 2005) among the twenty-three founders interviewed.

Analysing this data may identify to what extent, the act of setting up a new business was a deliberate choice made by the founders (Shaver and Scott, 1999); and to what extent their will to act was a product of their training and experience (Littunen, 2000). Table 5.9 provides a summary of the motivations and processes the twenty-three founders, interviewed for this current research, employed to start their own businesses.

Of the interviewees, 35% of them stated that they always wanted to start their own business. However, based on the interviewer's observation and the tone of the responses, a quarter of these were not emphatic about their desire to start their own business. For example, one founder's (FNDRI0) response was "I *suppose* I had the

desire to do it for many years". Another founder (FNDR18), even though he expressed a desire to start his own business, had spent over fifteen years working for other organisations and during which time he had been made redundant on a number of occasions. He stated that being made redundant at one stage of his career did have an effect on the way he viewed his career from then on.

In total, only 17% of the founders could be classified as having a 'burning ambition' to start their own business (this is based on the interviewee's body language and the way in which they verbally expressed their desire). As FNDR5 said, "Yes, I wanted to get out and do my own thing".

Motivations and processes	Interviewees
Always wanted to start their own business	35%
Stated they were made redundant	9%
Actually made redundant	35%
Planned start-up carefully?	52%
Business plan in place before start-up?	35%
Spoke to spouse/partner before start-up?	26%
Founder's first start-up?	83%
If you had the opportunity to start-up again would you?	100%
If you were not made redundant would you have started your own business?	100% ³⁸ -- No

Table 5.9 Summary of founders' motivations and processes in starting their own businesses
(Source: Current research)

³⁵ In response to interview Question 2, "At the time of start-up, what exactly was your relationship with an MNC?" Sub-question – "Were you in the process of being made redundant?" Only 9% of the respondents stated they were made redundant. But, in response to Question 10, "Prior to starting your own business were you let go/made redundant from your existing employment?" 26% of the respondents indicated they were affected by redundancy

³⁶ Based on details derived from the interviews, the number of interviewees that stated they were made redundant was 35%. However, the actual number made redundant and/or leaving because of the threat of redundancy was 52%

³⁷ Four of the interviewees were not married at the time of starting the business therefore this percentage is based on the nineteen interviewees that were married at the time of business start-up

³⁸ Of those that were clearly made redundant, all stated they would not have started their business if they were not made redundant. Of those that were not clear about being made redundant it was evident from the interview that if they were not made redundant (or in a position to receive redundancy money) they, most likely, would have stayed in employment with the MNE, and therefore not start their own business

There are some interesting observations to be made in relation to the responses to the question “Were you made redundant or in the process of being made redundant?” When the question was initially asked (in the survey establishing if there was a connection between the founder and an MNE, Survey 2), 9% of the founders, that were subsequently interviewed, clearly stated that they were made redundant. However, during the interviews it became evident that many more of the interviewees were in fact made redundant, but they did not want to openly admit this. In total, 35% of the entrepreneurs interviewed were actually made redundant in that they received a redundancy payment/package of some sort. These data are interesting as they suggest that, in Ireland, there is still a stigma associated with being made redundant. Some of the interviewees stressed that they “opted for voluntary redundancy” as opposed to admitting they were made redundant. For example, FNDR7 stated “I was just frustrated at not being able to better myself in the MNE so when the opportunity for redundancy came up, I volunteered for it”.

What is even more interesting is that these figures change when Question 10 of the interview was asked – “Prior to starting your own business, were you let go/made redundant from your existing employment?” In response to this question, the number of interviewees that openly admitted they were let go/made redundant was 26%, and the total number of people who were actually made redundant and/or whose decision to leave was clearly affected by pending redundancies was 52%. (These percentages are in brackets in Table 5.9). This again supports the statement above that, in Ireland, there is still a stigma associated with being made redundant; it seems that some people have a difficulty admitting they were made redundant.

Even though 52% of interviewees stated they “planned their start-up carefully” (see Table 5.9), the number of founders who actually had business plans before they started their business was only 35%. Only half of those who had a business plan put the business plan together themselves and utilised the business plan as a very important part of their business planning process. Most of the others put the business plan together, only because the business plan was necessary to get funding from Enterprise Ireland (FNDR2, FNDR6, and FNDR15). It is not clear how, or indeed if, these results tie in with what some researchers refer to as entrepreneurs being risk takers. For example,

Kets de Vries (1985); Timmons (1989); and Deakins (1999) refer to entrepreneurs as people who take calculated risks, but does this translate into entrepreneurs not planning their businesses carefully before start-up? On the other hand, many researchers (Gibb and Ritchie, 1982; Gibb, 2000; Kuratko and Hoggetts, 2004; Perry, 2004; and Cornwall, 2005) suggest that effective business planning is an essential for business growth, development and success; in fact some would suggest that failure to plan can lead to business failure.

For over 80% of the interviewees, this was their first enterprise set-up, and all of them stated they would go through the start-up process again if they had the opportunity to do so. However, all of the interviewees that were made redundant and/or left because of the threat of redundancy (the 52%) stated that they would not have started their business if they were not made redundant. This evidence suggests that there were latent entrepreneurs in the research sample.

Blanchfower, Oswald, and Stutzer's, 2001 and Grilo and Irigoyen's 2005 definition of latent entrepreneur is:

A person that wishes he/she was an entrepreneur but has done nothing about it yet.

As regards this current research, 75% of those who were let go from employment, made redundant, and/or were under the threat of redundancy, were involved in entrepreneurial activities at an early age. Some were involved in their family businesses; others sold produce, or bought and sold items such as cars or tractors. Others used their hobbies and skills in mechanics or electronics to generate cash for themselves. This indicates that the entrepreneurial spirit was present in these people from an early age, but they chose to follow a career of being an employee (above being self-employed) until the time they were let go or made redundant from employment, or what Cope and Watts (2006) referred to as a 'critical incident'

Based on this evidence, the data were analysed in greater detail to establish the extent to which there were latent entrepreneurs in this research sample. The two key questions in the interviews that were used to identify latent entrepreneurs were:

- (i) If you were not made redundant would you have started the business?, and
- (ii) If “NO” to question (i) did you dabble with enterprise activities in your youth (for example during school going age)?

Twelve of the 23 founders interviewed face-to-face were made redundant; of the 12, only two said they would have started a business at some stage in their lifetime. The others stated clearly that they would not have started their enterprises had they not been made redundant. As stated above, most of the founders that were made redundant (75%) dabbled with enterprise activities in their youth. Thus, based on the evidence from the interviews, it was assumed that some of the interviewees did meet the criteria to be classified as latent entrepreneurs. Therefore, it was equally assumed from the data analysis, that the category of latent entrepreneur, in this research, was significant. This researcher assumed that a significant difference existed to the extent that these entrepreneurs should be identified earlier in the entrepreneurial process (by enterprise support agencies and MNEs). However, on applying statistical analysis to the data, it was found that no significant evidence existed to state that latent entrepreneurs were any different from the non-latent entrepreneurs in this research. In fact, it was found that as many non-latent entrepreneurs dabbled in enterprise activities when young as latent entrepreneurs did (see Table 5.10).

While Table 5.10 does indicate that there are differences between latent and non-latent entrepreneurs' attitudes as to whether MNEs and State enterprise support agencies should be doing more to support indigenous enterprise start-ups, there is insufficient data to support that significant evidence exists to demonstrate that the two groups, latent and non-latent entrepreneurs, are, in fact, separate.

Equally, when examining to what extent the founder's role at the MNE had an impact on variants such as helping with the start-up process, helping to find customers, suppliers, employees, financing, networks or in managing the enterprise, there are differences to be seen in the data. But there is no significant evidence to demonstrate that latent entrepreneurs are different than non-latent entrepreneurs with regard to these variants (see lower section of Table 5.10). Given the limited numbers involved in these analyses, it is not surprising that none of the differences are statistically significant.

Question	Non-latent Entrepreneur		Entrepreneur		Square		
	Yes (%)	No (%)	Yes (%)	No (%)			
Did you dabble with enterprise activities in your youth?	50	50	33.3	38.4	0.43	1	0.51
Do you think MNEs should do more to help indigenous start-ups?	75	25	83.3	38.4	0.35	1	0.55
Do you think State agencies should do more to help start-ups?	82	18	100	0	2.21	1	0.14
Did role at MNE help with start-up?	90	10	73	27	1.01	1	0.31
Did role at MNE help to find customers?	40	60	54	46	0.44	1	0.50
Did role at MNE help to find suppliers?	38	62	18	82	0.89	1	0.34
Did role at MNE help to find employees?	11	89	22	78	0.40	1	0.53
Did role at MNE help to find finance?	20	80	0	100	2.01	1	0.16
Did role at MNE help to build networks?	40	60	27	73	0.38	1	0.54
Did role at MNE help to manage new enterprise?	70	30	46	56	1.29	1	0.26

Table 5.10 Comparing non-latent entrepreneur responses to latent entrepreneur responses (Source: Current research)

The number of positive answers to the seven questions (see lower section of Table 5.10) asking whether the founder’s role at the MNE helped in setting up their indigenous enterprise was used to measure the extent of the benefit gained. A t-test compared non-latent and latent entrepreneurs in relation to this variable but found no significant evidence of a difference ($t = 0.74, df = 19, p = 0.470$). The response rate to these questions is discussed in the next section of the analysis.

5.4 Benefits of MNEs to start-ups

This section of the chapter examines the relationship between the founder and an MNE at the time of enterprise start-up. It also explores to what extent MNEs had an impact on the founder’s decision to start the enterprise. Table 5.11 shows the responses to the

relevant interview questions. This section of the chapter is based on the 23 founders that were interviewed for the research, therefore N=23.

Factor	Interviewees
Received encouragement/support from an MNE they were working for	26%
Received encouragement/support from an MNE they were supplying	10%
The founders role at an MNE was beneficial to helping start up the enterprise	43%
The founders role at an MNE was beneficial to managing the enterprise	43%

Table 5.11 Benefits of MNEs to start-ups (N=23)(Source: Current research)

Table 5.11 indicates that only 26% of founders received encouragement and/or support from the MNE they were working for at the time of start-up. In the case of the interviewed founders, half of those who did get encouragement and support did so because they were in the process of being made redundant. For the particular MNEs these founders worked for, part of the redundancy process involved encouraging employees to start their own business and providing them with a short-term contract to support the start-up.

For one of the founders (FNDR2) who did get encouragement and support from an MNE, it was a very long drawn out process. It took over a year to convince the MNE that taking some activities from the MNE on an outsourcing basis was an opportunity that would enable the founder to start a new enterprise. Another one of the founders (FNDR11) was working with an MNE for over twenty-three years at the time he identified a business opportunity he wanted to pursue. The MNE did not want him to leave but they did give him the opportunity to investigate and set-up the venture while he was still working with them. In the very early stages of set up, FNDR11 had difficulty sourcing funds to purchase specialist equipment; and at that time the MNE provided this founder with a loan to purchase the equipment.

As regards founders that had direct links with MNEs and got encouragement and support from these MNEs, 90% was based on short-term (six to twelve months) support and it was usually part of their redundancy package. Where founders got support from MNEs they were supplying, but had no prior connection with that MNE, it was based on

personal contacts within the MNE as opposed to an MNE having a philosophy, policy or process to support start-ups.

Whereas the direct encouragement and support from MNEs was relatively uncommon, the spillover benefits from the MNEs were more obvious. For instance, 74% of the interviewed founders stated that working for an MNE was extremely beneficial to them in starting their own business. Table 5.12 shows the number of founders that founded a business related to the type of work they were doing at the MNE and related to the type of work of the MNE itself. Of the founders that worked for MNEs, 72% founded businesses based on the skills they had attained and/or used during their employment with the MNE. However, only 28% of the indigenous enterprises founded were in a business sector similar to that of the MNE for whom the founder worked.

All the founders cited the training and development (both managerial and technical) they received during their time with an MNE as being essential to their needs in starting their own enterprises. Some of the founders (for example FNDRs 3, 10 and 18) mentioned the confidence they got from having worked within an MNE, others (for example FNDRs 3, 4, 13, 15, 21, and 23) mentioned working for an MNE gave them the professional approach and ability to see opportunities, assess situations and talk to financiers, suppliers and customers.

The data presented above supports the proponents of the view that FDI has a positive impact on host regions/economies (see for example Turok, 1993a; Turok, 1993b; Markusen and Venables, 1999; Fosfuri, Motta, Ronde, 2001; Girma and Wakelin, 2001; and Kugler, 2002). These researchers suggested that spillover can occur in a number of ways including:

- (i) Backward and forward linkages between MNEs and indigenous organisations;
- (ii) MNEs may increase indigenous companies' productivity through 'demonstration effects' (Fosfuri et al., 2001);
- (iii) The imitation of MNEs' practices and technologies by indigenous organisations, for example higher levels of pay and terms and conditions of

employment means that indigenous organisation need to 'up their ante' in order to retain key staff;

- (iv) Through the MNEs' extensive training of their staff, which transfers into explicit and tacit knowledge transfer.

FNDR	Founded business based on the skills attained and/or nurtured in an MNE	Role in MNE	New Enterprise Activity	Founded business in the same industry sector as the MNE worked for (see Table 5.8)
1	No	Materials Supervisor	Telecentre	No
2	Yes	Laboratory Technician	Laboratory testing	Yes
3	Yes	Toolmaker	Tool making	No
4	Yes	Telecomms Service Engineer	Telecommunications R&D and manufacture	Yes
5	N/A	N/A	N/A	N/A
6	No	Financial Accountant	Telecentre	No
7	No	General Operative	CVs on CDs	No
8	Yes	Engineering/Operations Manager	Precision engineering	No
9	No	Financial Controller	Telecommunications R&D and manufacturing	No
10	No	Manufacturing Manager	R&D and laboratory	No
11	Yes	Waste Management Manager	Environmental waste management	No
12	Yes	Process Engineer	Process engineering	No
13	Yes	Formulation Specialist	R&D and formulation	Yes
14	N/A	N/A	N/A	N/A
15	Yes	Software Engineer	Software development	No
16	N/A	N/A	N/A	N/A
17	Yes	Engineer	Engineering	No
18	Yes	GM in electronics company	Electronics manufacturing	Yes
19	Yes	Engineer	Engineering	Yes
20	N/A	N/A	N/A	N/A
21	Yes	Chief Financial Officer	Financial services	No
22	Yes	Engineer	Engineering	No
23	N/A	N/A	N/A	N/A

Table 5.12 Number of indigenous companies founded related to the founders skills gained/developed at an MNE and the number of business founded in the same industry sector as the MNE for whom the founder worked (Source: Current research)

Fosfori et al. (2001) stated that spillovers from FDI can take two forms – technological spillovers arise when a trained employee of an MNE is employed by an indigenous organisation, and pecuniary spillovers arise when the MNE pays the employee a higher wage preventing him/her from moving to a local competitor (p.207).

In the case of the founders interviewed for this current research, most of them imported their technical and managerial skills and practices into the new enterprises they were setting up (see Table 5.8 also). Whereas this current research did not enquire about the levels of remuneration the founders were receiving whilst working for the MNE, one could assume that the terms and conditions of employment at the MNE were much greater than what these founders could afford to provide themselves within their new enterprises. Therefore, in line with the thinking of Fosfori et al. (2001) the superior terms and conditions of employment may be another reason why employees would stay with an MNE rather than leave to start their own business. However, this relationship was not explored in this research.

The data from this current research also supports the arguments of Gibb and Ritchie (1982), and Birley (1996) who identified that the employment history of the individual is particularly important and relevant in terms of the managerial and technical experience required in the process of setting up and managing a new enterprise. It also supports Gibb and Ritchie (1982), and Shutt and Sutherland (2003) who contradicted the assumption that 'would-be entrepreneurs' come from a small business background, as a substantial proportion of their sample came from large companies where they (the entrepreneur) held middle and senior management positions (Gibb and Ritchie, 1982, p. 35).

Some further evidence from this current research that supports previous research, as regards the benefits of MNEs to their host regions, is the fact that most (63%) of those surveyed in the current research set up enterprises in the same county in which the MNE for whom they worked was located, or in which the MNE they were supplying was situated. Therefore, the evidence from this current research concurs with Girma and Wakelin (2001) who stated that positive spillovers do occur from foreign firms, that these positive spillovers are limited to the region within which the MNE is located, and that developed regions are more likely to have more and better positive spillovers than

underdeveloped regions (even within the same country) (see Table 5.2 for locations of indigenous enterprise start-ups and the associated MNEs and Table 5.13 for a breakdown of the founders that remained in the same county).

	Same County		Total
	Yes	No	
Worked for	18 64%	10 36%	28 100%
Supplied to	25 67%	12 33%	37 100%
Total	24 65%	13 35%	37 100%

Table 5.13 Detail of founders that stayed/did not stay in the same county as the MNE for whom they worked/supplied (Source: Current research)

The data for table 5.13 are derived from the 37 respondents to Survey 2 and who met Criteria 2 for this research. As can be seen from Table 5.13, 64% of the founders who worked for an MNE set up their new enterprise in the same county where they worked for that MNE subsidiary; and 67% of the founders who set up an enterprise specifically to provide products/services to an MNE did so in the same county where their MNE customer was situated.

Applying a Chi-squared test to the data to examine if there is a significant difference between those who were let go from employment (made redundant or by mutual agreement) and those that left of their own accord in relation to whether they remained in the same county or not as the MNE for whom they worked indicated that there is no difference (Chi-square = 0.062, df = 21, p = 0.803). The reason for analysing for a difference was to establish if either group was more/less flexible to move location because of the circumstances/conditions in which they separated from the MNE.

5.5 Economic conditions at start-up and supports available

Based on the comments from the interviewees, there is also evidence to suggest that the prevailing economic conditions at the time of start-up neither encouraged the founders to start their enterprises nor did they dissuade them from doing so. For the founders who started their enterprises in the early 1990s and early 2000s, markets were generally weak. Ireland was in a recession in the early 1990s and the Dot.Com bubble burst in the early 2000s. Those who started their enterprises in the mid 1990s had more favourable economic conditions (for example, the 'Celtic Tiger' boom began in 1995). One common trend throughout the period of analysis was the difficulty in obtaining finance. Regardless of the start-up date, those people who were looking for finance stated they found it extremely difficult to secure finance. However, even though the interviewees stated this, only 35% of them had, in fact, major difficulties getting funds, the others either had their own source of funds (43%) or they had no difficulty getting a loan from friends or utilised a bank overdraft (22%).

Comment	Founder
Getting advice was easy; getting the right advice was extremely difficult.	FNDR3
It (the attitude) was generally negative – idiotic, foolish were the usual comments from family and friends.	FNDR3
Overall people were positive, but they were surprised that I gave up a good job	FNDR10
Generally it was very encouraging, but at the time in the software sector in Ireland it was very difficult to get funding no matter how good your idea was	FNDR14
The general attitude was that I was "crazy" and "stupid"	FNDR23

Table 5.14 Founders' comments re the general attitude towards start-ups in 2000/2001 (Source: Current research)

As regards attitudes in general towards entrepreneurs and entrepreneurial activity, there does not seem to be any definitive change in attitude over the period of analysis. The comments expressed by interviewees, in relation to these attitudes, were mixed and contrary to what might be expected based on successive Global Entrepreneurship Monitor (GEM) Reports i.e. that there has been a change in attitude, in Ireland, towards entrepreneurial activities since the mid-1990s. For example, the Ireland GEM 2004

Report suggested that entrepreneurial activity and support was at its height in Ireland in 2000 and 2001. However, founders of companies in 2000 and 2001 made the comments presented in Table 5.14. Comments from the founders who started their enterprises in the mid-1990s are presented in Table 5.15

Comment	Founder
It was generally favourable.	FNDR4
Compared to now (2003) it was not a difficult environment. Today you have to deal with so many regulations.	FNDR6
Generally encouraging. Businesses were willing to talk to you – no commitments, but encouraging.	FNDR12
It was encouraging, we certainly got a lot of encouragement from the Enterprise Boards	FNDR15
Our peers would have been very supportive	FNDR19

Table 5.15 Founders’ comments re the general attitude towards start-ups in the mid-1990s (Source: Current research)

Even though, according to the evidence from this research, there was generally a lot more support and encouragement for start-ups in the mid-1990s, a time of boom and the start of the Celtic Tiger era, there were some founders that did not receive too much encouragement. For example, according to FNDR16 “because it was a growing market, customers were fairly open to dealing with us, on the other hand because we were new, some companies were not willing to give us a chance. So the attitude was mixed really”; FNDR17 said “a lot of people thought I was mad because I was giving up a very good job”; and FNDR22 stated “I got a very bad response from the banks, they only laughed at me”.

For founders who started their enterprises in the early 1990s, FNDR20 summed up the attitude aptly by stating “the economy was so bad at the time, people thought you were great if you tried anything (start a business). At the same time some people thought you were crazy, they were aghast because it was the worse time to start a business”.

Table 3.7 in Chapter 3, shows the number of indigenous start-ups that met Criteria 1 for this current research by year in the South East and South West from 1990 and 2001

inclusive. An interesting aspect of these data is that in the early 1990s a total of 32 companies were started, in the mid 1990s the number of start-ups increased to 62, and in the late 1990s early 2000s the number of start-ups dropped to 53. These numbers reflect the economic hardship of the early 1990s, and the relative buoyant conditions of the mid-1990s when people were willing to take a chance, and there was encouragement there to do so. The dip in the late 1990s and early 2000s is probably reflecting the dot.com crisis in 2000 (there were only seven start-ups in 2000).

5.6 Founders' perceptions on the role of MNEs and State agencies in the start up process?

In general, the feeling among most founders was that there was a great deal more that the State enterprise support agencies and MNEs could and should do to encourage and support greater numbers of indigenous start-ups. As regards MNEs, 62% of the founders stated that there was much more MNEs should be doing to support indigenous industry. However, almost 30% of the respondents questioned what MNEs could do for indigenous industry. Of this 30%, FNDRs 6, 11 and 23, asked why should MNEs help indigenous businesses; and FNDRs 8, 13 and 14 said that they felt that the MNEs (subsidiaries in Ireland) do not have the ability to support indigenous industry. FNDR14's opinion was "control does not exist with the subsidiary. It is the company HQ that is dictating the policy and the products that the Irish subsidiary has to use".

Only 8% said that there was no more MNEs could do for indigenous industry. In the case of these respondents, they had good contacts with an MNE and were able to benefit from their networks. However, one of the respondents stated that he/she (the founder) "did not expect to get any support from MNEs, and therefore did not seek any help from them" (FNDR21).

Even though 83% of the founders interviewed received state support and funding from either Enterprise Ireland (39%), City and County Enterprise Boards (39%), or Shannon Development (5%), there was much criticism aimed at these State enterprise support agencies. Only 17% of the respondents stated that they had good experiences with the State enterprise support agencies. On the other hand, the remaining 83% had very

negative views about, and/or experiences with these agencies. Many of the respondents cited the level of bureaucracy within the State agencies as the major issue. Others questioned the ability of these agencies to perform, as FNDR9 stated “they will never be creative enough to do the job right — no bureaucracy will ever do the job properly”. Many more felt that there was too much ambiguity and inconsistency between what was funded and what was not funded. Very few of the entrepreneurs had anything positive to say about their experiences with the State agencies. For example, none of the founders said that the soft or hard supports they received were critical or essential to the success of setting-up of their enterprises.

The evidence provided above suggests that State enterprise support agencies did not have a positive effect on the level and type of new enterprises created in South East and South West Ireland. In fact, FNDR11 stated “if I had listened to them (Enterprise Ireland and County Enterprise Board) I would not have gone into business in the first place”. Others echoed that these agencies are “too quick to say no” (FNDR5), “they are not very helpful” (FNDR12), and “the whole credibility as to how they make decisions is in question” (FNDR16).

Thus, the questions still needing responses are:

- is it the case that market forces are not working efficiently with regard to new business development (Jenssen and Havnes, 2002), or
- is it that these firms are going to succeed anyway and therefore supporting these firms gave them an unfair advantage over others (Storey, 1992), or
- is there a need for intervention in the process of new venture creation (Henry, Hill and Leitch, 2003)?

These are extremely difficult questions to answer because there is a general lack of clarity about policy objectives, and an even greater lack of defined methodology to measure these objectives (Storey, 1998). Also the “the lack of business specific performance measures only serves to complicate further the evaluation process” (Henry et al., 2003, p.6). According to Jenssen et al. (2002), Spilling (1998), in his review on the effectiveness of public measures designed to stimulate entrepreneurship, also

questions the effectiveness of such interventions. Jenssen et al. conclude their study of three Norwegian entrepreneurs by saying that, “we know these same entrepreneurs would have done without the support of the (enterprise support) programmes” (p.185).

This chapter has summarised the founders' perspectives and experiences regarding the direct links between MNEs and new enterprise creation. It has also set the data in context by explaining the founders' views of the prevailing economic conditions and support from State enterprise support agencies at the time of start-up. In summary, the research questions addressed by this chapter of the data analysis are shown in Table 5.16.

The next chapter, Chapter 6, examines the views of senior executives of MNEs about whether or not MNEs do or should support indigenous start-ups.

	Research question	Findings/comments
1	What is the quantity and characteristics of new enterprise start-ups that are related to the presence of an MNE in a host region/sub-region?	This research has identified that 43% of the founders who met Criteria 2 were let go (made redundant or by mutual agreement) from the MNE for whom they worked, and 35% left an MNE of their own accord to start their enterprises. [However based on the response rate of 58% these figures suggest that the projected % of total start-ups that have a direct link with MNEs comprises of 25% of the founders being let go from an MNE, 20% leaving of their own accord, and 13% not having worked for an MNE, but set up their business solely to supply an MNE (see Table 5.7). As regards redundancy, the research established that some of the founders were reticent to admit they were made redundant. Therefore, based on the interviews, it was estimated that the actual number of founders who were made redundant was 52%. Therefore, the number of people who started their own enterprises as a result of being let go or made redundant is greater than the number of those that left an MNE of their own accord. The research also demonstrated that up to 72% of the founders set up enterprises based on the skills they had learned and/or developed whilst working at an MNE; also 28% of the new enterprises were in an industry sector similar to that of the MNE for whom the founder worked
2	What is the quantity and characteristics of new enterprise start-ups are that related to withdrawal or contraction of an MNE in its host region/sub-region?	See No.1 above
3	What is the impact of the prevailing policies of support agencies at the time of start-up?	It is difficult to ascertain the extent to which policy had an impact on the creation of the new enterprises. This research showed that even though 83% of the founders got support from State enterprise support agencies, the majority of the founders (83%) had very negative views of the credibility of the agencies and their ability to assist new enterprise creation and development.
4	What inputs may be inferred for policies concerned with indigenous entrepreneurial activity?	See No.3 above. Also this question will be dealt with in more detail in Chapter 7, Support Agencies’ Perspectives on Indigenous Start-ups.
5	What are the factors that impact on the quantity of and reasons for start-ups during an MNE’s presence in its host community?	As per No.1 above the main factor initiating start-up is separation of the founder from the MNE, directed by the MNE. Another factor appears to be the training and development received and the skills and confidence gained by the founder whilst working for an MNE.
6	What are the factors that impact on the quantity of and reasons for start-ups after an MNE has departed from or significantly reduced its employment levels in its host community?	This is as per No.5 above
7	Is there a difference between the number and type of start-ups during the presence of and post closure of MNEs?	The continued presence or closure of an MNE does not appear to have an impact on the quantity, quality or type of new enterprise created
8	Does subsidiary autonomy, and the MNE’s country of origin have an impact on the number of and viability of start-ups?	Based on the evidence provided in this chapter, the level of training and development provided by MNEs does appear to have a positive impact on the confidence of founders, which encourages founders to take a chance in setting up a new enterprise.
9	To what extent did the prevailing policies of support agencies influence the quantity and type of start-up?	See No.3 above. Also this question will be dealt with in more detail in Chapter 7, Support Agencies’ Perspectives on Indigenous Start-ups.
10	Is there evidence to suggest there are latent entrepreneurs in this research sample?	Based on the fact that 75% of those who were let go from employment, made redundant, and/or were under the threat of redundancy were involved in entrepreneurial activities at an early age, there is evidence to suggest that these people possessed an entrepreneurial spirit from an early age, but they chose to follow a career of being an employee above being self-employed until the time they were let go or made redundant from employment. Therefore, these founders could be described as latent entrepreneurs. However, based on the statistical analysis of the data supplied in Table 5.10, it was found that there is no significant evidence to suggest that latent entrepreneurs and non-latent entrepreneurs are, in fact, different groups

Table 5.16

Summary of Founders Perspectives (Source: Current research)

Chapter 6

Perspectives From MNE Senior Executives

Chapter 6 Perspectives From MNE Senior Executives

6.1 Introduction

This chapter reviews the perspectives of senior executives working in multinational enterprises (MNEs) as to whether MNEs do and/or should support indigenous spin offs from their organisations. The method used to select these informants was to:

- (a) identify the MNEs for whom the founders of indigenous enterprises either worked or for whom the founders specifically set up their enterprises to supply (see Table 5.2, Chapter 5),
- (b) contact those MNEs that still have subsidiaries operating in Ireland, and
- (c) identify executives that were senior enough (in both role and responsibility, and years of service) in their respective organisations that they would have a clear understanding of their organisations' policies, procedures, and practices towards encouraging and/or assisting employees consider (and/or actually) start up their own enterprises.

Thus, the informants for this section of the research were a combination of directors of HR, Operations, Engineering, or Materials; Financial Controller, and Managing Directors/General Managers (see Table 6.1). The interview questions for this part of the research are in Appendix 6.

In summary, senior executives of fifteen MNEs were interviewed. Fourteen of these MNEs were still in operation in Ireland at the time of this research. With the exception of one MNE, that had ceased operations in Ireland just months before the interviews for this research began, it proved to be too difficult to pursue senior executives of MNEs that had ceased operations in Ireland. Therefore these MNEs were eliminated from the research.

All of the senior executives interviewed had been with their respective organisations since the mid to late 1980s. Therefore, their longevity of service and seniority of position in the MNEs meant they could be considered as reliable informants for the purposes of this research. All of the informants were familiar with their respective organisation's policies towards encouraging and/or supporting employees to start their own enterprises. These key informants had worked in their respective organisations long enough to know how many employees would have started their own enterprises, the circumstances under which these enterprises had been set up, and whether or not their MNE would have provided any assistance, encouragement or support to the founder of the new enterprise.

All the senior executives interviewed for this research were Irish, therefore they were familiar with the industrial landscape and enterprise policy in Ireland.

MNE ¹	Key Informant ²	Country of Origin ³	Date MNE Set up in Ireland	Industry Sector
1	European HR Director	United States	1974	Manufacturing (Beverages)
2	European Director of Public Affairs	United States	1976	Pharmaceutical
3	HR Director	United States	1974	Pharmaceutical
4	Managing Director	United States	1983	Manufacturing (Timber prods)
5	Engineering and Facilities Manager	Germany	1997	Pharmaceutical
6	Managing Director	United States	1980	Manufacturing
7	HR Manager	United States	1979	Manufacturing (Engineering)
8	General Manager	United States	1973	Manufacturing (Electronics)
9	HR Director and Country Manager	United States	1981	Software Development
10	Financial Controller	Germany	1973	Manufacturing (Electronics)
11	Managing Director	Germany	1974	Engineering
12	Materials Director	Germany	1974	Manufacturing (Electronics)
13	Director of Engineering	United States	1977	Cosmetics
14	Director of European Operations	United States	1979	Manufacturing (Computers)
15	Managing Director	Switzerland	1983	Process/Manufacturing

Table 6.1 Key informants, country of origin, date of start-up in Ireland and industry sector of MNEs informing this research (Source: Current research)

¹ Code number allocated to each of the MNE senior executives interviewed

² Role of the key informant who was interviewed

³ Country location of the HQ of the Irish MNE subsidiary

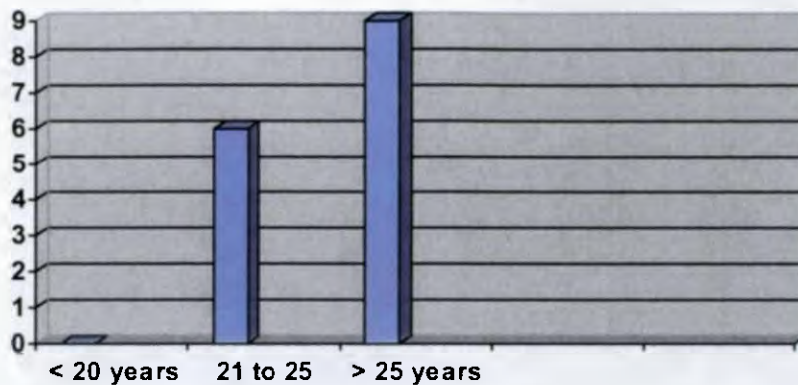


Figure 6.1 Length of time the MNEs had been operating in Ireland (Source: Current research)

Figure 6.1 illustrates that the majority (60%) of the MNEs informing this research had been working in Ireland for over twenty-five years, the remainder have been there over twenty years. This provides a long period of time to analyse to what extent these MNEs were (or were not) directly involved in encouraging and supporting employees to start their own enterprises. Of the fifteen MNEs involved in this research, fourteen are still operating in Ireland. The fifteenth MNE (MNE10) ceased operations in Ireland in 2004 having commenced in 1973.

In one sense, the use of the term MNE is a misnomer because most of the foreign owned organisations involved in this study are not decentralised federates of large organisations linked to HQ by loose informal controls. Most are in fact tightly controlled subsidiaries of large organisations (see Table 6.5 to view the degree of autonomy the MNE subsidiaries in this study have in relation to key strategic decisions and their respective HQs). Using Dicken's (2003) typology for HQ - subsidiary relationships and controls, suggests that the foreign owned subsidiaries in this study can best be described as either *international* or *global* organisations as opposed to *multinational* organisations (see Table 6.2).

Based on the descriptions in Table 6.2 and the evidence provided in Table 6.5 only two of the subsidiaries used in this study can be classified as *multinational* organisations (MNE11, and MNE15), the remainder are subsidiaries of *global* organisations. However, for simplicity the term MNE will continue to be used in this thesis because it

is the term most often used by government and enterprise support agencies to describe the subsidiaries of foreign owned organisations operating in a host environment.

Characteristic	<i>Multinational</i>	<i>International</i>	<i>Global</i>
Structural configuration	Decentralised federation. Many key assets, responsibilities, decisions decentralised	Coordinated federation. Many assets, responsibilities, decisions decentralised but controlled by HQ	Centralised hub. Most strategic assets, resources, responsibilities and decisions centralised
Administrative control	Informal HQ-subsiidiary relationship; simple financial control	Formal management planning and control systems allow tighter HQ-subsiidiary linkage	Tight central control of decisions, resources and information
HQ Management attitude towards overseas operation	Overseas operations seen as portfolio of independent businesses	Overseas operations seen as appendages to a central domestic corporation	Overseas operations treated as 'delivery pipelines' to a unified global market
Role of overseas operation	Sensing and exploiting local opportunities	Adapting and leveraging parent company competencies	Implementing parent company strategies

Table 6.2 Typology of HQ-subsiidiary relationships and control (Source: Adapted from Dicken (2003, p.215))

Table 6.1 shows that two-thirds of the MNEs were American in that their headquarters (HQ) were located in the United States of America, 27% were German, and the remaining MNE was from Switzerland. As regards industry sector, 40% of the MNEs were involved in manufacturing (either electronics or engineering); 27% were involved in pharmaceuticals; and 20% were involved in capital-intensive process industries such as beverages, timber and metals processing. Of the fifteen MNEs, only one was in the software development sector, and one in the computer sector. However, for most of its presence in Ireland the MNE in the computer sector would have been classified as electronics (by the IDA), it is only in recent times that this MNE has become a call centre and customer support-engineering centre.

The number of people employed at the MNEs' subsidiaries operating in Ireland ranged from as few as 75 up to 1,670 people (see Figure 6.2). As stated, these employment figures are those of the Irish subsidiary and not of the entire MNE organisation. The reason for focusing only on the Irish subsidiary employment rates is because it is this

unit of the MNE that has a direct impact on the host economy. Figure 6.2 indicates that 60% of the MNE subsidiaries are small to medium sized operations the remainder were large organisations. However, two of the MNE subsidiaries employed more than 1,000 people (both of which were American multinational organisation)

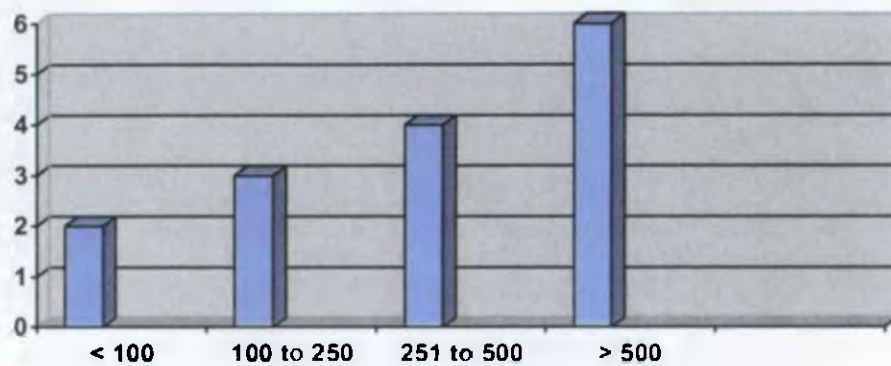


Figure 6.2 Levels of employment at the MNEs involved in this research (Source: Current research)

Most of the employees in each of the MNEs were at the operator level. Although some of the employees were technical operatives; for example, MNE9 employed 400 software engineers to develop and support software applications. All MNEs were hierarchical in structure with senior and middle management teams, and relevant support staffs; each could be described as a typical representation of the hierarchical structure of organisations as outlined by Mintzberg (1983). Equally, each of the MNE subsidiaries involved in this research was considered to be within the category of foreign direct investment (FDI) as they aligned with the definition outlined by Dicken (2003) namely “‘Foreign’ direct investment is simply direct investment which occurs across national boundaries, that is when a firm from one country buys a controlling investment in a firm in another country or where a firm sets up a branch or subsidiary in another country” (p.51). In the case of these fifteen MNEs, all were subsidiaries of parent companies. None of the organisations had a prior presence in Ireland before the MNE set up the local subsidiary; that is to say none of the parent MNEs bought into (or bought over) existing organisations in Ireland.

