

Who are the multinationals? A Methodological Critique*

Anthony McDonnell, Jonathan Lavelle, David G. Collings, Patrick Gunnigle

Department of Personnel and Employment Relations,

University *of* Limerick,

National Technological Park

Limerick

Ireland

☎ +353- (0) 61-202666

✉ anthony.mcdonnell@ul.ie

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Abstract

In the context of burgeoning research on multinational corporations (MNCs) this paper addresses the issue of the representativeness of databases of multinational corporations (MNCs) in Ireland. It identifies some important deficiencies in existing databases much used by scholars in the field. Drawing on the international literature, it finds that this problem also characterises research on MNCs in many other countries. In the Irish context we find that the extant empirical research has generally excluded two key categories of MNCs, namely, (a) foreign MNCs which are not grant-aided by the main industrial promotions agencies and (b) Irish-owned MNCs. The paper outlines our experience in identifying and addressing these deficiencies in an effort to more precisely define the MNC population in Ireland, and more generally reviews some of the issues and obstacles confronting scholars investigating the MNC sector in Ireland and abroad.

Who are the multinationals? A Methodological Critique.

Introduction

Over the past decade or more, Ireland has propelled itself from being one of Europe's economic backwaters to the forefront of European economies (Datamonitor, 2004; Powell, 2003). Foreign direct investment (FDI) has played a crucial role in this growth and as a result we have witnessed a marked interest in research on multinational corporations (MNCs) in Ireland. However, while this research has added to knowledge in the area, one must question the representativeness of many of these studies, particularly the databases on which they rely.

This paper identifies some of the key challenges in conducting a representative survey of MNCs in Ireland¹. Specifically the paper focuses on a key methodological issue in survey research, namely achieving representativeness by precisely identifying the population to be studied, in this case the population MNCs in Ireland. To date, empirical research on the MNC sector in Ireland has relied on listings of foreign-owned MNCs, largely garnered from conventional sources, particularly databases provided by the main industrial development agencies. Over the past year, we have worked on the compilation of a database of MNCs in Ireland. In so doing, we have identified a number of methodological problems with work in this field, specifically the incomplete coverage of databases used to identify MNCs to date and, consequently, problems in regard to the representativeness of the study populations used in numerous studies of MNCs.

We also found a similar picture with regard to the experience in other countries. Of particular importance is Collinson and Rugman's (2005) recent finding that much of the published work on MNCs lacks representativeness since it relies on data from a small number of MNCs. Using bibliometric analysis, they highlight 'sample biases' towards the largest, most global, well-known, US-based manufacturing firms. The end result is that most of the existing business and management research on MNCs is focused on the world's top ten companies such as IBM, Microsoft, Hewlett Packard and Intel leading, they argue, to an unrepresentative depiction of management practice in MNCs.

In identifying the problem of representativeness and providing some insights on how this might be addressed, this paper should assist scholars by increasing awareness of some of the pitfalls of relying on commonly utilised databases. Given the critical contribution of MNCs to Ireland's economic well-being, it is critical that studies of MNCs accurately reflect the country's MNC population.

We begin by outlining the role MNCs play in the Irish economy. We then briefly outline some issues involved in conducting survey-based research. We then summarily review extant studies of management practice in the MNC sector in Ireland. Next we document the various processes utilised and stages covered in compiling what we believe to be a much more comprehensive database of MNCs in Ireland. In so doing, we point to both the contribution of this work and the difficulties and obstacles confronting scholars in this area.