Having provided data on the profile of the MNEs involved in this research, the degree to which these MNEs supported and/or encouraged employees to consider (and/or actually) start their own enterprises will now be explored.

6.2 The degree to which MNEs support and/or encourage employees to start their own enterprises

It is important to reiterate here that this research is about assessing to what extent MNEs have a direct impact on the level of new venture creation. This research is not a study on 'spillovers' in the sense of MNEs purchasing goods and services within the host region (Andreosso-O'Callaghan, 2000), nor is it about backward linkages to indigenous firms as per Turok (1993a, 1993b), neither is it focusing on the degree to which "foreign multinationals create linkages with the host economy or whether they operate in the so-called 'enclave sector' with no links to the domestic economy that surrounds it" (Gorg and Ruane 1998, p.2). Rather, what this current research is about is what Fosfuri, Motta, Ronde, 2001; Girma and Wakelin, 2001; and Kugler, 2002 refer to as the other facets of spillover, namely the pecuniary, technological, and skills transfer. It examines the extent of this particular type of spillover through the degree to which MNEs support and/or encourage employees to start their own enterprises.

In relation to the current research, only three (20%) of the fifteen MNEs interviewed stated that they encourage and support their employees to consider starting their own enterprise. One MNE (MNE15) was 'indifferent' to the issue. The remainder of the MNEs (73%) were emphatic that in no way would they encourage or support any of their employees to consider starting an enterprise while the person was still employed by the MNE. Thus it would seem that, in the case of MNEs operating in South East and South West Ireland, the diffusion effect of MNEs as outlined by Barrow and Hall (2000), and the role of organisations as 'incubator units' (Cooper, 1981), is more accidental than an intentional act on the part of the senior management of these organisations.

Of the three MNEs (MNE1, MNE6, and MNE10) who stated they would and do encourage and support their employees to start their own enterprises, two have their

origins and HQs in the United States (MNE1 and MNE6), the other (MNE10) was a German owned company. However, upon closer analysis of the data it transpired that only one of these three MNEs is really proactive in its encouragement and support. The other two provided the encouragement and support when their firms were down sizing.

MNE1 is the only one of the fifteen MNEs that is very supportive of employees starting their own enterprise. For example, MNE1 provides general advice to people starting their own enterprise, and often helps with seed funding. MNE1 also provides any particular education/training an individual may need to set up his/her own enterprise. They also agree a departure time for the employee to leave the organisation, that is mutually beneficial to the employee, the new enterprise, and the MNE. In addition, MNE1 often provides the new enterprise with their first or early contracts for products and/or services to be supplied to the MNE.

However, according to FNDR2 it took him almost eighteen months to convince MNE1 that they should support him to start his own enterprise. On the other hand, FNDR2 was the first of MNE1's employees to consider starting his own enterprise while still working for the MNE. His enterprise idea was based on the work he was doing at the MNE, but he had identified that this work was not core to the MNE's operations, and could easily be outsourced.

FNDR2 was the first employee to request MNE1 to outsource some of their process. Since FNDR2's start-up was so successful, MNE1 now considers the process of outsourcing as a method of retaining some of its key skills while at the same time enabling employees to leave the company to start their own enterprises. For example, one female employee who had a specialist skill analysing the produce of MNE1, wanted to leave the MNE to become a fulltime mother to her three young children. Her specialist skills were so critical to MNE1 that the MNE encouraged her to start up her own enterprise at home and to continue to provide her specialist skills to the MNE, via her new enterprise. A similar case occurred when two maintenance people, who were especially skilled in working with stainless steel, saw a market for their skills beyond MNE1. So rather than lose entirely the skills of these craft workers, MNE1 supported the two craftsmen to start their own enterprise and provided them with their first major contract as 'a retainer' to keep them linked to MNE1. Of the five enterprises that MNE1

helped employees start up between 1995 and 2002, only one of them continues to be hugely dependant on MNE1 (almost 90% of this business is still with MNE1).

With regard to MNE6, the encouragement and support was not as open. As the MD of MNE6 stated “we would encourage people, but we don’t sponsor it for example if somebody wanted to take a year off to try something we would encourage them. But it is not major”. Based on the conversation, ‘not major’ meant that the uptake was few and the support offered was very limited. The MD of MNE6 also mentioned that two ex-employees that he was aware of had started an enterprise within the last five years. One of these, a software development engineer, left of his own accord to start an enterprise with a friend (FNDR14). MNE6 supported this new start-up by providing it with a number of contracts for work. However, it is significant that the MD commented further about the support offered by saying “we didn’t help them officially”. The other employee mentioned was made redundant from the company and the support MNE6 provided to this enterprise was that “we allow him to come in here and set up a stand to sell his products” (MD, MNE6).

When analysing the planned attitude of MNE10 towards encouraging and supporting employees to start their own enterprise, it was seen that the support was clearly conditional and related to downsizing the MNE’s business activities. In the words of MNE10’s Financial Controller, employees are encouraged and supported “when we are trying to get rid of people. We were very active at this from 1991 onwards. The support was via a redundancy package. However when we were busy and/or in the process of growing, then the answer was ‘no way’, because we were trying to get people and keep them”.

Thus, the reality of the situation is that only one of the MNEs interviewed encouraged and actively supported employees to both consider and actually start up their own enterprises. This company, MNE1, considered itself to be an entrepreneurial company and encouraged its employees to be creative and entrepreneurial. During this researcher’s tenure with University College Cork (UCC), MNE1 was also actively involved with and was the main sponsor of the UCC Annual Entrepreneurship Awards. In fact, not alone did MNE1 provide the funding for the awards; they were also actively involved in the award process and follow-up. For example, MNE1 wanted to have a

follow-up with the award winners, with a view to encouraging and supporting them to start their own enterprises. In this way the management of MNE1 were actively encouraging entrepreneurial activity in the sub-region.

Much of the previous research into spillover effects from MNEs concurs with Girma and Wakelin (2001) that positive spillovers do occur from foreign firms, that these positive spillovers are limited to the region within which the MNE is located, and that developed regions are more likely to have more and better positive spillovers than underdeveloped regions (even within the same country) (see Chapter 5, Tables 5.8 and 5.13).

The evidence from this current research, however, demonstrates that fourteen of the fifteen MNE executives interviewed stated that in no way would they encourage their employees to consider starting their own enterprises, or that they (the MNEs) would only encourage such activity if they (the MNEs) were downsizing, suggests that the spillover effect of MNEs is mostly as a result of downsizing or plant closure as opposed to being a positive strategy on the part of MNEs and/or their senior executives. Therefore, contrary to what other researchers (for example Markusen and Venables, 1999; Fosfuri, Motta, Ronde, 2001; Girma and Wakelin, 2001; and Kugler, 2002; to mention but a few) have presented in their research, this current research has identified that the spillover from MNEs into the host economy appears to be unplanned as opposed to planned.

Also, the current research has identified that the spillover from MNEs is far less than what would be expected, based on what previous research suggests. This difference in spillover may be due to the fact that previous research tended to look at spillover in broad, generic terms; whereas this current research is seeking to identify specific, direct links between MNEs and new enterprise creation within the MNEs host economy.

What is clear from the interviews with the senior executives of the fourteen MNEs that do not support their employees to consider starting their own enterprises, is that, in general, MNEs do not want to openly encourage employees to consider, never mind start their own enterprise, unless they (the MNEs) have to. In fact, most of the MNE

executives stated that it was not ‘company policy’ to provide such encouragement or support to employees.

Comments from MNE senior executives that do not support employees to consider starting their own enterprises included: “we put a lot of effort and money into the training and development of our people – it is very expensive. Therefore why should we encourage people to leave (to start their own enterprises)?” (MNE2). Or, “The company’s mission is ‘the alignment of all employees’ goals to company goals’, if employees were to start their own enterprises they would not be in alignment with the company’s goals” (MNE3). And in the words of the Engineering Manager of MNE13, “we discourage employees thinking about setting up their own enterprises. We expect employees to have full focus on their work, on this business”.

These comments and the general attitudes of the senior executives of 14 of the MNEs may be reflective of Dunning’s (1998) suggestion that the three legs of his OLI triad of variables are supportive of each other and the three-legged stool is only functional if all three legs are balanced (p.45). In the case of the MNEs interviewed for this research the “O” is very strong in that the MNEs own the subsidiary in Ireland 100%, the brands, processes and R&D are also owned by the MNE. The “L” is also very strong in that the MNEs have benefited from both employment and capital grants, and also the much reduced tax on profits generated through their Irish subsidiaries. Thus, in order to maintain balance in ‘the stool’, the MNEs have a strong “I” through investment in training and development, and creating a strong corporate identity and culture within the MNE’s subsidiary in Ireland. As suggested the comments and attitudes of the 14 senior executives may be reflective of degree to which the MNEs have created such a strong corporate culture and loyalty to the corporate goals, especially among senior executives.

However, a small number of the MNEs, such as MNE7 and MNE9, stated that whereas they do not actively encourage employees to consider starting up their own enterprises, they *might*, depending on the circumstances and the benefits to be derived by/to the MNE, support an ex-employee who set up an enterprise with specialist skills/processes that are required by the MNE.

In summary, only one of the fifteen MNEs involved in this research had a process (but not a written corporate policy) of encouraging and actively supporting its current employees to consider starting their own enterprise; 47% provided support and encouragement only when the MNE was in the process of downsizing their operations. Thirteen percent of the MNEs stated they might provide support to an ex-employee starting an enterprise, but the support would be conditional and based on circumstances rather than it being the MNE's policy. The remainder of the MNEs did not provide any support to employees or ex-employees starting their own enterprise (see Table 6.3).

	%
MNEs actively encourage and support employees to consider starting their own enterprises	7%
MNEs encourage and support employees start their own enterprises only when the MNE is in the process of down-sizing its business	47%
MNEs provide encouragement and support to employees to start their own enterprise on condition that they (the MNE) will benefit from the process	13%
MNEs under no circumstances provide encouragement or support to employees to start their own enterprises	33%
Total (N = 15)	100%

Table 6.3 Percentage of MNEs that encourage/do not encourage and/or support/do not support employees start their own enterprises (Source: Current research)

6.2.1 Awareness of start-ups among MNE senior executives

Collectively, the fifteen senior executives interviewed for this research indicated that they were aware of a total of fifty enterprises that were started by ex-employees between 1980 and 2003. However, it cannot be claimed that this is an accurate figure, because the MNEs did not keep records of ex-employees' activities once they left the company. Of the fifty start-ups, 46% of the founders were made redundant, 36% left of their own accord to start an enterprise ("it was something they always wanted to do", or "they saw an opportunity they felt they could capitalise upon"), and 18% left by 'mutual agreement'. In some cases, this 'mutual parting' was acrimonious. In total, 38% of the fifty enterprises did not fit the current research criteria (Table 6.4), however the remaining 62% did meet the research criteria.

The findings of this current research indicate that there were approximately two (2) indigenous start-ups per MNE, which meet research criteria 1 and 2. As already stated,

these figures are not accurate and there is no evidence to suggest whether these numbers are representative (or not) of the number of spin offs per MNE within a host economy. This researcher, to date, has not come across any research that measures the benefits of MNEs to its host economy in terms of new enterprise creation in either absolute or relative numbers.

Element	Criteria	Criteria to apply
Indigenous Enterprise	Must have been founded between 1990 and 2001	Criteria 1 All criteria in this section must be met
	Must exist in the South East or South West sub-region	
	Must be wholly Irish owned	
	Must not be a subsidiary of an existing Irish company	
	Must not be a subsidiary of a foreign own company	
	The business of the enterprise must be in one of the following sectors – chemicals, computers, electronics, engineering, manufacturing, pharmaceuticals, plastics & rubber, R&D and labs, software or telecommunications	
Entrepreneur	Must have worked for an MNE in South East or South West Ireland prior to starting the enterprise or	Criteria 2
	The enterprise must have been started specifically to supply an MNE	At least one of these criteria must be met

Table 6.4

Criteria 1 and Criteria 2 for this current research (Source: Current research)

Apart from MNE1, the general support that has been provided to ex-employees was either a redundancy package; or the support was provided based on the value of the new enterprise's product/service and/or process to the MNE. Mostly, the commitment to the new enterprise was limited or based on a project-to-project basis. Although some MNEs had a written policy that their (the MNE's) business would not be any more than a particular percentage of any supplier's overall business, there appears to be little monitoring of this among the MNEs. The notable exception to this was MNE15 whose purchasing department regularly monitored the new enterprise's business to ensure that it (MNE15) was not 100% of the new enterprise's turnover or capacity.

According to the MD of MNE 15, "our general policy is to support the region, and support the communities in which we work". This meant that MNE15 supported employees both during a redundancy as well as employees who presented the MNE with an idea to start an enterprise, as long as it was beneficial to the MNE to provide this support. The type of support offered by MNE15 was both start-up support and financial advice, as well as, from time to time, bringing in both state agencies and

private consultants to help the ex-employee with their enterprise start-up. However, because MNE15 did not want to have any indigenous enterprise to be overly dependant upon them, they met the fledgling enterprises twice a year over a five-year period to monitor their business performance. MNE15 was the only MNE in this current research which offered this level of support to employees and ex-employees. However, it needs to be pointed out here that the support was mostly in response to the MNE's downsizing activities.

6.2.2 MNE executives' awareness of start-ups specifically to supply MNEs

Of the fifteen MNE senior executives interviewed, only three were aware of any SMEs that started up specifically to provide a service to MNEs. One of these, MNE4, is in the wood processing industry and the types of enterprises the MD spoke about were mainly to do with timber haulage and forest harvesting. One of the enterprises mentioned was a pallet manufacturing business started in 1988 specifically to provide pallets and separation blocks to MNE4. MNE4 provided technical support to these start-ups. In the case of the pallet manufacturer MNE4 also supplied both equipment and engineering assistance to the new enterprise. (Incidentally, at the time of this research this enterprise was still doing well in business, and its sole customer was still MNE4.

MNE8 named two companies that started specifically to provide metal fabrication and precision engineering parts to the MNE. One of these companies was started in 1973, the other in 1978. One has since ceased operations; the other is still in business but is providing services to many organisations other than MNE8, including both MNEs and indigenous operations. MNE8 did not provide any support to these new enterprises and they both had to bid openly for work against the then existing suppliers to MNE8

As regards MNE14, the senior executive interviewed there stated that he was aware of one indigenous enterprise that started in 1991 specifically to provide a 'pick and pack' service to the company. This indigenous company was successful in taking all the 'assembly' of brochures, handbooks, instruction guides, etc from the MNE. However, at the time of the new enterprise start-up, MNE14 did not support it in any way.

6.3 Degree of autonomy of the MNE subsidiaries

This current research also examines if subsidiary autonomy has an impact on the amount of new enterprise creation in the MNE's host economy. Therefore, it is important to first of all examine the degree of autonomy each of the MNE subsidiaries involved in this research had at the time of the executive interviews.

Picard (1978) defines autonomy as the power or right to self-management. However as presented in Chapter 2, the level of autonomy of a subsidiary is very much influenced by the subsidiary mandate that the MNE HQ permits the subsidiary to have and on the level of control of the MNE HQ over its subsidiaries (Zahra, Dharwadkar and George, 2000; and Holm, Malmberg and Solvell, 2002). It depends on the actual level of autonomy the subsidiary really has as opposed to the amount of autonomy the subsidiary thinks it has.

In order to assess the degree of autonomy each of the MNE subsidiaries had, the senior executives interviewed were asked to what extent the subsidiary or the MNE HQ made decisions in relation to marketing and market development, new product development, research & development, new suppliers, new materials, management structure and fiscal policy. Table 6.5 illustrates the degree of autonomy each of the MNE subsidiaries involved in this current research had at the time of the executive interviews.

Table 6.5 displays many interesting patterns. For example, HQ sets fiscal policy for 80% of the subsidiaries. This is understandable as it would be necessary that accountancy practices be set by HQ, especially if the organisation is a wholly owned subsidiary and the subsidiary's accounts are part of the profit and loss accounts of the overall organisation. Of the other 20%, MNE3 stated that local management provided an input to HQ (LMPHQ⁴) in relation to fiscal policy but the author of this thesis believes this to be unlikely as MNE3 is a U.S. owned company. However, up until recently (within the last five years) it was a UK based company and there are still some dual practices in place in the transition phase to a single company strategy and policy.

⁴ LMPHQ = Local Management Provides inputs to HQ (see Table 6.5)

MNE11 is a German owned company and, based on the interview with the MD, there does appear to be a fair degree of autonomy between the subsidiary and the parent company. As regards MNE15, this is now a Swiss based company. It is privately owned, as opposed to being a public company. Up until 1999 the owners of the company were Canadian. Based on the interview with the MD of MNE15 the subsidiary operates with a fair degree of autonomy from HQ. For example, according to the MD “so far this year I have had two meetings with the parent company. The first meeting took about an hour, and the second meeting was half a day. That’s it”. The MD continued “they (the parent company) don’t involve themselves in the subsidiary *at all* (*at all* was stressed by the MD). At the end of last year I got a text message to enquire about production figures, and costs. So I sent back the production and cost figures, and got a reply saying ‘Happy New Year’. And that was the end-of-year reporting”.

It can also be seen from Table 6.5 that MNE15 local management make all decisions (LMMAD⁵) about most of the strategic factors for the subsidiary. Because the output from MNE15 is a commodity⁶ as opposed to a product, neither market development nor new product development is applicable to them. However, again based on the interview with the MD, local management does have a significant input into the way the subsidiary is managed in Ireland. Much of the training and development programmes for staff, and the redundancy policies and supports available to employees to start their own enterprises have been instigated and driven by the current MD of the subsidiary.

It is also interesting to note from Table 6.5 that in the case of MNE4, MNE10 and MNE11, local management makes all of the decisions for most of the strategies examined. In the case of MNE4, a U.S. owned company, this is probably understandable as the subsidiary in Ireland is part of a conglomerate that is highly diversified in the products and services it provides. The Ireland subsidiary, over the last ten years, has been hugely instrumental in acquiring similar plants in Europe (takeovers), and in developing the current product and European markets. The situation

⁵ LMMAD = Local Management Makes All Decisions

⁶ In the world of business a commodity is an undifferentiated product. For example commodities from the commercial world include oil (sold by the barrel), electricity, wheat, bulk chemicals such as sulfuric acid, base and other metals (such as alumina) (Wikipedia, 2006)

for MNEs 10 and MNE11 was that they did not provide a standard product or set of products. In fact, their work was more sub-contract based and therefore they had a diversity of outputs. In both cases they had to develop their own markets, products, processes, and solutions to meet these market requirements. Both of these subsidiaries were German owned. It is equally interesting to note that the number of spinouts from these three companies is relatively low. The fact that MNE4 is a single process, very capital-intensive industry may explain the low level of spin offs from this MNE.

MNE	Company Origin	Marketing and Market Development	New Product Development	Research & Development	Process Development	Sourcing New Suppliers	Sourcing New Materials	Management Structure	Changing Fiscal Policy
1	U.S.	ADMHQ	ADMHQ	ADMHQ	LMMMD	LMPHQ	LMPHQ	LMMAD	ADMHQ
2	U.S.	ADMHQ	ADMHQ	ADMHQ	LMMMD	LMMMD	LMMMD	LMMMD	ADMHQ
3	U.S.	LMPHQ	LMMAD	LMPHQ	LMMMD	LMPHQ	LMMAD	LMMAD	LMPHQ
4	U.S.	LMMAD	LMMAD	LMMAD	LMMAD	LMMAD	LMMAD	LMPHQ	ADMHQ
5	Germany	LMMMD	ADMHQ	ADMHQ	LMMAD	LMPHQ	LMMAD	LMPHQ	ADMHQ
6	U.S.	LMPHQ	LMMMD	LMMMD	LMMMD	LMMMD	LMMMD	LMMAD	ADMHQ
7	U.S.	N/A	LMPHQ	LMPHQ	LMMMD	LMMMD	LMMMD	LMMAD	ADMHQ
8	U.S.	ADMHQ	ADMHQ	ADMHQ	LMPHQ	LMMMD	LMMMD	LMMMD	ADMHQ
9	U.S.	ADMHQ	LMPHQ	ADMHQ	LMMMD	LMPHQ	N/A	LMMMD	ADMHQ
10	Germany	LMMAD	LMMAD	LMMAD	LMMAD	LMMAD	LMMAD	ADMHQ	ADMHQ
11	Germany	LMMAD	LMMAD	LMMAD	LMMAD	LMMAD	LMMAD	LMMAD	LMMAD
12	Germany	ADMHQ	ADMHQ	ADMHQ	LMPHQ	LMMMD	LMMMD	LMMAD	ADMHQ
13	U.S.	ADMHQ	LMPHQ	LMPHQ	LMPHQ	LMPHQ	LMPHQ	ADMHQ	ADMHQ
14	U.S.	LMPHQ	LMPHQ	LMPHQ	LMMMD	LMPHQ	ADMHQ	LMMMD	ADMHQ
15	Switzerland	N/A	N/A	LMMAD	LMMAD	LMMAD	LMMAD	LMMAD	LMMMD

Table 6.5 Degree of autonomy MNE subsidiaries have in relation to key strategic decisions (Source: Current research)

- Legend: **LMMAD** = Local Management Makes All Decisions
- LMMMD** = Local Management Makes Many Decisions
- LMPHQ** = Local Management Provides inputs to HQ
- ADMHQ** = All Decisions are Made by HQ

However, MNE10 and MNE11 were multifaceted organisations and employed many technical people that had the potential to start their own enterprises. Particularly in the case of MNE11, it employed many toolmakers, fitters, and engineers, but as the MD stated during his interview:

“Last year we had redundancies and as a result there were people who started various enterprises, but none of them related to what we are doing here. I can’t understand it, but that’s the way it is. Maybe it is a local thing. I don’t know. There are not that many entrepreneurs out there at the moment, not around here anyway. I don’t understand it myself, this is an engineering works and there should have been a lot more indigenous engineering enterprises created (from this company), even for tool making people here they would have the contacts worldwide. It is a big business. But there was no take-up. There are one or two companies that have come out of here, but there is nothing substantial”.

(MD, MNE11)

A founder that did emerge from MNE11 was FNDR3 who was actually doing a lot of part-time work for MNE11 in his spare time (for about two years prior to setting up his enterprise), even though he was a full-time employee of MNE11. It was only when the opportunity of redundancy occurred that FNDR3 eventually decided to leave MNE11 to start his own enterprise. At the time of start-up, MNE11 represented more than 90% of FNDR3’s business’ output. By the time of the interview, 75% of FNDR3’s business output was with MNE11.

6.4 MNE autonomy and new enterprise creation

In summary, when considering the level of autonomy an MNE subsidiary has and the level of new enterprise creation with specific reference to this current research, one must keep in mind that, as per Table 6.2 and Dicken (2003), most of the MNEs in this research are best considered as *international* or *global* organisations as opposed to *multinational* organisations. The fact that the MNEs involved in this research are not

what Dicken (2003) would classify as multinationals, may have an impact on the level of autonomy possessed by these MNE subsidiaries. Thus, it is likely that the level of autonomy (or lack of autonomy) may have impinged on the amount of encouragement and support the MNEs provided to new enterprises.

As Zahra, Dharwadkar and George (2000) suggested, when subsidiary managers have more autonomy from their parent MNE, they are better empowered to support entrepreneurship within their organisations. They state, "successful entrepreneurship can also improve the subsidiary's reputation, thereby increasing the professional standing of subsidiary managers" (p.24). Such a process may lead to Taggart and Hood's (1999) suggestion that there is a tenuous link between high autonomy and affiliate longevity, however, in the opinion of the researcher of the current research, these results appear to be inconclusive.

Taggart and Hood (1999) also suggested that high-autonomy firms (subsidiaries) are much more export-oriented and carry out significantly more complex R&D locally. Thus one could expect that if a subsidiary possesses high levels of autonomy, management will have 'increased levels of professional standing' (Zahra, Dharwadkar and George, 2000), and there would be greater skills and experience within the organisation because of both the R&D and export activities. Following on from this argument, one could assume that there would be a greater number of spin offs from such an MNE subsidiary.

However, this does not appear to be the case with the three more autonomous MNEs involved in this research. Maybe this is because if management enjoy high degrees of autonomy and are 'assured' of longevity within an organisation, then they are probably less likely to leave 'safe employment' to take up the risks and uncertainties of self-employment.

The evidence from this research also supports Dunning's (1974) comment that the more autonomous the senior management team is in the MNE, the more likely they simulate the "...behaviour of affiliates of multinational enterprises is geared not to meeting their own objectives (which may be very similar to those of indigenous companies), but to the enterprise of which they are part (which may be very different)" (p.364). This could

be a reason why so few MNE senior executives encourage and/or support employees to consider starting their own enterprises.

Table 6.5 indicates that most of the MNEs involved in this current research do not have significant levels of autonomy from their parent companies. But, most have an input into the strategic aspects of the business, but having an input is not the same as having full autonomy over strategic decisions. However, it is not clear from the table that there is a link between autonomy and the level of spin offs out of and supported by local MNE subsidiaries. In fact, with the exception of MNE15, the opposite would seem to be the case. Also, whilst all the MNEs involved in this current research export more than 90% of their outputs, the amount of R&D practiced in any of the MNEs is very limited.

As stated, MNE1 is notable in that it is the least autonomous but yet it is the MNE that is most supportive of employees starting their own enterprises. However, it took MNE1 a long time to get to this position. As detailed in Chapter 5, FNDR2 was working for MNE1 and approached his superiors in the MNE to suggest that the work he was doing was not core to the MNE's business and that he would be willing to set up an enterprise to do this work, off site, for MNE1. From the time the suggestion was made, it took almost eighteen months before FNDR2 got agreement from MNE1 to set-up the new enterprise to provide them with the agreed service. The process, as remembered by FNDR2, was:

“I was working with MNE1 and we were looking at outsourcing one part of the supply chain, which was the sample receipt and unpacking part of the process. That was the bit I was working at so I approached MNE1 with the idea that they could outsource this stage of the process to me on a part-time basis. But MNE1 was not too keen, so I broached them with the suggestion that if I left (the company) I would do the full range of services (related to this part of the supply chain) for them. I took the suggestion up tentatively with a few people in MNE1 (at local level) first to suss it out. The precedent never existed before in

MNE1 where an employee had left and been given a contract” (FNDR2).

Getting the contract from MNE1 was not that easy, as FNDR2 continued:

“I went very tentatively about it. The fact is it wasn’t common place for this sort of thing to happen so I just went to one or two people that were high enough up (in the organisation) that I had a good working relationship with and I just asked them about the idea and they went behind the scenes. They sussed it out within the organisation, not just in MNE1 (senior management in the local subsidiary of MNE1) but also in New York (HQ for MNE1), just to see would there be any issues with the handing out of a contract to a former employee. Word came back that there would be no issue” (FNDR2).

As can be seen from this example, the decision to support the new enterprise was not made by local management, the decision was ultimately made at HQ. It took almost one year to get to a stage where FNDR2 received the ‘tentative go ahead’, and it took a further six to eight months to finalise the contracts and for FNDR2 to start his new enterprise.

MNE1 is similar to 67% of the MNEs involved in this research in that its HQ is based in America. It is one of the longest established MNE subsidiaries involved in this research. However, its commitment to entrepreneurial activities is far greater than the rest of the fifteen MNEs examined. It may be that the most significant difference between senior management of MNE1 and the other MNEs is their ‘level of enlightenment’. But, as stated earlier MNE1 is also deeply involved with other entrepreneurial activities in their host region.

It may be a combination of autonomy and enlightenment that is the basis of the direct link between MNEs and new enterprise creation. Certainly this appears to be the case with MNE15. Then again, in many of the cases where ex-employees were supported to

start their enterprises, redundancy and/or down sizing of this MNE subsidiary was a catalyst in the process.

The MNE15 subsidiary is very autonomous, local management makes all the decisions (LMMAD) as regards R&D, process development, sourcing new suppliers and materials, and management structures. Senior management at MNE15 also makes many decisions (LMMMD) about fiscal policy (see Table 6.5). This current research shows that MNE15 has supported the greater number of indigenous start-ups; “50% of those supported was as a result of a ‘downsizing activity’ within the subsidiary, and 50% as a result of people leaving of their own accord” (MD, MNE15). As the MD stated, “our general policy is to support the region, and support the communities in which we work. All our efforts (support) are equal or more or less equal. We won’t take a commercial hammering to help people start (their own enterprise) unless there is a particular reason to do so (for example if it was beneficial to the effective running of MNE15)”.

As part of supporting ex-employees start their own enterprises, MNE15 arranged and paid for consultants to provide both financial and enterprise start-up advice.

As stated above, the MD of MNE15 presents as a very progressive manager. He stated that MNE15 was the first company in Ireland to implement what he called the Enterprise Support Scheme to assist employees being made redundant to consider starting their own enterprise. At the time of this research, most MNEs that go through a redundancy process now engage FAS (the national training authority in Ireland), the City/County Enterprise Boards and Enterprise Ireland in their Enterprise Support Scheme. MNE15 is also unique in that it has its own ‘Training School’ that is accredited by the Further Education and Training Awards Council (FETAC)⁷ of Ireland. Both the Enterprise Support Scheme and the Training School were initiatives implemented by this MD. MNE15’s HQ does not get involved with issues like this at local level.

However, FNDR22 offers the following perspective of MNE 15. He stated that it is not easy to get a contract from MNE15, but once you have a contract “they look after you

⁷ FETAC is the national awarding body for further education and training in Ireland. FETAC offers people the opportunity to gain recognition for learning in education or training centres, in the work place and in the community.

well” (FNDR22). However, when FNDR22 first expressed his desire to leave MNE15 to join another company on a contract basis (as a self employed person), his supervisor did not want him to leave. But the supervisor arranged with the MD to facilitate FNDR22 with a six-month leave of absence “to see how he would get on” (FNDR22). Even though the leave of absence was being arranged for him, FNDR22 decided to stay with MNE15; but a year or so later FNDR22 availed of a redundancy package introduced by MNE15. Once FNDR22 had left the MNE, it took him almost six months to get a contract from MNE15. That was in 1994, almost ten years later, at the time of this research, FNDR22 is still doing business with MNE15, in fact, most of his business is with this MNE.

This chapter has presented the perspectives of MNE senior executives as to whether MNEs do or do not support indigenous spinouts from their organisations. The chapter also examined the degree of autonomy of the MNEs involved in this research, to establish if there was any link between the degree of autonomy at an MNE and the support to new enterprises generated from that MNE. The research questions examined by this chapter are summarised in Table 6.6. The next chapter, Chapter 7, examines the perspectives of senior executives in the State enterprise support agencies operating in South East and South West Ireland.

	Research question	Findings/comments
1	What is the quantity and characteristics of new enterprise start-ups that are related to the presence of an MNE in a host region/sub-region?	The evidence derived from the interviews with MNE senior executives suggests that few enterprises were created as a direct result of the presence of MNEs in the host economies
2	What is the quantity and characteristics of new enterprise start-ups are that related to withdrawal or contraction of an MNE in its host region/sub-region?	Based on the evidence from the interviews with MNE senior executives, it appears that most of the new enterprise start-ups were as a result of redundancies. However, the information in relation to the number of start-ups as a direct result of the presence of MNEs cannot be considered as being accurate as none of the MNEs or their senior executives kept written records of ex-employees starting their own enterprises.
3	What is the impact of the prevailing policies of support agencies at the time of start-up?	This question was not relevant to this section of the data analysis.
4	What inputs may be inferred for policies concerned with indigenous entrepreneurial activity?	It is evident from this section of the data analysis that most senior executives of MNEs do not see any reason why they should encourage or support employees create their own new enterprises. Currently there are no government policies or incentives in place to assist MNEs that do encourage and support their employees start new enterprises.
5	What are the factors that impact on the quantity of and reasons for start-ups during an MNE's presence in its host community?	From this section of the research, it is evident that redundancies are the biggest factor impacting on the quantity of new enterprises created by ex-employees of the MNEs. Other key factors, identified from this research, that impact on the quantity and reasons for start-ups are the levels of autonomy exercised by, and the enlightenment of the MNE's subsidiary senior executive team. This section of the research has identified that the spin offs from MNEs are a result of unintentional action as opposed to planned action.
6	What are the factors that impact on the quantity of and reasons for start-ups after an MNE has departed from or significantly reduced its employment levels in its host community?	As per 3 above
7	Is there a difference between the number and type of start-ups during the presence of and post closure of MNEs?	No conclusive evidence was derived from this section of the research that provides a response to this question
8	Does subsidiary autonomy, and the MNE's country of origin have an impact on the number of and viability of start-ups?	The evidence from this section of the research indicates that the attitudes of the senior executives and the process and practices of the MNE did have an impact on the amount of support and encouragement proffered to employees/ex-employees to start their own businesses. However, the MNE with the least amount of autonomy provided the greatest amount of support and encouragement to employees; and the MNE with the most autonomy provided the greatest support to employees that had been made redundant. This section of the research indicates that for the MNEs involved in this research, country of origin and location of its HQ, do not have an impact on the amount of new enterprise creation in the MNE subsidiary's host economy.
9	To what extent did the prevailing policies of support agencies influence the quantity and type of start-up?	See response to question 4 above
10	Is there evidence to suggest there are latent entrepreneurs in this research sample?	There was no evidence derived from this section of the data analysis to support there were latent entrepreneurs in the research sample

Table 6.6 Summary of MNE senior executives' perspectives in relation to MNE support provided to new enterprise start-ups (Source: Current research)

Chapter 7

The View Of The State Agencies

Chapter 7 The View Of The State Agencies

7.1 Introduction

Chapter 7 analyses the extent to which State enterprise support agencies facilitate and encourage employees and/or ex-employees of foreign owned multinational enterprises (MNEs) to start their own enterprises. Equally, the chapter analyses the extent to which these enterprise agencies support enterprises that have been created with the specific intent to provide products and/or services to foreign owned MNE subsidiaries operating in Ireland. In essence, this chapter examines the degree to which policy and policy implementers provide an environment conducive to the creation and development of indigenous enterprise. According to Birch 1987; Corman, Lussier and Nolan, 1996; and Stevenson and Lundstrom, 2001 the creation of jobs and an expanding economy is very much dependant on the provision of such a conducive environment.

Fourteen senior executives of State enterprise support agencies were interviewed for this part of the research analysis (see Table 7.1).

Code ¹	Person Interviewed
SA1	CEO
SA2	Regional Manager
SA3	CEO
SA4	Regional Manager
SA5	CEO
SA6	CEO
SA7	CEO
SA8	CEO
SA9	CEO
SA10	Assistant CEO
SA11	CEO
SA12	CEO
SA13	CEO
SA14	CEO

Table 7.1 Responsibilities of State agency interviewees (Source: Current research)

¹ Interview code for each of the executives

The interview questions for the State agency senior executives are in Appendix 7.

The reasons for choosing the South East and South West sub-regions of Ireland as the area of analysis for this research are detailed in Chapter 4. Within these sub-regions there are two regional offices for Enterprise Ireland (EI), two City Enterprise Boards (CEB) and ten County Enterprise Boards (CEB). All of these agencies have the same mandate i.e. supporting the creation and development of indigenous enterprises in their respective regions.

Under the Industrial Development Act 1993 (for further details see Chapter 1, section 1.2), EI is responsible for companies employing more than ten employees, and for High Potential Start-ups (HPSU). According to EI's website, one of its core mandates is "encouraging and supporting HPSUs". EI supports indigenous businesses located in Ireland if:

- They are in the manufacturing or internationally traded services sectors
- They are export oriented;
- Their product or service is technologically advanced; and
- If the business is likely to achieve significant growth within three years (sales of €1.0m and employment of 10 or more); (Enterprise Ireland, 2006)

The above is also Enterprise Ireland's definition of a HPSU.

The CEBs, also established under a Government Act in 1993, were set up as companies limited by guarantee, and report directly to the Department of Enterprise Trade and Employment. According to the Department's website, the role of these boards is to "develop indigenous enterprise potential, to stimulate economic activity at local level, and to promote micro-enterprises (10 or fewer employees)" (Department Enterprise Trade and Employment, 2006). This support includes business advice, financial assistance and management training.

The CEBs work on a more localised basis, whereas EI works on a regional basis. One of the functions of the CEBs is to identify and develop indigenous enterprises to a level that they can be transferred to EI client status. However, in reality, only a small number

of CEB clients actually progress to this level of development (Hanley and O’Gorman, 2004). An important feature of the CEBs is that they include representatives of all the main sectors in the local community, including social partners, representatives from the county council, State agencies and local voluntary groups (Department Enterprise Trade and Employment, 2006).

It could be assumed that since both Enterprise Ireland and the City and County Enterprise Boards are under the auspices of the same government department, the Department of Enterprise Trade and Employment, and receive policy direction from the same source, Forfás, that there would be homogeneity and synergy in the philosophy, process, and delivery of services across these organisations, to their respective client bases. However, as seen from the results of this current research, the senior executives of the enterprise support agencies in the area of analysis had, to a certain extent, have varying views as to how their organisation dealt with indigenous entrepreneurs. This finding supports the argument of Hanley and O’Gorman (2004) that there is in fact a high degree of local interpretation of enterprise support policy, and that the implementation of policy is as per this local interpretation.

For example, when asked, “Does your organisation segregate founders of new start-ups into different categories?”, 50% of the respondents stated yes, 43% said no, and one respondent was not clear in his response. For those who did agree that categorisation did take place, they stated it was done by age, gender, and industry sector. When asked the question “Does your organisation give any special focus or incentives to those that are working in industry versus those that are not working in industry at the early stage of the start-up process?”, 86% of the respondents said no, one said yes, and again one respondent was not clear in his response. The person that said yes stated that, “well obviously if somebody was working with a multinational and was thinking of starting out on their own, and depending on the activity, and if they discovered a niche market and were able to develop it themselves, it would definitely colour our thinking” (S12).

On the other hand, SA4 stated that “it is not whether the potential founder is working or not that is important, it is his/her experience that matters”. As regards the 86% that said no, they all stated that they do not provide any special incentives to those that are

working in industry at the time of start-up, compared to those that are unemployed. If anything, according to SA5 “the only distinction between people who are employed or unemployed is that we would be more lenient with an application from an unemployed person in order to get him/her back into work again”.

Interestingly, many of those that said they do not provide any special focus or incentives to those who are working in industry compared to those who are not, stated “in assisting a project we would be guided by the actual quality of the project itself rather than where the person comes from”, or “each application is dealt with on its merits regardless of where the individual comes from” (SA9, SA10, SA11, and SA14). These practices are at odds with previously published research about the entrepreneurial process that identifies the entrepreneur’s prior experience, drive and enthusiasm as being essential ingredients in being a successful entrepreneur (see for example Cooper, 1981; Reuber, and Fischer, 1994 and 1999; Carter, Gartner, and Reynolds, 1996; Jo and Lee, 1996; Lambing and Kuehl, 2000; Hisrich and Peters, 2002; Deakins and Freel, 2003 to mention but a few). Equally, text books on entrepreneurship and growing and managing a business suggest that venture capitalists and other business investors are more interested in investing in the promoters themselves, their experience, enthusiasm and drive than in the business idea (see for example Burns and Dewhurst, 1996; Allen, 1999; O’Kane, 2001; Hisrich and Peters, 2002; and Deakins and Freel, 2003). And, as Gibb and Ritchie (1982), and Birley (1996) pointed out the employment history of the individual, and in particular the relevance of their experience, is very important in terms of the managerial and technical expertise that are required to set up and manage a new enterprise.

7.2 Which entrepreneurs get support?

As identified in Chapter 4, one of the aims of this current research was to: Assess the impact of the prevailing policies of support agencies at the time of start-up

Thus the senior executives of the State enterprise support agencies were asked the following questions:

- Does your organisation give any special focus or incentives to those who have been made redundant or are in the process of being made redundant from an MNE?
- Does your organisation give any special focus or incentives to those who start their own enterprise specifically to supply products and/or services to MNEs?
- Is there a government policy to support people who are working for MNEs to start their own enterprises?

As regards redundancies, 50% of the senior executives interviewed stated that they do offer particular incentives to those who were made redundant, 36% said they did not offer anything in particular or special, and the remainder of the respondents did not say what support they offered. As regards those who said they do offer support, the type of support referred to was mostly related to working with people that are in the process of being made redundant (or had recently been made redundant) to help them identify their skills. In many cases, the support offered was to run a 'Start Your Own Business' programme. In particular, the enterprise support agencies applied extra emphasis in situations when MNE facilities were closing or downsizing, to identify people who had an interest in starting their own enterprises. Also, when MNEs were downsizing, most of the enterprise support agencies were doing what Tomaney, Pike and Cornford (1999) refer to as, identifying the people with key skills that would be of interest to, and could be employed, by other organisations.

Then again, most of the senior executives that said they did not have any particular incentives for people who were made redundant echoed their earlier comments that "they treat everybody the same, regardless of their background" (SA6, SA8, and SA14). However, one of these respondents did indicate that his organisation had arranged for a consultant to spend some time in a location where many people were made redundant in order to identify those who had business ideas and those who could be encouraged to start their own enterprise.

Most of the activities referred to above were as a result of the Government's decision in 1993 to set up a task force any time a major MNE closed, to (a) find a replacement industry, and (b) assist displaced employees find employment in other organisations or to consider starting their own enterprises (see Chapter 1, Section 1.2).

As regards providing special focus or incentives to those who start their own enterprise specifically to supply products and/or services to MNEs, 72% of the respondents clearly stated that they do not, 14% said they do provide special incentives to this cohort of entrepreneurs, and 14% said that it would be very much dependant on the project itself, as to whether they would provide supports or incentives to this category of entrepreneurs.

One of the respondents, who did offer special assistance to enterprises especially created to support MNE activity, spoke about a national initiative called the National Linkage Programme (see Chapter 1). This initiative was set up in 1985 to assist indigenous enterprises provide services and products to MNEs, but, according to SA5 "unfortunately it was not very successful".

Some commentators suggest that the National Linkage Programme was successful in the late 1980s, and throughout the 1990s. For example, in 1998 the then Minister for Science and Technology and Commerce praised the success and effectiveness of the National Linkage Programme (see Chapter 2, Section 2.2.3). However, as part of this current research, the researcher explored for current references to the National Linkage Programme, no relevant references have been found from 2004 to the present day. Why the National Linkage Programme went into decline is not clear. In the opinion of this researcher, it may be because the MNE industry mix has changed from being predominantly manufacturing to being process or knowledge based. For example, Table 7.2 shows that the percentage of employment in foreign owned manufacturing firms has been declining year on year since 1990. These trends in Table 7.2 support SA3 and SA4's comments that "one time the market for this (services to MNEs) was good but now it seems the market has gone". Or according to SA5 and SA7, it could also be that there are not enough MNEs located in the region, especially in rural areas, to enable the creation of enterprise to supply products and services to MNEs to be a

viable option. Another factor may be that it is a result of the fact that indigenous industry may not have the ability to supply the new knowledge and/or service based MNEs.

	'90	'91	'92	'93	'94	'95	'96	'97	'98	'99	'00	'01	'02
Overall employment	95,203	96,544	97,013	101,523	105,987	113,316	120,618	130,351	139,427	148,184	163,221	158,281	152,212
Manufacturing	88,573	89,092	88,917	92,559	95,330	100,655	104,069	109,538	112,193	114,085	122,309	115,639	110,074
% of Total employment	93	92	92	91	90	89	86	84	80	77	75	73	72
Finance and Internationally traded services	6,630	7,452	8,096	8,964	10,657	12,661	16,549	20,813	27,234	34,099	40,912	42,642	42,138
% of total employment	7	8	8	9	10	11	14	16	20	23	25	27	28

Table 7.2 Employment levels in foreign owned manufacturing and financial and internationally traded services organisations 1990 to 2002
(Source: Forfás, 1999, and 2002)

In relation to the question about the existence of Government policy to support people who are working for MNEs to start their own enterprise, 57% of the senior executives interviewed were of the opinion that no such policy existed, however, 43% indicated that such a policy did exist. Two of the respondents that said there was no such policy in existence also stated that they were aware that Enterprise Ireland was attempting to gain access to middle management in MNEs to introduce them to the possibilities of starting their own enterprise.

An output from this strategy was the Venture Start programme. The Venture Start programme is a series of information evenings and short six-week programmes (two three-hour sessions per week, usually at weekends) held in major towns and cities across the country (Enterprise Ireland, 2006). The Venture Start, commenced in the Shannon Development region in 2004. The programme is now called the Enterprise Start Programme, and it has since spread to other major centres like Cork, Galway, Waterford, Wexford and Dublin. At the time of this research, in the opinion of the researcher and Enterprise Ireland, the programme appeared to be successful in identifying candidates who wished to start their own enterprises.

The programmes were open to the public, however, it was not a necessary requirement that the participants worked for an MNE in order to attend². Some of the candidates from the Enterprise Start Programme either progressed to the Enterprise Platform Programmes (EPP), the year-long enterprise start-up, incubation programme run at a number of key centres across the country, or were eligible for enterprise supports offered by the State agencies.

The State agency executives who stated there was a government policy in place to support people who are working for MNEs start their own enterprise, were mostly referring to the EPP.

Thus it would appear that the Government did have a policy (albeit not widely articulated or known to all the enterprise support executives involved in this research)

² Participants had to be in employment of some sort, unemployed people were not eligible for the programme unless they were recently made redundant.

for encouraging professional and appropriately experienced people from employment into self-employment. This strategy of inviting people in employment to attend the Enterprise Start Programmes is in line with what Jenssen and Havnes (2002) referred to as the need for government to move away from traditional supports to entrepreneurs such as financial assistance, and instead to focus on the factors that make individuals entrepreneurs. However, the strategy could also be construed as a filtering mechanism to 'pick winners'. As stated by Hart, McGuinness, O'Reilly, and Gudgin (2000), and Freel (1998), many governments' enterprise support policies are based on 'picking winners'. The extent to which the Enterprise Start Programme might be perceived to be picking winners is evident in the programme's brochure, which states that "participants are likely to be in fulltime employment and have a desire to develop a technology or knowledge intensive business with export potential" (Enterprise Ireland, 2006).

As regards favouring one type of applicant for support over another, only 50% of the enterprise support executives interviewed prioritised who they would give support to, based on the priority list in Table 7.3

	Type of applicant	Priority
A	Person still working for an MNE?	4 th
B	Person has been made redundant from an MNE?	3 rd
C	During the MNE redundancy/shut down process?	2 nd
D	For a start-up that is specifically set up to supply services/products to MNEs	1 st
E	People that have no connections with an MNE what so ever	5 th

C and D were very close

Table 7.3 Prioritisation of enterprise support (Source: Current research)

The other 50% chose not to respond to this question, their view was that they did not and would not prioritise one applicant over another. Based on Table 7.3 it is difficult to ascertain to what extent Ireland's Government policy (or the implementation of policy) is focused on the creation of new firms necessary to replace businesses and jobs which were lost due to the disappearance and downsizing of existing businesses (Stevenson and Lundstrom, 2001); or how it is increasing the supply of entrepreneurial talent to create and grow new businesses that will generate employment and create wealth for the local economy (Henry, Hill, and Leitch, 2003). Nor is it clear from Table 7.3 if Ireland's enterprise policy is "stimulating culture or social capital and creating the appropriate institutional framework at the country level to address the supply side of entrepreneurship i.e. focusing on the number of people who have the motivation, the

financial means and the skills to launch a new business” (Stevenson and Lundstrom, 2001, (p.18); Wennekers and Thurik, 2001; and De, 2001).

The prioritisation of C and D was very close, however a few more respondents opted for category D as being their priority (see Table 7.3). An interesting point to note about the choice of category D as the priority is, that this is at variance with the 72% of respondents that said they do not provide additional support to those who start an enterprise specifically to support and/or provide a service to MNEs.

It is also interesting to note that supporting an applicant while they are still working for an MNE is less of a priority than supporting those that either have been made redundant or were in the process of being made redundant. This is understandable because one of the main aims of enterprise support agencies is to get people back into employment as opposed to taking them out of employment into a high-risk start-up situation. As SA5 stated “the only distinction between people who are employed or unemployed is that we would be more lenient with an application from an unemployed person in order to get them back into work again”. This statement by SA5 and the prioritisations in Table 7.3 suggest a social aspect to Ireland’s enterprise policy.

The evidence in this current research suggests that Ireland’s enterprise policy implementation and practice is more in line with the dual mandate of most government policies towards entrepreneurship and new venture creation, which is to increase innovation and reduce levels of unemployment (Henriksen, 1999). It also appears that the implementation of enterprise policy in Ireland is in line with what Henry, Hill, and Leitch (2003) suggest in that governments should “increase the supply of entrepreneurial talent to create and grow new businesses that will generate employment and create wealth for the local economy” (p.5). Ireland’s enterprise policy also supports Stevenson and Lundstrom’s (2001) view that “new firms are necessary to replace businesses and jobs, which are lost due to the disappearance and downsizing of existing businesses” (p.18).

One aspect that was reiterated time and again by the respondents was that their focus was on the quality of the business proposals as opposed to the background of the person seeking enterprise support. As stated by SA12 “we look at the product and its potential

viability”, and as SA10 summarised “we look for which ones are more likely to succeed”. However, as stated in Chapter 2, section 2.3, the concept of State enterprise support agencies ‘picking winners’ is not unique to the Republic of Ireland alone as this appears to be the case for many enterprise support agencies across Europe (Storey, 1992; Freel, 1998; Hart, McGuinness, O’Reilly, and Gudgin, 2000; and Massey, 2003)

It is also clear from Table 7.3 that the executives interviewed for this research indicated that the enterprise support agencies are more focused on identifying and supporting potential clients when a redundancy is announced rather than seeking to encourage people out of employment into self-employment. This suggests that the enterprise support agencies tend to operate in a reactive mode i.e. they wait for a client to come to them or for an announcement of a redundancy within their region, rather than operate in a proactive mode i.e. actively seeking clients to assist them create and/or develop their enterprises. As SA1 stated “we focus on middle management in an MNE that is closing down”; and according to SA4 “it is unlikely that we would fund a person in employment over a person being made redundant”.

As regards policy and modus operandi of the State agencies, SA5 summed it up by stating “I suppose reactive is the wrong word, but we tend to be more in tune with what the local needs are and we have the discretion to deal with them specifically_____ I suppose it goes back to the national policy on micro-business that at national level, at government level, or at policy level it tends to be not well articulated_____ apart from looking for businesses that have export potential, for instance, but beyond that there is no well-articulated policy on micro-business.”

7.3 Enterprise creation and the support provided

Two of the aims of the current research were to:

- (i) Identify new start-ups which relate to the presence of an MNE in a host economy, and
- (ii) Identify new start-ups which relate to the withdrawal from, or contraction of an MNE in its host economy;

In order to obtain the number of start-ups as per these two aims, the senior executives of the enterprise support agencies were asked the following three questions:

1. Within your area/region are you aware of anybody who started his/her own enterprise while they were still working for an MNE?
2. In your area/region are you aware of anybody who has started his/her own enterprise specifically to provide products/services to MNEs?
3. In your area/region are you aware of anybody who started his/her own enterprise as a result of being made redundant from an MNE?

From a research perspective, the responses to these questions were not entirely satisfactory in that only two of the respondents referred to files to provide the researcher with the relevant information, the other respondents relied on memory in responding to these questions. Also, when the researcher followed up on the provided names of enterprises (and their founders), it was identified that the reasons given as to why the founder started his/her enterprise were not accurate. For example, in relation to the question identifying the number of start-ups by founders while they were still working for an MNE, only three of the twenty examples provided were people who were actually in the process of starting their own enterprise while they were still working for an MNE, the remainder (17) were made redundant. However, two of the three founders who were working for MNEs at the time they were starting up their enterprise were working for large indigenous MNEs rather than for foreign owned MNEs, therefore they did not meet the criteria for this research.

Technically speaking one could argue that some of the founders of indigenous enterprises were still working with an MNE when they started up their own enterprise in the sense that whilst they were in the process of being made redundant, they were still in the employ of the MNE. However, the essence of the question was to seek founders that were neither under the threat of redundancy nor in the process of being made redundant at the time of enterprise start-up.

As regards the question about identifying the number of founders that specifically set up enterprises to provide services and/or products to MNEs, 25 of the 26 examples provided were people who were made redundant from an MNE. These founders were not working for other organisations when they identified an opportunity to set up an enterprise to provide products and/or services to an MNE. However, many of those who were made redundant from MNEs did start an enterprise to supply products and/or services to MNEs.

The responses to the question identifying those who started an enterprise as a result of being made redundant from an MNE provided more accurate data, in that all of the 25 examples provided were people who were made redundant from MNEs. However, all of the 25 examples provided in this category of start-up were already included in the responses to the first two questions.

In the opinion of this researcher, the question with regard to those who had been made redundant from MNEs may have been the easiest question for most of the senior executives interviewed to answer. This is because these senior executives would have been involved in the employee support process after an MNE announced its closure/downsizing. Since the closure of Digital Equipment International in Galway in 1993, the automatic response from Government to an MNE's announcement to close or downsize a facility in Ireland has been to set up a Task Force to assist employees with the closure/downsizing process (for more details about these Task Forces see Chapter 1, Section 1.2).

In summary therefore, based on the response to the three questions listed above, it appears that the State enterprise support agencies deal far more with founders who have been made redundant than those who start an enterprise without the threat or actuality of redundancy being involved.

Also, based on the interviews with the senior executives, it was clear that the founders they named received little to no support from any of the MNEs involved. Where support was provided to a founder, it was part of the redundancy process. For example, a number of the founders were able to buy machines or material 'at knock down prices' from the MNE from whom they were being made redundant. In a number of cases

where the MNE was not closing altogether, the founder got a contract from the MNE to assist in the start-up of the new enterprise. However, the number of examples provided in both cases was very few (three out of the twenty five founders mentioned above that started their enterprises as a result of being made redundant from an MNE).

All the State agencies represented in this research delivered a range of 'soft and hard supports' to their clients, including feasibility study grants, employment grants, mentoring, start-your-own-business courses, and support with business plan development. For example, as regards business plan preparation and development SA10 stated

“Yes we would do, and sometimes we would do this prior to submission (of an application). We would give them a lot of support in actually making applications, both in one-to-one consultations and we run courses on business planning. We also supply mentoring, so for example if somebody has a specific need of help in developing the financial projections for their business plan we would provide that. We provide mentoring to everyone who wants to start a business. We even provide mentor support to the retail industry sector (an industry sector that is not covered in enterprise support policies) that is we give mentor support to people who are not eligible for grant aid. It is only when grant aid is involved that we apply rigorous criteria. In every other sense, we will give support to anyone who wants to start any kind of business” SA10.

A different support strategy is applied by SA14 who stated, “we are distinctive compared to other enterprise support agencies (in the region/sub-region) in that we give no grants. We give guidance. We involve people in relevant networks. We give informal support. We get experienced people to talk to potential start-ups. Sometimes we find customers for start-ups. Often as regards new food products, we would bring the food to the major food manufacturers for sampling and testing. We do all this kind of work with start-ups, but we don't give out any grants”.

These views from SA10 and SA14 are good examples of what Hanley and O’Gorman (2004) referred to in their research as the local interpretation and application of national policy at a local level. As Hanley and O’Gorman (2004) stated “while national parameters (policy) exist, the priorities (of local State enterprise support agencies) demonstrate that, local interpretation of these parameters is the guiding determination of assistance to enterprise at local level” (p.17), the “ ___ local interpretation of policy has the capacity to have a major impact on local entrepreneurs and their businesses” (p.18), and that “the diversity of activity and results achieved, based upon diverse interpretation, as evidenced in the research suggests that local economic structures and situations are the drivers of micro-enterprise policy at local level” (p.19).

This interpretation of national policy to meet local needs may not be peculiar to Ireland and may be a contributor to Storey’s (1998) comment that one of the difficulties in measuring the effectiveness of policy is that often there is a general lack of clarity about policy objectives, and an even greater lack of defined methodology to measure these objectives. The local interpretation and application of national policy to meet local needs may equally contribute to what Henry, Hill, and Leitch (2003) referred to as “the lack of business specific performance measures only serves to complicate further the evaluation process” (p.6).

Finally, the State agency executives were asked to comment on whether they would have expected more indigenous start-ups in their regions for each of the scenarios proposed in Table 7.4

Scenario	Yes	No	Yes/No
Started enterprise specifically to provide products/services to MNEs	29%	71%	--
Started enterprise while still working for an MNE	64%	33%	3%
Started enterprise after being made redundant from an MNE	64%	36%	--

Table 7.4 Scenarios for the question “Would have expected more indigenous start-ups in your region?” (Source: current research)

Table 7.4 indicates that most of the executives interviewed did not expect that there would be greater numbers of start-ups, specifically to supply products and services to MNEs, in their regions. This may be recognition on the part of the executives that MNEs do not purchase a great amount of goods or services from local manufacturers and suppliers (Gorg and Ruane, 1998; Lovering, 1999; O'Sullivan, 2000; and Phelps, Mackinnon, Stone and Braidford, 2003). As Crone (2002) pointed out in his research on the purchasing activities of MNEs in the UK, in general it is unusual for MNEs to form extensive material-input linkages within their immediate host region. The results from the current research (see Table 7.5) support this view, because the 15 MNEs involved in this research do not purchase significant amounts of value-added or technical content goods or services from local manufacturers and providers. Table 7.5 illustrates that for 85% of the MNEs, less than 20% of their purchasing spend is on goods and services sourced in Ireland.

Of those MNEs that were involved in this research, MNE4 and MNE15 were exceptional in that they purchased more Irish produced goods and services compared to the other thirteen MNEs. MNE4 identified that 52% of their purchases were produced and sourced in Ireland. However, MNE4 is a company that processes raw material, trees, into the finished products. The trees are grown in Ireland. Therefore the 'consumable' portion of this MNE's purchases in Ireland is as much as 95%.

MNE15 stated that the 33% of their purchasing spend was on goods and services produced and sourced in Ireland. MNE15 processes a metal-based commodity. Its raw material comes from outside Ireland, but the processing of the raw material consumes an enormous amount of electricity. Apart from raw material, the biggest cost incurred by MNE15 to produce its output is electricity. Whereas, usually when considering definitions of the terms 'consumable' and 'non-consumable', electricity is classified as a 'non-consumable', but for MNE15, its MD considers electricity to be an essential ingredient in processing the raw material; therefore he considers electricity to be a 'consumable'.

Based on the interviews with the MNE executives, it is clear that most of the 'consumable' material purchased in Ireland is supplied by agents who are sourcing and reselling material/components from other countries. Therefore a very small percentage

of the purchases of thirteen of the MNEs involved in this research was actually on goods and services produced in Ireland.

MNE	Purchases in Ireland (Value) ³	Consumables ⁴	Non-consumables ⁵
1	<10%	15%	85%
2	15%	85%	15%
3	< 10%	60%	40%
4	52%	95%	5%
5	15%	3%	97%
6	15%	33%	67%
7	5%	25%	75%
8	13%	98%	2%
9	<< 10%	0%	100%
10	15%	67%	33%
11	5%	50%	50%
12	20%	50%	50%
13	8%	0%	100%
14	2%	0%	100%
15	33%	50%	50%

Table 7.5 The amount of goods and services bought in Ireland as a percentage of total material spend, and the percentage of these purchases that are consumables/non-consumables (source: current research)

The figures in Table 7.5 link with the statements of some of the support agency executives in relation to the purchasing patterns of MNEs in South East and South West Ireland. According to SA1, “MNEs are very cautious as to who they deal with and are less inclined to give work to a new organisation”. Similarly, SA6 stated, “MNEs here buy very little locally”. Equally SA8 said, “the biggest problem here is that the purchasing people (in the MNEs) just don’t seem to be interested in buying from indigenous companies, unless they (the indigenous suppliers) have a solid, proven, long established track record”.

³ The percentage of MNEs’ total material spend on goods and services in Ireland

⁴ Consumables are materials that are directly used in the processing of the MNE’s products/services. For example in manufacturing of an electronic product, the components that are used to make that product are consumables

⁵ Non-consumables are items that are not directly related to the processing of the MNEs products/services. For example canteen services, electricity, cleaning, stationary, and security are non-consumables.

These views of the enterprise support agency executives are in line with research into backward and forward linkages (see for example Turok, 1993; Gorg and Ruane, 1998; O'Sullivan, 2000; Crone, 2002; and Phelps, Mackinnon, Stone and Braidford, 2003). In particular, these views support Lovering's (1999) enclave concept whereby MNEs provide relatively high levels of direct employment but their degree of integration with the local economy remains limited. Thus, whereas the evidence from this current research supports Markusen and Venables' (1999) assertions that MNEs can induce local availability of new intermediate services and inputs, it does not support their supposition that MNEs are a nexus between FDI penetration and growth in the productivity of downstream manufacturers.

As regards the question as to whether or not the senior executives of the State enterprise support agencies expected greater quantities of enterprises created while founders were still in the employ of an MNE, SA2 observed "because of the size of the population, the infrastructure with the number of third level institutes and the amount of MNEs in the region, yes, it was expected that there would be a greater number of start-ups in this category". However, SA1 indicated that the attitude of the General Manager/Managing Director (GM/MD) of the MNE's subsidiary had a significant impact on whether or not such a scenario was feasible. For example, SA1 stated that the GM of one of the MNEs operating in his locality was "very supportive of the idea of encouraging employees to think about starting their own enterprises. But when she was replaced, the new GM had a totally different attitude and was very much against supporting/encouraging his employees to start their own enterprises" (This observation links with the findings in Chapter 6, section 6.3, particularly the discussion about autonomy and enlightenment).

Some of the enterprise support agency executives interviewed felt that because the vast majority of MNEs operating in the region were mainly in the manufacturing sector, and therefore did not have responsibility for R&D, process design or marketing, that "you don't have the type of people at middle management level that you expect to be looking at opportunities (to start their own business)" (SA6). Other enterprise support agency executives, especially those that were operating in rural areas, expressed the view that, because of the lack of MNEs in their region and because they were so far from urban centres with MNEs, the local skill base in their region was low. However, SA7 posed the question "if the skilled and professional people working within MNEs were so

employable (by other MNEs) why would they go to the bother of setting up their own business?" SA7's reference to the transferable skills of employees supports O'Farrell and Crouchley's (1983) observation that plant closures are a natural feature of the economy and a means by which resources are released for growth in more productive sectors and regions. That is to say, that in some cases the closure or downsizing of an MNE facility can often release scarce and valuable professional, skilled resources for other organisations in the region; the closure or downsizing can lead to a diffusion of skills, expertise, technology and business practices to other organisations in the region (Tomaney, Pike and Cornford, 1999; and Barrow and Hall, 1995).

The findings of this current research also support Kugler's (2002) research conclusions that positive spillover occurs from FDI, but that the impact of FDI depends on the characteristics of the sectors in which the MNE operates and the characteristics of the MNE's host region/sub-region. The current research also supports Fosfori, Motta, and Ronde's (2001) findings that spillover from FDI can take two forms – technological spillovers⁶ and pecuniary spillovers⁷

Many of the respondents who did not expect a higher quantity of start-ups following redundancies found that, because many of the skilled, trained, professional people and middle to senior management had transferable, employable skills, these ex-employees were more likely to seek jobs in other MNEs rather than start their own businesses (SA1, SA3, SA7, SA10, and SA11). SA4 provided an example of one particular MNE by stating "when they (the MNE) announced it was closing its software division, we (the enterprise support agency) went into the facility to encourage those that were being made redundant to consider starting their own businesses. But we got no new enterprises from this redundancy. The employees were very young, the vast majority were in their early twenties, and therefore they just were not interested in taking the risk to start their own businesses".

Gibb and Ritchie (1982), from their research findings, identified that for some people who are made redundant "going into business may also, however, be in resistance to

⁶ Technological spillovers arise when a trained employee of an MNE is employed by an indigenous organisation

⁷ Pecuniary spillovers arise when the MNE pays the employee a higher wage preventing him/her from moving to a local competitor

geographical mobility. For a substantial minority of the sample the establishment of a business was a means of underwriting existing location” (p. 35). Scarcity of jobs and distances to other locations may be factors involved in geographic mobility. But Ireland is a small country, it has been in an economic boom since the mid-1990s, and its infrastructure has improved immensely in the 1990s and early 2000s, therefore mobility is relatively easy and seems to be less of an issue for many of Ireland’s professional, highly skilled workforce.

Another factor impacting on the quantity of new enterprises that may have been created as a result of redundancies, may be what some of the enterprise support agency executives referred to as the low skill level of people working in MNEs. Many of the executives stated that most of the employees would not have the relevant skills to start their own enterprises. For example, SA5 said “it depends on the profile of the employees of the company that is closing down. We looked at this in detail when ABC Company was closing and shedding 300 employees. But the employees were largely unskilled or semi-skilled and did not have the capability to start an enterprise. They didn’t have the management skills (to put a business together)”.

These observations and comments are very much contrary to what Shutt and Sutherland (2003) described as “industrial restructuring and business reengineering – especially as businesses divested and downsized – were important factors in this (self-employment) growth, both adding to the potential supply of self-employed workers and increasing the demand for their services” (p. 97). But the observations and comments do concur with Gibb and Ritchie’s (1982) and Birley’s (1996) research findings that managerial and technical experiences are very important requirements for starting up new enterprises.

Then again, it may be the case that people who are made redundant are starting their own enterprises, but the types of enterprises being started are not in industry sectors supported by government policy, and therefore are not falling into the remit of the enterprise support agencies involved in this current research. For example, SA11 spoke about three MNEs that recently closed, which resulted in over 500 people becoming unemployed. He commented “if you look at all those people the percentage of those actually starting enterprises is insignificant — One would imagine more of them would start their own enterprise, but then again that is not to say that they didn’t go into

an enterprise sector that is not supported by our organisation. I mean, many of them could have set up a retail outlet, hair salon, petrol station, massage parlour, and so on, but these enterprises would not be on our books⁸. That may be why the figures are somewhat distorted”.

An example, based on this researcher’s own experience, is that when Digital Equipment International started its downsizing process in 1991 and eventually closed its manufacturing facility in Clonmel in 1992, there were at least twelve new enterprises created. However, only one of these was ‘officially’ known to State enterprise support agencies (the electronics subcontracting business) because it was the only one in an enterprise sector that could be support the State agencies. Table 7.6 provides a list of these new enterprises and their status at the time of this research.

Enterprise Type	Quantity	Eligible for enterprise support	Status	Years in business
Courier		No	Still in business	14
		No	Ceased business	4
Driving school		No	Still in business	14
Electronics		Yes	Ceased business	9
Food distribution		No	Ceased business	2
Food outlet		No	Still in business	14
Pub		No	Still in business	14
		No	Ceased business	5
Taxi		No	Ceased business	1
		No	Ceased business	1
Video store		No	Ceased business	1
Washeteria		No	Ceased business	2

Table 7.6 List of start-ups as a result of Digital Equipment International downsizing and eventually closing its facility in Clonmel, Ireland (Source: Author’s knowledge and experience)

However, it was beyond the remit of this current research to investigate the level of start-ups in service and other non high-tech, non high-value-add industry sectors. The

⁸ These enterprises are relatively ‘low cost of entry’ enterprises usually employing very few people, are focused on local markets, and have little to no export potential. Therefore they do not qualify for any support from the State enterprise support agencies.

data in Table 7.6 is anecdotal and may not be generalisable across all MNEs investigated in this current research.

7.4 Summary

In summary, based on the interviews with senior executives in the City and County Enterprise Boards (CEBs) and Enterprise Ireland in South East and South West Ireland, the evidence suggests that the State enterprise support agencies involved in this research are more focused on the project/proposal details than on the promoter and his/her background. The research has also identified that more assistance is provided to those that are either in the process of being made redundant or have been made redundant than there is to those that are employed with, and have gained valuable experience from, MNEs. However, according to SA4, as of 2005, there was a new policy being developed whereby State enterprise support agency personnel “will talk to senior management (in some MNEs) about the opportunity of setting up their own enterprises”.

This current research has identified that even though some MNE GMs/MDs have made their senior management staff aware that the company was willing to provide support to employees who were considering starting their own enterprises, very few employees have availed of this support. For example, one MNE offered members of staff a year’s sabbatical to work on a business idea and/or to start up an enterprise, “after a year of encouragement the take-up of sabbatical leave was almost zero” (MNE6). This could be because, as SA7 suggested

“top management might be willing to do it (take time off to consider starting an enterprise), but as you go lower down in the organisation it becomes an issue. The incentives don’t seem to be there for MNEs to help indigenous industry. Also, the good terms and conditions of employment within MNEs are an issue in that they do not encourage people to leave to start their own enterprise – why would people give up these good terms and

conditions of employment to take on the uncertainty and risk of being self-employed?" (SA7).

This view supports Ashcroft, Love and Malloy's (1991) research findings that if the average wage and the prospects of continuous employment are high, then employees will be less likely to take the risk of reducing their income and their prospects of longevity in employment. This also ties in with the earlier discussion in Chapter 2, section 2.2.5, with regard to autonomy and longevity. Here it was discussed that managers are less likely to leave an MNE if they are working in a creative, autonomous environment, and are assured a degree of longevity in employment.

A different view as to why there are not more ex-middle and senior managers of MNEs starting their own enterprises was expressed, in the following way, by SA 1

"(some) MNEs put barriers in place that prevent CEBs and/or Enterprise Ireland from talking to middle management during a close down or redundancy process – and vice-a-versa, middle managers are discouraged from talking to CEBs and EI during this process".

SA1 continued:

"there is a definite need to provide incentives for MNEs and their employees to create an environment whereby people can consider starting their own enterprises. These incentives could be in the form of a grant that would help to buffer the employee's income for a number of years. And/or the revenue commissioners could give the employee a tax back for a number of years. For the MNE, I suggest some form of grant. Also the MNE should be encouraged to invest in the new enterprise(s) – invest both time and money, and if possible use the new enterprise as a sub-supplier" (SA1).

The research questions answered by this section of the data analysis are presented in Table 7.7

In conclusion, the data analysis of this research commenced in Chapter 5 by reviewing the data collected from the founders of indigenous enterprises who had a direct link with an MNE subsidiary based in Ireland. Chapter 6 examined the views of senior executives working in MNE subsidiaries in Ireland as to whether or not MNEs should be supportive of encouraging their employees to start their own enterprises. This chapter, Chapter 7, explored the views of policy implementers, namely the senior executives of the City and County Enterprise Boards and Enterprise Ireland in the region of analysis. Chapter 8, will draw the findings from these three chapters together and will discuss the data in relation to the principal research question -- to what extent do MNEs have a direct impact on the quantity of new enterprise creation, within the MNEs' host regions.

	Research question	Findings/comments
1	What is the quantity and characteristics of new enterprise start-ups that are related to the presence of an MNE in a host region/sub-region?	The evidence provided by the CEOs and Regional Managers of the State enterprise support agencies operating in South East and South West Ireland is inconclusive
2	What is the quantity and characteristics of new enterprise start-ups are that related to withdrawal or contraction of an MNE in its host region/sub-region?	The evidence from this part of the data analysis indicates that the number of high-tech, high-value-added enterprises created as a direct result of the presence of MNEs, in the South East and South West sub-regions, is not high. Most of the State agency executives suggested that the skills available within MNEs are such that most employees being made redundant would not have the skill set to start a new enterprise
3	What is the impact of the prevailing policies of support agencies at the time of start-up?	The evidence provided in this chapter suggests that the State enterprise support agencies operate in a reactive as opposed to a proactive mode. Whereas the policies themselves may have an impact on the level and type of start-ups, there does not appear to be evidence to support that the implementation of policy has had such an impact.
4	What inputs may be inferred for policies concerned with indigenous entrepreneurial activity?	An output from the data presented in this chapter is that the enterprise support agencies need to be more pro-active in their endeavour to support new enterprise creation. Also the data presented suggests that government should provide incentives and support that enables MNEs facilitate entrepreneurs (employees) consider and embark on the enterprise creation process.
5	What are the factors that impact on the quantity of and reasons for start-ups during an MNE's presence in its host community?	This question was not applicable to this section of the data analysis.
6	What are the factors that impact on the quantity of and reasons for start-ups after an MNE has departed from or significantly reduced its employment levels in its host community?	The State enterprise support agencies do provide soft and hard supports for those people who are made redundant from MNEs, and who are interested in starting their own enterprises
7	Is there a difference between the number and type of start-ups during the presence of and post closure of MNEs?	This question was not applicable to this section of the data analysis.
8	Does subsidiary autonomy, and the MNE's country of origin have an impact on the number of and viability of start-ups?	According to some of the interviewees, MNE processes, culture and senior management styles/attitudes do have an impact on the quantity and type of new enterprise created as a result of the presence/downsizing/closure of MNEs.
9	To what extent did the prevailing policies of support agencies influence the quantity and type of start-up?	See response to 3 above.
10	Is there evidence to suggest there are latent entrepreneurs in this research sample?	This question was not examined to this section of the data analysis.

Table 7.7 Summary of the perspectives of Regional Managers and CEOs of State enterprise support agencies in relation to the impact of policy on new enterprise creation (Source: Current research)

Chapter 8

Do MNEs Have A Direct Impact On New Enterprise Creation?

Chapter 8 Do MNEs Have A Direct Impact On New Enterprise Creation?

8.1 Introduction

Previous research provides mixed views as to the impact FDI and MNEs have on host economies. As Dicken (1998) stated, there are as many supporters that FDI is positive, as there are detractors. Economic theorists researching spillovers, spin-outs and spin-offs support the positive aspects of FDI, and those researching plant closures, and many of those researching issues relating to the growth of indigenous industry have a negative view of FDI. For example, Holm, Malmberg and Solvell (2002) suggest that a major influx of FDI into a national or regional economy may have both strengthening and weakening effects and these may vary over time. Then again, researchers such as Markusen and Venables (1999); Fosfuri, Motta, Ronde (2001); Girma and Wakelin (2001); and Kugler (2002) support the view that FDI has a positive effect on the host economy.

Many researchers (Turok, 1993; Barrow and Hall, 1995; Gorg and Ruane, 1998; Brand, Hill and Munday, 2000; and O'Sullivan, 2000) support the theory that MNEs bring positive benefits via employment and spillovers to local firms and the host economy through forward and backward linkages, and through the diffusion of skills, expertise, technology and business practices to other businesses, local governmental agencies, sectors of the labour force, and/or the community at large. Lovering (1999) summarised the benefits of MNEs by stating that they may provide relatively high levels of direct employment, but the degree of integration with the local economy remains limited. Also there are researchers that suggest that the level of spend by MNEs in their host economies is very low and that MNE spending on local purchases is less than indigenous enterprises in similar sectors (Gorg and Ruane's, 1998; O'Sullivan, 2000; and Phelps, Mackinnon, Stone and Braidford, 2003).

All of the research referred to above is based on spillovers, backward and forward linkages, and the diffusion of skills, knowledge, and technology into the host economy.

Whereas Gorg and Strobl's (1999) suggested that there is a link between the increasing levels of entry of indigenous firms to the increasing level of MNEs in Ireland; this current research has identified very little evidence that establishes if there is a *direct link* between the presence of MNEs in a host economy and the quantity and type of new enterprise creation within that economy. Gorg and Strobl's research was based on the number of new business registrations, over a given period of time versus the number of MNEs setting up in Ireland over the same period of time. This current research, however, went deeper than a quantitative analysis to establish the extent to which there is a direct link between the presence of MNEs in host economies and new enterprise creation in those economies.