The key role of the MNC sector

The issue of how multinational corporations (MNCs) manage their operations has been a long-standing area of academic debate and research in Ireland. This interest stems from the significant role of foreign direct investment (FDI) to the Irish economy, and more recently its contribution to the economic boom since the mid 1990s (Forfas, 1996; Gray, 1997; NESF, 1998). For the years 2002-2003 levels of FDI into Ireland were equivalent to the totals attained by the 10-member Central and Eastern European bloc, averaging \$25 billion annually (Enterprise Ireland, 2005a). Furthermore the stock of Irish inward FDI, per head of population for 2000 was twice the EU average (Barry, 2004). Ireland continues to attract a large share of inward FDI investment despite the post *9/11* slowdown in international investment with only five countries (Luxembourg, China, France, the US and Spain) registering larger absolute FDI inflows in 2003 (Begley et al., 2005; Collings et al., 2005; Forfas, 2005). Ireland is host to 13 of the top 15 global pharmaceutical companies, 7 of the world's top 10 information and communications technology (ICT) companies and 15 of the world's top 25 medical technology companies, highlighting its position as one of the most MNC dependent economies in the world (cf. Enterprise Ireland, 2005a). The importance of MNCs to Ireland is illustrated by the fact that foreign multinationals account for around 50 per cent of manufacturing employment, produce over two-thirds of net output and account for about 80 per cent of Irish manufacturing exports (Barry et al., 2004). The US is Ireland's largest source of FDI, with US MNC subsidiaries accounting for approximately 70 per cent of total industrial exports (O'Higgins, 2002).

Apposite to this, Irish MNCs have also been growing in importance internationally. In an effort to counterbalance Ireland's dependence on FDI, industrial policy has for some time focused on developing indigenous firms to a stage where some would become important MNCs in their own right. A prime example is *Enterprise Ireland's* internationalisation strategy aimed at promoting Irish MNCs (cf. Enterprise Ireland, 2005b). In this context Donnelly (1999) identified the existence of 20 Irish MNCs whilst more recent *Enterprise Ireland* data suggest there are approximately 60 Irish MNCs (Sunday Business Post, 2005).

Why is Ireland important in terms of international research? The answer can come from most measurements of economic performance. Table 1.1 illustrates the flows of inward FDI from a sample of worldwide countries. This table identifies the continual high increases of inward FDI into Ireland since 1992 and also how Ireland compares to other countries. In addition FDI outflows have grown significantly in recent years. In fact Ireland has moved from having the third lowest outward investment stock in the late 1990s (after Greece, Portugal and Austria) to a position where in recent years FDI outflows have grown even more sharply than FDI inflows (Barry et al, 2003). Specifically FDI outward stock rose from some \$28 billion in 2000 to almost \$96 billion in 2004 (UNCTAD, 2005). These data highlight the significance of Ireland of a home and host of FDI and thus a context where the study of MNCs is both interesting and worthwhile.

Insert Table 1.1 here

Conducting survey research

Given the weight and significance of the MNC sector to the Irish economy we felt a large-scale survey would add greatly to existing knowledge of MNCs in Ireland. One of the main advantages of undertaking large-scale survey research is the ability to generalise the findings to a particular population. Sampling is the most common method employed in survey research, as often surveying all cases in the population (i.e. a census) is not a feasible option due to both time and cost constraints. The underlying principle of sampling is that a subset of the cases in a population can provide useful information that describes the entire population (Williams, 1997).

One of the first stages of sampling and one which is of critical importance is identifying a population and developing a comprehensive sample frame from which to take the sample (Pinsonneault and Kraemer, 1993). This sampling frame or population list is fundamental to the sampling process (Williams, 1997). It is the base on which the research is built and if it is not done correctly the research will suffer from a lesser degree of statistical rigour as a result. Identifying the population is of critical importance because the sample will be a microcosm of the population that it is intended to represent (Murphy, 1997). Likewise Fowler (1988) stresses the importance of a comprehensive population list by adding that if a researcher is considering sampling from a list, it is particularly important to evaluate the list to find out in detail, how it was compiled and how updating was carried out. Any missing cases will obviously not have the opportunity to be represented in the study and therefore has the potential to bias the results (Murphy, 1997).

In addition to the importance of the comprehensiveness of the population list is the problem of duplication, i.e. cases being on the list more than once (Kish, 1965; Murphy, 1997). This is particularly pertinent to research on MNCs as often the same firm can be entered more than once on a particular list. For example a large MNC may own a number of organisations, sometimes under different names where up to three or four organisations on the list may in fact be owned by the one organisation meaning the parent company has a greater chance of being selected (cf. Murphy, 1997).