In pursuance of this research objective, the researcher identified only a small number of papers presented at conferences in Ireland that indicated, albeit on the basis of limited sample data, that there is a direct link between the presence of MNEs and new enterprise creation in the software industry sector. The most informative of these papers is that of McKeown, Henry, Johnston and Sands (2004). Whereas they stated that three of the ten companies in their sample were spin-offs and "were established as a direct result of an MNEs presence" (p.18), and that "the majority of the SME founders had multinational backgrounds" (p.19), they did not present evidence as to the nature of the direct link between the three spin-offs and MNEs. However, McKeown et al.'s research does suggest that multinational corporations can be creators of innovation across national boundaries (Cantwell and Lammarino, 1998).

The significance of this current research is the methodology used to establish the extent to which there is a direct link between the presence of MNEs and new enterprise creation. First of all, the research identified and sought inputs from founders of indigenous enterprises that had a direct connection with an MNE, prior to start-up. These founders were asked for their opinions as to their understanding of the

influencing factors of MNEs in the start-up process. Next the MNEs for whom these founders worked were identified so that senior executives in these MNEs could be interviewed. Thus, one of the unique aspects of this research was the connection between the MNEs and the 37 founders involved in the data gathering process. Each of the MNE senior executives interviewed knew at least one of the founders and was very familiar with the circumstances under which that founder left the MNE to start his/her enterprise. The MNE senior executives interviewed were also long-serving employees of their respective MNEs and therefore were familiar with the policies and history of the MNE's support to employees starting their own enterprises.

The third element of the triangulation process used in this research was the interviews with the CEOs and regional managers of the state enterprise support agencies operating in South East and South West Ireland. Again each of these interviewees was familiar with at least one of the MNEs involved in this research and at least one of the founders of the indigenous enterprises, thus closing the circle of data gathering into the circumstances under which the founders started their enterprises and the extent to which MNEs had a direct impact on the level of new enterprise creation in their host environments.

Another unique aspect of this current research is that it does not focus on just one single industry sector. Whereas, previous research focused on one single industry sector such as software or IT, leading to such generalised statements as 'the founders of most indigenous industries are from MNEs', the focus of this current research was on high-tech, high-value-add enterprises in the chemicals, computers, electronics, engineering, manufacturing, pharmaceuticals, plastics & rubber, R&D and labs, software and telecommunications industry sectors.

This chapter draws the three data analysis chapters together, Chapters 5, 6, and 7, to present the evidence as to whether or not there is a direct link between the presence of MNEs in host economies and the creation of new enterprises in those economies. The chapter will also explore the secondary aspect of this research, namely to examine if founders interviewed in this research can be described as *latent entrepreneurs*.

8.2 Do MNEs have a direct impact on the level of new enterprise creation in their host environments?

The central theme of this research is to establish to what extent MNEs have a direct impact on new enterprise creation in their host economies. For the purpose of this research 'direct impact' means that an MNE may have been directly involved in the set-up of the new enterprise and/or that the founder of the new enterprise attained the skills and confidence, whilst working with an MNE, to start his/her own enterprise. This is what researchers like Fosfuri, Motta, Ronde, 2001; Girma and Wakelin, 2001; and Kugler, 2002 refer to as facets of spillover that are pecuniary, technological, and skills transfer; and what Barrow and Hall, 1995; Brand, Hill and Munday, 2000, term as the diffusion of skills from MNEs into their host regions/sub-regions.

The evidence in this current research does demonstrate that there are many positive factors relating to the fact that founders, interviewed for this research, worked for MNEs prior to starting their own enterprises. For example, of the founders who worked for MNEs, 74% clearly stated that their functions, tasks and responsibilities at the MNE were beneficial to them in starting their own enterprises. Also, almost half of the founders said that their function, task and responsibilities at the MNE were beneficial in helping them manage the new enterprise (see Chapter 5, sections 5.3 and 5.4). This research also shows that up to 72% of the founders utilised skills they had attained and developed while working at an MNE to set up their enterprises. This evidence supports the findings of researchers such as Gibb and Ritchie (1982), and Birley (1996) who suggested that the employment history of the individual, and in particular their managerial and technical experience, is an important factor in setting up and managing a new enterprise.

In particular, this research further supports to the concept of the 'incubator organisation' proffered by Cooper (1981). Birley (1996) considered that "Cooper (1981) provided the most comprehensive and useful framework for explaining the various factors which

may contribute to the 'entrepreneur's decision' (to start an enterprise). He classified them into three groups:

1. The entrepreneur, including the many aspects of his background which affect his motivations, his perceptions, and his skills and knowledge
2. The organisation for which the entrepreneur had previously been working, whose characteristics influence the location and the nature of new firms, as well as the likelihood of spin-offs
3. Various environmental factors external to the individual and his organisation, which make the climate more or less favourable to the starting of a new firm" (p.21)

This current research has also demonstrated that MNEs do have a direct impact on the level on new enterprise creation. The evidence presented in Chapter 5 indicates that more than half (58%) of the new enterprises created in Ireland's South East and South West sub-regions between 1990 and 2001, and that were still in business at the time of this research, within the industry sectors analysed¹ were as a result of a direct link with an MNE.

The evidence also indicates that 25% of these surviving new enterprises were set up as a direct result of MNEs downsizing, and/or closing their facilities in Ireland; 20% were as a result of the founder gaining experience in an MNE and deciding to leave the MNE of his/her own accord, and 13% were as a direct result of the founder identifying an opportunity to supply an MNE with products and/or services (See Chapter 5, Table 5.7, and Chapter 8, Table 8.1).

¹ The industry sectors selected for this research were: chemicals, computers, electronics, engineering, manufacturing, pharmaceuticals, plastics & rubber, R&D and labs, software and telecommunications

However, it is difficult to extrapolate from these figures the extent to which MNEs have an impact on the level of new enterprise creation amongst the entire population of start-ups (i.e. in all sectors) in South East and South West Ireland between 1990 and 2001.

From Chapter 4, Figure 4.4, it can be seen that the starting population for this research was 9,014 enterprises. By eliminating the enterprises that did not meet the research criteria (for example consultants, shops, bars, restaurants, community enterprises, not-for-profit organisations, clubs, and societies), the starting population was reduced to 805 (9% of the total population of start-ups in the South East and South West between 1990 and 2001).

Of these 805 enterprises, 154 were no longer in business at the time of this research. Therefore of the 651 enterprises still in existence at the time of this research only 153 (23%) met the current research Criteria 1². From Table 8.1 it can be seen that these 153 enterprises represent only 1.7% of the original starting population of new enterprises created and registered between 1990 and 2001. The balance of the 651 enterprises (i.e. 498) did not meet the criteria for this current research (i.e. they were in business/industry sectors other than chemicals, computers, electronics, engineering, manufacturing, pharmaceuticals, plastics & rubber, R&D and labs, software or telecommunications).

Assuming that the 64 respondents to Survey 2 are representative of the 153 businesses that met Criteria 1, this suggests that 58% of these 153 businesses had a direct link with an MNE prior to start-up (i.e. they met Criteria 2³ of this current research). However, nearly half of the founders had been let go from the MNE for whom they worked; 20% of the founders left an MNE of their own accord (but only one of these says an opportunity to supply the MNE for whom they worked influenced their decision); finally only 13% of the founders specifically founded a business to supply an MNE.

² For details of Criteria 1 see Table 5.1

³ For details of Criteria 2 see Table 5.1

	Population	Quantity	Description	%	Projected % of total population (9,014)
1	Starting	9,014	Total population	100	
2	Enterprises specific to the research criteria	805	Percentage of total population		9
3	Enterprises still operating at the time of this research	651	Percentage of total population		7
4	Actually meet Criteria 1 ⁴ of this research	153	Percentage of 651	24	1.70
5	Number of responses to Survey 2	64	Response rate of the 153	42	N/A
6	Enterprises that meet Criteria 2 ⁵	37	Percentage of the 64 that meet Criteria 2	58	N/A
7	Founders let go from MNE	16	Percentage of the 64 that responded to Survey 2	25	N/A
8	Founders left MNE of own accord	13	Percentage of the 64 that responded to Survey 2	20	N/A
9	Founders never worked for MNE but started business specifically to supply MNE	8	Percentage of the 64 that responded to Survey 2	13	N/A

Table 8.1 Percentage of MNE related start-ups versus the number of enterprises responding to Survey 2, overall total population, and population specific to this research (Source: Current research)

⁴ In order to meet Criteria 1 the enterprise must have been founded between 1990 and 2001, exist in the South East or South West sub-regions of Ireland, be wholly Irish owned, must not be a subsidiary of an existing Irish company, must not be a subsidiary of a foreign own company, and must be in one of the following sectors – chemicals, computers, electronics, engineering, manufacturing, pharmaceuticals, plastics & rubber, R&D and labs, software or telecommunications

⁵ In order to meet Criteria 2 the founder must have worked for an MNE in South East or South West Ireland prior to starting the business or the enterprise must have been started specifically to supply an MNE

As presented in Chapter 5, there is no significant evidence of an association between the number of MNE openings and closures and the level of indigenous start-ups, nor between the number of job losses and start-ups (see Table 5.4 and Plots 5.1, 5.2, and 5.3). Equally when examined on a yearly basis between 1990 and 2001, no correlation is apparent between these variables (see Table 5.5 and Plots 5.6, 5.7, 5.8, and 5.9). The only trend that can be derived from the data presented is that job losses have increased over time (see Plot 5.8). However, it must be pointed out that the closure of one large MNE facility accounted for 68% of the job losses in 1998, and one other facility closure accounted for 98% of the job losses in 2001. When these large job losses are taken out of the numbers, there is no discernible trend to be seen in Plot 5.8.

The evidence presented above is contrary to previous research presented by Gorg and Stobl (1999) whose research in Ireland showed that the 'incidence of entry' (the level of new firm registrations) increases with the level of MNEs in the country. However, the data in this current research are supportive of Barbosa and Eiriz's (2006) study into the relationship between inward direct investment and domestic entrepreneurship in Portugal. According to them, there is "weak evidence on the positive effects of MNEs on domestic entrepreneurial activity, measured by net entry rates" (p.19).

8.3 To what extent are Government policy and the local economic environment supportive?

Corman, Lussier and Nolan (1996) pointed out that there are many factors that encourage new firm formation, ranging from government policy, economic conditions, attitudes of entrepreneurs, and the relative importance placed on the factors affecting start-up. They also stated that economies that provide the proper environment for start-ups, and existing firms to expand, grow and flourish whereas as those that fail to provide such an environment languish. In general terms, Ireland has prospered and grown economically since the mid-1990s (see Chapter 1) (Sweeney, 1999; Walsh, 1999; Walsh, 2005).

This section of the chapter discusses the extent to which MNEs and state enterprise support agencies have individually or collaboratively created an environment whereby employees (or 'immediate' ex-employees⁶) are encouraged and supported to create their own enterprises. Entrepreneurs who started their enterprise specifically to provide products and services to MNEs will also be included as part of this discussion.

Most (74%) of the founders who were working for MNEs before they started their enterprises did not receive any encouragement or support to start their own enterprises from the MNEs for whom they were working. As regards founders of enterprises specifically set up to supply products or services to MNEs, 70% of these did not receive any encouragement or support from the MNEs they were supplying (see Table 5.11). This evidence is supported by comments from some of the MNE senior executives interviewed for this research. For example, MNE2 stated "we put a lot of effort and money into the training and development of our people – it is very expensive. Therefore why should we encourage people to leave (to start their own business)?" MNE3 stated, "the company's mission is 'the alignment of all employees' goals to company goals'. If employees were to start their own enterprises they would not be in alignment with the company's goals". And in the words of the Engineering Manager of MNE13, "we discourage employees thinking about setting up their own business --- we expect employees to have full focus on their work, on this business".

Attitudes like this certainly do not create an environment that is conducive to employees feeling 'safe' or encouraged to consider starting their own enterprises. In fact, as regards FNDR6, he stated that he left the MNE of his own accord, but what transpired, from the interviews with the founder and the relevant MNE, was that they parted company by mutual agreement. The MNE for whom FNDR6 was working for 'found out' that he was considering starting his own enterprise (and was already in the process of doing so), therefore FNDR6's goals were not in alignment with the company's goals.

⁶ Employees who have been let go from MNEs and have started their own enterprise soon after being let go.

Of the fifteen MNE executives interviewed, nearly three-quarters stated that there was no way their organisations would encourage or support employees start their own enterprises. In fact, many of the executives were rather emphatic in their responses. MNE15 stated that the company was “indifferent” to the idea of employees considering starting their own enterprises “they (the MNE) neither approved nor disapproved”. Of those MNEs that stated they do actively encourage employees to consider other career options such as starting their own enterprises, one was rather passive in that the organisation “would encourage people, but we don’t sponsor it for example, if somebody wanted to take a year off to try something we would encourage them. But it is not major” (MNE6). MNE10 stated they only encouraged employees to consider other forms of employment “when we are trying to get rid of people. We were very active at this from 1991 onwards. The support was via a redundancy package”. MNE10 also stated, “however, when we were busy and/or in the process of growing, then the answer is ‘no way’, because we were trying to get people and keep them”.

Therefore, in essence, there was only one MNE (7%) (MNE1, see Chapter 5) that encouraged and supported its employees to consider other forms of employment outside the MNE itself. However it is not a policy, per se, of this MNE to actively encourage employees to consider starting their own enterprises. Rather, MNE1 has created an environment in their local Irish subsidiaries that is conducive to enabling employees approach their supervisors and management to discuss and consider the possibilities of starting their own enterprises. Each case is treated on its merits and on its value to MNE1 also.

This current research has not identified any previous studies that clearly establishes the extent to which MNEs actually support or encourage employees to consider starting their own enterprises, while they are still in the employ of the MNE, and that there is no threat of impending ‘right sizing’ initiatives being considered by the MNE. The evidence from this research, however, suggests that MNEs, in general, are not proactive in creating an environment whereby their employees ‘feel safe’ in exploring the

possibilities of starting their own enterprises, or discussing these possibilities with MNE management.

On the other hand, as outlined in Chapter 2, researchers including Markusen and Venables (1999); Fosfuri, Motta, Ronde (2001); Girma and Wakelin (2001); and Kugler (2002) have provided evidence of the effects MNEs have on the levels of spillovers in local economies. This current research supports this previous research in that it has identified a number of founders that had links with MNEs before creating their enterprises. Most (74%) of these founders stated that their function, task and responsibilities they had at the MNE were beneficial to them starting their enterprise, and almost half of them stated that the function, task and responsibilities they had at the MNE were also beneficial to them in managing their enterprises.

Clearly Government policy and the state enterprise support agencies have a particular role in relation to creating an encouraging environment for new venture creation. As Henriksen (1999) identified, the dual mandate of most government policies towards entrepreneurship and new enterprise creation is to increase innovation and reduce levels of unemployment. More explicitly, Stevenson and Lundstrom (2001) cited Wennekers and Thurik (2001) and De (2001) who suggested a “role for government in stimulating culture or social capital and creating the appropriate institutional framework at the country level to address the supply side of entrepreneurship i.e. focusing on the number of people who have the motivation, the financial means and the skills to launch a new business” (p.18). Also according to Lenihan, Hart and Roper (2005), one of the main purposes of government intervention in enterprise development is to create additionality⁷.

This current research, however, has identified that the State enterprise support agencies in South East and South West Ireland adopt a reactive rather than a proactive mode to enterprise creation and support. From the research, there is very little evidence to

⁷ In this instance, additionality is defined as adding to the existing levels of employment as opposed to waiting for people to become unemployed and then supporting them back into employment through starting their own enterprises

indicate that these enterprise support agencies 'address the supply side of entrepreneurship', rather they appear to wait for the entrepreneurs to come to them. Also, the focus of the agencies appears to be more aligned with 'reducing levels of unemployment' as opposed to supporting additionality. For example, according to SA5 "the only distinction between people who are employed or unemployed is that we would be more lenient with an application from an unemployed person in order to get them back into work again".

Thus, the current research suggests that the State agencies are more likely to provide support to entrepreneurs who have been made redundant than to entrepreneurs who are working for an MNE or start a business specifically to provide a product or service to an MNE. For example, 86% of the CEOs of the State enterprise support agencies involved in this research said they do not have any special incentives for those that are currently employed, 72% of them said they do not provide any special incentives to those setting up an enterprise specifically to supply a product or service to an MNE, however 50% stated that they do offer special focus and incentives to those that have been made redundant.

The concept of state enterprise support agencies 'picking winners' has been researched and articulated by many researchers (Storey, 1992; Freel, 1998; and Hart, McGuinness, O'Reilly, and Gudgin, 2000). It is interesting to note from this current research that the State agency senior executives interviewed appear to be more focused on 'picking winners' based on the viability of the project rather than the entrepreneur. For example SA9, SA10, SA11, and SA14 stated "in assisting a project we would be guided by the actual quality of the project itself rather than where the person comes from". SA12 stated "we look at the product and its potential viability", and SA10 added "we look for which ones are more likely to succeed".

The concept of focusing on the project idea itself as opposed to focusing on the entrepreneur and his/her experience is a strategy that differs from those presented in previous studies by other researchers. For example, Cooper, 1981; Reuber, and Fischer, 1994 and 1999; Carter, Gartner, and Reynolds, 1996; Jo and Lee, 1996; Lambing and

Kuehl, 2000; Hisrich and Peters, 2002; and Deakins and Freel, 2003 all suggest that the focus of enterprise support agencies, financiers and venture capitalists is on the entrepreneur, his/her experience and enthusiasm.

While the results of the current research do indicate that there is a good deal of spillover from MNEs into the local economy (the South East and South West sub-regions), the results also confirm the findings of Girma and Wakelin (2001) that positive spillovers from foreign firms are limited to the region within which the MNE is located, and that developed regions are more likely to have more and better positive spillovers than underdeveloped regions (even within the same country). For example, 64% of the indigenous enterprise founders in this current research set up their businesses in the same county as the MNE subsidiary for whom they worked, and 67% of the founders that set up enterprises specifically to supply products and services to MNEs in Ireland did so in the same county as the MNE subsidiary (see Table 5.13).

The findings from the current research imply that neither MNEs nor State enterprise support agencies have created an environment that encourages employees of MNEs to consider and pursue the option of starting their own enterprises while they are still working for an MNE.

According to Markusen and Venables (1999), another positive effect of MNEs is that they can induce local availability of new intermediate services and inputs. This has also been found to be the case in this current research, in that 22% of the founders identified started their enterprises specifically to supply products and services to MNEs. However, this research demonstrates that neither the MNEs nor the State enterprise support agencies involved in the research have not been proactive in encouraging and/or developing such enterprises.

8.4 A question of autonomy

When questioning whether or not MNEs could or should provide support and/or encouragement to employees to consider alternatives to continued employment within the MNE, the major influencing factor seems to be what SA1 described as “the attitude of the General Manager/Managing Director of the MNE’s subsidiary located in the region”. As stated in Chapters 2 and 5, autonomy is the level of freedom local management can exercise in managing their facilities. In Chapter 2, the view that was put forward was that a subsidiary’s level of autonomy is very much influenced by the *subsidiary mandate* that the MNE headquarters (HQ) permits the subsidiary to have, and on the level of control the MNE HQ exercises over its subsidiaries (Zahra, Dharwadkar and George, 2000; and Holm, Malmberg and Solvell, 2002). However, it is not clear from the evidence provided in previous research if autonomy or longevity leads to new enterprise creation. In fact, the opposite may be true, that is, if management enjoy high degrees of autonomy and are ‘assured’ of longevity within an organisation, they are probably less likely to leave ‘safe employment’ to take up the risks and uncertainties of self-employment. Coupled to this is the added complexity that the more autonomous the senior management team is in the MNE, the more likely their behaviour “is geared not to meeting their own objectives (which may be very similar to those of indigenous companies), but to the enterprise of which they are part (which may be very different)” (Dunning 1974, p.364).

Having delineated the above, the current research contradicts to some extent Dunning’s assertions in that most of the MNEs studied could not be considered as autonomous (see Table 6.5), yet their goals and attitudes towards encouraging or supporting employees to consider starting their own enterprises are more in line with ensuring all employees goals are “aligned with the organisation’s goals” (MNE3). The subsidiary managers’ goals are geared towards the goals of the enterprise (the MNE) of which they are part.

From Table 6.5 it can be seen that the most autonomous MNE is MNE15, and one of the least autonomous is MNE1. Even though MNE15 stated that they “neither

encourage, nor discourage” employees to think about creating their own enterprises, MNE15 is the most progressive in terms of supporting employees/ex-employees with their new enterprises. MNE15 has a process in place whereby employees who are being made redundant are provided with advisory support about starting their own enterprises. Also, MNE15 often awards contracts to these new enterprises to help them get established, but at the same time monitors their performance to ensure that they (the indigenous enterprise) do not become too dependent on the MNE.

At the other end of the scale is MNE1, which despite being one of the least autonomous MNE involved in this research is the most active at encouraging and supporting employees to consider and actually engage in the process of new enterprise creation.

This research, therefore, has produced findings that suggest the degree of autonomy is not a major influencing factor in determining to what extent an MNE will directly support the creation of new enterprises. What the research does indicate is that the MNE’s management team’s degree of enlightenment is a significant influencing factor in the creation of new enterprises in the MNE’s host economy. As SA1 stated “a lot has to do with the attitude of the GM/MD of the MNE’s subsidiary located in the region”.

8.5 Could MNEs and enterprise support agencies do more?

There was a mixed reaction to the question, asked of the founders of the new indigenous enterprises, “is there more MNEs could do to help/support indigenous start-ups?” A small proportion (8%) of the founders said that there was not much more MNEs could do to help indigenous start-ups, but these respondents were the ones that got contracts from MNEs in the very early days of starting their enterprises. Most of the founders (62%), however, stated that there was more that MNEs could and should do to help start-ups. Most of their suggestions related to providing contracts to fledgling start-ups. The general feeling of most of the founders was that MNEs do not want to give business to new enterprises until they (the new enterprises) have proven themselves and have been in existence for a number of years. The majority of MNE executives echoed this

view by stating they would not do business with new enterprises “unless they had a track record” (MNE2). Thirty percent of the founders expressed that did not know what MNEs could do to support new indigenous enterprises. It is the opinion of this researcher that this lack of understanding (and commitment) from both MNEs and indigenous enterprises, that may have contributed to the decline of programmes such as the National Linkage Programme.

During the literature review stage of this research, this author did not find much evidence as to how MNEs *directly* support new enterprises get started and sustain their businesses. Most of what had been written about was pecuniary and technology spillovers, but the spillover process mostly happens by employees leaving an MNE to either work for or set up an indigenous enterprise (Markusen and Venables, 1999; Fosfuri, Motta, Ronde, 2001; Girma and Wakelin, 2001; and Kugler, 2002). The researcher that comes closest to demonstrating ‘direct support’ between MNEs and indigenous enterprises is Turok (1993a) who maintained that the significant growth of the PCB⁸ industry, in Scotland, in the 1990s was a direct result of the level of MNE customers in that region and stated “demanding local customers have encouraged several PCB firms to improve their product performance, which has provided the basis to expand into wider geographical markets” (p.1800). Some of the ‘improve their product performance’ happened as a result of MNEs setting high and demanding standards (Turok, 1993a). But the improved performance also happened as a result of MNE management and specialists (quality and engineering) working directly with these PCB suppliers (this observation is based on this author’s own experience with Digital Equipment International and the PCB industry sector in Scotland as well as MNE subcontracting processes in general in Scotland, England, Wales and Ireland).

What is evident from the current research is that most of the MNEs did not provide any support to the fledgling enterprises studied.

⁸ Printed Circuit Boards (PCBs) are used in the electronics industry to mechanically support and electrically connect electronic components using conductive pathways etched from copper sheets laminated onto a non-conductive substrate

Contrary to the findings of researchers such as Hart, McGuinness, O'Reilly and Gudgin, 2000; Wren and Storey, 2002; Fitzpatrick Associates, 2003; and Hanley and O'Gorman, 2004 who found that the overall impact and views of government interventions was generally positive, this current research has identified that most entrepreneurs (83%) were not happy with the support and service they received from the state enterprise support agencies. The majority of these respondents complained about the bureaucracy involved in doing business with the enterprise support agencies and these agencies' lack of understanding of their (the founders') enterprises' business and its requirements. Some of the founders, for example FNDR16, questioned "the whole credibility as to how they (the enterprise support agencies) make decisions".

8.6 The case for latent entrepreneurs

One of the aims of this research was to establish to what extent some entrepreneurs could be classified as *latent entrepreneurs*. The definition of latent entrepreneur used in this research is: a person that wishes he/she were an entrepreneur but has done nothing about it yet (Blanchfower, Oswald, and Stutzer, 2001; and Grilo and Irigoyen 2005). The current research has identified that some of the thirty-seven founders that met Criteria 2⁹ of this research can indeed be classified as latent entrepreneurs. In total, 43% of the founders were let go (made redundant or by mutual agreement) from the MNE for whom they were working. All these founders stated that they most likely would not have started their enterprises if they had not been let go from the MNE. Also three-quarters of these had dabbled in entrepreneurial activities when they were of school going age. Thus, the evidence is there to support the view that these founders could be described as latent entrepreneurs, that is, they were entrepreneurial in their thinking, and probably had a desire to be an entrepreneur but had done nothing about it until they were faced with a 'critical incident' in their lives i.e. they were let go from the MNE (Cope and Watts, 2006).

⁹ Criteria 2 is that the founder either worked for an MNE or set up his/her enterprise specifically in order to supply products/services to an MNE

On the other hand, another interesting finding from this current research in relation to latent entrepreneurs is that there was no significant evidence identified to show that latent entrepreneurs were any different, in terms of their background, compared to non-latent entrepreneurs. Referring to Table 5.10 it can be seen that nearly as many non-latent entrepreneurs dabbled in entrepreneurial activity during school going age as did latent entrepreneurs. It can also be seen from Table 5.10 that there is a degree of similarity between latent and non-latent entrepreneurs as regards their comments as to the extent to which they felt their functions, tasks, and responsibilities at an MNE were beneficial to them starting up and managing their enterprises.

But, as stated above, this research did establish the presence of latent entrepreneurs in the research sample in that it is clear from the findings that a number of respondents would, most likely, have continued to do nothing about becoming an entrepreneur if they did not reach that 'critical event' in their lives (see Figure 4.1); if they were not let go from employment.

8.7 Growth

In this current research, growth was one aspect of indigenous enterprise creation and development where a clear direct link between MNEs and start-ups is demonstrated. This research has identified that those founders who had a direct link with an MNE (be it that they worked for an MNE or set up their enterprise specifically to provide services or products to an MNE) grew faster, in terms of employment, than the enterprises of founders that did not have any link with an MNE (see Table 5.8).

As stated in Chapter 5, the test used indicated there was evidence of a significant difference ($\text{Chi} = 10.88$, $\text{df} = 2$, $p = 0.004$) between enterprises of founders who had a link with an MNE and those that had not. On average, indigenous enterprises that were founded by entrepreneurs who had no connection what-so-ever with an MNE demonstrated lower levels of employment growth compared with the two groups that did have a direct link with MNEs. For example, of the 29 enterprises whose founder

worked for an MNE, 24 (83%) grew, and five (62%) of the eight founders that set up enterprises to specifically supply services and/or products to an MNE grew. Equally, using the Chi-square test showed significant evidence to suggest that the existence of an MNE was influential in the founder deciding to start up his/her enterprise (Chi-square = 24.35, $df = 2$, $p < 0.001$). In this case, 26 (90%) of the 29 founders who worked for an MNE stated that the presence of an MNE did influence their decision to start their own enterprise. On the other hand the founders that neither worked for, nor supplied services or products to, MNEs stated that the existence of MNEs did not have any influence on their decision to start their enterprises.

8.8 The stigma of redundancy

It is also interesting to note from these research findings that a number of the founders were reluctant to admit they were made redundant, regardless of whether it was voluntary or compulsory redundancy. For example, some of the founders stated that they “opted for voluntary redundancy” rather than saying that they were made redundant. The information attained from Survey 2 indicated that only 9% of the respondents were made redundant, however during the interviews 26% of the respondents stated that they were made redundant. On further questioning, it transpired that up to 52% of the interviewees were actually made redundant and/or their decision to leave the MNE was clearly affected by pending redundancies (see Chapter 5, section 5.3, Table 5.9). However, these are this researcher’s observations and no research was undertaken to ascertain why these respondents did not openly admit that they were made redundant. Neither was there an investigation to establish if this is a particularly Irish phenomenon or whether similar responses would be obtained in other countries.

8.9 Summary

In summary, the questions examined in this research are detailed to in Tables 8.2a, 8.2b and 8.2c. The next chapter, Chapter 9, Implications for Policy and Future Research, will

explore how the findings of the current research may have an impact on Ireland's enterprise policy. Also presented the chapter contains suggestions for future research as a continuation and/or development of the current research.

	Research Question	Start-up Process – Founders’ Perspectives (Chapter 5)	Perspectives From MNE Senior Executives (Chapter 6)	The View From The State Agencies (Chapter 7)
1	What is the quantity and characteristics of new enterprise start-ups that are related to the presence of an MNE in a host region/sub-region?	This research has identified that 43% of the founders who met Criteria 2 were let go (made redundant or by mutual agreement) from the MNE for whom they worked, and 35% left an MNE of their own accord to start their enterprises. [However based on the response rate of 58% these figures suggest that the projected % of total start-ups that have a direct link with MNEs comprises of 25% of the founders being let go from an MNE, 20% leaving of their own accord, and 13% not having worked for an MNE, but set up their business solely to supply an MNE (see Table 5.7). As regards redundancy, the research established that some of the founders were reticent to admit they were made redundant. Therefore, based on the interviews, it was estimated that the actual number of founders who were made redundant was 52%. Therefore, the number of people who started their own enterprises as a result of being let go or made redundant is greater than the number of those that left an MNE of their own accord. The research also demonstrated that up to 72% of the founders set up enterprises based on the skills they had learned and/or developed whilst working at an MNE; also 28% of the new enterprises were in an industry sector similar to that of the MNE for whom the founder worked	The evidence derived from the interviews with MNE senior executives suggests that few enterprises were created as a direct result of the presence of MNEs in the host economies	The evidence provided by the CEOs and Regional Managers of the State enterprise support agencies operating in South East and South West Ireland is inconclusive
2	What is the quantity and characteristics of new enterprise start-ups are that related to withdrawal or contraction of an MNE in its host region/sub-region?	See No.1 above	Based on the evidence from the interviews with MNE senior executives, it appears that most of the new enterprise start-ups were as a result of redundancies. However, the information in relation to the number of start-ups as a direct result of the presence of MNEs cannot be considered being as accurate as none of the MNEs or their senior executives kept written records of ex-employees starting their own enterprises.	The evidence from this part of the data analysis indicates that the number of high-tech, high-value-added enterprises created as a direct result of the presence of MNEs, in the South East and South West sub-regions, is not high. Most of the State agency executives suggested that the skills available within MNEs are such that most employees being made redundant would not have the skill set to start a new enterprise

Table 8.2a Findings/comments to research questions 1 and 2 by each key informant group (Source: Current research)

	Research question	Start-up Process – Founders' Perspectives (Chapter 5)	Perspectives From MNE Senior Executives (Chapter 6)	The View From The State Agencies (Chapter 7)
3	What is the impact of the prevailing policies of support agencies at the time of start-up?	It is difficult to ascertain the extent to which policy had an impact on the creation of the new enterprises. This research showed that even though 83% of the founders got support from State enterprise support agencies, the majority of the founders (83%) had very negative views of the credibility of the agencies and their ability to assist new enterprise creation and development.	This question was not relevant to this section of the data analysis.	The evidence provided in this chapter suggests that the State enterprise support agencies operate in a reactive as opposed to a proactive mode. Whereas the policies themselves may have an impact on the level and type of start-ups, there does not appear to be evidence to support that the implementation of policy has had such an impact.
4	What inputs may be inferred for policies concerned with indigenous entrepreneurial activity?	See No.3 above. Also this question will be dealt with in more detail in Chapter 7, Support Agencies' Perspectives on Indigenous Start-ups.	It is evident from this section of the data analysis that most senior executives of MNEs do not see any reason why they should encourage or support employees create their own new enterprises. Currently there are no government policies or incentives in place to assist MNEs that do encourage and support their employees start new enterprises.	An output from the data presented in this chapter is that the enterprise support agencies need to be more pro-active in their endeavour to support new enterprise creation. Also the data presented suggests that government should provide incentives and support that enables MNEs facilitate entrepreneurs (employees) consider and embark on the enterprise creation process.
5	What are the factors that impact on the quantity of and reasons for start-ups during an MNE's presence in its host community?	As per No.1 above the main factor initiating start-up is separation of the founder from the MNE, directed by the MNE. Another factor appears to be the training and development received and the skills and confidence gained by the founder whilst working for an MNE.	From this section of the research, it is evident that redundancies are the biggest factor impacting on the quantity of new enterprises created by ex-employees of the MNEs. Other key factors, identified from this research, that impact on the quantity and reasons for start-ups are the levels of autonomy exercised by, and the enlightenment of the MNE's subsidiary senior executive team. This section of the research has identified that the spin offs from MNEs are a result of unintentional action as opposed to planned action.	According to some of the interviewees MNE processes, culture and senior management styles/attitudes do have an impact on the quantity and type of new enterprise created as a result of the presence/downsizing/closure of MNEs.
6	What are the factors that impact on the quantity of and reasons for start-ups after an MNE has departed from or significantly reduced its employment levels in its host community?	This is as per No.5 above	As per 3 above	See response to 3 above.
7	Is there a difference between the number and type of start-ups during the presence of and post closure of MNEs?	The continued presence or closure of an MNE does not appear to have an impact on the quantity, quality or type of new enterprise created	No conclusive evidence was derived from this section of the research that provides a response to this question	This question was not examined to this section of the data analysis.

Table 8.2b

Findings/comments to research questions 3, 4, 5, 6, and 7 by each key informant group (Source: Current research)

	Research question	Start-up Process – Founders’ Perspectives (Chapter 5)	Perspectives From MNE Senior Executives (Chapter 6)	The View From The State Agencies (Chapter 7)
8	Does subsidiary autonomy, and the MNE’s country of origin have an impact on the number of and viability of start-ups?	Based on the evidence provided in this chapter, the level of training and development provided by MNEs does appear to have a positive impact on the confidence of founders, which encourages founders to take a chance in setting up a new enterprise.	The evidence from this section of the research indicates that the attitudes of the senior executives and the process and practices of the MNE did have an impact on the amount of support and encouragement proffered to employees/ex-employees to start their own businesses. However, the MNE with the least amount of autonomy provided the greatest amount of support and encouragement to employees; and the MNE with the most autonomy provided the greatest support to employees that had been made redundant. This section of the research indicates that for the MNEs involved in this research, country of origin and location of its HQ, do not have an impact on the amount of new enterprise creation in the MNE subsidiary’s host economy.	According to some of the interviewees, MNE processes, culture and senior management styles/attitudes do have an impact on the quantity and type of new enterprise created as a result of the presence/downsizing/closure of MNEs.
9	To what extent did the prevailing policies of support agencies influence the quantity and type of start-up?	See No.3 above. Also this question will be dealt with in more detail in Chapter 7, Support Agencies’ Perspectives on Indigenous Start-ups.	See response to question 4 above	See response to 3 above.
10	Is there evidence to suggest there are latent entrepreneurs in this research sample?	Based on the fact that 75% of those who were let go from employment, made redundant, and/or were under the threat of redundancy were involved in entrepreneurial activities at an early age, there is evidence to suggest that these people possessed an entrepreneurial spirit from an early age, but they chose to follow a career of being an employee above being self-employed until the time they were let go or made redundant from employment. Therefore, these founders could be described as latent entrepreneurs. However, based on the statistical analysis of the data supplied in Table 5.10, it was found that there is no significant evidence to suggest that latent entrepreneurs and non-latent entrepreneurs are, in fact, different groups	There was no evidence derived from this section of the data analysis to support there were latent entrepreneurs in the research sample	This question was not applicable to this section of the data analysis.

Table 8.2c Findings/comments to research questions 8, 9, and 10 by each key informant group (Source: Current research)

Chapter 9

Implication For Policy And Future Research

Chapter 9 – Implications for Policy and Future Research

9.1 Introduction

The purpose of this current research was to investigate if there are direct links between the presence of MNEs in a host regional (sub-regional) economy and the creation of new enterprises in that economy. The motivations for this research were that the author, having worked for MNEs in Ireland for over eighteen years, having set up and managed his own enterprise for nine years, and was now lecturing entrepreneurship and small business management and enterprise policy at university level, was keenly interested in understanding the extent to which MNEs do (or do not) have a direct impact on the level of new enterprise creation in an MNE's host region. Coupled with this was the fact that many researchers and politicians were, in the early 2000s, concerned about the extent to which Ireland's economy was so dependant on MNEs (see Chapters 1, 2 and 3).

Previous research into the impact of MNEs on their host economies indicated that, in the main, the impact was positive and that MNEs were of benefit to host economies. For example, Turok (1993a and 1993b); and Brand, Hill and Munday (2000) talked about the benefits derived from backward linkages between MNEs and local enterprises, others for example, Barrow and Hall (1995); Fosfuri, Motta, Ronde (2001); Girma and Wakelin (2001); and Kugler (2002) spoke of other aspects of spillover such as pecuniary, technological, and skills transfer. And furthermore, Cooper (1981); Gibb and Ritchie (1982); and Birley (1996) discussed the importance the employment history of the individual (new enterprise founder), and in particular the relevance of this, in terms of the managerial and technical experience that is required to set up and manage a new enterprise.