After generating an accurate and comprehensive sampling frame one must then decide on the sampling method to be used. In selecting this method the aim is to ensure that the sample taken is a representative subset of the total target population and thus the findings can be generalised to the population (cf. Gill and Johnson, 2002). Therefore it is clear that the essence of good, reliable and accurate survey research is premised on the comprehensiveness and accuracy of the population list as well as the selection of an appropriate sampling method.

Researching MNCs in Ireland – An Overview

Despite the obvious importance of MNCs to Ireland's economic performance, little or no research has been conducted by means of a large-scale fully representative survey of management practice in the MNC sector there. Existing empirical research has generally either relied upon small-scale surveys of MNCs (cf. Kelly and Brannick, 1985), extracting findings on MNCs from larger surveys or consultancy reports (cf. Barrios et al., 2005; Geary, 1999; Gorg and Strobl, 2002; Gunnigle et al., 1994, 1997; IMI, 2003;

Kearns and Ruane, 2001; NCPP, 2004; Roche and Geary, 1996), or case study based research (cf. Dundon et al., 2003, 2004; Gunnigle et al 2005). In a similar vein much of the more general business and management literature on MNCs in Ireland has tended to rely on data developed from the Forfás annual employment surveys (cf. Barrios et al., 2005; Gorg and Ruane, 2001; Gorg and Strobl, 2001, 2002, 2003; Kearns and Ruane, 2001). This survey is an annual census of employment in all manufacturing and internationally traded services companies supported by the enterprise development agencies such as the *IDA Ireland*, *Enterprise Ireland*, *Shannon Development* and *Údarás na Gaeltachta*. However such an approach in developing a sample frame of MNCs is unreliable because it tends to exclude certain categories of MNC, which is likely to bias the results (cf. Murphy, 1997). Specifically, these listings exclude MNCs, which are not grant aided or assisted in some form and thus research relying on just these listings cannot be said to be representative of the MNC population in Ireland.

While acknowledging the broader literature base summarised above, we now focus on the literature on HRM and ER in MNCs in Ireland as an illustration of the limitations of extant studies of MNCs there. Looking specifically at the methodologies employed in the literature, a useful starting point is the work of Kelly and Brannick (1985). This study relied on a sample size of 37 MNCs from a sample frame of 200 MNCs while only 27 MNCs were interviewed. This is a very small sample and thus runs the risk of sampling error, reducing the generalisability of the findings. As with subsequent studies, the sources used to develop the total population were limited (see table 1.2 for greater detail). These sources included the Industrial Development Authority (IDA), Federated Union of

Employers (FUE) and various trade unions. The problem with using development agencies (such as IDA Ireland) has been highlighted above while those bodies such as the FUE (now the Irish Business and Employers Confederation (IBEC)) tend to rely on membership listings, thus excluding non-members. Another deficiency in this and similar studies is the absence of criterion used to define an MNC: what exactly constitutes a multinational? Does the IDA definition differ from that of the FUE?, and so on.

The Cranfield-University of Limerick (CUL) study of human resource management (HRM) policy and practice relies on periodic surveys of a sample of all large organisations in Ireland (cf. Gunnigle et al., 1994, 1997; Turner et al., 1997a&b). The sample frame consisted of the 'top' companies (both trading and non-trading) in Ireland obtained from the *Business and Finance* list. This source also suffers from a number of weaknesses and used in isolation it cannot be classified as representative. However, as acknowledged in publications, this study focuses primarily on larger organisations. MNCs only represent a proportion of respondents and no attempt is made to ensure representativeness among the MNC respondents. Nor does this study attempt to identify Irish-owned MNCs and thus it was impossible, for example, to compare Irish-owned and foreign-owned MNCs.