Whereas there are mixed views as to the benefits of FDI (Dicken, 1998; Holm, Malmberg and Solvell, 2002), governments in developing economies appear to utilise FDI as a method of economic development in the hope that the spillover effects mentioned above will benefit their economy as a whole. Certainly this was the case for

Ireland where, through successive government policies and interventions to attract FDI, Ireland benefited greatly and transposed itself from being mainly an agrarian society to being a knowledge-based economy (Sweeney, 1999; Andreosso-O'Callaghan, 2000; Garvin, 2004).

This current research, which is specifically focused on the links between MNEs and new enterprise creation, does provide support for previous research indicating that there can be spillover benefits from FDI into local host economies. For example, 74% of the founders interviewed for this research stated that their functions, tasks and responsibilities at the MNE were beneficial to them in starting their own business. Also, of the eighteen founders interviewed, who worked for an MNE prior to starting their own business, 83% created businesses based on the skills they attained at and/or nurtured in an MNE. However only 28% of the founders created a business in the same industry sector as the MNE for whom they worked.

More than half of the founders interviewed, who worked for an MNE, were actually made redundant, or were in the process of being made redundant at the time of starting their enterprise. Thus, this current research shows that for the industry sectors studied (chemicals, computers, electronics, engineering, manufacturing, pharmaceuticals, plastics & rubber, R&D and labs, software and telecommunications) in South East and South West Ireland, more than half the indigenous businesses founded were as a result of the founder being made redundant. Also, the actual number of businesses founded in these industry sectors in the sub-regions of analysis is fewer than expected, based on the data provided by the IDA and a number of other researchers. For example, McKeown, Henry, Johnston and Sands (2004), based on their research estimated that "three of the ten SMEs surveyed were established as a direct result of an MNE's presence, i.e. as corporate spin-offs" (p.18). Later, in the same paper they said "the majority of the SME founders had multinational backgrounds and rated this, along with the range of skills they gained, as being very important to their company" (p.19).

The remainder of this chapter will discuss the issues highlighted by the current research and proposes a model for policy makers and policy implementers. The chapter will also suggest further research that could be performed in pursuance of the findings from the current research.

9.2 Creating an entrepreneurial imperative

It was only in 1979, when Birch identified that over 80% of new jobs in the United States were being generated by small firms as opposed to large firms, that the U.S. government began to focus enterprise policy on small firms. Indeed, it was only after this date that small firms became a more focused aspect of research studies and many governments began to take note that more should be done to encourage the creation and development of new enterprises. As Birch (1987) (cited in Corman, Lussier and Nolan, 1996) pointed out, the key to job creation is small firms. Birch suggested that economies that provide an appropriate environment for start-ups and existing firms to expand, grow and flourish, whereas those economies that fail to provide such an environment languish.

From Chapters 1 and 3 in this thesis, it can be seen that Ireland has, since the 1950s, had a succession of successful enterprise policies mainly focused on FDI. It is only since 1993 that Ireland's enterprise policy has focused more on micro and small enterprises. However, throughout the 1980s, 1990s, and into the 2000s, indigenous enterprise policy has focused on the identification and support of HPSUs (high potential start-ups) (Enterprise Ireland, 2005). Be that as it may, Ireland is still very much dependant on FDI for its economic development.

In the U.S., which is considered to be one of the most entrepreneurial societies in the world, it is recognised that there is a need to maintain and develop their entrepreneurial spirit otherwise there is the danger that other economies will overtake the U.S. as regards economic growth and development (Schramm, 2006). In presenting his *entrepreneurial ecosystem* model, Schramm (2006) stated that all four institutions (start-ups, large established firms, universities and government) must work together in a collaborative manner in order to create *the entrepreneurial imperative*. Schramm continued,

“this means a reshaping of society's values and norms such that each of us steadily and subtly feels *the entrepreneurial imperative*. Our society is making it

easier to take risks and start businesses or to apply ourselves to transformative events inside the sector in which we work – to behave like entrepreneurs inside any setting in which we find ourselves. Of much greater importance, though, is the understanding of institutions, which often appears unconscious, of the role they play relative to each other in making our entrepreneurial economy succeed” (p.21).

Based on the findings derived from this current research, it would appear that this statement is also apt in an Ireland context, in that one could question the extent to which Government, MNEs, and entrepreneurs understand *the role they play relative to each other in making our entrepreneurial economy succeed*.

Taking the results of this current research into consideration, this author proposes a model for creating a more integrative, collaborative environment between Government, MNEs, and entrepreneurs. It is suggested that the development of such an integrative, collaborative entrepreneurial environment will lead to higher levels of new enterprise creation within MNEs’ host economies.

9.3 Creating an integrative, collaborative entrepreneurial environment

The proposed model (Figure 9.1) for enhancing the levels of new enterprise creation consists of three key elements (i) MNE Management, (ii) Government Policy and Objectives, and (iii) Entrepreneurs. For such an entrepreneurial environment to be created, all three elements need to collaborate in a cooperative manner. Each element needs to have an *understanding of the role it plays relative to the others in making an entrepreneurial economy succeed*. They need to work in a collaborative manner if new enterprise creation is to be considered as a viable and sustainable output from the presence of MNEs in a host environment.

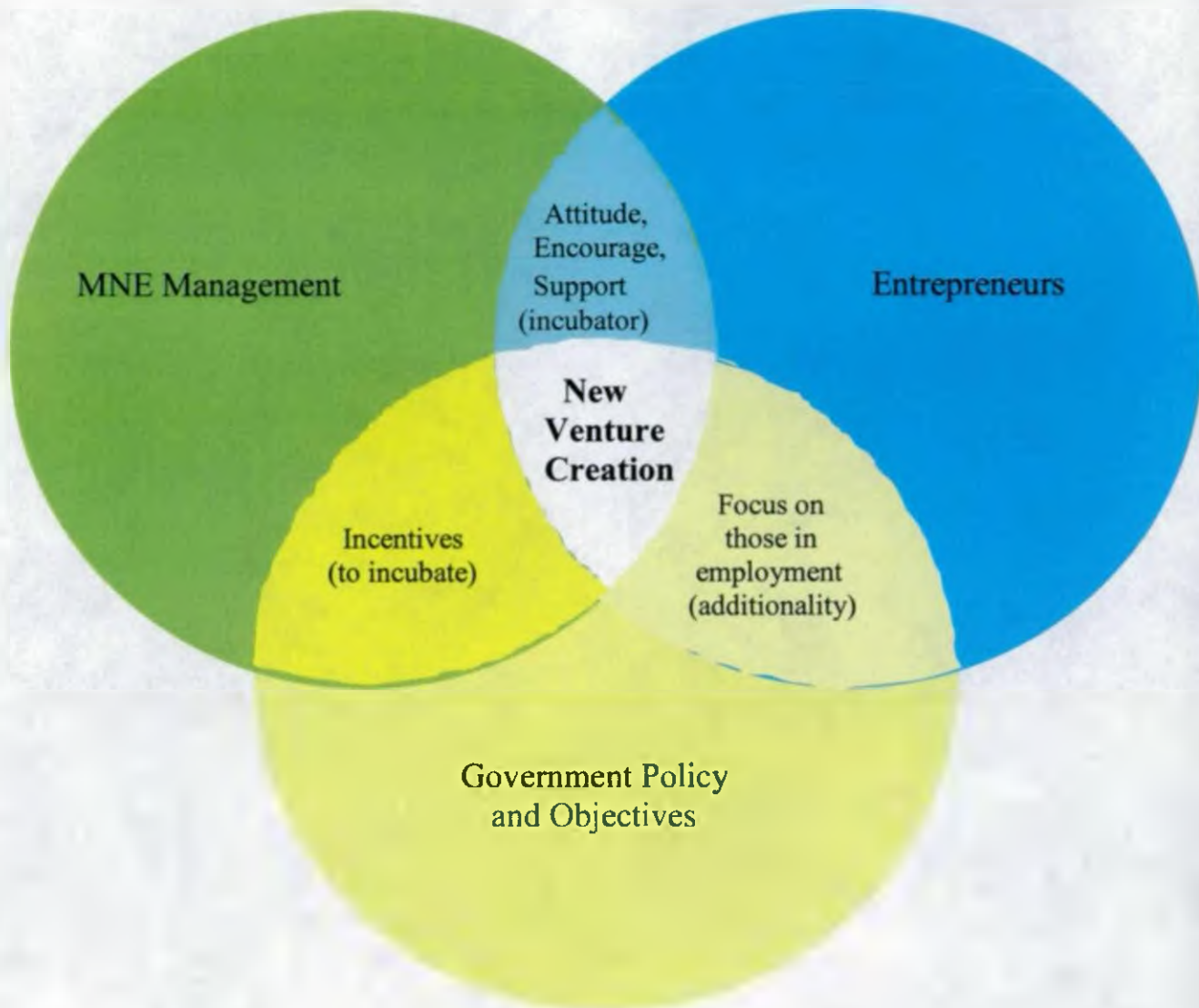


Fig. 9.1 Creating an environment for new venture creation © (Source: Current research)

9.3.1 Incentives and the incubator role of MNEs

From this research, it is evident that most MNEs (74%) neither support nor encourage current employees to consider new enterprise creation as an alternative to continued employment within the MNE. Also, this research has identified that not many MNEs (only 30%) support new enterprises until these enterprises have proven themselves with other customers. In fact, this research has found that it is highly unusual for MNEs to

encourage and support their employees to consider starting up their own enterprises. Some of the reasons proffered for this lack of encouragement and support are that: “we put a lot of effort and money into the training and development of our people – it is very expensive. Therefore why should we encourage people to leave (to start their own enterprise)?” (MNE2). Another reason stated was “the company’s mission is ‘the alignment of all employees’ goals to company goals’. If employees were to start their own enterprise they would not be in alignment with the company’s goals” (MNE3). And, in the words of the Engineering Manager of MNE13, “we discourage employees thinking about setting up their own business --- we expect employees to have full focus on their work, on this business”.

These comments suggest that, in general, MNE management do not see any benefits being derived to their organisations from encouraging and supporting employees to leave them to start their own enterprises. Therefore, the suggested link between Government agencies and MNEs is to devise an enterprise policy and set of objectives that lead to a set of *incentives* whereby MNE management can see the benefits and welcome the practice of supporting employees to start their own enterprises.

Barry and Bradely (1997) suggested that the “spin-off benefits of FDI (in Ireland) might also include a role as ‘incubators’ for new entrepreneurs” (p.1803). Therefore, if Ireland is to benefit from the *incubator role* of MNEs/large firms, then an enterprise policy needs to be put in place that both officially recognises and capitalises on the MNE’s role as incubator. Government *incentives* related to the incubator role may be to reward MNEs (through grants and/or tax credits) who hire ‘known entrepreneurs’ into middle and senior management roles for a number of years so that they (the entrepreneurs) can learn about world-class business management, processes and systems. As regards incentives to entrepreneurs, maybe the extension of the CORD (Commercialisation of Research and Development) scheme could be considered for those employed by MNEs (currently CORD is an incentive that is available for participants on the Enterprise Platform Programmes (EPPs). The key aim of the CORD grant is to bring a new product idea/business ventures from third-level educational institutions to market (Enterprise Ireland, 2006).

Other incentives could take many forms including tax credits for the MNE, additional employment and/or training and development grants, or a rejuvenation of the National Linkage Programme whereby State enterprise support agencies would work with both MNEs and entrepreneurs to identify products and/or services that an MNE uses, or operations within the MNE's process that could be provided by an indigenous enterprise. If such an opportunity is identified, then maybe an element of State support might be to work with both the MNE and the new enterprise to ensure the new enterprise is capable of supplying the product or service to the MNE worldwide and to world-class delivery, quality, price, and customer care standards.

Needless to say, such an intervention would demand a change in mindset amongst policy makers, policy implementers, MNE management and entrepreneurs. This is because today's knowledge economy demands a very different skill-set than what was needed when Ireland was more focused on labour intensive, manual jobs whereby assembly, manufacturing and mechanical engineering were adequate to meet MNEs' needs.

Another aspect of the incubator role of MNEs is as depicted in the overlap between MNE Management and Entrepreneurs – *Attitude, Encourage and Support*. This current research has identified that the environment in the vast majority of MNEs, involved in this research, is not conducive to employees feeling that they can approach their supervisors and senior management to openly discuss options as regards new enterprise creation. The author of this thesis believes that such an environment can only be created if MNE senior management are convinced that there are benefits to be accrued to the MNE for engaging in such a process, and creating such an environment.

9.3.2 Proactive enterprise policy

The overlap between Government Policy and Objectives, and Entrepreneurs in the model is *Focus on those in employment*. The findings from this research show that State enterprise support agencies are more inclined to focus on founders who have been made redundant than on identifying potential founders/entrepreneurs who are still engaged in employment. Thus, there is a need to change policy measurements and objectives to not

only focus on returning to employment after redundancy, but also to the creation of new and additional jobs while the MNE is still in existence and there are no pending redundancies being discussed within the MNE.

There is also a need to change the focus from 'picking winners' to looking more closely at the longer-term gains from enterprise creation. It is suggested that the current policy focusing on HPSUs (High Potential Start-Ups) needs to be reassessed, or, at a minimum, the industries that constitute HPSUs need to be redefined, and what Storey (1998) said about clarity of policy objectives should also apply to the meaning of HPSU. As indicated already, maybe the focus and objectives of enterprise policy should be on both retaining jobs at MNEs while at the same time encouraging employees of MNEs to start their own enterprises. This approach would generate greater levels of additionality as opposed to just job replacement.

Thus the dual mandate of most government policies towards entrepreneurship and new venture creation should change from increasing innovation and reducing levels of unemployment to maintaining (and/or increasing) the levels of employment within MNEs while at the same time creating new enterprises, with the support of MNEs. To paraphrase Stevenson and Lundstrom (2001), new firms should be seen as critical to innovation, creativity, and competitiveness and not just necessary to replace the businesses and jobs which are lost due to the disappearance and downsizing of existing businesses.

9.3.3 Focusing on those in employment

This current research has also established that for over 80% of the founders interviewed this was their first enterprise set-up, and all of them said they would go through the start-up process again if they had the opportunity to do so. Also, all of the interviewees who were made redundant and/or left employment with an MNE because of the threat of redundancy (52%) stated that they would not have started their business if they were not made redundant. Both of these facts suggest that there is a need to focus on people in employment, while they are still in employment, so as to enable them to avail themselves of the opportunity to start their own enterprises at an earlier stage in their

career as opposed to waiting for them to become redundant; instead of waiting for them to be faced with a 'critical incident' in their lives (Cope and Watts, 2006).

Using Blanchfower, Oswald, and Stutzer's (2001) and Grilo and Irigoyen's (2005) definitions of *latent entrepreneur* (see Chapter 2), this current research has identified the presence of latent entrepreneurs in an Irish context also. Needless to say, by definition, in the current environment, latent entrepreneurs will continue to work for MNEs until such time as they are let go from the MNE. However if the above suggested changes to enterprise policy are implemented, then it is possible that latent entrepreneurs can (or should) be alerted to business opportunities sooner, rather than at the time of redundancy. It must also be stressed, however, that once latent entrepreneurs are alerted to new enterprise opportunities, effective supports from MNEs and State agencies must be available and accessible if new enterprise creation is to happen successfully. Environments conducive to facilitating employees to consider starting their own enterprises must be created.

MNEs have their own agenda; the prime reason why MNEs locate in other regions/sub-regions is for profit maximisation (Stevens, 1974; Fiegenbaum and Lavie, 2000; and Worth, 2005) as opposed to aiding developing economies. Therefore, in the opinion of this researcher, the lead role in creating such a conducive environment must be with Government agencies.

9.3.4 Implementing enterprise policy effectively

Because of the criticality of Government's and their enterprise support agencies' roles in creating an environment conducive to new enterprise creation, it is suggested that these State enterprise support agencies need to review and adapt their current *modus operandi*. Because, even though 83% of the founders interviewed for this research received State support and funding from either Enterprise Ireland (39%), or the City and County Enterprise Boards (39%), or Shannon Development (5%), there was much criticism of the manner in which these agencies provided this enterprise support. For example, only 17% of the respondents said they had good experiences with these agencies, stating that there was not any more these agencies could do for them. On the

other hand, the remaining 83% had very negative views about, and/or experiences with these agencies. Many of the respondents cited the high levels bureaucracy as the major issue when dealing with State agencies. Others questioned the ability of these agencies to perform, as FNDR9 stated “they will never be creative enough to do the job rightno bureaucracy will ever do the job properly”. Many other founders felt that there was too much ambiguity and inconsistency between what was funded and what was not funded by State agencies.

None of the entrepreneurs interviewed said that the soft or hard supports they received from the State enterprise support agencies were critical or essential to the setting-up of their (the entrepreneurs’) enterprises.

9.3.5 Continued development of managerial and technical skills

It is crucial that the development of managerial and technical skills in Ireland is monitored in an ongoing way, so that there is more of a focus within MNE subsidiaries in Ireland to become more autonomous. The reason for this suggestion is because some researchers such as Zahra, Dharwadkar and George (2000) suggested, that when subsidiary managers have more autonomy from their parent MNE, they are better empowered to support entrepreneurship within their organisations. Zahra et al. continued,

“these managers have incentives to encourage and support entrepreneurship to strengthen their subsidiary's track record and accomplishments, further increasing its potential bargaining power with its parent MNE. Successful entrepreneurship can also improve the subsidiary's reputation, thereby increasing the professional standing of subsidiary managers. Entrepreneurship can also safeguard against the potential loss of the subsidiary's global mandate” (p.24).

However, one has also got to be aware that higher levels of subsidiary autonomy do not necessarily lead to enterprise creation or higher levels of spin-offs. This research has identified that the opposite is most likely to be the case. According to Dunning (1974), the more autonomous the senior management team is in the MNE subsidiary the more likely the

“....behaviour of affiliates of multinational enterprises is geared not to meeting their own objectives (which may be very similar to those of indigenous companies), but to the enterprise of which they are part (which may be very different)” (p.364).

This suggests that the more autonomous the MNE subsidiary is, the less likely senior management will be inclined to leave (or to support others to leave) to start their own enterprises.

In summary, if Government enterprise policy and objectives are readdressed so that supports are available for entrepreneurs, and if incentives are in place for MNEs to create an environment whereby it is conducive for employees to approach management with new enterprise creation initiatives, then it may be possible that the level of new enterprise creation resulting directly from the presence of MNEs will be increased.

9.4 Strengths and limitations of the current research

One of the major strengths of this research is the methodology employed of (a) the sequence of identifying enterprise founders first and then identifying the MNEs for whom they worked, and (b) the triangulation of interviewing the enterprise founders, senior executives of MNEs, and CEOs of State enterprise support agencies in order to obtain as comprehensive a view as possible as to the extent to which MNEs have a direct impact on the level of new enterprise creation.

This methodological approach, as far as this researcher can ascertain, has not been used in previous research. Previous researchers such as Gorg and Strobl (1999) relied on

aggregate statistical analysis to determine that foreign firms have indeed had positive effects on the entry level of indigenous firms (p. 13). Their research is based on statistical correlation which does not necessarily mean that there is in fact an actual direct link between new enterprise creation and the presence of MNEs in a given host region. Other researchers such as McKeown, Henry, Johnston and Sands (2004) examined a small number of MNEs and SMEs (ten of each) in one industry sector (software) to pronounce that “three of the ten SMEs surveyed were established as a direct result of an MNEs presence, i.e. as corporate spin-offs” (p.18), and “the majority of the SME founders had multinational backgrounds and rated this, along with the range of skills they gained, as being very important to their company” (p.19). However, McKeown et al.’s (2004) research did not really establish that there was a direct link between the indigenous companies and the MNEs surveyed and interviewed.

The current research started with a database of 9,014 enterprises registered in Ireland between 1990 and 2001. This database was used to identify the number of enterprises that were still in existence at the time of this research, so that the founders of these enterprises could be contacted to establish if they had a direct link with an MNE before they started their enterprises. This approach yielded 153 enterprises that met Criteria 1 for this research. That is, there were 153 enterprises identified that had been (a) founded between 1990 and 2001, (b) existed in the South East or South West sub-regions of Ireland, (c) were wholly Irish owned, (d) were not a subsidiary of an existing Irish company, (e) were not a subsidiary of a foreign own company, and (f) were in one of the following industry sectors – chemicals, computers, electronics, engineering, manufacturing, pharmaceuticals, plastics & rubber, R&D and labs, software or telecommunications. Thus another feature of the current research, which distinguishes it from previous studies, is its exploration of more than one industry sector.

The 153 enterprises were re-surveyed to establish to what extent the founders had a direct link with an MNE prior to starting their enterprise. This analysis identified 37 founders that clearly had a direct link with an MNE, in that they either worked for an MNE (29) or they specifically started their enterprise with the sole intention of supplying an MNE (8).

Alternative options considered in the early stages of the research to identify founders that had direct links with MNEs were:

- (1) To take random samples of enterprises in South East and South West Ireland to establish dates of founding and to identify if the founder had a direct link with an MNE prior to start-up;
- (2) Interview senior executives of MNEs in South East and South West Ireland to establish how many enterprises had been founded by their ex-employees, and to follow up with those ex-employees;
- (3) Interview CEOs of the State enterprise support agencies based in South East and South West Ireland to identify how many founders they supported who set up an enterprise as a direct result of the presence of MNEs in the sub-regions.

Option 1 was disregarded because it was not clear how many samples would have to be taken in order to find a suitable number of founders with direct links to MNEs to enable meaningful analysis for this research. Options 2 and 3 were also disregarded because it was not clear how accurate the data would be from either of these sources; disregarding these two options was a correct decision, because as was subsequently shown in this research, the data derived from these two sources with regards to the founders of enterprises were unreliable (for further details see Chapters 6 and 7).

Thus, in the opinion of the author of this thesis, the systematic filtering methodology employed in this research, using clear criteria and a logical procedure, was more likely to lead to a reliable estimate of the number of new enterprise founders with direct links to MNEs than were the alternative approaches.

Another strength of the current research was the triangulation process of interviewing enterprise founders, senior MNE executives, and CEOs/regional managers of the enterprise support agencies operating in South East and South West Ireland. This approach enabled the researcher to identify the extent to which MNEs do (or do not) have a direct impact on the level of new enterprise creation from three clearly different

perspectives. Exploring these three different perspectives laid the foundation upon which the model (Figure 9.1) for promoting the creation of an environment, whereby MNEs can have a more direct impact on the level on new enterprise creation in their host regions, is based.

One of the limitations of the current research is that the indigenous enterprises were limited to the high-tech, high-growth, high-value-add industry sectors of chemicals, computers, electronics, engineering, manufacturing, pharmaceuticals, plastics & rubber, R&D and labs, software and telecommunications. These are the industry sectors that are generally supported by the State enterprise support agencies. The limitation is that, as seen in Table 7.6 (Chapter7), only one in twelve of the enterprises created after one MNE (Digital Equipment International) closed their facilities could be considered eligible for this current research. Therefore, the broad question of “to what extent do MNEs have a direct impact on the level of new enterprise creation” is not fully answered by this current research because it was decided at an early stage in the process to eliminate restaurants, bars, consultancies, non-profit organisations, community enterprises, and general services from the list of eligible enterprises (i.e. enterprise not generally supported by State enterprise support agencies in Ireland).

Confining the research to two geographic regions, South East and South West Ireland, whilst making this research manageable, was also a limitation in that these regions are mostly rural and have only one major urban centre of population and business activity (Cork city with a population of 425,510). However, there was a fairly even spread of MNEs and indigenous enterprises spanning both sub-regions. If major urban centres such as Dublin were taken into consideration, it may have yielded different results.

9.5 Recommendations for future research

As a follow on to this current research, it is suggested that future research pursues one or more of the three dimensions (i) extending the sectoral spread of the research, (ii) extending the geographical spread, and (iii) exploring the effect of MNEs in emerging economies.

9.5.1 Sectoral spread

When initially considering the current research design, it was decided to go into more depth of analysis than previous research and explore more than one industry sector. It was decided to focus on the high-tech, high-growth, high-value-add industry sectors of chemicals, computers, electronics, engineering, manufacturing, pharmaceuticals, plastics & rubber, R&D and labs, software and telecommunications, because these are the industry sectors that are primarily supported by Enterprise Ireland and the City and County Enterprise Boards. However, a more comprehensive investigation into the extent to which MNEs have a direct impact on new enterprise creation should include all enterprises. As demonstrated in Table 7.6, only 8% of the businesses founded as a result of one particular MNE closure was eligible to be considered as part of the current research, whereas all the enterprises listed in the Table 7.6 were in fact set up by people who had been employed in the MNE and who lost their jobs as a result of the MNE's closure.

Whereas the current research indicates that 58% of the enterprises that met Criteria 1 did have a direct link with an MNE in that the founder either worked for an MNE or the enterprise was set up specifically to supply an MNE, examining all industry sectors is likely to demonstrate that the activities and behaviours of MNEs, particularly when downsizing or closing, have a greater impact on new enterprise creation. On the other hand, research into all enterprise sectors would, most likely, indicate that the percentage of enterprises founded in the same industry sector as the MNE with whom the founder had the direct link, would be much lower than the 28% identified in the current research (see Chapter 5).

Thus, in order to establish more accurately the extent to which MNEs have a direct impact on the level of new enterprise creation, further research should be extended to cover new enterprises in all sectors.

9.5.2 Geographical spread

When designing the current research, it was decided to select the South East and South West sub-regions of Ireland as the area of analysis. Among the reasons for this selection were ease of access, good spread of MNEs (228) across both sub-regions, a good mix of State enterprise support agencies (14), and a manageable number of start-ups (in the industry sectors of interest) during the period of analysis (153), and because of the underperformance of these sub-regions compared to the GDA. However, the findings from the current research are specific to the South East and South West and may not be generalisable across the other regions in Ireland. What would be of particular interest, in the first instance, would be to initially repeat the research using the same criteria and industry sectors, in the Greater Dublin Area (GDA). The area consisting of the Dublin and Mid-East sub-regions has the largest populations of citizens and enterprises in the Republic of Ireland, and has the largest population growth and inflow of FDI over the period of analysis (see 4.2). Even though this proposed research would be examining larger numbers of MNEs and indigenous enterprises, it would be interesting to assess if MNEs in the GDA, pro rata, have a greater direct impact on the level of new enterprise creation compared to the South East and South West sub-regions. However, because of the size of population, and the greater number of MNEs in the GDA additional data should be observed. For example, because of the greater number of MNEs in the GDA, there should be an analysis to ascertain if there is broader spread of attitudes towards supporting indigenous start-ups, among MNE senior executives, in larger urban areas compared to more rural orientated areas. Because of the size of population, and market, the analysis should assess if individuals in large urban areas are more willing to take risks, than their counterpart in less advantaged areas such as the SE/SW.

It would then be interesting to assess the Mid-West sub region, which is a more or less self-contained sub-region consisting of counties Clare, Limerick and North Tipperary. For economic development purposes, this region has traditionally been under the remit of one State enterprise support agency, Shannon Development. Shannon Development was set up in 1959 to promote Shannon International Airport in the post-jet era. Today Shannon Development is Ireland's only dedicated regional development company

(Shannon Development, 2007). There are two major centres of enterprise activity in the Mid-West sub-region, Shannon and Limerick. The sub-region also has one major university and one major institute of technology. Again, using the same research criteria as for the current research, it would be interesting to assess if single-agency focus on a sub-region's development has a major impact on the inflow of FDI, and if this leads to a higher level of new enterprise creation.

Finally, to complete the geographical spread of the research, it would also be interesting to analyse the BMW region, which consists of the Border, Midlands, and West sub-regions. There are many similarities between this region and the South East and South West sub-regions; it also has only one major center of population and enterprise activity, Galway City, it is a mainly rural and relatively sparsely populated sub-region.

It would also be instructive to do a comparative analysis between all regions as it may further the development of both regional and enterprise policy in Ireland, and may provide a basis for balanced regional economic development in Ireland.

Having researched all the other sub-regions in Ireland using the same criteria as for the current research, it may be useful to do further research analysing the total direct impact MNEs have on new enterprise creations in each of the sub-regions (i.e. examining all industry sectors).

9.5.3 The effects of MNEs in emerging economies

A final proposal for future research is to repeat the current research in emerging economies, including the new accession countries to the European Union, the former Soviet Block countries, to ascertain if former 'command economies' differ in developmental terms from traditional 'market economies'. In essence, this research could determine if traditional 'market economies' and former 'command economies' experience similar spill-over effects from MNEs. Another interesting aspect of this proposed research would be to establish if these emerging economies follow a similar development path as Ireland did since the 1950s. If such similar patterns were

identified, maybe these emerging economies could learn from Ireland's experience and thereby shorten their economic developmental cycles.

Such research would contribute greatly to existing literature on the impact of FDI in developing economies, the transition from command to market economies, MNEs spillover effects in different economies, the process of new enterprise creation in emerging economies, and the appropriateness of enterprise policy in emerging economies.

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Appendices

Appendix 1

Preparing the database

The focus area for this research is the South-East and South-West sub-regions of Ireland. The South-East consists of counties Wexford, Waterford, Kilkenny, Carlow, and Tipperary (South Riding). The South-West consists of Cork and Kerry (except the extreme northern section of Kerry). However for the sake of completeness by county the information for Tipperary North Riding and North Kerry have been included in the initial database. The sources of information for the creation of the database are as per Table Appendix 1.1

Data Source	Counties included
Company Registration Office (CRO)	All
Enterprise Ireland (EI)	Wexford, Waterford, Carlow, Kilkenny, and Tipperary South Riding
Shannon Development (SD)	Tipperary North Riding, and North Kerry
County Enterprise Boards (CEB)	Wexford, Carlow, Kilkenny, Waterford County, Waterford City, Tipperary North Riding, Tipperary South Riding, Cork City, West Cork, North Cork, South Cork, and Kerry

Table Appendix 1.1 Sources of data (Source: Current research)

The original data from these sources was screened so as to eliminate any enterprises that were not relevant to this research. Enterprises that were eliminated included community organisations, sporting companies/organisations, property development companies, catering organisations, bakeries, tourist related organisations (such as pony trekking, holiday homes, tourist trails, etc), consultancy firms, charity organisations, taxi services, road haulage, restaurants, arts/crafts, leisure activities, crèches, and personal services such as hair dressing. The industry sectors this research is focused on are: chemical, computer, electronics, engineering, manufacturing, pharmaceutical, plastic & rubber, R+D & laboratories, software, telecommunications, and/or any other relevant high-tech, high-value add industry sectors. The process of elimination, at this stage, was based on the registered and/or identifiable name of the enterprise. In some cases the promoter's name was used instead of company name. This is especially the case for data sourced

from the State agencies (Enterprise Ireland, Shannon Development and the County Enterprise Boards).

Having identified the list of potential companies for the research database, the next step was to check the contact details for these companies and at the same time to check that they were still in business. This analysis originally involved using the business listings section of telephone directories for the relevant areas of this research. The telephone directories used were the 2002 edition of the 02, 05 and 06 area codes, see Table Appendix 1.2.

Telephone Directory Area Code	Counties Covered
02	Most of Cork and Kerry
06	North Kerry, North Cork, Tipperary North Riding, and parts of Tipperary South Riding
05	East Cork, Tipperary South Riding, Waterford, Kilkenny, Carlow, and Wexford

Table Appendix 1.2 Areas covered by the relevant area code telephone directories (Source: Current research)

Many of the enterprises that were originally identified, as potential subjects for the research database did not have details in the telephone directories analysed. This suggested that either the company had gone out of business, changed name, or never started trading in the first place.

At the end of this phase of the research process there were 912 enterprises with telephone numbers and business addresses identified. However some of the company names without telephone listings were familiar to this researcher. Also many of the enterprises without telephone numbers had received grants from either Enterprise Ireland, Shannon Development, or one of the City/County Enterprise Boards. These Companies were checked on the website using www.google.ie.

The search on www.google.ie indicated that some of the 'unlisted' companies did exist. The web search increased the number of companies for the research database from 912 to 1064. The breakdown of companies by data source is shown in Table Appendix 1.3.

Data Source	Initial Quantity of companies	Companies potentially relevant to this research	Quantity of companies with contact details
Company Registration Office (CRO)	4,840	1,177	315
Enterprise Ireland South-East	310	154	149
Enterprise Ireland South-West	614	309	308
Shannon Development	203	74	47
CEB – Wexford	308	73	46
CED – Waterford County	269	38	24
CEB – Waterford City	453	68	44
CEB – Carlow	184	37	23
CEB – Kilkenny	383	48	24
CEB – Tipperary North	273	20	12
CEB – Tipperary South	300	43	13
CEB – Kerry	245	30	21
CEB – Cork City	113	51	34
CEB – West Cork	253	54	40
CEB – South Cork	128	50	38
CEB – North Cork	138	35	19
Total Companies	9,014	2,261	1,157

Table Appendix 1.3 Distribution of companies by data source
(Source: Current research)

Some 1,157 of the companies in the ‘Quantity of companies with contact details’ column in Table Appendix 1.3 are registered with the Company Registration Office and are also supported by one of the State enterprise support agencies. Also, some of these companies are supported by two or more State enterprise support agencies. Therefore their names appear on more than one data file. When these duplications are taken into consideration the total number of companies that make up the research database is 1,064.

This number was further refined by eliminating logistics (transport and warehousing) enterprises, and a number of other enterprises such as textiles, glass manufacturing, boat building, printing & packaging, and wood processing as it these industry sectors are not generally classified as high-tech, high-growth, high-value add enterprises. These refinements reduced the starting database for this research down to 805 enterprises. All of these 805 enterprises were contacted during the screening survey stage of this research (Survey 1).

Appendix 2

List of companies comprising the research database

Legend: CEB = City/County Enterprise Board
 EI = Enterprise Ireland
 SD = Shannon Development
 CRO = Companies Registration Office
 CRO/SA = The enterprise is on the CRO and a State agency list
 EI/CEB = The enterprise was supported both by EI and a CEB

Enterprise Name	Assisted (A) /Non-Assisted (N/A)	Industry sector	Code	CEB	EI	SD	CRO	CRO/SA	EI/CEB	Total
1 2 Travel.Com	A	Software	CEB	1					1	1
12 Travel.com	A	Software	EI		1					
2D Typographic Design	A	Software	CEB	1						
A.F. Etched Brass Ltd	A	Engineering	EI		1					
A.F. Etched Brass Ltd	A	Engineering	CEB	1						
A.R.I. SERVICES EURDPE LIMITED	NA	Computers	CRO				1			
A1 Engineering Ltd	A	Engineering	EI		1					
AARDVARK DIGITAL MEDIA LIMITED	A	Software	CRO				1	1		
Aardvark Internet	A	Software	CEB	1						
Aardvark Internet Publishing	A	Software	EI		1					
Aaron Dennehy	A	Other	CEB	1						
Abacus Software	A	Software	CEB	1						
Abacus Software Ltd	A	Software	EI		1					
Abbey Farm Equipment	A	Engineering	ShaDev			1				
Abbey Rollers	A	Manufacturing	EI		1					
ABU INTERNET LIMITED	A	Software	CRO				1	1		
ABU Software	A	Software	CEB	1						
Acom Environmental	A	Chemicals	CEB	1						
Acom Fashion's Manufacturing	A	Textiles - Clothing	EI		1				1	
ACORN FASHIONS SERVICES LIMITED	A	Textiles - Clothing	CRO				1			

Acorn Graphics	A	Software	CEB	1					
ACRYLICON IRELAND LIMITED	NA	Chemicals	CRO			1			
Adapt Call Management Ltd	A	Telecomms	EI		1				
Adhesive Labels Ltd	A	Print + Pack	CEB	1					
Adtec Engineering Ltd	A	Engineering	EI		1				1
Adtec Engineering Ltd	A	Engineering	CEB	1					
Adva Signs Limited	A	Print + Pack	EI		1				
Advanced Industries Limited	A	Software	ShaDev		1				
AEOLUS ENERGY LIMITED	NA	Engineering	CRO			1			
AEROSPACE SUPPLIES LIMITED	NA	Engineering	CRO			1			
AgriData	A	Software	CEB	1					
AgriMec Ltd	A	Manufacturing	EI		1				
Agriway Ltd	A	Chemicals	EI		1				
AHVAGE LIMITED	NA	Textiles +Clothing	CRO			1			
Ainivet Ltd	A	Delete construction co.	EI		1				
AIR AZPURI LIMITED	A	Engineering	CRO			1			
Air Azpure Ltd	A	Engineering	CEB	1					
Air-Con Manufacturing Ltd	A	Manufacturing	CEB	1					
Aire Laboratories Ltd	A	R + D & Laboratory	CEB	1					
AK Graphics Ltd	A	Software	CEB	1					
Alaskacast Ltd	A	Engineering	EI		1				
Albany Engineering Limited	A	Engineering	EI		1				
Albert Evidt (empower.ie)	A	Engineering	CEB	1					
Alcast Company Ltd	A	Engineering	EI		1				
Alida Systems/Systact Systems	A	Electronica	EI		1				
Allblue Engineering	A	Engineering	CEB	1					1
ALLBRIE ENGINEERING LIMITED	A	Engineering	CRO			1			
Allen Technology	A	Other	CEB	1					
Allied Tamed Parts Ltd	A	Engineering	EI		1				

Alpha Engineering	A	Engineering	CEB	1					
Altas Fabrication Ltd	A	Manufacturing	EI		1				
Anderco Limited	A	Other	EI		1				
Andrew Rice (ResourceSys)	A	Software	CEB	1					
Angland Precision Engineering	A	Engineering	EI		1				
ANRO Graphics Studio Ltd	A	Software	EI		1				
Antigen Pharmaceuticals Ltd	A	Pharmaceutical	ShaDev			1			
APCS	A	Other	CEB	1					
APEEL (PREPARED VEGETABLES) LIMITED	NA	Food + Drink	CRO				1		
APEX COMPUTER SERVICES LIMITED	NA	Computers	CRO				1		
AQUA DESIGN LIMITED	A	Software	CRO				1	1	
Aqua Design Ltd	A	Software	ShaDev			1			
AQUA MASSAGE IRELAND LIMITED	NA	Delete	CRO				1		
Aqua-Star Workboats Irl Ltd	A	Boat Build	EI		1				
ARASYS (IRE) LIMITED	NA	Delete	CRO				1		
Archer Daniels Midlands (ADM)	A	Chemicals	EI		1				
ARCTIC DOORS LIMITED	NA	Manufacturing	CRO				1		
ARDA MULTIMEDIA PRODUCTS LIMITED	NA	Software	CRO				1		
ARDENT COMPUTERS LIMITED	NA	Computers	CRO				1		
Ardfield Manufacturing Ltd	A	Manufacturing	EI		1				
Ardmore Technologies Ltd	A	Telecomms	EI		1				1
Ardmore Technologies Ltd	A	Telecomms	CEB	1					
Ardtech Industries	A	Plastics & Rubber	EI		1				
ARKMAN ENGINEERING LIMITED	NA	Engineering	CRO				1		
Armo Limited	A	Manufacturing	EI		1				
ARRAMOUNT WOODCRAFT (CLONMEL) LIMITED	NA	Wood	CRO				1		
ARTWEB DESIGN LIMITED	NA	Software	CRO				1		
Ashfield Engineering	A	Engineering	CEB	1					
ASKINS REFRIDGERATION LIMITED	NA	Engineering	CRO				1		

ASPEN WORKFLOW LIMITED	A	Manufacturing	CRO				1	1		1
Aspen Workflow Ltd	A	Manufacturing	ShaDev			1				
Assess Ireland Ltd	A	Software	ShaDev			1				
Assoc. Steel Eng. Ltd.	A	Engineering	EI		1					
ASSURED FOOD SAFETY LABORATORY SERVICES LIMITED	NA	R + D & Laboratory	CRO				1			
ATLANTIC AIR LIMITED	NA	Engineering	CRO				1			
Atlantis Seafood	A	Food + Drink	EI							
Atto Abrasives Ltd	A	Engineering	EI							1
Atto Abrasives Ltd	A	Engineering	CEB	1						
AURORA TELECOM LIMITED (Dublin based c/n Bord Gas Eireann)	NA	Telecomms	CRO				1			
Autofile Ltd	A	Software	ShaDev			1				
Automation and Tooling Specialists Ltd	A	Engineering	EI							
Auxiliary Chemicals (Irl) Ltd	A	Chemicals	EI							
AVER INTERNATIONAL LIMITED	NA	Delete	CRO				1			
AVIATION METHODS LIMITED	NA	Engineering	CRO				1			
Avoncourt Contract Packers	A	Print + Pack	EI							
Avonmore Electrical Ltd	A	Engineering	EI							
Azzurri Ireland Ltd	A	Manufacturing	EI							
B & G Enamelling	A	Engineering	CEB	1					1	
B & G ENAMELLING LIMITED	A	Engineering	CRO				1			
B.C.D. Engineering	A	Engineering	EI							
B.F. Desmond Engineering	A	Engineering	CEB	1						
B.M.D.	A	Other	EI							
B2B Soft Ltd	A	Software	EI							
Ballinadee Engineering	A	Engineering	CEB	1						1
Ballinadee Engineering Ltd	A	Engineering	EI							
Ballinphellic Engineering	A	Engineering	CEB	1						1
Ballinphellic Engineering Ltd	A	Engineering	EI							
BALLYBRACK TRANSPORT LIMITED	NA	Logistics	CRO				1			

Ballyhea Engineering Services Ltd	A	Engineering	CEB	1					
BALLYMALOE FOODS LIMITED	NA	Food + Drink	CRO				1		
Bandon Signs Ltd	A	Engineering	CEB	1					
Bantry Glass & Glazing	A	Glass	CEB	1					
Barlo Kilkenny Ltd	A	Engineering	EI		1				
Barron Engineering	A	Engineering	CEB	1					
BARROW AUTOMATION LIMITED	NA	Engineering	CRO				1		
Barry Mai & Damien	A	Other	EI		1				
Barware Enterprises Ltd	A	Manufacturing	EI		1				
Bawnhill Ltd (Irish College for the Humanities)	A	Other	ShaDev				1		
BCB Beverages Limited	A	Food + Drink	EI		1				
Beacon Design Ltd	A	Software	EI		1				
Beacon Designs Ltd	A	Software	CEB	1					
Beara Iron Works	A	Engineering	CEB	1					
BEECHWOOD DESIGNS LIMITED	NA	Software	CRO				1		
Belco Marine Electronics	A	Boat Build	CEB	1					
Benson Engineering	A	Engineering	EI		1				
BIGFOOT BOUNCING CASTLES LIMITED	NA	Manufacturing	CRO				1		
Biocel Limited	A	Chemicals	EI		1				
BIO-CRETE LIMITED	NA	Engineering	CRO				1		
BIOLAB SERVICES LIMITED	NA	R + D & Laboratory	CRO				1		
BIOLINK (CORK) LIMITED	NA	Other	CRO				1		
Biopak Ltd	A	Print + Pack	EI		1				
Bizcard Solutions	A	Software	CEB	1					
BIZCARD SOLUTIONS LIMITED	A	Software	CRO				1		
BJ Automation	A	Engineering	CEB	1					
Blackwater Engineering Ltd	A	Engineering	EI		1				
Blarney Castle Knitware	A	Textiles +Clothing	EI		1				
BLARNEY COMPUTER SERVICES LIMITED	NA	Computers	CRO				1		

BLARNEY I.T. SERVICES LIMITED	NA	Computers	CRO						
Blinds and Curtains Factory	A	Textiles +Clothing	CEB	1					
BLOOMINGTON LIMITED	A	Other	CRO			1	1		
Bloomington Ltd	A	Other	EI	1					
BLUEFIRE INTERNET LIMITED	NA	Software	CRO			1			
Boherduff Engineering Ltd	A	Engineering	CEB	1					
Boramic Ltd	A	Manufacturing	EI		1				
BOTT Ireland Limited	A	Other	CEB	1					
Bourke (Danny) Engineering	A	Engineering	CEB	1					
Bourke Engineering	A	Engineering	CEB	1					
Bowen Water Technology	A	Engineering	EI		1				
Brandon Products Ltd	A	Manufacturing	ShaDev			1			
Breadline Productions Limited	A	Software	ShaDev			1			
BREEN INTERNATIONAL LOGISTICS LIMITED	A	Logistics	CRO			1	1		
Breen Logistics Ltd	A	Logistics	CEB	1					
Brenmar Jon	A	Textiles +Clothing	EI		1				
Bucas Limited	A	Manufacturing	EI		1				
Burnside Autocyl (Tullow) Ltd	A	Engineering	EI		1				
Burnside Eurocyl. Ltd	A	Engineering	EI		1				
BUSINESS ETIQUETTE INTERNATIONAL LIMITED	NA	Other	CRO			1			
Butler T Engineering Ltd	A	Engineering	EI		1				
Buttimer and Co. Ltd	A	Engineering	EI		1				
Byrne & Sons	A	Engineering	CEB	1					
Byrne (Sean) Engineering	A	Engineering	CEB	1					
Byrne, Martin (Engineering)	A	Engineering	CEB	1					
Byrne, Patrick	A	Other	CEB	1					
C & L BUSINESS SYSTEMS LIMITED	NA	Computers	CRO			1			
C M SIGNS LIMITED	NA	Engineering	CRO			1			
C.G. INTERACTIVE LIMITED	NA	Software	CRO			1			

C.I.D. Electrical Ltd	A	Engineering	EI	1				
C3 COMPUTERS LIMITED	NA	Computers	CRO			1		
Cabrini Ltd	A	Other	EI					
CADCO	A	Software	EI					
Cadena Ireland limited (Now closed)	A	Manufacturing	EI					1
Cadena Ireland Ltd (Now closed)	A	Manufacturing	EI					
Cahalane Bros Ltd	A	Other	EI					
Cahill Homes Ltd	A	Delete	EI					
Cahu Engineering Products Ltd	A	Engineering	EI					
CAHIR ENGINEERING SERVICES LIMITED	A	Engineering	CRO			1		
Cahir House Machinery	A	Engineering	EI	1				
CALIBRATION & MANUFACTURING SERVICES LIMITED	NA	Electronics	CRO			1		
Callan Precision Eng	A	Engineering	CEB	1				
Cambewell Manu Ltd. T/A Castle Brand	A	Manufacturing	ShaDev			1		
Cantwell (Dairy Equip)	A	Manufacturing	CEB	1				
Cantwell Electrical Engineering	A	Engineering	EI	1				
CAPTURE PRODUCTIONS LIMITED	NA	Software	CRO			1		
Canwell Industries	A	Plastics & Rubber	EI	1				
Cara Marne Limited	A	Other	EI	1				
Caraclad Ltd	A	Plastics & Rubber	CEB	1				
Carbery Textiles Ltd	A	Textiles +Clothing	EI	1				
CARBOMAT LIMITED	NA	Engineering	CRO			1		
Carbon Chemicals Group	A	Chemicals	EI	1				
Carev Enterprises Ltd	A	Chemicals	CEB	1				
CARLOW EXPRESS FREIGHT Ltd	NA	Logistics	CRO			1		
CARLOW LOGISTICS LIMITED	NA	Logistics	CRO			1		
CARLOW PRECISION GRINDING LIMITED	NA	Engineering	CRO			1		
Carlow Toolmaking Services	A	Engineering	CEB	1				
Carrigaline Pottery (Carrgdhoun Pottery)	A	Delete	EI	1				

Carrighui Engineering	A	Engineering	EI		1				
CARTER ENGINEERING LIMITED	A	Engineering	CRO				1	1	
Carter Engineering Ltd	A	Engineering	CEB	1					
Cartoon Saloon Ltd	A	Software	CEB	1					
Casey Seafood's Ltd	A	Food + Drink	EI		1				
Castit Ltd	A	Manufacturing	EI		1				1
Castit Ltd	A	Manufacturing	CEB	1					
Castlebride Trading Co.	A	Chemicals	EI		1				
Castlepoint Boatyard	A	Boat Build	EI		1				
CATERASSIST LIMITED	NA	Delete	CRO				1		
CB Engineering	A	Engineering	EI		1				
CBAK COMPUTING (IRELAND) LIMITED	NA	Computers	CRO				1		
CBM Plastics	A	Plastics & Rubber	CEB	1					
CD CHORCA DHUIBHNE TEORANTA	NA	Software	CRO				1		
CD COMMERCE LIMITED	NA	Software	CRO				1		
Ceann Mara Plastics	A	Plastics & Rubber	EI		1				
Celltech Ltd ** ??	A	Manufacturing	ShaDev			1			
Celtic Circuits Ltd ** ??	A	Manufacturing	ShaDev			1			
Century Homes Ltd	A	Delete	EI		1				
CERAMIC APPLICATIONS LIMITED	NA	Manufacturing	CRO				1		
Chameleon Creatives	A	Software	CEB	1					
Charleville Refrigeration Services Ltd	A	Engineering	CEB	1					
CharterNav GPS	A	Software	CEB	1					
Chem-A-Co Int. Ltd	A	Chemicals	CEB	1					
Chempump Ltd	A	Manufacturing	EI		1				
Chip Electronics Services Ltd	A	Electronics	EI		1				
Chris Kay Ltd	A	Manufacturing	EI		1				
Christian Hansen Ltd	A	Pharmaceutical	EI		1				
CITRUS COMMUNICATIONS LIMITED (Aoife and Felix Byrne)	NA	Telecomms	CRO				1		

City Clothing Factory	A	Textiles +Clothing	EI	1					
Clara Toy & Clothing Co. Ltd	A	Manufacturing	EI	1					
Clare Hills Garment Manuf. Ltd	A	Textiles +Clothing	EI	1					
Clareway Enterprises Ltd	A	Chemicals	EI	1					
CLASSIC LEATHER COMPANY LIMITED	NA	Textiles +Clothing	CRO			1			
Clerical Outfitters	A	Textiles +Clothing	EI	1					
CLIENT SOLUTIONS (IRELAND) LIMITED	A	Software	CRO			1	1		
Client Solutions (Irl) Ltd	A	Software	EI	1					
Client Solutions Ltd	A	Software	CEB	1					
Cliff Campbell & Associates	A	Software	EI	1					
Clonakilty Cyber Centre (Hi-Tech Computing Ltd)	A	Computers	CEB	1					
Clonmel Precision Engineering	A	Engineering	CEB	1					
Cloone Engineering Ltd	A	Engineering	CEB	1					
CMG TELECOMMUNICATIONS (IRELAND) LIMITED	NA	Telecomms	CRO			1			
CMPOWER LIMITED	NA	Engineering	CRO			1			
CNC Components	A	Engineering	CEB	1					
CNC Precision Ltd	A	Engineering	CEB	1					
Coleman & Sons	A	Print + Pack	EI	1			1		
COLMANS PRINTERS LIMITED	A	Print + Pack	CRO			1			
Colman Computer Services Ltd	A	Computers	EI	1					
Comer International Ltd	A	Textiles +Clothing	EI	1					
Commitel	A	Software	CEB	1					
Commitel Technologies	A	Software	EI	1					
COMPOUND FIELD ENG EQUIP LTD	A	Engineering	CRO			1	1		
Compound Feed Engineering Limited	A	Engineering	ShrDev			1			
Compound Feed Engineers	A	Engineering	CEB	1					
COMPULAND LIMITED	NA	Computers	CRO			1			
Compusense Ltd	A	Computers	EI	1					
Concent Ireland	A	Other	CEB	1					

Concent Management Services International	A	Delete	CEB	1					
CONFIDENTIAL RECYCLING LIMITED	NA	Other	CRO			1			
Connabride Plastics	A	Plastics & Rubber	EI		1				
Connolly, Brian	A	Other	CEB	1					
Consort Case Company Ltd	A	Manufacturing	EI		1				
Core Computer Consultants Ltd	A	Computers	EI		1				
Cork Button Co. Ltd	A	Manufacturing	EI		1				
Cork CAD Bureau	A	Software	CEB	1					
CORK FABRICATION SERVICES LIMITED	NA	Manufacturing	CRO			1			
Cork Packaging Limited	A	Print + Pack	EI		1				
Cork Plastic Manufacturers	A	Plastics & Rubber	EI		1				
Cork Precision Tool Co. Ltd	A	Engineering	EI		1				
CORK TIE & BADGE COMPANY LIMITED	NA	Textiles +Clothing	CRO						
Cork Toolmaking Co.	A	Engineering	CEB	1					
CORK TOOLMAKING COMPANY LIMITED	NA	Engineering	CRO						
Cork Truck Services Ltd.	A	Engineering	EI		1				
CORMORANT MUSSEL LIMITED	NA	Food + Drink	CRO						
Corporate Apparel Ltd	A	Textiles +Clothing	ShaDev			1			
COSAOS LIMITED	NA	Delete (struck off)	CRO						
COSMETICS (IRELAND) LIMITED	NA	Chemicals	CRO						
Cotter, James	A	Other	CEB	1					
CREATIVE CONCEPTS LIMITED	A	Software	CRO			1	1		
Creative Concepts Ltd	A	Software	CEB	1					
Crest Solutions	A	Software	EI		1			1	
Crest Solutions	A	Software	CEB	1					
CRINKLE FILMS LIMITED	NA	Other	CRO			1			
Cromane Seafood's Ltd	A	Food + Drink	EI		1				
Crown Engineering	A	Engineering	CEB	1					1
Crown Engineering Works Ltd	A	Engineering	EI		1				

Cronin's Precision Eng	A	Engineering	CEB	1				
Cronins Forge Ltd	A	Engineering	EI		1			
CROSSBARRY PRECISION Eng. Ltd.	NA	Engineering	CRO			1		
Crosshaven Boatyard	A	Boat Build	EI		1			
Crotty Engineering	A	Engineering	CEB	1				
CRYOGENESIS (IRELAND) LIMITED	NA	Manufacturing	CRO			1		
CTO ENVIRONMENTAL SOLUTIONS LIMITED	NA	R + D & Laboratory	CRO			1		
Colcita Ltd	A	Textiles +Clothing	EI		1			
Cullen & Davison Ltd	A	Pharmaceutical	EI		1			
CULLINANE TECHNICAL SERVICES LIMITED	NA	Software	CRO			1		
Curran Paul	A	Engineering	CEB	1			1	
CURRAN SIGNS & GRAPHICS LIMITED	A	Engineering	CRO			1		
CURRAN TRAFFIC SYSTEMS LIMITED	A	Engineering	CRO					
Curtayne, Paul	A	Other	CEB	1				
CVS ON CDS LIMITED (SEBIC)	NA	Software	CRO			1		
CYBERMEDIA LIMITED	NA	Software	CRO			1		
Cynatel Ltd	A	Other	EI		1			
D P ENERGY IRELAND LIMITED	NA	Engineering	CRO			1		
D WALSH AND SONS MANUFACTURING LIMITED	NA	Manufacturing	CRO			1		
D.J. Bolger (Eng)	A	Engineering	CEB	1				
D.L. SIGNS LIMITED	NA	Engineering	CRO			1		
Dan Advertising Ireland	A	Delete	EI		1			
Dan Sugrue & Co. Ltd	A	Other	ShaDev			1		
Dataworks	A	Software	CEB	1				
DATAWORKS LIMITED	A	Software	CRO			1		
DBG Engineering Ltd	A	Engineering	CEB	1				
Dealer Mgt Systems Ltd	A	Software	EI		1			
Deise Metals	A	Engineering	CEB	1				
Delany, D & P, Ltd	A	Other	EI		1			

Delnac Limited	A	Print + Pack	EI		1				
DELTA CENTRE LIMITED	NA	Delete	CRO				1		
Demeter Standards	A	R + D & Laboratory	CEB	1					
DENIS BARRY CATERING LIMITED	NA	Food + Drink	CRO				1		
DENTAIT R & D LABORATORIES LIMITED	NA	R + D & Laboratory	CRO				1		
Derry O'Donovan Ltd	A	Food + Drink	CEB	1					
Des O'Callaghan	A	Other	CEB	1					
Design & Display Ltd	A	Software	CEB	1					
Design Plus	A	Software	CEB	1					
Dessi Lightning Protection Ireland Ltd	A	Engineering	EI						
Dexgreen Limited	A	Print + Pack	EI						
Deycom Ltd	A	Computers	CEB	1					
Diamanttek Tools Ltd	A	Engineering	EI						
DIBBLES LIMITED (Ballvmore House, Port na Blagh, Co Donegal)	NA	Food + Drink	CRO				1		
Diesel Injection Services	A	Engineering	CEB	1					
Diesenvale Ltd	A	Engineering	EI						
Digibiz	A	Software	EI						
DIGIBIZ LIMITED	A	Software	CRO				1		
DIGITAL PRESENCE LIMITED	NA	Software	CRO				1		
Dineen, Patrick	A	Other	CEB	1					
DOC Optical Co. Ltd	A	Engineering	EI						
Dunohue, J. Ltd	A	Delete	EI						
Doolan, John & Phil	A	Other	CEB	1					
Dooley Bros Engineering Ltd	A	Engineering	EI						
Dorman Manufacturers Ltd	A	Manufacturing	EI						
DOTEXE COMPUTING LIMITED	NA	Computers	CRO				1		
Douglas Electronic Systems Ltd	A	Electronics	EI						
Douglas Engineering	A	Engineering	EI						
DPS ENGINEERING INTERNATIONAL LIMITED	NA	Engineering	CRO				1		

DREAMWOOD FITTED FURNITURE (Bandon)	NA	Wood	CRO				1		
DRUM ENGINEERING LIMITED (Drumcollogher, Co. Limerick)	NA	Engineering	CRO				1		
D-SIGNS LIMITED	NA	Manufacturing	CRO				1		
Duggan Plastics Ltd	A	Plastics & Rubber	EI		1				1
Duggan Plastics Ltd	A	Plastics & Rubber	CEB	1					
Duggan Shonfitters Ltd	A	Manufacturing	CEB	1					
Duballow Aluminium & PVC Ltd	A	Engineering	CEB	1					
Dumar Teleservices Ltd	A	Telecomms	CEB	1					1
Dumar Teleservices T/A Momentum Marketing	A	Telecomms	EI		1				
Dungarvan Crystal Ltd	A	Glass	EI		1				
Dunhill Agriculture Eng	A	Engineering	CEB	1					
DUNLIR LIMITED	NA	Other	CRO				1		
Dunreidy Engineering Lts	A	Engineering	EI		1				
Dunstar Ltd	A	Manufacturing	CEB	1					
Dwyer Electrical Ltd	A	Engineering	EI		1				
DYNAMIC WINDOWS LIMITED	NA	Manufacturing	CRO				1		
DYNEA IRELAND LIMITED	NA	Chemicals	CRO				1		
E.C. Labels	A	Print + Pack	CEB	1					
Eamon Power	A	Other	CEB	1					
Ebiz Technology Ltd	A	Software	EI		1				
ECET INTERNATIONAL LIMITED	A	Software	CRO				1		
ECET NETWORKS LIMITED	A	Software	CRO				1		
ECET Laboratory (Part of ECET INT and ECET NETWORKS LTD)	A	Software	CEB	1					
ECOPLUS LIMITED	NA	Manufacturing	CRO				1		
Eddie Rockett Engineering	A	Engineering	CEB	1					
Edmond P. Hartv & Co. Ltd	A	Engineering	ShaDev				1		
Education Equipment	A	Manufacturing	CEB	1					
Educational and Study Equipment	A	Manufacturing	EI		1				
Edward Ryan & Co. Ltd	A	Plastics & Rubber	EI		1				

Edwards Engineering Ltd	A	Engineering	CEB	1					
Egan TL & Co. Ltd	A	Other	EI						
Eirfab Engineering	A	Engineering	EI						
Eirfloat Ltd	A	Manufacturing	CEB	1					
Electrical & Pump Services (EPS)	A	Manufacturing	EI						
ELEGANT SOFTWARE LIMITED	NA	Software	CRO				1		
Elickson Engineering Ltd	A	Engineering	EI						
Elickson Laser Cutting Ltd	A	Engineering	EI						
ELITE PACKAGING SUPPLIES LIMITED	NA	Print + Pack	CRO				1		
Ellard Technology Ltd	A	Electronics	EI						
ELPHI FISH PRODUCTS LIMITED	NA	Food + Drink	CRO				1		
Elwood P C Ltd	A	Other	EI						
Emblem Weavers Exports Ltd	A	Manufacturing	EI						
EMG Control Systems Ltd	A	Electronics	EI						
Engineering & Design limited	A	Engineering	EI						
Engineering & Moulding Tech	A	Engineering	EI						
Enviroclad Systems Ltd	A	Engineering	CEB	1					
Enviroclad Ltd & SOS Ltd	A	R + D & Laboratory	CEB	1					
Environmental Lab Services	A	R + D & Laboratory	CEB	1					
Environmental Quality Systems Ltd	A	R + D & Laboratory	ShaDev				1		
Envirotech Ltd	A	R + D & Laboratory	EI		1				
EQUISTOCK LIMITED	NA	Other	CRO				1		
E-Search Ltd	A	Software	EI		1				
ESI TECHNOLOGIES LIMITED	NA	Engineering	CRO				1		
ESTREAMS COMMUNICATIONS LIMITED	NA	Telecomms	CRO				1		
E-tegration Systems Ltd	A	Other	EI		1				
EU Bookings	A	Other	CEB	1					
EU COMPUTER STORAGE LIMITED	NA	Computers	CRO				1		
EU Profiles Ltd	A	Manufacturing	EI		1				

Eurobarrier	A	Other	EI		1				
Eurohase Ltd	A	Logistics	EI		1				
Eurodisel & Elec. Ltd	A	Engineering	EI		1				
EuroFab Technologies Ltd	A	Manufacturing	CEB	1					
Eurolang Ltd	A	Delete	ShaDev			1			
European Laboratories (Irl) Ltd	A	R + D & Laboratory	EI		1				
European Road Signs	A	Manufacturing	CLB	1				1	
EUROPEAN ROAD SIGNS LIMITED	A	Manufacturing	CRO				1		
Eurostyle Limited	A	Delete	EI		1				
EVERWIND LIMITED	NA	Delete	CRO				1		
EWOPHARMA LIMITED	NA	Pharmaceutical	CRO				1		
F & M Whelan Engineering Lt	A	Engineering	CEB	1					
F. & M. WHELAN MANUFACTURING LIMITED	NA	Manufacturing	CRO				1		
FARM AND INDUSTRIAL FABRICATIONS LIMITED	NA	Engineering	CRO				1		
Farran Technology Ltd	A	Electronics	EI		1				
Farrell Machinery Ltd	A	Engineering	EI		1				
FASTFORM RESEARCH LIMITED	NA	R + D & Laboratory	CRO				1		
Fastnet Technology Ltd	A	Software	EI		1				
FEACHTAS EALAION TEORANTA	NA	Delete	CRO				1		
FEILEASTRAM TEORANTA	NA	Delete	CRO				1		
Fenlon, Des (Industries Ltd ?)	A	Other	CEB	1					
Fermov Dolls Hnuses	A	Manufacturing	CEB	1					
Fiber-Tek Manuf Ltd	A	Manufacturing	CEB	1					
Fibre Optic Network Solutions (FONS) Ltd	A	Electronics	EI		1				
FIDE ENGINEERING LIMITED	NA	Engineering	CRO				1		
Fine Style Blinds	A	Manufacturing	CEB	1					
Finn. Paul Design & Disolv	A	Software	EI		1				
Fitzgerald Marine Ltd	A	Boat Build	CEB	1					
Fitzgibbon & Sons	A	Other	CEB	1					

FLANCARE (CLONMEL) DISTRIBUTION LIMITED	NA	Logistics	CRO				1		
Fleming, Tony & Sons	A	Delete	CEB	1					
Flexchem International Ltd	A	Manufacturing	EI		1				
FLEXHAVEN LIMITED	NA	Delete	CRO				1		
FII International Ltd	A	Delete	EI		1				
Flotek Limited	A	Engineering	EI		1				
Flvon Limited	A	Engineering	EI		1				
Foam Flex	A	Manufacturing	CEB	1					
Foley Mechanical Services Ltd	A	Engineering	EI		1				
Foley, Elaine	A	Other	CEB	1					
Food Hygiene Solutions Ltd	A	R + D & Laboratory	CEB	1					
FOOD-BRIDGE TECHNOLOGIES LIMITED	NA	Engineering	CRO				1		
Ford Electronics	A	Electronics	EI		1				
Foreign Exchange Co. of Ireland Ltd (FEXCO)	A	Other	EI		1				
Foreshadow Logic Ltd	A	Software	EI		1				
Fox Bros Engineering Limited	A	Engineering	EI		1				
Franmar Ltd T/A Denby Steel Precision Eng	A	Engineering	ShaDev			1			
Frentech Engineering	A	Engineering	EI		1				
FRONVILLE LIMITED	NA	Print + Pack	CRO				1		
Freefoam Manufacturing Ltd	A	Manufacturing	EI		1				
FUTON IRELAND LIMITED	NA	Other	CRO				1		
Future Kids Cork	A	Computers	CEB	1					
FUTURE PLASTICS TECHNOLOGY LIMITED	NA	Plastics & Rubber	CRO				1		
G & M Broderick Engineering	A	Engineering	CEB	1					
G J Electronics	A	Electronics	CEB	1					
G.H. Lett & Co	A	Delete	CEB	1					
Gabbett Industries Ltd	A	Other	EI		1				
Gabbett Industries Ltd	A	Other	CEB	1					
GALLARUS TEORANTA	NA	Other	CRO				1		1

Gap of Dunloe Industries	A	Delete	EI	1				
GENESIS TECHNOLOGIES 2000 LIMITED	NA	Telecomms	CRO			1		
Genexcel Irl Ltd	A	R + D & Laboratory	CEB	1				
Georges Street Technology	A	Other	EI	1				
Gercon Engineering Ltd	A	Engineering	EI	1				
Gerkros Ltd	A	Engineering	EI	1				
Gilroy Automation Ltd	A	Engineering	EI	1				
Glanmire Industries	A	Chemicals	EI	1				
Glanmire Precision	A	Engineering	EI	1				
Glass Fibre Products Ltd	A	Engineering	EI	1				
Glassworks	A	Glass	CEB	1				
Glee Dee Engineering	A	Engineering	CEB	1				
Glenbrook Engineering	A	Engineering	EI	1				
Glenpatrick Springwater	A	Food + Drink	EI	1				
GLOBAL HERB SUPPLIES (IRL) LIMITED	NA	Food + Drink	CRO			1		
Global Stainless Ltd	A	Engineering	EI	1				
Global Steel (Manuf) Ltd	A	Manufacturing	EI	1				
Globetech	A	Software	EI	1				
Goblin Ireland Ltd	A	Manufacturing	ShaDev			1		
GOGLOW LIMITED	NA	Other	CRO			1		
GOLDCROP LIMITED	NA	Delete	CRO			1		
GOLF TECHNOLOGY IRELAND LIMITED	NA	Delete	CRO			1		
Gosling Games	A	Manufacturing	CEB	1				
GPS Systems Ltd	A	Software	CEB	1				
Type and Graphics	A	Delete	CEB	1				
Graepel Perforators & Weavers	A	Manufacturing	EI	1				
Graphic Solutions Ltd	A	Other	CEB	1				
Grate Engineering	A	Engineering	CEB	1				
GREENHILLS TECHNOLOGY LIMITED	A	Manufacturing	CRO			1	1	

Greenhills Technology Ltd	A	Manufacturing	CEB	1					
Gregara Feeds Ltd	A	Delete	CEB	1					
GREYCOM TECHNOLOGY LIMITED	NA	Other	CRO			1			
Guerin Fabrication Ltd	A	Manufacturing	EI		1				
GULLIVER INFORES SERVICES LIMITED	NA	Delete (subsid)	CRO			1			
Guru Music Ltd	A	Other	ShaDev			1			1
Guru Music Ltd	A	Other	CEB	1					
GuruBooks.Com Ltd	A	Other	ShaDev			1			
Hammerauction.com Ltd	A	Software	EI		1				
Harding Cycles (Cork) Ltd	A	Computers	EI		1				
Harte Cast Ltd	A	Engineering	EI		1				
Harte Designs Ltd	A	Engineering	EI		1				
Harte, Oliver & Son Ltd	A	Engineering	EI		1				
Haulbowline Engineering	A	Engineering	EI		1				
Hawkdale Ltd	A	Electronics	CEB	1					
HEALY R. & D. LIMITED	NA	Other	CRO			1			
Hegarty Vehicles Ltd	A	Delete	EI		1				
HERITAGE IRISH CRYSTAL LIMITED	NA	Glass	CRO			1			
Hermitage Pedigree Pigs Ltd	A	Food + Drink	EI		1				
Highway Safety Development	A	Other	EI		1				
Hi-Power Ireland Ltd	A	Engineering	EI		1				
Hi-Spec Engineering Ltd	A	Engineering	EI		1				
Hi-Tech Computing	A	Computers	CEB	1					
HOLBAR LIMITED	NA	Other	CRO			1			
Holden Food Engineering Ltd	A	Engineering	EI		1				
Holden Metal and Aluminium works	A	Engineering	EI		1				
Home Computing Ltd	A	Computers	CEB	1					
Horgan Engineering	A	Engineering	EI		1				
Hnuse of Donohoe Ltd	A	Delete	EI		1				

HUGUENOT COMPANY LIMITED	A	Print + Pack	CRO				1	1		1
Huguenot Design	A	Print + Pack	CEB	1						
HW Fasteners	A	Manufacturing	CEB	1						
IWFS MICROMIST LIMITED	A	Other	CRO				1	1		
IWFS Micromist Ltd	A	Other	EI		1					
HYGIENIC CLADDING SYSTEMS LIMITED	NA	Manufacturing	CRO				1			
Hvnerion Energy Systems Ltd	A	Engineering	EI		1					
Hvtherm Packaging Ltd	A	Print + Pack	EI		1					
I.M.S. PUBLICATIONS LIMITED	NA	Print + Pack	CRO				1			
I.P. EUROPE LIMITED	NA	Plastics & Rubber	CRO				1			
ID 21 LIMITED	NA	Other	CRO				1			
Iglu Homestores Limited	A	Other	CEB	1						
Imago Alternatives Ltd	A	Manufacturing	CEB	1						
IMB Designs	A	Other	CEB	1						
IMES (IRELAND) LIMITED	NA	Other	CRO				1			
Impact Industries Ltd	A	Electronics	CEB	1						
IMPERIAL PRECISION ENGINEERING LIMITED	NA	Engineering	CRO				1			
Impulse Engineering Ltd	A	Engineering	EI		1					
Induchem Components Ltd	A	Chemicals	EI		1					
Industrial Interfaces	A	Software	CEB	1						
Info TV Ltd	A	Delete	CEB	1						
Inform Nutrition Ltd	A	Chemicals	EI		1					
Infoslv Ltd	A	Other	EI		1					
Infotech Ltd	A	Software	EI		1					
Innovation Enterprise Ltd	A	Other	EI		1					
Inox Engineering Ltd	A	Engineering	EI		1					
Impact Microelectronics (Irl) Ltd	A	Electronics	CEB	1						
INSIGHT WEB MARKETING LIMITED	NA	Software	CRO				1			
Integrated Control Solutions	A	Electronics	CEB	1						

International Data Processing Limited	A	Software	ShaDev		1			
InterWave Communications Ireland Ltd	A	Telecomms	ShaDev		1			
Irelands Eves.Com	A	Software	CEB	1				
Irfish Ltd	A	Food + Drink	EI		1			
Irish Energy Management Ltd	A	Engineering	EI		1			
Irish Industrial Fab Ltd	A	Engineering	EI		1			
Irish Lifting Equipment Ltd	A	Engineering	EI		1			
Irish Merchants Limited	A	Other	EI		1			
Irish Mobiles.com	A	Telecomms	CEB	1				
Irish Moulded Products	A	Engineering	EI		1			
Irish Pioneer Work (Fab) Ltd	A	Other	EI		1			
IRISH PUMPS & VALVES LIMITED	NA	Engineering	CRO			1		
Irish Skin Care Ltd	A	Chemicals	CEB	1				
Irish superior Safety Systems	A	Engineering	EI		1			
Irish Truck and Trailer Ltd	A	Manufacturing	ShaDev			1		
IT MANAGEMENT LIMITED	NA	Software	CRO				1	
Itrek Ltd	A	Other	ShaDev			1		
ITS Innovative Total Solutions	A	Software	EI		1			
Iveragh Co-Op Society Ltd	A	Delete	EI		1			
J.B. PACKAGING LIMITED	\	Print + Pack	CRO				1	
JB Packaging	A	Print + Pack	CEB	1				
J.G.S. Svstems Ltd	A	Software	CEB	1				
J.J. O'Connell & Sons	A	Other	EI		1			
Jacob & Finn (Swift Form Ltd)	A	Engineering	CEB	1				
JFN Investments Ltd (T/A Scout Software)	A	Software	EI		1			
Jim Power Engineering Ltd	A	Engineering	EI		1			
JJ O'Mahony Engineering	A	Engineering	CEB	1				
JOHN FOLEY GRAPHIC DESIGN LIMITED	NA	Software	CRO				1	
JOHN J. MURPHY WEAVERS LIMITED	NA	Textiles +Clothing	CRO				1	

John Kelly Marine	A	Bnat Build	EI	1				
John P Ivors	A	Other	CEB	1				
Juniper Food Sauces	A	Food + Drink	ShaDev		1			
Kalem Technologies	A	Electronics	CTB	1			1	
KALIM TECHNOLOGIES LIMITED	A	Electronics	CRO				1	
Kangtron Engineering Ltd	A	Engineering	EI	1				
Kanturk Hoiserv Ltd	A	Manufacturing	EI	1				
Kanturk Printers Ltd	A	Print + Pack	EI	1				
Kavfoam Woolfson Ltd	A	Software	EI	1				
KEEL WINDOWS LIMITED	NA	Manufacturing	CRO				1	
Keenan Richard & Co.	A	Manufacturing	EI	1				
KEENTIME LIMITED	NA	Other	CRO				1	
KEG SECURITIES TRALEE LIMITED	NA	Other	CRO				1	
Kelly Precision	A	Engineering	CEB	1				
Kelly, Marilyn Computer Activitv	A	Computers	CEB	1				
Kel-Tek Engineering Ltd	A	Engineering	EI	1				
Kemtron Ireland Ltd	A	Manufacturing	EI	1				
Kenmare Salmon Company	A	Food + Drink	EI	1				
Kent Stainless Ltd	A	Engineering	EI	1				
Kental Systems Ltd	A	Manufacturing	EI	1				
KERRY AER EXPRESS LIMITED	NA	Logistics	CRO				1	
Kerry Die Products Ltd	A	Engineering	EI	1				
Kerry Fashions	A	Textiles +Clothing	ShaDev		1			
Kerry Fish Ltd	A	Food + Drink	EI	1				
KILDERRY INSTRUMENTS LIMITED	A	Electronics	CRO				1	
Kilderry Instruments Ltd	A	Electronics	CTB	1				
KILFERA TECHNOLOGY LIMITED	NA	Electronics	CRO				1	
Kilkenny Cooling Systems Ltd	A	Engineering	EI	1				
Kilkenny Project Eng	A	Engineering	CEB	1				