In a similar but more limited vein to the UK Workplace Employment Relations' surveys (WERS) (cf. Cully et al, 1999; Millward et al, 2000), the UCD workplace study of management practices in Ireland was conducted in 1996 (cf. Geary, 1999; Geary and Roche, 2001; Roche and Geary, 1996). As with the CUL studies, this did not focus on

MNCs *per se* but rather sought to examine practice in a representative sample of all workplaces in Ireland. While covering the small and medium size enterprise (SME) sector more comprehensively than previous studies, this work also suffers from some limitations. In particular, the total study population was derived from a listing provided by the Economic and Social Research Institute (ESRI). Our investigations indicate that such listings were primarily derived from databases provided by the main industrial promotions agencies (*IDA Ireland*, etc). We have already outlined some of the problems associated with exclusive reliance on these sources. Publications emanating from the UCD study provide quite limited detail on sample size however, given that the MNC population represented a sub-sample of the respondent firms, it would appear that the number of MNCs studied was quite small. When compared to the WERS studies in the UK, the UCD survey does not appear to achieve anything near the same level coverage (cf. Turner et al, 2001). Again, as with the other Irish studies reviewed, the UCD study does not identify Irish-owned MNCs as a distinct category.

Two other studies, which are important reference points for Irish scholars in the field, are the annual Irish Management Institute (IMI) '*Survey of MNCs in Ireland*' and the National Centre for Partnership and Performance (NCP) benchmark survey '*The Changing Workplace: A Survey of Employers' Views and Experiences*'. Both the IMI and NCP reports deliver useful and specific information but again do not appear to achieve adequate representativeness with regard to MNCs in Ireland. In the case of the IMI, the sample size tends to be small, for example, 67 MNCs in the 2003 study (cf. Hannigan, 2000; IMI Report, 2003). In addition no reference is made to the source(s) used or how

many companies comprise the full population. However, it would appear that the main source is the IMI's own membership list. This renders any attempt to generalise to the greater MNC population in Ireland difficult. Similarly the NCPP report does not provide very much detail on sampling methodology, stating only that the report is based on 5,198 valid questionnaires (NCPP, 2004). Again neither report distinguishes between foreign and Irish-owned companies or the size of these companies.

In addition to studies relying on survey-based methodologies, case study research has provided important insights into the activities and operation of MNCs in Ireland (cf. Dundon et al., 2003, 2004; Gunnigle et al., 2004, 2005). However, as is generally the case with research of this nature, the findings tend to be case specific and lack representativeness thus delimiting their generalisability to the greater population.

Thus we would argue that two major gaps exist in the extant literature. Firstly and most importantly we have the issue of representativeness of the MNC sector in Ireland. To date survey-based research has suffered either from small sample sizes or population lists, which are not fully representative of the MNCs in Ireland, or both. This clearly undermines the ability of scholars to generalise to the greater population of MNCs. For example, the common exclusion of non-grant aided firms is likely to bias findings on key aspects of practice and behaviours of MNCs. In an international context, Whitley (1999: 128) argues that "the more dependent are foreign firms on domestic organizations and agencies, both within and across sectors, the less likely are they to change prevalent patterns of behaviour". This is significant as it would suggest that those firms which have

tenuous links to state agencies may be less restricted in implementing practices which are at odds with host traditions. Furthermore as will be shown later in the paper, the lists used in the extant literature were particularly strong on companies in the manufacturing sector but weak on companies in the services sector despite the services sector in Ireland accounting for nearly 66 per cent of total employment in 2003 (Eurostat, 2004), representing a growth of 3.1 per cent from 2002 while manufacturing employment fell by 1.9 per cent during the same period (Directorate-General for Economic and Financial Affairs, 2005). Yet despite the importance of the service sector it would appear that existing research has largely been biased towards the manufacturing sector at the expense of the services sector.

Secondly, a key omission in almost all of the extant research on MNCs (with the notable exception of Donnelly, 1999 and Monks et al, 2001) is Irish MNCs. If scholars are to achieve a representative view of the MNC sector in Ireland then this must include the growing number of indigenous MNCs. The importance of Irish MNCs is borne out in the fact that there is reportage of Irish companies increasingly internationalising (Donnelly, 1999; Monks et al., 2001). Flows of outward direct investment have increased from Ireland in recent years, which reflect the increasing growth of Irish-owned MNCs (Forfas, 2001). There has been a considerable amount of overseas business expansion by Irish companies exemplified by companies such as Cement-Roadstone Holdings (CRH) and the Kerry Group. In 2004 there were a total of 74 foreign acquisitions worth over €5 billion by Irish companies (Mergers & Acquisitions Tracker Surveys, 2004).