Killarney Mineral Water Ltd	A	Food + Drink	EI	1				
Killarney Plastics Ltd	A	Plastics & Rubber	EI	1				
Killarney Precision Engineering	A	Engineering	EI	1				
KILLARNEY TECHNOLOGY INNOVATION LIMITED	NA	Engineering	CRO			1		
Killarney Welding Ltd	A	Engineering	EI	1				
KILLYNEIL DESIGNS LIMITED	NA	Software	CRO			1		
Kilmacsimon Boatyard	A	Boat Build	CEB	1				
KILMORE CLOTHING LIMITED	NA	Textiles +Clothing	CRO			1		
Kilmore Fish Company Ltd	A	Food + Drink	EI	1				
KILTY LURE AND TACKLE CO LTD	A	Manufacturing	CRO			1	1	
Kilty Lure Co Ltd	A	Manufacturing	EI	1				
KINEMATIK LIMITED	NA	Software	CRO			1		
KINGMOORE LIMITED	NA	Manufacturing	CRO			1		
KINSALE BREWING COMPANY LIMITED	NA	Food + Drink	CRO			1		
Kinsella Sign & Print Manuf	A	Print + Pack	CEB	1				
Klassic Socks Ltd	A	Textiles +Clothing	ShaDev		1			
KLEENTECH LIMITED	NA	Delete	CRO			1		
Klinge Ltd	A	Pharmaceutical	EI	1				
KRD Fisheries Ltd	A	Food + Drink	EI	1				
Kwik Seal Ltd	A	Manufacturing	CEB	1				
L D P S Ltd	A	Software	CEB	1				
LAFIA HILL LIMITED	NA	Other	CRO			1		
Lakefielde Technologies	A	Electronics	CEB	1				
LAKFIELD TECHNOLOGIES LIMITED	A	Electronics	CRO			1		
Lakefield Technologies Ltd	A	Electronics	IT					
Lakeshore Foods Ltd	A	Food + Drink	ShaDev		1			
Landtech Ltd	A	Pharmaceutical	ShaDev		1			
LEADING EDGE (IRELAND) LIMITED	NA	Engineering	CRO			1		
LEADMORE IRELAND LIMITED	NA	Food + Drink	CRO			1		

Iscan Technologies	A	Software	IT		1			1		1
LECAN TECHNOLOGIES LIMITED	A	Software	CRO				1			
Iscan Technology	A	Software	CEB	1						
Lee Engineering	A	Engineering	CEB	1						
Lee Engineering Co. Ltd	A	Engineering	EI		1					
LEEWAY FOODS (NOMINEES) LIMITED	NA	Food + Drink	CRO					1		
Lenchem Ltd	A	Other	EI		1					
LETICIA LIMITED	NA	Other	CRO				1			
LEVITAT	A	R + D & Laboratory	CEB	1						
LEYDONPORT LIMITED	NA	R + D & Laboratory	CRO				1			
Light Hardware Supplies	A	Engineering	CEB	1						
Link Technology	A	Software	CEB	1						
Lion Engineering Ltd	A	Engineering	EI		1					
Lisheen Toys Ltd	A	Manufacturing	CEB	1						
LISTAL LIMITED	A	Electronics	CRO				1		1	
Listal Ltd	A	Electronics	StruDev			1				
Lite Engineering Ltd	A	Engineering	EI		1					
Litho Press	A	Print + Pack	EI		1					
Lixnaw Fabrication	A	Manufacturing	CEB	1						
Lodgewood Engineering Ltd	A	Engineering	CEB	1						
LOG HOMES DIRECT LIMITED	NA	Manufacturing	CRO				1			
Logitech	A	Electronics	CEB	1						
LONGHAUL TECHNOLOGIES R & D LIMITED	NA	Engineering	CRO				1			
Looby Bros.	A	Other	EI		1					
Loughman Waste Equip Ltd	A	Engineering	CEB	1						
LP Plastics Limited	A	Plastics & Rubber	EI		1					
Lynplast Manufacturing Ltd	A	Manufacturing	EI		1					
M & J Engineering	A	Engineering	CEB	1						
Mac B Manufacturing Ltd	A	Electronics	EI		1					

MacAllister Engineering	A	Engineering	EI	1				
MACROVISION LIMITED	NA	Software	CRO		1			
Madec Computing Ltd	A	Computers	EI	1				
Madfor Trad. Com Ltd	A	Telecomms	CEB	1				
Magnetronics Ltd	A	Engineering	CEB	1				
MAIL MORPH MANUFACTURING LIMITED	NA	Manufacturing	CRO		1			
Mandops Irl Ltd	A	Other	EI	1				
Mann Engineering Ltd	A	Engineering	EI	1				
Manufacturing Assembly Aid Systems	A	Engineering	EI	1		1		
MANUFACTURING ASSEMBLY AID SYSTEMS Ltd	A	Engineering	CRO		1			
MANUFACTURING SERVICES (WATERFORD) LIMITED	A	Engineering	CRO		1	1		
Manufacturing Services Ltd	A	Engineering	CEB	1				
MANUFACTURING SOLUTIONS LIMITED	NA	Engineering	CRO		1			
Marchant, Neil P. Ltd	A	Other	EI	1				
Marika O'Sullivan Enamelling	A	Engineering	CEB	1				
Marindus Engineering Ltd	A	Engineering	EI	1				
Marine Systems Ltd	A	Boat Build	CEB	1				
Martin Byrne	A	Other	CEB	1				
MARTIN O'SULLIVAN ENGINEERING LIMITED	NA	Engineering	CRO		1			
Mary Cashinger Uniforms	A	Textiles + Clothing	EI	1		1		
MARY CASHINGER UNIFORMS LIMITED	A	Textiles + Clothing	CRO		1			
Mary Moynihan	A	R + D & Laboratory	CEB	1				
MatFlo Design	A	Other	CEB	1				
Matflo Engineering Ltd	A	Engineering	EI	1				
May Dub Ltd t/a Shamrock Lubricants	A	Chemicals	EI	1				
Maycon Mouldings Limited	A	Manufacturing	ShaDev		1			
McCarthy Studios	A	Delete	CEB	1				
McCulloch Ireland Limited	A	Manufacturing	ShaDev		1			
MCD Ltd	A	Software	EI	1				

McGill Environmental Solutions Limited	A	Engineering	ShaDev			1			1
McGill Environmental Solutions Limited	A	Engineering	ShaDev						
MCGILL ENVIRONMENTAL SOLUTIONS LIMITED	A	Engineering	CRO				1		
MCSIULS LIMITED	NA	Other	CRO				1		
McWilliam Sailmakers	A	Manufacturing	EI		1				
MDS Clonmel Ltd	A	Electronics	EI		1				
Medco	A	Engineering	CEB	1					1
Med-co Hospital Supplies Ltd	A	Engineering	EI		1				
Medentech Ltd	A	Pharmaceutical	EI		1				
Media Factory Multimedia	A	Software	EI		1				
Media Zoo Ltd	A	Software	EI		1				
MEDIASATELLITE IRELAND LIMITED	NA	Telecomms	CRO				1		
Mediplast Ltd	A	Plastics & Rubber	EI		1				
MENSHAR LIMITED	NA	Other	CRO				1		
MERRYS INTERNATIONAL LIMITED	NA	Food + Drink	CRO				1		
MERIDIAN PRODUCTIONS LIMITED	NA	Software	CRO				1		
MethanOGen Limited	A	Other	CEB	1					
Methuselah Stained Glass	A	Glass	CEB	1					
METLAB INTERNATIONAL (CORK) LIMITED	NA	Delete	CRO				1		
METLAB INTERNATIONAL (DUBLIN) LIMITED	NA	Delete	CRO						
Metro Ltd	A	Chemicals	ShaDev			1			
MEXGRADE LIMITED	NA	Delete	CRO				1		
Mica & Micanite Ltd	A	Electronics	EI		1				
Michael Walsh Ltd	A	Delete	EI		1				
Micro-Bio (Irl) Ltd	A	Chemicals	EI		1				
MICROCELLULAR SYSTEMS (IRELAND) LTD	A	Telecomms	CRO				1		
Microcellular Systems Ltd	A	Telecomms	ShaDev			1			
MICROFIX IRELAND LIMITED	A	Delete	CRO				1		1
Microfix Ltd	A	Delete	CEB	1					

Microtech Cleanroom Services Ltd	A	Manufacturing	CEB	1					
Middleton Marine Ltd	A	Boat Build	EI		1				
Millcove Engineering	A	Engineering	EI		1				
Millennium Information Systems Ltd	A	Software	CEB	1					
MILLER ENGINEERING LIMITED	NA	Engineering	CRO				1		
MILLSTREAM LIMITED	NA	Delete	CRO				1		
Milltech	A	Engineering	CEB	1					
Milltech Automation	A	Engineering	CEB						
Milltech Automation	A	Engineering	CEB						
Mill-Tech Toolmaking Services Ltd	A	Engineering	CEB						
MIL-TEK (C.E.S.) LIMITED	NA	Other	CRO				1		
Mixrite (Ireland) Ltd	A	Other	EI		1				
Mizen Head Enterprises	A	Textiles +Clothing	EI		1				
MJM Electronics Ltd	A	Electronics	ShaDev				1		
MLR Engineering Ltd	A	Engineering	CEB	1					
Mollov Group Ltd	A	Delete	EI		1				
Monahan, Eugene (S/W)	A	Software	CEB	1					
MONEX FINANCIAL SERVICES LIMITED	A	Other	CRO				1		1
Monex Financial Services Ltd	A	Other	EI		1				
MONEX TREASURY SERVICES LIMITED	NA	Other	CRO				1		
Morgan Precision Engineering	A	Engineering	CEB	1					1
MORGAN PRECISION ENGINEERING LIMITED	A	Engineering	CRO				1		
Morris Engineering Ltd	A	Engineering	EI		1				
MTBS Ltd	A	Delete	CEB	1					
Multi-Air Ltd	A	Engineering	EI		1				
MULTI-CURRENCY.COM FINANCIAL SERVICES LIMITED	NA	Other	CRO				1		
MUNITICH LIMITED	NA	Other	CRO				1		
Munster Co2 Ltd	A	Delete	CEB	1					
MUNSTER LABELS LIMITED	NA	Print + Pack	CRO				1		

Munster Marine Ltd	A	Boat Build	EI	1				
Munster Tool & Die Ltd	A	Engineering	CEB	1				
Munster Weighbridge Services Ltd	A	Engineering	CEB	1				
Murnhy Engineers Ltd	A	Engineering	EI	1				
Murnhy HL & FB Ltd	A	Textiles +Clothing	EI	1				
Murnhy, Christopher	A	Other	EI	1				
MURPHY'S ICE CREAM LIMITED	NA	Food + Drink	CRO			1		
Murray & Sons L	A	Other	CEB	1				
Murtec Engineering Ltd	A	Engineering	EI	1				
Mvco Sportsgear Limited	A	Manufacturing	EI	1				
MYRON GLASS LIMITED	NA	Glass	CRO			1		
Nadien Electronics	A	Electronics	CEB	1				
Nadura (Ireland) Ltd	A	Other	EI	1				
NANOCOMMS LIMITED	NA	Electronics	CRO			1		
NARWHAL LIMITED	NA	Other	CRO			1		
Nationl Bv-Products Ltd	A	Delete	EI	1				
Nationwide Vulcanising Ltd	A	Engineering	EI	1				
Nautical Enterprise Centre Ltd	A	Boat Build	EI	1				
Neligan & Sons	A	Other	CEB	1				
NETACTIVE SOLUTIONS LIMITED	NA	Software	CRO			1		
NETNOTE INTERNATIONAL LIMITED	NA	Software	CRO			1		
Nicola Field (Inventors' Garage)	A	Engineering	CEB	1				
Nikk & Catherine George	A	Other	CEB	1				
Noel O'Flynn Ltd	A	Delete	EI	1				
Nova Foods	A	Food + Drink	CEB	1				
NPMS MECHANICAL & ENGINEERING LIMITED	NA	Engineering	CRO			1		
Nutri Science Ltd	A	Chemicals	CEB	1				
Nutricare Ltd	A	Chemicals	EI	1				
Nutricia Ireland Ltd	A	Pharmaceutical	EI	1				

Nutricia Ireland Ltd	A	Pharmaceutical	EI						
Nutrio-Bio Ltd	A	Pharmaceutical	EI						
NUTRISOLV IRELAND LIMITED	NA	Other	CRO				1		
O.M.C COMMUNICATIONS LIMITED	NA	Telecomms	CRO				1		
O.S. Sheet Metal Co.	A	Engineering	EI						
O'Brien Engineering Works	A	Engineering	EI						
O'Connell & Quinn Ltd	A	Engineering	EI						
O'Connor Communications	A	Telecomms	ShaDev				1		
O'Connor Hygiene & Mkt	A	Engineering	CEB	1					1
O'Connor Hygiene Ltd	A	Engineering	EI						
O'Donnell Control Sys	A	Electronics	CEB	1					
O'Donnell William	A	Other	EI						
O'Donoghue Electrical Automation Ltd	A	Engineering	CEB	1					
O'Donovan Engineering	A	Engineering	EI						
O'Flynn Forklifts Ltd	A	Engineering	EI						
O'Hagan, Patrick (Network Communications ?)	A	Telecomms	CEB	1					
O'Keefe Engineering	A	Engineering	EI						
O'Keefe Manufacturing Ltd	A	Manufacturing	EI						
O'Leary, Aengus	A	Other	CEB	1					
O'Sullivan Darcy Engineering Lt	A	Engineering	EI			1			
O'Sullivan, Donal P. (Tele Ser)	A	Telecomms	CEB	1					
O'Sullivan's Marine Limited	A	Boat Build	ShaDev				1		
OCEANGIFT LIMITED	NA	Other	CRO				1		
OCG CONVEYOR SYSTEMS LIMITED	A	Engineering	CRO				1		1
OCG Eng Services Ltd	A	Engineering	CEB	1					
Odon Engineering	A	Engineering	CEB	1					
Oglesby and Butler Ltd	A	Electronics	EI			1			
OHM SYSTEMS IRELAND LIMITED	A	Other	CRO				1		1
OHM Technologies	A	Other	CEB	1					

Oktao International Ltd	A	Electronics	CEB	1					
Olin Electronics	A	Computers	CEB	1					
Ollrich Ltd	A	Other	EI		1				
Omnilux Ireland	A	Other	CEB	1					
ONG Automation	A	Engineering	CEB	1					
Openeye Productions Ltd	A	Delete	CEB	1					
OPTICAL METROLOGY INNOVATIONS Ltd	NA	Engineering	CRO				1		
ORBITAL BUSINESS SOLUTIONS LIMITED	NA	Other	CRO				1		
ORCHARD ENGINEERING LIMITED	NA	Engineering	CRO				1		
ORHT LIMITED	NA	Other	CRO				1		
ORICOM LIMITED	NA	Other	CRO				1		
Ormund Soft Furnishings	A	Manufacturing	CEB	1					
ORRIS COMMUNICATIONS LIMITED	NA	Telecomms	CRO				1		
OSM Design	A	Software	CEB	1					
OVERTOOM LIMITED	NA	Software	CRO				1		
P & D Crotty	A	Manufacturing	CEB	1					
P.C. SYSTEMS LIMITED	NA	Computers	CRO				1		
PACE Electronics Ltd	A	Electronics	CEB	1					
PACE TECHNOLOGY LIMITED	A	Electronics	CRO				1		
Pace Technology Ltd	A	Electronics	EI		1				
Pacific S/W Solutions	A	Software	CEB	1					
Paddy Denby Engineering Ltd	A	Engineering	EI		1				
Padmore and Barnes	A	Delete	EI		1				
Pagannini Ice-Cream Ltd	A	Food + Drink	EI		1				
PALADIN ENGINEERING LIMITED	NA	Engineering	CRO				1		
Palmer Precision	A	Engineering	CEB	1					
Paradise Flowers	A	Delete	CEB	1					
PARK BY PHONE LIMITED	NA	Software	CRO				1		
Parmac Engineering	A	Engineering	EI		1				

Pat McSweeney Engineering Ltd	A	Engineering	CEB	1					
Patrick Duggan (Country Style Cookers)	A	Manufacturing	CEB	1					
PB Machine Tech Ltd	A	Engineering	EI	1					
PCAS (Ed) Ltd	A	Engineering	EI	1					
Pedersen Engineering Ltd	A	Engineering	EI	1					
Pedersen Focus	A	Software	CEB	1					
PERELACHAISE LIMITED	NA	Computers	CRO			1			
Peripheral Vision	A	R + D & Laboratory	CEB	1					
Phoenix Peripherals Ltd	A	Computers	EI	1					
Pierce Engineering Ltd	A	Engineering	EI	1					
Pinewood Laboratories Ltd	A	Pharmaceutical	EI	1					
PLANNET 21 COMMUNICATIONS LIMITED	NA	Telecomms	CRO			1			
Plant Technology Ltd	A	R + D & Laboratory	EI	1					
Plasma Ireland Ltd	A	Electronics	EI	1					
Podiatry Products Ltd	A	Other	CEB	1					
POLAR ICE LIMITED	NA	Manufacturing	CRO			1			
Pole Covers Ltd	A	Manufacturing	CEB	1					
POLLUTION CONTROL SYSTEMS LIMITED	A	Engineering	CRO			1			
Pollution Control Systems Ltd	A	Engineering	EI	1					
Portmagee Seafoods	A	Food + Drink	EI	1					
Post Formed Systems	A	Engineering	CEB	1					
Powder Process Systems Ltd	A	Engineering	CEB	1					
POWER LINK LIMITED	NA	Engineering	CRO			1			
PPI Adhesives	A	Chemicals	EI	1					
PR Eurochem	A	Chemicals	EI	1					
PR EuroChem	A	Chemicals	CEB	1					
PRECISION COMPONENTS LIMITED	NA	Engineering	CRO			1			
Precision Sundials	A	Engineering	CEB	1					
Preference Products (Cork) Ltd	A	Manufacturing	EI	1					

Premier Plastice Ltd	A	Plastics & Rubber	EI	1				
Pressure Hydraulics Ltd	A	Engineering	EI	1				
Pressure Welding Co. Ltd	A	Engineering	ShaDev		1			
Prince August Limited	A	Manufacturing	EI	1				
PROCESS AND ENERGY EQUIPMENT LIMITED	NA	Engineering	CRO			1		
PROCHEM ENGINEERING LIMITED	NA	Engineering	CRO			1		
PROGENEX LIMITED	NA	Other	CRO			1		
Proscen Engineering Ltd	A	Engineering	EI	1			1	
PROSCON ENVIRONMENTAL LIMITED	A	Engineering	CRO			1		
Proteus Solutions	A	Software	EI	1				
Provac Systems	A	Manufacturing	CEB	1				
PRP (Irl) Ltd	A	Plastics & Rubber	EI	1				
PSE POWER LIMITED	NA	Engineering	CRO			1		
PT Technologies Europe	A	Electronics	EI	1				
Pulselearning Ltd	A	Software	ShaDev		1			
Pulselearning Ltd	A	Software	ShaDev					
PURE-TECH LIMITED	NA	Engineering	CRO			1		
QC Logistics	A	R + D & Laboratory	CEB	1				
QC LOGISTICS LIMITED	A	R + D & Laboratory	CRO			1		
O-CELL LIMITED	NA	Other	CRO			1	1	
O-CELL LIMITED	NA	Other	CRO					
O-CELL LIMITED	NA	Other	CRO					
OFF Ltd	A	Manufacturing	EI	1				
Q Lab	A	R + D & Laboratory	CEB	1				
Q LAB LIMITED	A	R + D & Laboratory	CRO			1		
QUALCERAM SHIRES PLC	NA	Manufacturing	CRO			1		
Quality Automation Ltd	A	Engineering	EI	1				
QUALITY CARE LIMITED	NA	Software	CRO			1		
Quality Plastics	A	Plastics & Rubber	EI	1				

QUALITY PLASTICS LIMITED	NA	Plastics & Rubber	CRO			1			
Quartz Technologies	A	Other	CEB	1					
Quest International Ireland Ltd	A	Software	EI		1				
Qumas Software Ltd	A	Software	EI		1				
R.A. Merrv & Co. Limited	A	Food + Drink	CEB	1					
Radcom Ltd	A	Other	EI		1				
Radius Technologies	A	Software	CEB	1					
Radley Engineering Ltd	A	Engineering	EI		1				
RAIDTEC (RESEARCH & DEVELOPMENT) LIMITED	A	Engineering	CRO			1	1		
Raidtex Corp Ltd	A	Engineering	UI		1				
RAIDTEC CORPORATION LIMITED	A	Engineering	CRO						
RAVEN DESIGN LIMITED	NA	Print + Pack	CRO			1			
Raven Inter Technologies	A	Other	CEB	1					
Recover X	A	Manufacturing	UI		1				
RECOVERX LIMITED	NA	Manufacturing	CRO			1			
Red Barn Publishing	A	Print + Pack	CEB	1					
Red Sail Kilmore Ltd	A	Software	EI		1				
REDGEWOOD MAIL ORDER LIMITED	NA	Delete	CRO			1			
Redhotwire	A	Software	EI		1				
REDHOTWIRE LIMITED	NA	Software	CRO			1			
Redmond Manufacturing Ltd	A	Manufacturing	CEB	1					
Redmond, Dermot (Light Eng)	A	Engineering	CEB	1					
Reflex Magnetics Ireland Ltd	A	Electronics	CEB	1					
REFLEXITE IRELAND LIMITED	NA	Manufacturing	CRO			1			
RENSEN ENGINEERING SERVICES LIMITED	NA	Engineering	CRO			1			
Resource Systems Ltd	A	Other	CEB	1					
Re-Verber-Ray Ltd (RVR)	A	Manufacturing	EI		1				
Richard Allen & Sons	A	Other	EI		1				
RIDGEVIEW LIMITED	NA	Manufacturing	CRO			1			

RISKFORCE LIMITED	NA	Software	CRO				1		
RIVER RUSH OYSTERS LIMITED	NA	Food + Drink	CRO				1		
RKT IRELAND LIMITED (www.rkt.ie)	NA	Plastics & Rubber	CRO				1		
Road Tech Ireland Ltd	A	Software	CEB	1					
Robert Eadie & Sons Ltd	A	Textiles +Clothing	EI						
ROCHE MOULDINGS (MANUFACTURING) HUGGINSTOWN LIMITED	NA	Manufacturing	CRO				1		
Rochester Midland Industries Ltd	A	Other	EI						
Rodine Software (now Harvest Software)	A	Software	CEB	1					
Ro-Ra (Irl) Ltd	A	Other	CEB	1					
Ross Lee & Associates	A	Other	CEB	1					
Rosslare Ship Repair Ltd	A	Boat Build	EI						
Rossmore Engineering Ltd	A	Engineering	EI						
Rathbun Manufacturing	A	Manufacturing	EI						
ROTHBURY MANUFACTURING LIMITED	A	Manufacturing	CRO				1		
Rothwell (Jos)(Engineer)?	A	Engineering	CEB	1					
Rothwell Engineering Ltd	A	Engineering	EI						
Rotospiral Ltd	A	Engineering	EI						
Roy Tassell Associates Ltd	A	Other	EI						
Rumney Crane Engineering	A	Engineering	CEB	1					
Rvnhart R+D Ltd	A	Engineering	EI						
S.J. Filhol Ltd	A	Other	EI						
S.M.F. ENGINEERING LIMITED	NA	Engineering	CRO				1		
SACHET WIPES LIMITED	NA	Manufacturing	CRO				1		
Safecare Technologies Ltd	A	Manufacturing	EI						
Sameo Engineering Services	A	Engineering	EI						
SamCo Engineering Services Ltd	A	Engineering	CEB	1					
Sarco Healthcare	A	Pharmaceutical	EI						
Sarco Limited	A	Pharmaceutical	CEB	1					
Sark International Ltd	A	Manufacturing	EI						

SAVOUR THE FLAVOUR LIMITED	NA	Food + Drink	CRO				1		
Shsoft Limited	A	Software	CEB	1					
Scholas Tech Media Ltd	A	Software	CEB	1					
Scientific Process Development Services (SPDS)	A	Engineering	ShaDev			1			
Scope-REHAB Ltd	A	Other	EI		1				
Scott Tools Ltd	A	Engineering	EI		1				
Sculptured Crystal Ltd	A	Glass	EI		1				1
Sculptured Crystal Ltd	A	Glass	CEB	1					
Seabrook Research Ltd	A	Software	EI		1				
Seafield Technical Textiles	A	Textiles +Clothing	EI		1				
Seamar Limited	A	Software	EI		1				
SELECT FOODS AND PACKAGING LIMITED	NA	Food + Drink	CRO				1		
SENATOR MANUFACTURING LIMITED	NA	Manufacturing	CRO				1		
SENSORY LABS LIMITED	NA	R + D & Laboratory	CRO				1		
SEPAM LIMITED	NA	Engineering	CRO				1		
Setanta Packaging	A	Print + Pack	CEB	1					
SFL Engineering Ltd	A	Engineering	EI		1				
Shaftco Ltd	A	Other	CEB	1					
Shannonvale Eng	A	Engineering	CEB	1					
Shannonvale Fibre Tubes	A	Engineering	CEB	1					
Sharewatch Ltd	A	Software	CEB	1					
Shin Co. Ltd	A	Electronics	EI		1				
SHOWERLUX (IRELAND) LIMITED	NA	Manufacturing	CRO				1		
Showersalls Limited	A	Manufacturing	ShaDev			1			
Silver Pail Dairy Limited	A	Food + Drink	EI		1				
Silver Shield Engine	A	Engineering	CEB	1					
Simbiosys	A	Other	CEB	1					
SIMBIOSYS LIMITED	A	Other	CRO				1		
SIMPLY SOUPS LIMITED	NA	Food + Drink	CRO				1		1

SIG PRECISION ENGINEERING LIMITED	NA	Engineering	CRO				1		
SK HEATPUMPS IRELAND LIMITED	NA	Engineering	CRO				1		
Skinny International Ltd	A	Textiles +Clothing	ShaDev			1			
SLATER PRINT LIMITED	NA	Print + Pack	CRO				1		
Slue, Patrick Ltd	A	Other	EI			1			
SME Engineering	A	Engineering	CEB	1					
SmisCo Ltd	A	Engineering	CEB	1					
Softex Consulting & S/W Ltd	A	Software	CEB	1				1	
SOFTEX CONSULTING & SOFTWARE LIMITED	A	Software	CRO				1		
SOFTOUCH COMPUTER SERVICES LIMITED	A	Computers	CRO				1	1	
Softouch Technologies	A	Computers	CEB	1					
Solacrest Technology Ltd	A	Other	EI			1			
SOLAS SYSTEMS LIMITED (021-4319060 Ltd)	A	Other	CRO				1	1	
Solas Systems Ltd Camsol Ltd	A	Other	EI			1			
Solonvale Limited	A	Engineering	EI			1			
Somerby Ltd	A	Plastics & Rubber	EI			1			
South East Computer Services	A	Computers	CEB	1					
SOUTH EAST FURNITURE MANUFACTURING LIMITED	NA	Manufacturing	CRO				1		
SOUTH EAST ROLLER DOORS LIMITED	NA	Manufacturing	CRO				1		
South Eastern Enterprise Ltd	A	Manufacturing	EI						
South Eastern Food Enterprises	A	Food + Drink	EI						
Southern Electronics Ltd	A	Electronics	EI						
Southern Mechanical Installation Services	A	Engineering	EI						
Southern Signs Ltd	A	Manufacturing	EI						
Southern Tapes and Packaging	A	Print + Pack	EI						
SP Heat Transfers	A	Print + Pack	CEB	1					
Specific Software Accounting Packages	A	Software	EI			1			
SPOKESoft BUSINESS COMPONENTS	NA	Software	CRO				1		
SPOKESoft BUSINESS COMPONENTS LIMITED	NA	Software	CRO						

Spothouse Ltd	A	Manufacturing	EI	1				
Spothouse Ltd	A	Manufacturing	CEB	1				
SPORTSTURF SOLUTIONS LIMITED	A	Other	CRO			1	1	
Sportsturf Solutions Ltd	A	Other	CTB	1				
Spring Feeders	A	Engineering	EI	1				
Stainless Services Ltd	A	Engineering	EI	1				
Stamina Tools Ltd	A	Engineering	EI	1				
Stapleton Engineering	A	Engineering	EI	1				
STAR BOUNCING CASTLES LIMITED	NA	Manufacturing	CRO			1		
Star Seafood's Ltd	A	Food + Drink	EI	1				
Statistical Solutions Ltd	A	Software	EI	1				
Steel & Company Ltd	A	Other	EI	1				
Steelhaven Sheeting	A	Engineering	CEB	1				
Stella Dorados Ltd	A	Telecomms	CEB	1				
Stera Lining	A	Other	CEB	1				
STL (RESEARCH & DEVELOPMENT) LIMITED	NA	Engineering	CRO			1		
StokerYale Ltd	A	Electronics	EI	1				
Storesack Ltd	A	Other	EI	1				
SUCCINCT MEDIA SERVICES LIMITED	NA	Software	CRO			1		
SUIR M.E.C. LIMITED	NA	Engineering	CRO			1		
Suir Precision Engineering	A	Engineering	CEB	1				
Suntas Technologies Ltd	A	Software	EI	1				
Surelite Engineering	A	Engineering	CEB	1				
Swagematic Ltd	A	Other	EI	1				
SWIFT JOINERY LIMITED	NA	Manufacturing	CRO			1		
Sygnus Technology Ltd	A	Software	EI	1				
Systems Optimisation Ltd	A	Other	CEB	1				
T & T Precision	A	Engineering	CEB	1				
T.C. DESIGN LIMITED	NA	Software	CRO			1		

T.M.F. Ltd	A	Plastics & Rubber	EI	1				
Tanco Engineering Ltd	A	Engineering	EI	1				
Tara Cabinetmakers Ltd	A	Manufacturing	EI	1				
Tara Tissues Ltd	A	Manufacturing	EI	1				
TASK Software	A	Software	CEB	1				
Tawnagh Ltd	A	Delete	EI	1				
Tech Sources Manufacturing	A	Electronics	EI	1				
Technical Coatings Ltd	A	Engineering	CEB	1				
Techniform (Waterford) Ltd	A	Engineering	EI	1				
Tegan Innovatnns Ltd	A	Other	CEB	1				
TEK-KON DESIGN LIMITED	NA	Other	CRO			1		
Tektron Ltd	A	Electronics	CEB	1				
TELEMARKETING HOLIDAYS LIMITED	NA	Software	CRO			1		
Teschem Engineering Ltd	A	Engineering	EI	1				
TEXEL SERVICES LIMITED	NA	Delete	CRO			1		
THE IRISH SOAP AND CANDLE COMPANY LTD	NA	Manufacturing	CRO			1		
THE MILL RECORDING & T.V. STUDIOS LIMITED	NA	Engineering	CRO			1		
The Science Works Ltd	A	R + D & Laboratory	CEB	1				
The Science Works	A	R + D & Laboratory	ShaDev			1		
THE SCIENCEWORKS LIMITED	A	R + D & Laboratory	CRO			1		
Thermoframe Ireland	A	Manufacturing	EI	1				
Thermoframe Ireland Ltd	A	Manufacturing	CEB	1				
Thompson Engineering	A	Engineering	EI					
Thomsons Air Systems	A	Engineering	EI					
Thorpe, Peter	A	Other	CEB	1				
Tim Crowley Ltd	A	Engineering	EI					
Timmons Engineering	A	Engineering	CEB	1				
Timmons Engineering Ltd	A	Engineering	EI					
Timothy Nagle & Sons	A	Other	EI					1

Tipperary Crystal	A	Glass	EI	1				
Tipperary Fabrication Limited	A	Engineering	ShaDev		1			
Tipperary Organic Ice Cream	A	Food + Drink	CEB	1				
Tivoli Spinners Ltd	A	Textiles +Clothing	EI		1			
Tobar Software	A	Software	CEB	1				
Tobin Engineering Ltd	A	Engineering	CEB	1				
Tom Sheehan Manufacturing	A	Manufacturing	EI		1		1	
TOM SHEEHAN MANUFACTURING LIMITED	A	Manufacturing	CRO			1		
Tony Garvey (Electrical) Ltd	A	Engineering	EI		1			
TORC ENGINEERING LIMITED	A	Engineering	CRO			1		
Torc Precision Engineering	A	Engineering	EI		1			
TOTAL IRONMONGERY SOLUTIONS LIMITED	NA	Engineering	CRO			1		
Touchscreen Technology	A	Software	CEB	1				
Tower View Engineering	A	Engineering	CEB	1				
Traction Tyres Ltd	A	Manufacturing	CEB	1				
Trade Signals Corp. Ltd.	A	Software	EI		1			
Trag Knitwear	A	Textiles +Clothing	EI		1			
Tranetics (Tuadh Technologies)	A	Software	EI		1			
TRANSISTOR DEVICES CARRIGTWOHILL	NA	Electronics	CRO			1		
Treatment Systems Ltd	A	Engineering	EI		1			
Trespan Ltd	A	Textiles +Clothing	EI		1			
Triace Limited	A	Manufacturing	EI		1			
TRIARCHAIC TECHNOLOGIES LIMITED	NA	Electronics	CRO			1		
Trident Industrial Safety Ltd	A	Software	EI		1			
Trident Technology Ltd	A	Computers	EI					
True Temper Ltd	A	Engineering	EI		1			
Tuadh Technologies	A	Software	CEB	1				
Tube Rollers Ltd	A	Engineering	EI		1			
Tully (P) & Sons Ltd	A	Delete	CEB	1				

TURBO ENERGY INTERNATIONAL LIMITED	NA	Engineering	CRO				1		
Tumex Ltd	A	Engineering	EI		1				
TUMTECH ENGINEERING LIMITED	A	Engineering	CRO				1	1	
TumTech Engineering Ltd	A	Engineering	CEB	1					
Tvcor Environmental Ltd	A	Engineering	CEB	1					
Tyre Threads	A	Manufacturing	CEB	1				1	
TYRE TREADS (MANUFACTURING) LIMITED	A	Manufacturing	CRO				1		
Tyresoles Ltd	A	Manufacturing	EI		1				
UBIQUITY SOLUTIONS LIMITED	NA	Other	CRO				1		
Union Crafts	A	Delete	EI		1				
Uniprint	A	Print + Pack	CEB	1					
Unique Perspectives Lt	A	R + D & Laboratory	CEB	1					
UpMarket Communications	A	Other	CEB	1					
Valda Wolfe	A	Manufacturing	CEB	1					
Valentia Industries Limited	A	Plastics & Rubber	EI		1				
Valentia Marine Ltd	A	Boat Build	EI		1				
Value Engineering/Value Tech	A	Engineering	EI		1				
VALUETONER LIMITED	NA	Delete	CRO				1		
Valve Services Ltd	A	Engineering	EI		1			1	
VALVE SERVICES MANUFACTURING Ltd	A	Engineering	CRO				1		
Valwin Ltd	A	Other	EI		1				
Van Halen Limited	A	Other	EI		1				
Vee Industries Ltd	A	Electronics	EI		1				
Velox Engineering	A	Engineering	CEB	1					1
Velox Ltd	A	Engineering	EI		1				
VICEROY LIMITED	NA	Manufacturing	CRO				1		
Vircoms Ltd	A	Software	CEB	1					
Vistech Ltd	A	Software	EI		1				1
Vistech Software	A	Software	CEB	1					

Visual Image Display	A	Software	CEB	1					
VIVANOVA LIMITED	NA	Other	CRO			1			
VR Visuals Ltd	A	Computers	CEB	1					
WISE Ltd	A	Computers	CEB	1					
Walsh Electrical	A	Engineering	EI		1				
Walsh Natural Fruit Juices Ltd	A	Food + Drink	CEB	1					
Walsb Western Manufacturing	A	Manufacturing	EI		1				
Ward Gas Manuf. Products	A	Manufacturing	EI		1				
WARDROP TECHNICAL SERVICES LIMITED	NA	Other	CRO			1			
Warr Technologies Ltd	A	Software	CEB	1					
Waterford Bronze Castings	A	Engineering	CEB	1					
Waterford Castings Ltd	A	Engineering	EI		1				
Waterford Graphics	A	Software	CEB	1					
Waterford Hide & Skin Ltd	A	Manufacturing	CEB	1					
Waterford Ind Maintenance	A	Engineering	CEB	1					
Waterford Internet Centre	A	Software	CEB	1					
Waterford Metal Industries Ltd	A	Engineering	EI		1				
Waterford Packaging	A	Print + Pack	CEB	1					
Waterford Plating Ltd	A	Engineering	EI		1				
WATERFORD SWIFT PRINT LIMITED	NA	Print + Pack	CRO			1			
Waterford Tool Ltd	A	Engineering	EI		1				
Watermans Printers Ltd	A	Print + Pack	EI		1				
Web IT Ltd	A	Software	CEB	1					
WERRITE LIMITED	NA	Software	CRO			1			
Weldon Plastic Fabrications	A	Plastics & Rubber	EI		1				
WEST CORK STAINLESS STEEL FABRICATION Ltd	NA	Engineering	CRO			1			
WEXFORD BEER LIMITED	NA	Food + Drink	CRO			1			
Wexford Electronix Ltd	A	Electronics	EI		1				
Wexford Quality Foods Ltd	A	Food + Drink	EI		1				

Wexford Weaving Ltd	A	Textiles +Clnthng	EI		1				
Wexsoft	A	Software	CEB	1					
WEXWIND LIMITED	NA	Electronics	CRO			1			
WHARTON COMMUNICATIONS LIMITED	NA	Telecomms	CRO			1			
Whelan Daniel Engineering Works	A	Engineering	EI		1				
Whelan, F & M Engineering Ltd	A	Engineering	EI		1				
William Kinsella Ltd	A	Textiles +Clothing	EI		1				
Willis Engineering Ltd	A	Engineering	CEB	1					
WILLISON ENGINEERING LIMITED	NA	Engineering	CRO			1			
Willowcresce Ltd	A	Other	EI		1				
WINC Ltd	A	Software	CEB	1					
WIND-GEN LIMITED	NA	Engineering	CRO			1			
Wireless in Motion	A	Software	CEB	1					
Wiztec Ltd	A	Software	EI		1				
WONDERDENE (IRELAND) LIMITED	NA	Other	CRO			1			
Wordtrax	A	Delete	CEB	1					
WRAPRITE LIMITED	NA	Print + Pack	CRO			1			
Wright Stock Control Services	A	Software	CEB	1					
XIAM LIMITED	NA	Software	CRO			1			
Yellow House Designs L	A	Software	CEB	1					
Youngfield Workshop	A	Delete	CEB	1					
ZEDA IRELAND LIMITED	NA	Software	CRO			1			
ZENITH SOLUTIONS LIMITED	NA	Software	CRO			1			
			TOTAL	338	457	47	315	59	29 1064