Developing the sample frame: Checking and double-checking

Given the profile and importance of MNCs in Ireland one might think that a comprehensive list of MNCs might be easily obtained. However, this is not the case and may partly explain why the extant research on MNCs has not been fully representative of the MNC population in Ireland. Whilst there are a number of listings available, no one list can be considered comprehensive, accurate or reliable.

Our initial task was to identify the population (cf. Murphy, 1997) of 1) foreign-owned MNCs and 2) Irish-owned MNCs in order to carry out a representative study of MNCs in Ireland. To this end a critical first step was to clearly outline a definition of what constitutes an MNC. It is clear from the literature that no universal definition of an MNC exists. Key criteria used in defining MNCs' are their size (i.e. employee numbers and/or turnover) and their transnationality (i.e. having subsidiaries outside of the home country). Bartlett and Ghosal (1989:14) define an MNC in terms of its "portfolio of multiple national entities". Other commentators such as Vernon and Wells (1986: 2) define an MNC as "enterprises...characteristically made up of a parent firm located in one country and a cluster of affiliated firms located in a number of other countries". Therefore the task of defining a MNC was to include both the size (employee numbers) and the transnationality of the organisation, whilst also identifying the two populations, foreign-owned and Irish-owned MNCs. To aid us in this task our research team relied on the European Works Council (EWC) Directive (94/45/EC) definition of an MNC in the European context "enterprises employing 1,000 or more employees in the EEA (excluding the UK), with at least two operating sites within Europe, employing 150+

people”. However, the size threshold was thought to be over-limiting and would thus produce a small population. It was therefore decided to adapt this definition through using a smaller size threshold. Hence for the purpose of this research we defined MNCs into two populations:

- 1) All foreign-owned organisations operating in Ireland, with 500 or more employees worldwide and 100 or more in their Irish operations.
- 2) All Irish-owned organisations with 500 or more employees worldwide and at least 100 in overseas subsidiaries.

Having clearly defined an MNC, the next step was to identify a comprehensive population of MNCs, thus defined, in Ireland. Since no representative listing of MNCs in Ireland exists we had to develop our listing from a number of sources. The main criteria in determining the suitability of these sources were that they needed to have employment figures for each company, both in Ireland and worldwide. Also the sources should allow us to distinguish whether the enterprise was foreign or Irish-owned and, if foreign-owned, what its country of origin was. These issues proved particularly problematic and the following section outlines how we sought to develop an accurate and comprehensive population list. Table 1.2 provides a list of the main strengths and weaknesses of all the databases/lists used in compiling this population.

Insert Table 1.2 here

A number of recurring themes arose when examining the various databases including, their lack of comprehensiveness, duplication of companies and the inaccuracy of company details. It is clear that if taken in isolation, none of the sources could be relied upon to provide a comprehensive and accurate list of MNCs. In this context, Murphy (1997) posits the limits of many databases used in research and calls for researchers to be cognisant of the limitations of each of the databases and to carry out spot checks on each of the listings. Williams (1997) suggested that good practice in situations where no comprehensive list exists or where there are weaknesses in existing listings is to collate the population list from a number of different sources. Taking this as our point of departure the following details how we constructed our population list and dealt with the deficiencies of existing databases.

Our first step was to contact the State agencies responsible for providing financial assistance and advice to both foreign-owned and indigenous companies. *IDA Ireland* provided a list of foreign-owned grant aided companies and *Enterprise Ireland* provided a list of Irish-owned grant aided companies. Both lists contained country of origin details and contact information, and whilst neither was able to provide specific employment figures they were able to filter their database to provide us with lists of MNCs with more than 100 employees in Ireland. The *IDA Ireland* list contained 285 companies in total but this involved some double counting (i.e. the same MNC being listed twice, under differing trade or registered names) and the *Enterprise Ireland* list contained 27 Irish-owned MNCs.

Of great consequence was that both lists suffered from a number of deficiencies. Firstly, by definition the lists contained only grant aided or assisted companies and thus excluded companies, which did not receive any assistance. Rather it was restricted to companies who sought the advice of the agencies confirmed, financial and/or assistance. Secondly, while the list was strong on MNCs in the manufacturing and pharmaceutical sectors it was weaker regarding some areas of the services sector. For example, the listing did not contain foreign-owned organisations such as *LIDL*, *McDonald's*, or many of the major hotel chains, suggesting that MNCs operating in sectors such as retail, catering and hospitality may not make many of the common listings of MNCs in Ireland and thus are not represented in the extant literature. Notable exclusions from the list of Irish-owned MNCs were the major Irish banks such as Allied Irish Bank and Bank of Ireland, which boast substantial foreign operations. Other state agencies that provided lists included, *Shannon Development Company*, *Udaras na Gaeltachta* and *Forfás*.

Next we contracted a well-established private consultancy specialising in sourcing company information. By giving them our strict criteria and using their sources they were able to provide us with a list, limited to foreign-owned companies. Again this is an illustration of the difficulty in identifying Irish MNCs. This list contained a total of 406 foreign-owned companies, but included duplication.

The grant aided listings and the purchased list were then amalgamated, keeping separate lists for foreign-owned and Irish-owned MNCs. These were subsequently designated our 'master lists'.

If one considers the discrepancy in the numbers of MNCs provided by the state agency listings and that provided by the private consulting firm it is clear that any research drawing solely from the one source would have to be classified as unrepresentative because a very large number of MNCs are excluded from each list. In the case of foreign-owned MNCs the list provided by the private consulting firm had an extra 118 companies to that provided by the state agencies. In addition whilst IDA Ireland listed fewer MNCs, there were a number of MNCs (84 MNCs in total) on this list that were not on the list provided by the private consulting firm. Further, there is also a major discrepancy in the case of Irish-owned MNCs with the final population list (70 MNCs) being considerably higher compared to the list provided by the state agencies (21 MNCs).

As we were conscious of the fact that there were a number of limitations with the sources used to date, and there were a large number of MNCs on the list provided by the private consulting firm that were not on the *IDA Ireland* listing and vice versa a number of other secondary sources were used to check the accuracy of the master lists. This process of carrying out spot checks (cf. Murphy, 1997) and using a number of different sources (cf. Williams, 1997) is regarded as good research practice. Similar to the sources used in creating the master lists there were a number of limitations in these databases/lists (see table 1.2 for greater detail). For example, while the publication '*Major Companies of Europe 2005*' (Crawford et al, 2005) satisfied the study's key criteria the list was not all encompassing because companies are included based on their sales, premium income or total assets. Furthermore all of the other sources used did not meet at least one of the criteria set out i.e. the need to provide employment figures for both Irish and worldwide

operations as well as country of origin details. For example, the *Irish Times list of Top Companies*, whilst providing up-to-date Irish employment figures, did not include worldwide employment figures or differentiate between whether a company was foreign or Irish-owned.

Where it was unknown if the criteria were satisfied each company was examined individually to establish if the company in question should be included in the total population of MNCs. Initially, we used the Internet to check each company's website to establish if they satisfied the criteria. In carrying out this task, the problem of duplication in the listings was discovered. For example, in our listing of foreign-owned MNC subsidiaries there were four companies called *Johnson & Johnson*, *Vistakon*, *Janssen Pharmaceutical* and *DePuy*. On checking websites we found that *Johnson & Johnson* owns the other three thereby giving this MNC a much stronger chance of being selected. However, checking websites also had limitations: some companies did not have a website, while others did not provide details on either employee numbers or country of origin. To overcome this, we used all other sources available and if we were still unsure we telephoned the company in question to establish its employment numbers and country of origin. As a result of some differences between sources regarding published employment figures and contact details it was decided that all companies on our lists should be examined individually so as to ensure greater accuracy, thus the process of checking websites and telephone calls (if required) was followed for all companies.

A number of other sources were identified but were not used for one reason or another. One electronic source that was examined was the *Dun and Bradstreet (eWow)* database. This is a detailed business information source, derived from the Companies Registration Office (CRO), the statutory authority for registering new companies in the Republic of Ireland. As well as providing company contact information, employment figures and country of origin, it also allows researchers to trace a company's 'family tree'. Unfortunately, the cost of obtaining this database was prohibitive and preventing our using it fully. The Companies Registration Office (CRO) was also contacted directly however they said they would not be able to filter their database to show the particular information that we required. Similarly the Central Statistics Office (CSO) was contacted but to no avail. They do not have information in relation to identifiable companies or organisations.