Appendix 3

MNI's closures in South East and South West Ireland between 1990 and 2001

Year	Multinational	Sector	Location	South East	South West	Job Loss	
1990	Vieslvs Ltd	Textiles	Waterford	1		N/A	
	Emerald Software Ltd	Software	Waterford	1		N/A	
	Eldora Textile Ltd	Textiles	Cork		1	N/A	
	Sunbeam Ltd	Textiles	Cork		1	N/A	
	Modular Computer Systems (Ireland) Ltd	Engineering	Cork		1	N/A	
	Bionord Natural Products	Software	Cork		1	N/A	
	SBT International Ltd	Software	Cork		1	N/A	
	Kiddi-Proof (Ireland) Ltd	Plastics & Rubber	Kerry		1	N/A	
	1991	FEI Ltd	Manufacturing	Carlow	1		N/A
		Bremer Framemaker	Wood products	Waterford	1		N/A
BEL Fuse Ltd		Manufacturing	Waterford	1		N/A	
A.W. Faber Castell (Irl) Ltd		Manufacturing	Cork		1	N/A	
Killamey Electronics Ltd		Electronics	Kerry		1	N/A	
Sysgen Ltd		Engineering	Cork		1	N/A	
Schierholz Software Processing Ltd		Software	Cork		1	N/A	
1992	Digital Equipment International	Electronics	Tipp Sth	1		350	
	Raytex Ltd	Paper products	Waterford	1		N/A	
	Measurex (Ireland) Ltd	Electronics	Waterford	1		N/A	
	ABS Pumps	Manufacturing	Wexford	1		N/A	
	Goulding Fertilisers	Chemicals	Cork			N/A	
	Youghal Carpets	Textiles	Cork			N/A	
	Measurex	Software	Cork			N/A	
	Alcatel (Ireland) Ltd	Electronics	Cork			N/A	
	Western Digital	Electronics	Cork			N/A	
	Tytex Technical Textiles	Textiles	Cork			N/A	
	Stork Industrial Contractors	Engineering	Cork			N/A	
	1993	CorkCeramics Dental	Pharma/H'care	Cork			2
		Polytron Ireland	Electronics	Cork			24
Schwarzhaupt Ltd.		Pharma/H'care	Cork			25	
Fortstewart Ltd.		Clothing	Cork			35	
The Boeing Company		Int'l Services	Cork			27	
Kilkenny Envelopes		Print/Packaging	Kilkenny	1		25	
Cashel Textiles Ltd.		Textiles	Tipp Sth	1		4	
Wexmann Trousers		Clothing	Wexford	1		107	
1994		Lysia Ltd.	Int'l Services	Cork		1	2
	Sea Surveys Ltd.	Int'l Services	Cork		1	10	
	John Brown Eng	Int'l Services	Kilkenny	1		23	
	Seton Acquisition	Engineering	Tipp Sth	1		13	
	Brandner Micro	Electronics	Wexford	1		23	
1995	Bryant Rubber	Engineering	Cork			5	
	Chesterton Int'l	Engineering	Cork			22	
	Met Life Eireann	Int'l Services	Cork			146	
	Pretty Polly	Clothing	Kerry			172	
1996	Holland Yacht Design	Int'l Services	Cork			6	
	Bantry Bridle Ltd.	Consumer Prods	Cork			8	
	Concurrent Computer	Electronics	Cork			18	
	Hazelden Education	Int'l Services	Cork			3	
	Masti Kure Products	Pharma/H'care	Cork			1	
	Ireprod Ltd.	Consumer Prods	Kerry			53	
	Card Technology	Print/Packaging	Kilkenny	1		46	

	Mass Mutual	Int'l Services	Tipp Sth			52
	Tambrand Ireland Ltd.	Pharma/H'care	Tipp Sth			225
	HIS Ltd	Engineering	Waterford			17
	Waterford Engineers	Engineering	Waterford			6
	Dalton Supplies Ltd.	Print/Pack'ing	Wexford			10
	Infocentre Ltd.	Int'l Services	Wexford			8
1997	Heinz Haunt	Pharma/H'care	Cork			1
	Neutron Technology	Int'l Services	Cork			18
	CARG	Int'l Services	Cork			6
	Irish Crown Cork	Pharma/H'care	Cork			79
	Quark Ireland Ltd.	Int'l Services	Cork			45
	Sea Rav Boats	Consumer Prods	Cork			112
	Snap-On Equipment	Engineering	Cork			37
	McCulloch (Ireland) Ltd	Consumer Products	Kerry			N/A
	Schiesser (Carrick)	Clothing	Tipp Sth	1		110
1998	Ball, David (Irl.) Ltd.	Building Products	Cork			3
	Klonman International Ltd	Polyester Fabric	Kerry			N/A
	Mitsumi Ireland Ltd.	Electronics	Cork			76
	Renaissance Reserv.	Int'l Services	Cork			11
	Radiac Abrasives Ltd	Engineering	Kerry			N/A
	Wear Well Footwear	Consumer Prods	Cork			4
	Seagate Technology	Electronics	Tipp Sth	1		995
1999	Island Pharmaceuticals	Pharma/H'care	Cork			17
	De Regt Special Cable	Engineering	Cork			94
	Karl Schaeff (Ireland) Ltd	Engineering	Kerry			N/A
	Liebert International	Engineering	Cork			106
	Shannonvale Plastics	Print/Pack'g/Plastics	Cork			10
	Schiesser (Clonmel)	Clothing	Tipp Sth	1		140
	Nomeo Ireland Ltd	Engineering	Tipp Sth	1		50
2000	Apple Computer Ltd	Int'l Services	Cork			52
	Datastream Systems Inc	Int'l Services	Cork			1
	Sea-Land Service Inc	Int'l Services	Cork			158
	Molnlycke Healthcare	Engineering	Cork			107
	Willibald Ireland Ltd	Engineering	Kerry			18
	Eskimo Socks	Clothing	Kerry			11
	Great-West Life Assur.	Int'l Services	Kilkenny			84
	Kilkenny Textile Mills	Clothing	Kilkenny			44
	Luxottica	Engineering	Waterford			329
	Flair Plastics Ltd	Print/Pack'g/Plastics	Waterford			14
	Machine Assy Centre	Engineering	Wexford			9
2001	JTEC	Int'l Services	Cork			10
	Sedir Ltd	Int'l Services	Cork			24
	Cado Ireland Ltd	Engineering	Cork			1
	Elsen Tooling Ireland	Engineering	Cork			1
	General Semiconductor	Engineering	Cork			853
	Tercx Aerials Ltd	Engineering	Cork			65
	West Cast Ltd	Engineering	Cork			14
	Bomont Industries Int	Print/Packing	Tipp Sth			13
	Tech Industries	Print/Packing	Waterford			97
	Wenaas Ireland	Clothing	Wexford			6
	Wexal International	Engineering	Wexford			147
	Hartman Ireland Ltd	Print/Packing	Wexford			31
Total				36	66	5121

(Source: IDA, 2003)

Appendix 4

Screening survey for founders

S _____

This survey will be used for two primary purposes: -

- (a) To identify the owner/founder of the enterprise, the date of founding, and the nature of the enterprise's business (Criteria 1) – **Section A (Survey 1)**.
- (b) To identify the relevant indigenous enterprises that had a direct link with an MNE(s) at the time of start-up (Criteria 2) – **Section B (Survey 2)**.

The screening survey will be performed in two parts: -

- (i) **Section A** – Initially the person that answers the phone call will be asked questions 1 to 6. If the answers to questions 3, 4, 5, and 6 are such that the enterprise meets Criteria 1, they are included in this research. If the enterprise does not meet Criteria 1, their involvement in the research ends after question 6. An enterprise that meets Criteria 1 progresses to the next stage of the process, **Section B** of the screening survey.
- (ii) **Section B** – In this stage of the research process, the owner/manager, managing director or founder of the enterprise will be contacted to establish if the founder of the enterprise meets Criteria 2. The questions in this section will establish if there was a direct link between the founding of the new enterprise and the presence of an MNE in South East or South West Ireland.

Enterprise Name: - _____

Phone Number: - _____

Address: - _____

(From database: - State Assisted / Non-assisted --- Industry sector: - _____

Date of initial contact: - _____

Start time of survey: - _____

Finish time of survey: - _____

Date of follow-up contact: - _____

Start time of survey: - _____

Finish time of survey: - _____

SECTION A

Q. 1 Name of Managing Director: -

Q. 2 Is this person the founder of the enterprise: - YES / NO

If NO, who is the founder of the enterprise?

Does he/she still work with the enterprise: - YES / NO

Contact details for founder: -

Q. 3 Date enterprise was founded: -

(If prior to 1990 or after 2001, thank the respondent for his/her time and finish the survey)

Q. 4 Was the enterprise wholly Irish owned at start-up?

(If the enterprise was not wholly Irish owned, thank the respondent for his/her time and finish the survey)

Q. 5 Was the enterprise a subsidiary of another enterprise at time of start-up?

(If the enterprise was a subsidiary at time of start up, thank the respondent for his/her time and finish the survey)

Q. 6 What is the business of the enterprise?

(If the enterprise is neither in the chemical, computer, electronic, engineering, manufacturing, pharmaceutical, plastics & rubber, R&D and lab, software or telecommunication, or any other relevant high-tech, high-growth, high-value-add industry sector, thank the respondent for his/her time and finish the survey)

Name of person surveyed: - _____

Position of surveyed person in enterprise: - _____

If the enterprise meets Criteria 1 progress to the next section of the survey, by asking the respondent when would be a suitable time to contact the founder of the enterprise.

Suggested date: - _____ Suggested time: - _____

E-mail address of founder: -

SECTION B (administer by e-mail, and follow-up phone call, if required)

Q. 7 (a) How many people are currently employed by the enterprise?

Q. 7 (b) How many people did the enterprise employ at start-up?

Q. 8 At time of start-up did the owner/founder or any of the founders work for a MNE in Ireland?

If Yes – Q. 8 (a) What was the role of the founder(s) while working with the MNE?

Q. 8 (b) How many years did the founder(s) work with the MNE?

Q. 8 (c) Was founders' role and experience at the MNE helpful in setting up the enterprise?

Q. 8 (d) Why?

Q. 8 (e) What was/were the reason(s) for the founder(s) leaving the MNE and starting the enterprise?

Q. 8 (f) Name of MNE(s)

If Q. 8 (a) to (f) are answered then skip to Q. 10

Q. 9 Within five years before starting the enterprise had any of the founders previously worked for an MNE in Ireland?

If Yes – Q. 9 (a) What was the role of the founder(s) while working with the MNE?

Q. 9 (b) How many years did the founder(s) work with the MNE?

Q. 9 (c) Was founders' role and experience at the MNE helpful in setting up the enterprise?

Q. 9 (d) Why?

Q. 9 (e) What was/were the reason(s) for the founder(s) leaving the MNE and starting the enterprise?

Q. 9 (f) Name of MNE(s)

Q. 10 Was the enterprise started with the intention of doing work with or supplying MNEs in Ireland?

If Yes – Q. 10 (a) What was the nature of the work the enterprise intended doing with the MNE at time of start-up?

Q 10 (b) How long did it take to secure the first contract with the MNE?

Q 10 (c) What was the estimated value of the contract?

Q. 10 (d) In the year of the first contract what percentage of the enterprise's turnover was MNE work?

Q. 10 (e) In the year of the first contract what percentage of resource utilisation was MNE work?

Q. 10 (f) Name(s) of MNE(s)

Q. 10 (g) Is the enterprise currently doing work for MNEs in Ireland?

Q. 9 (c) Was founders' role and experience at the MNE helpful in setting up the enterprise?

Q. 9 (d) Why?

Q. 9 (e) What was/were the reason(s) for the founder(s) leaving the MNE and starting the enterprise?

Q. 9 (f) Name of MNE(s)

Q. 10 Was the enterprise started with the intention of doing work with or supplying MNEs in Ireland?

If Yes – Q. 10 (a) What was the nature of the work the enterprise intended doing with the MNE at time of start-up?

Q 10 (b) How long did it take to secure the first contract with the MNE?

Q 10 (c) What was the estimated value of the contract?

Q. 10 (d) In the year of the first contract what percentage of the enterprise's turnover was MNE work?

Q. 10 (e) In the year of the first contract what percentage of resource utilisation was MNE work?

Q. 10 (f) Name(s) of MNE(s)

Q. 10 (g) Is the enterprise currently doing work for MNEs in Ireland?

Q. 10 (h) What is the nature of the work the enterprise is currently doing with MNEs?

Q. 10 (i) What percentage of the enterprise's turnover is currently MNE work?

Q. 10 (j) What percentage of resource utilisation is currently MNE work?

Q. 10 (k) Name(s) of MNE(s) currently doing business with

Q. 11 (a) Did the existence of an MNE in Ireland influence the decision to start the enterprise in any way?

Q. 11 (b) If Yes, please explain

Q. 12 Did the founder(s) and/or the enterprise receive any advice from state or private agencies?

If yes - Q. 12 (a) From whom was the advice received?

Q. 12 (b) What form did the advice take?

Q.12 (c) At what stage in the development of the business was the advice obtained?

Q. 13 Did the founder(s) and/or the enterprise receive any financial support from state or private agencies?

If yes - Q. 13 (a) From whom was the financial support received?

Q. 13 (b) What form did the financial support take?

Q. 13 (c) Was the financial support connected in any way the enterprise's link(s) with MNEs?

Conclusion – thank the respondent for their time and openness in answering the questions.

Appendix 5

Survey for face-to-face interviews with founders that meet Criteria 1 and 2

Survey No: - FNDR _____

The purpose of this survey is to establish why the founder started his/her business, and also to understand the enterprise support mechanisms and prevailing economic conditions at time of start-up.

Enterprise name: _____

Phone number _____

Address _____

e-mail address _____

Founder's name/person interviewed _____

Year Enterprise founded _____

Business of enterprise _____

Date of interview _____

Start time _____

Finish time _____

Q. 1. What motivated you to start the business when you did?

Was it that you always wanted to start your own business?

Was it that you were let go/made redundant from the previous job?

Was it an alternative to looking for another job?

Was it an alternative to moving location?

Was it that the timing was right?

If yes to timing please explain

How did the idea itself to start your own business come about?

Where did the idea come from?

When did you first have this idea?

Q. 2. At the time of start-up, what exactly was your relationship with an MNE?

Were you still working with an MNE and started the business in your own time?

Were you still working with an MNE and started the business on the MNE's time?

Were you in the process of being made redundant?

Were you already made redundant, and now not working with an MNE?

You saw an opportunity to supply products/services to supply an MNE?

You started off the business in order to supply a specific product/service to an MNE?

Q. 3. At the time of start-up did you get any encouragement/support from –

The MNE you were employed by?

If yes please explain stating what kind of support you received

From the MNE you were supplying a product/service to?

If yes please explain stating what kind of support you received

From your local City/County Enterprise Board (CEB)?

If yes please explain stating what kind of support you received

From Enterprise Ireland (EI)?

If yes please explain stating what kind of support you received

From any other state or EU agency?

If yes please name and explain stating what kind of support you received

Did you receive support, in addition to or instead of, from any other source other than those mentioned above?

If yes please name and explain stating what kind of support you received

Q. 4. In what way was the business environment conducive to start-ups at the time you started your enterprise?

Was there an identifiable market for your products/services?

If yes please explain

Was it at a time of growth or slowdown?

Please explain

Was the environment in general favourable to start-ups?

If yes please explain

Was it easy to get financial resources?

If yes please explain

If you can, please explain what the general attitude to start-ups was at the time you started your business

Q.5 At the time of starting your business were there any business environment factors that were unfavourable to start-ups?

How competitive was the environment in your business sector?

How difficult was it to get resources?

How available was funding for new enterprises?

Were there any other unfavourable aspects at the time of start-up?

Q.6. What was the process of start-up for you?

Did you plan the start-up carefully?

If YES, how did you do this, and who supported you in this process?

Did you have a business plan in place before start-up?

Was it a matter of getting into business asap and seeing how it went from there?

What was the source of funding for the start-up?

Did you discuss the start-up with your spouse/partner and/or family? YES/NO

If YES, what were their views, concerns and aspirations?

If NO, why not?

Q.7. Was your role within an MNE beneficial to you –

Starting up your business?

If yes, why?

Finding customers?

If yes, why?

Finding suppliers?

If yes, why?

Finding resources such as funding?

If yes, why?

Finding key skills and employees?

If yes, why?

Managing the business?

If yes, why?

Creating your own or integrating into existing business networks?

If yes, why?

Q. 8. Is this the first business you have created for yourself? YES/NO

If **NO** – what other businesses did you create (in this response please include activities in your formative and adolescent years, as well as home, school and social environments, whereby you profited financially from the activity)

Q. 9. If you had the opportunity to start-up a business again would you? Yes/No

If Yes, why?

If No, why not?

Q. 10. Prior to starting your own business were you let go/made redundant from your existing employment? YES/NO

If YES would you have started your business if you were not let go/made redundant from that employment? YES/NO

If YES, why?

If NO, why not

Q. 11. In your opinion is there more the following organisations could (or should) be doing to support new business formation in Ireland.

MNEs

City and County Enterprise Boards (CEBs)

Enterprise Ireland (EI)

Other state agencies or community development authorities?

Appendix 6

Interview survey for MNE senior executives

Survey No: - MNE_____

The purpose of this survey is to aid the researcher identify new enterprises whose formation may be linked in various ways to the presence of MNEs in Ireland. The created enterprises could be as a result of: -

- (i) MNEs outsourcing some of its services
- (ii) MNEs downsizing and making redundancies
- (iii) MNEs subcontracting work to new enterprises
- (iv) Employee(s) leaving of their own accord to start an enterprise
- (v) Non-employee identifying a market opportunity to supply a service/product required by an MNE

This survey is specific to *new* enterprise start-ups and does not concern trading relationships with existing businesses.

This survey also establishes the attitudes of MNE executives towards supporting employees to consider starting their own enterprises. It also asks what support the MNE provides to employees/ex-employees starting their own enterprises, and to new indigenous enterprises in general. The survey also establishes the amount of spend the MNE uses to purchase goods and services from indigenous companies in Ireland. Finally, the survey establishes the level of autonomy the MNE subsidiary has from its parent HQ.

Name of MNE: _____

Telephone: _____

Address: _____

Name of Contact person _____

Position in organisation: _____

Survey date _____ **Start time** _____ **Finish time** _____

=====

Q.1 Business of MNE: _____

Q.2 Year MNE located in this region: _____

Q.3 Parent HQ location: _____

Q.4 Number of people employed in Ireland: _____

For the sites located in South East and South West Ireland – approximately how many employees are in each of the following categories?

Category	Qty	Category	Qty	Category	Qty
Senior Management		Product Engineers		HR staff	
Middle Management		Materials staff		Training & Dev	
Supervisory		Financial staff		Quality	
R & D Engineers		Maintenance staff		Sales and marketing	
Process Engineers		General operatives		Other	

Q.5 Does your company encourage employees to start their own enterprises? Yes/No

If Yes, what type of encouragement and support do you give these employees?

If No, why not?

Q. 8 Are you aware of anybody that has specifically set up a new enterprise to supply services/products to your organisation?

If Yes, please complete the following: -

Enterprise Name	Founder's Name/ Role in MNE	Type of Business	Year started	Reason for Set-up	MNEs Involvement in start-up

Q. 9 What percentage of your annual budget is spent on Training and Development?

Of this how much is allocated to each of the following categories?

Category	%
Technical	
Management Development	
People Development	

Q. 10 (a) What percentage of your total purchasing is spent on goods and services produced in Ireland?

(b) Of this percentage what is the breakdown between consumable and non-consumable goods/services?

Consumable =

Non-consumable =

Q. 11 To what extent does the management team in this facility have control over the following activities?

Activity	Local management makes all decisions	Local management makes many decisions	Local management provides inputs to HQ	All decisions made by HQ
Marketing and market development				
New product development				
R & D				
Process development				
Sourcing new suppliers				
Sourcing new materials				
Changing management structures				
Changing fiscal policy and monitoring				

Thank you for giving the time you gave this interview.

221003/21103/141103/07/09/04

Appendix 7

Interview Survey for State enterprise support agency CEOs

Survey no. : - SA

The purpose of this survey is to establish if there were/are any specific supports and/or encouragement that State agencies provide to people working in MNEs in order to help them start their own enterprises.

=====
State Agency: _____

Telephone number _____

Address: _____

Person interviewed: _____

Position in organisation: _____

Date of interview: _____

Start time: _____

Finish time: _____

Q. 1. Does your organisation segregate founders of new start-ups into different categories? YES/NO

If YES, what are these categories?

Does your organisation give any special focus or incentives to those that are working in industry versus those that are not, at the early stage of the start-up process? YES/NO

If YES, what does this focus or incentive entail?

Does your organisation give any special focus or incentives to those that have been made redundant or are in the process of being made redundant from an MNE? YES/NO

If YES, what does this focus or incentive entail?

Does your organisation give any special focus or incentives to those that start their own enterprises specifically to supply products and/or services to MNEs? YES/NO

If YES, what does this focus or incentive entail?

Q. 2. Is there a government policy to support people who are working for MNEs to start their own enterprises?

YES/NO

If YES, what are the details?

Q. 3. Prioritise which of the following scenarios is your organisation more likely to support at start-up?

	Scenario	Priority
A	While the person is still working for an MNE?	
B	After the person has been made redundant from an MNE?	
C	During the MNE redundancy/shut down process?	
D	A start-up that is specifically set up to supply services/products to MNEs	
E	People that have no connections with an MNE what so ever	

Q. 4. Within your area/region are you aware of anybody who started their own enterprise while they were working for an MNE?

If YES, please complete the following: -

Company Name	Founder's Name/ Role in MNE	Type of Business	Year started	Reason for Set-up	MNEs Involvement in start-up

Q. 5. What support/advice did these companies get from your organisation at the time of start-up?

Q. 6. In your area/region are you aware of anybody who has been made redundant from an MNE that started their own enterprises?

If YES, please complete the following:

Company Name	Founder's Name/ Role in MNE	Type of Business	Year started	Reason for Set-up	MNEs Involvement in start-up

Q. 7. What support/advice did these companies get from your organisation at time of start-up?

Q.10. For each of the scenarios in Questions 4, 6, and 8 would you have expected more start-ups than presented above?

Scenario	Yes	No	Why? – Comment
Started business while working for an MNE			
Started business after redundancy from an MNE			
Started business to provide products/services to MNEs			

Overall comments: --

Thank you for giving the time for this interview.

221003/21103/141103/07/09/04

Appendix 8

MNEs facility openings by year and location in the South East and South West between 1990 and 2001

Year	Multinational	Location	South East	South West
1990	Hilton Engineering Ltd	Wexford	1	
	Mass Mutual of Ireland Ltd	South Tipperary	1	
	Infocentre Ireland	Wexford	1	
	John Brown Engineering (Irl) Ltd	Kilkenny	1	
	Stern Plastic Hellstern GmbH	Cork		1
	Metlife Group Admin. Inc.	Cork		1
	DDC Ireland Ltd	Cork		1
	Novartis Ringaskiddy Ltd	Cork		1
	Neutron Technology Systems Ltd	Cork		1
	Schaefer GmbH	Cork		1
	Sports Sock Co (Ireland) Ltd	Kerry		1
	QC Data Ireland Ltd	Cork		1
	Mitsumi Ireland Ltd	Cork		1
	West Cast Ltd	Cork		1
	Schierholz Software Processing Ltd	Cork		1
1991	Thermo Air Enviro Technology Ltd	Carlow	1	
	Schuf Valve Technology GmbH	Cork		1
	Alcon Laboratories (Ireland) Ltd	Cork		1
	Stork International Contractors Ltd	Cork		1
	ADM Ringaskiddy	Cork		1
	Ireprod Ltd	Kerry		1
1992	HP Chemi Pelzer R&D	Waterford	1	
	Flair Plastics Ltd	Waterford	1	
	Rehan Electronics Ltd	Wexford	1	
	Seton of Ireland Ltd	South Tipperary	1	
	Amersham Healthcare	Cork		1
	Fujisawa (Ireland) Ltd	Kerry		1
	Carlow Associates Inc	Cork		1
	Form Guide Services Ltd	Cork		1
	Elsen Tooling (Ireland) Ltd	Cork		1
	Flextronics	Cork		1
1993	Global Reservations	Cork		1
	Heinz Haupt Healthcare	Cork		1
1994	Card Services Int.	Kilkenny	1	
	Equifax Database Co. Ltd	Wexford	1	
	HIS Ltd	Waterford	1	
	Lake Region Co.	Wexford	1	
	Thermo Air Machines	Carlow	1	
	WB Ireland Ltd	Kilkenny	1	
	Apple Computer Ltd	Cork		1
	ITT Sheraton Reservations	Cork		1
	Listal Ltd	Kerry		1
	McCulloch Ireland Ltd	Kerry		1
	ReSound Corp	Cork		1
	Sensormatic Corp.	Cork		1
	Support Management	Cork		1
1995	Contineotal Administration	Waterford	1	
	Integrated Packaging	Wexford	1	
	Sram Corporation	South Tipperary	1	

	Seagate Technologies	South Tipperary	1	
	Bantry Bridle	Cork		1
	Fide Engineering	Cork		1
	Ogden Atlantic Design	Cork		1
1996	Continental Group	South Tipperary	1	
	Angiodynamics	Wexford	1	
	ITW Mima	Waterford	1	
	MAC Ltd	Wexford	1	
	Reflexite	Waterford	1	
	Alps Electric Ireland Ltd	Kerry		1
	Bantry Plastics Ltd	Cork		1
	Kodak Cork Ltd	Cork		1
	Merfin Ireland Ltd	Cork		1
1997	Pall Corporation	South Tipperary	1	
	DeHollandia	South Tipperary	1	
	Berg Electronics	Cork		1
	Dynochem Ireland Ltd	Cork		1
	Johnson & Johnson	Cork		1
	NN Ball and Roller	Kilkenny	1	
	Waters Corporation	Wexford	1	
	Transistor Devices	Cork		1
	Horner Electric Inc.	Cork		1
1998	Trek Corporation	Carlow	1	
	Guidant Corporation	South Tipperary	1	
	AOL Bertelsmann Services	Waterford	1	
	Arkopharma Laboratories	Waterford	1	
	Sun Life Assurance Co.	Waterford	1	
	Agora	Waterford	1	
	RCI Call Centre	Cork		1
	Merchants Group Ltd	Cork		1
	Boston Scientific Ltd	Cork		1
	Delta Dental Plan	Cork		1
	Stryker – Osteonics	Cork		1
	Matrox Graphics Inc.	Cork		1
	Zeda Ltd	Cork		1
	Cascade Biochem Ltd.	Cork		1
	I & E Systems Pty Ltd	Cork		1
	Cypress Semiconductor	Cork		1
	Motorola Semiconductor	Cork		1
	Elisa Partnership	Cork		1
	Option International	Cork		1
	Sea-Land Service Inc.	Cork		1
	Minelab Electronics	Cork		1
	Stryker Corporation	Cork		1
	Rosenbluth International	Kerry		1
	Amann & Sohne GmBH	Kerry		1
	RKT GmBH	Kerry		1
1999	American Bankers Ins. Group	Cork		1
	CMG Ireland	Cork		1
	Datastream Systems Inc.	Cork		1
	Fleet Street Travel Ltd	Kerry		1
	IMTF – Software Ltd	Cork		1
	INFOR Business Solutions	Cork		1
	Pilz Ireland Ind. Automation	Cork		1
	Rand Technologies Ltd	Cork		1
	Siemens SG Ireland Ltd	Cork		1
	Stalcorp	Cork		1
2000	Chia Cherne Int. Ltd.	South Tipperary	1	

	Fileflow	Kilkenny	1	
	Guidant (IV)	South Tipperary	1	
	Infoscore Group	Kilkenny	1	
	Avery Dennison Corporation	Cork		1
	Citco Group Ltd	Cork		1
	Com21 Ireland Ltd	Cork		1
	Comdisco Software Dev.	Cork		1
	Global Telesystems Group Inc.	Cork		1
2001	Deutsche Int. Ireland Ltd	Kilkenny	1	
	Alza Corporation	South Tipperary	1	
	Genzyme Ireland	Waterford	1	
	Ericsson System Enterprises Ltd	Cork		1
	Kostal Ireland GmbH	Cork		1
	MCKesson Hboc	Cork		1
	Silicon Software Systems	Cork		1
Total			41	81

(Source: IDA, 2003)

Appendix 9

Indigenous enterprises that meet Criteria 1 of this research listed by start-up date, industry sector, and location

Date	Company name	Industry Sector	County	SE	SW
1990	Trafaglar House	Software	Cork		1
	Colman Computer Services	Computers	Cork		1
	Trident Technology Ltd	Pharmaceutical	Cork		1
	Beara Iron Works	Engineering	Cork		1
	Matflo Engineering Ltd	Engineering	Cork		1
	Munster Weigh Bridge Ser	Manufacturing	Cork		1
	CADCO	Software	Cork		1
	Cork CAD Bureau	Telecomms	Cork		1
	Listal Ltd	Pharmaceutical	Kerry		1
	Dunreidy Engineering Ltd	Electronics	Kilkenny	1	
	Waterford Castngs Ltd	Manufacturing	Waterford	1	
	Harte Cast Ltd	Manufacturing	Wexford	1	
	Gabbett Industries Ltd	Engineering	Wexford	1	
1991	Acorn Enviromental	Chemicals	Carlow	1	
	Cantwell Dairy Equipment	Engineering	North Tipperary	1	
	Palmer Precision	Engineering	Waterford	1	
	Paddy Denby Engineering	Engineering	Wexford	1	
	Redmond, Dermot (Light Eng)	Engineering	Wexford	1	
1992	Multi-Air Ltd	Manufacturing	Carlow	1	
	Plasma Irl -- Applied Optotech	Electronics	Cork		1
	BJ Automation	Manufacturing	Cork		1
	O'Connor Hygiene	Manufacturing	Cork		1
	Bowen Water Technology	Manufacturing	Kilkenny	1	
	The Irish Soap and Candle Co.	Manufacturing	North Tipperary	1	
	Lake Field Tecnologies	Software	Waterford	1	
	Reflex Magnetics Ireland Ltd	Software	Waterford	1	
	B & G Enamelling	Manufacturing	Waterford	1	
	Suir Precision Engineeering	Engineering	Waterford	1	
1993	MCS Ltd	Software	Carlow	1	
	Irish Skin Care Ltd	R & D +Laboratory	Carlow	1	
	ONG Automation	Engineering	Cork		1
	Podiatry Products Ltd	Manufacturing	Cork		1
	O'Connor Communications	Engineering	Kerry		1
	MJM Electronics	Electronics	North Tipperary	1	
	Azzurri Ireland Ltd	Manufacturing	Waterford	1	
	Stella Doradus	Telecomms	Waterford	1	
	Kilderry Instruments Ltd	Engineering	Wexford	1	
	Lodgewood Engineering Ltd	Engineering	Wexford	1	
1994	Manufacturing Solutions	Software	Cork		1

	Dexgreen Ltd	Manufacturing	Cork		1
	Pat Dineen Engineering	Engineering	Kerry		1
	Kilkenny Project Eng	Engineering	Kilkenny	1	
	Eamon Power Engineering	Engineering	South Tipperary	1	
	G & M Broderick Engineering	Engineering	Waterford	1	
	SMF Engineering	Engineering	Waterford	1	
	Atlas Fabrication	Engineering	Wexford	1	
	Atto Abrasives Ltd	Manufacturing	Wexford	1	
	Q-Lab	Chemicals	Wexford	1	
1995	Deycom Ltd	Software	Carlow	1	
	Carlow Toolmaking Services	Engineering	Carlow	1	
	BOTT Ireland Ltd	Manufacturing	Cork		1
	Polar Ice Ltd	Manufacturing	Cork		1
	Bluefire Internet	Software	Cork		1
	Killyneil Designs Ltd	Manufacturing	Cork		1
	Tektron Ltd	Manufacturing	Cork		1
	Recover X	Electronics	Cork		1
	Simbiosys	Manufacturing	Cork		1
	Insight Web Mkt	Software	Kerry		1
	OCG Conveyor Systems	Manufacturing	Kilkenny	1	
	Tipperary Fabrication Ltd	Engineering	North Tipperary	1	
	Safe Care Technologies	Manufacturing	South Tipperary	1	
	Duggan Plastics	Plastics & Rubber	Waterford	1	
	Alpha Engineering	Engineering	Waterford	1	
	Dunhill Agriculture Eng	Engineering	Waterford	1	
	Ollrich Ltd	Engineering	Waterford	1	
	Dataworks	Software	Waterford	1	
	Carbomat Ltd	R & D +Laboratory	Waterford	1	
	Loughman Waste Equip Ltd	Manufacturing	Wexford	1	
1996	CNC Components	Engineering	Carlow	1	
	Edwards Engineering Ltd	Engineering	Carlow	1	
	Capture Productions Ltd	Software	Carlow	1	
	Genexcel Irl Ltd	R & D +Laboratory	Cork		1
	P.C. Systems Ltd	Computers	Cork		1
	Abtron Ltd	Software	Cork		1
	T & T Precision	Engineering	Cork		1
	Aire Laboratories	R & D +Laboratory	Cork		1
	CM Signs Ltd	Manufacturing	North Tipperary	1	
	Agridata	Software	South Tipperary	1	
	Ardmore Technologies	Telecomms	Waterford	1	
	Hawkdale Ltd	Electronics	Waterford	1	
	Design & Display Ltd	Manufacturing	Waterford	1	
1997	Kelly Precision	Engineering	Carlow	1	
	Nadien Electronics	Manufacturing	Cork		1
	1.2 Travel.com	Software	Cork		1
	Sensory Labs Ltd	R & D +Laboratory	Cork		1
	Proscon Engineering Ltd	Engineering	Cork		1
	Tower View Engineering	Engineering	Cork		1
	CharterNav GPS	Software	Cork		1

	XIAM Ltd	Software	Kerry		1
	Allbrite Engineering	Engineering	Kerry		1
	Foam Flex	Manufacturing	Kerry		1
	Monex Financial Services	Software	Kerry		1
	Nutricare Ltd	Manufacturing	Kilkenny	1	
	Unique Perspectives Ltd	Manufacturing	Kilkenny	1	
	Educational & Study Equip	Manufacturing	Kilkenny	1	
	Country Style Cookers	Manufacturing	North Tipperary	1	
	Momentum Marketing	Software	South Tipperary	1	
	CBM Plastics	Plastics & Rubber	Waterford	1	
	European Road Signs	Manufacturing	Wexford	1	
	Fenlon Industries Ltd	Engineering	Wexford	1	
1998	Thorpe Steel Fabrication	Engineering	Carlow	1	
	Integrated Control Solutions	Engineering	Cork		1
	Quality Automation	Software	Cork		1
	Imago Alternatives	Manufacturing	Cork		1
	Microtech Cleanroom Services	Manufacturing	Cork		1
	Omnilux Ireland	Manufacturing	Cork		1
	ABU Internet Ltd	Software	Cork		1
	Abacus Software	Software	Kerry		1
	Aqua Design Ltd	Engineering	Kerry		1
	Glee Dee Engineering	Engineering	North Tipperary	1	
	Itrek Ltd	Software	North Tipperary	1	
	Pharma Assist	R & D +Laboratory	South Tipperary	1	
	Allied Turned Parts	Engineering	Waterford	1	
	Connolly, Brian	Engineering	Waterford	1	
	Nutri Science Ltd	Manufacturing	Waterford	1	
	Jacob & Finn (Swift Form Ltd)	Engineering	Waterford	1	
	Morgan Precision Engineering	Manufacturing	Waterford	1	
1999	Carlow Precision Grinding	Engineering	Carlow	1	
	Advanced Micro Services	R & D +Laboratory	Cork		1
	Media Satellite Irl Ltd	Telecomms	Cork		1
	Comnitel	Software	Cork		1
	Odon Engineering	Manufacturing	Cork		1
	Shannonvale Fibre Tools	Manufacturing	Cork		1
	Kinematik Ltd	Software	Cork		1
	Cartoon Saloon Ltd	Software	Kilkenny	1	
	Magnetronics Ltd	Electronics	South Tipperary	1	
	CNC Precision Ltd	Engineering	Waterford	1	
	EuroFab Technologies Ltd	Manufacturing	Waterford	1	
	EU Bokings	Software	Waterford	1	
	EnviroLab Ltd	R & D +Laboratory	Waterford	1	
	Wex Wind Ltd	Engineering	Wexford	1	
2000	Technical Coatings Ltd	Manufacturing	Carlow	1	
	Softtouch Technologies	Software	Cork		1
	Automation/Tooling Specialist	Engineering	Cork		1
	Mad for Trad	Software	Cork		1
	Fibre-Tek Manufacturing Ltd	Manufacturing	Cork		1
	Systematics	Software	South Tipperary	1	

	Deise Metals	Engineering	Waterford	1	
2001	Imperial Precision Eng	Engineering	Carlow	1	
	Riskforce Ltd	Software	Carlow	1	
	Quantum Ltd	Manufacturing	Cork		1
	CTO Enviro Solutions	Manufacturing	Cork		1
	Park By Phone Ltd	Software	Cork		1
	Levitat	Software	Cork		1
	DP Energy Ireland Ltd	Engineering	Cork		1
	Spokesoft Business Comps	Software	Cork		1
	Aspen Workflow Ltd	Engineering	Kerry		1
	Roche Mouldings Ltd	Manufacturing	Kilkenny	1	
	Fastform Research Ltd	R & D +Laboratory	Waterford	1	
	CVs on CDs	Software	Waterford	1	
	Estreams Communications Ltd	Telecomms	Waterford	1	
	Waterford Technologies	Software	Waterford	1	
	Artic Doors Ltd	Manufacturing	Wexford	1	
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(Source: Enterprise Ireland, 2003)