Although there was initially considerable overlap between the lists used, extensive crosschecking helped ensure that the final lists were as comprehensive and accurate as possible. After applying the criteria and having cross referenced for accuracy a set of 483 foreign-owned MNCs and 70 Irish-owned MNCs was finalised.

Conclusion

In reviewing the available literature on MNCs in Ireland and internationally it was clear that a number of critical deficiencies characterise the extant research. In the Irish context, we firstly note the failure of studies to date to achieve adequate representativeness of the population of MNCs in Ireland, largely overlooking non-grant aided MNCs. Secondly,

we point to the lack of research into Irish-owned MNCs – research to date has focused primarily on foreign-owned MNCs. In addition Collinson and Rugman (2005) argue that there is an unrepresentative depiction of management research in MNCs internationally.

Our goal was to address these deficiencies and a key step in this process was the development of a comprehensive sample frame. This paper has shown the difficulty in developing such a database and the problems associated with various listings currently available. These difficulties include lack of comprehensiveness, duplication, and inaccurate details. We have identified a best practice method in researching MNCs by documenting the steps taken to overcome these problems by using as many sources as possible. It demonstrates how these sources were used and combined to maximum effect to create a master list. As a result, we developed what we feel is the most comprehensive listing of MNCs in Ireland of 483 foreign-owned MNCs and 70 Irish-owned MNCs.

Table 1.1: Total FDI Inflows 1992-2003 (\$million and % of global total)

Country	1992-97 Average	1998	1999	2000	2001	2002	2003
Ireland	1,694 0.5%	8,579 1.2%	18,218 1.7%	25,843 1.9%	9,659 1.2%	24,486 3.6%	25,497 4.6%
Germany	6,042 1.9%	24,953 3.6%	56,077 5.2%	198,276 14.3%	21,138 2.6%	36,014 5.3%	12,866 2.3%
UK	19,527 6.3%	74,321 10.8%	87,979 8.1%	118,764 8.6%	52,623 6.4%	27,776 4.1%	14,515 2.6%
Italy	3,523 1.1%	2,635 0.4%	6,911 0.6%	13,375 1.0%	14,871 1.8%	14,545 2.1%	16,421 2.9%
US	60,268 19.4%	174,434 25.2%	283,376 26.1%	314,007 22.6%	159,461 19.5%	62,870 9.3%	29,772 5.3%
Canada	8,012 2.6%	22,809 3.3%	24,743 2.3%	66,791 4.8%	27,487 3.4%	21,030 3.1%	6,580 1.2%
China	32,799 10.6%	45,463 6.6%	40,319 3.7%	40,715 2.9%	46,878 5.7%	52,743 7.8%	53,505 9.6%

Adapted from: UNCTAD World Investment Report 2004

Table 1.2: Summary of Strengths and Weaknesses of Business Lists/Databases

Name of Database/List	State agencies (e.g. IDA Ireland, Enterprise Ireland)	Private consulting firm	Irish Times list of Top Companies	Kompass	Major Companies of Europe	Irish Management Institute
Database/List Strengths	<ul style="list-style-type: none"> - Provides contact details: address, telephone/fax number, website & contact person - Provides country of origin detail - Can filter database to provide MNCs with 100+ employees in Ireland - Gives main activities of MNC 	<ul style="list-style-type: none"> - Provides contact details: address, telephone/fax number, email, website & contact person - Provides employment figures for Irish operations - Gives main activities of MNC 	<ul style="list-style-type: none"> - Provides contact details: telephone number, website & contact person - Provides employment figures for Irish operations - Gives main activities of MNC 	<ul style="list-style-type: none"> - Provides contact details: address, telephone/fax number, website & contact person(s) - Provides employment figures for Irish operations - Gives main activities of MNC 	<ul style="list-style-type: none"> - Provides contact details: company address, telephone/fax number, email, website, contact person (s) - Can distinguish between whether a company is indigenous or a MNC - Gives main activities of MNC - Lists parent company and subsidiary companies 	<ul style="list-style-type: none"> - Provides contact details: address & contact person
Database/List Weaknesses	<ul style="list-style-type: none"> - Excludes non-grant aided/assisted MNCs - Weak in listing MNCs in the Services Sector e.g. LIDL, McDonalds, AIB - Does not provide employment figures (either Irish or worldwide) but the IDA can filter database (see strengths) - Duplication 	<ul style="list-style-type: none"> - Unable to provide listing of Irish-owned MNCs - Unable to provide country of origin details for all MNCs on the list - Does not provide worldwide employment figures - Duplication 	<ul style="list-style-type: none"> - Fails to distinguish between foreign-owned and Irish-owned firms - Not all encompassing, companies included based on total turnover - Does not provide worldwide employment figures - Limited contact details provided (telephone number only) - Duplication 	<ul style="list-style-type: none"> - Fails to distinguish between foreign-owned and Irish-owned firms - Does not provide worldwide employment figures - Duplication 	<ul style="list-style-type: none"> - Not all encompassing, companies included based on sales, premium income or total assets - Does not provide employment figures for worldwide and Irish operations, only one or the other - Duplication 	<ul style="list-style-type: none"> - Does not provide employment figures (either Irish or worldwide) - Fails to distinguish between foreign-owned and Irish-owned firms - No details on MNCs main activities - Limited contact details i.e. no telephone number provided - Duplication

Name of Database/List	Who owns Whom	International Financial Services Centre Companies	Business and Finance Top 5000 Companies	Irish manufacturing companies	Irish Companies listed on UK Stock Exchange	Irish Stock Exchange
Database/List Strengths	<ul style="list-style-type: none"> - Provides contact details: company address - Can distinguish between whether a company is indigenous or a MNC (i.e. has subsidiaries or not outside of Ireland) 	<ul style="list-style-type: none"> - Provides list of all companies operating in the IFSC 	<ul style="list-style-type: none"> - Provides contact details: address, telephone/fax number, website & contact person - Employment figures for Irish operations - Gives main activities of MNC 	<ul style="list-style-type: none"> - Provides contact details: address, telephone/fax number, email, website & contact person - Gives main activities of MNC 	<ul style="list-style-type: none"> - List of all Irish companies trading on the UK Stock Exchange 	<ul style="list-style-type: none"> - List of all companies trading on the Irish Stock Exchange
Database/List Weaknesses	<ul style="list-style-type: none"> - Does not provide employment figures (either Irish or worldwide) - Fails to distinguish between foreign-owned and Irish-owned firms - No details on MNCs main activities - Limited contact details i.e. no contact person, no telephone number provided 	<ul style="list-style-type: none"> - No other details provided other than a list of all company names operating in the IFSC i.e. no contact details, no employment figures etc 	<ul style="list-style-type: none"> - Does not provide worldwide employment figures - Fails to distinguish between foreign-owned and Irish-owned firms - Duplication 	<ul style="list-style-type: none"> - Does not provide employment figures (either Irish or worldwide) - Fails to distinguish between foreign-owned and Irish-owned firms - Duplication 	<ul style="list-style-type: none"> - No other details provided other than a list of all company names listed on the UK Stock Exchange i.e. no contact details, no employment figures etc 	<ul style="list-style-type: none"> - No other details provided other than a list of all company names listed on the Irish Stock Exchange i.e. no contact details, no employment figures etc

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ⁱ The research team is working on an international research project entitled *Employment Practices of Multinational Corporations (MNCs) in Organisational Context: A Large-scale Survey*. This involves a comprehensive survey of employment relations (ER) in MNCs in six countries, including Ireland. The aim of the research is to map the ER practices of MNCs and to relate these to such organisational factors as corporate structure, degree of international integration, nationality of ownership, and sector. The survey, which will be the first in Ireland to be based on a large-scale representative sample of MNCs, will focus on four key issues: rewards and performance management, employee representation, organisational learning and employee communication and involvement. The Irish study forms part of a larger international project involving research teams from Canada, Spain, Mexico, the United States and the United Kingdom.

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