Internationalization from a small domestic base:
An empirical analysis of Economics and Management

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Internationalization from a small domestic base:

An empirical analysis of foreign direct investments of
Icelandic Multinationals

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Fredriksberg, July 28th 2009
Preface

This dissertation consists of an introductory chapter, followed by four papers that approach the topic of internationalization of small economies and the multinational firm from different angles. The concluding chapter deals with what happened in Iceland after the crisis that started in October 2008 with the collapse of the Icelandic financial system and how the very fast internationalization of Icelandic firms was possible, but only as further issues that need to be researched. Each of the papers can be read individually as well as in the larger context of this dissertation.


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Contents
Preface ......................................................................................................................................... 2
Acknowledgements ..................................................................................................................... 3
1. Introduction to the thesis ............................................................................................................. 7
   Theoretical approaches ............................................................................................................... 9
   Definition of a small economy .................................................................................................. 11
   The small economy under study ............................................................................................... 13
   Methodology of the thesis ......................................................................................................... 16
      Choice of research methods .................................................................................................. 17
      Collected data ........................................................................................................................ 18
      The execution of data collection ........................................................................................... 22
   Structure of the thesis ................................................................................................................ 23
   References ................................................................................................................................. 29
2. Internationalization from a small domestic base ..................................................................... 32
   Abstract and Key Results .......................................................................................................... 32
   Introduction and Background ................................................................................................... 33
   Theoretical framework .............................................................................................................. 35
   Research focus and approach .................................................................................................. 40
   Empirical findings: analysis of the key characteristics of Icelandic MNCs ............................. 41
      The establishment years from a historical point of view ...................................................... 42
      Elapsed time from company establishment until internationalization .................................. 44
      Industrial composition and mode of expansion .................................................................... 47
      Degree of internationalization in terms of foreign employment ........................................... 49
      Degree of internationalization in terms of overseas turnover .............................................. 52
      Motives and driving forces for internationalization .............................................................. 53
      The characteristics of Icelandic investments ........................................................................ 54
   Conclusion and discussion ........................................................................................................ 56
   References .................................................................................................................................. 60
3. The Rise of Icelandic Multinationals (MNCs): A multiple case study approach .................... 63
   Abstract ..................................................................................................................................... 63
1. Introduction to the thesis

The study of the economics of international business began in the US in the late 1950s and the 1960s. The basic question was why do major companies engage in production in foreign countries rather than supply these markets through exports? With time, international business became the common mode of conducting business in the world. One major implication of this development is the change in the focus of international economics from the country to the firm. This change makes it possible for small countries to become major players in world business, much beyond their relative economic size. This is not entirely new. Small countries like the Netherlands and Switzerland were active in world business many years before scholars were concerned about international business, but this phenomenon became much more common in the last quarter of the twentieth century and at the beginning of the twenty-first century. Ireland, Israel, Finland, Estonia and Slovenia are some examples of newcomers to the scene of international business. All of the newcomers share one important feature: the growth of the corporate sector did not follow the pattern of supplying the local market, exporting and then international business activities, a pattern followed by companies like Ford and many other large country-based multinational enterprises, but the global activity was almost totally divorced from the local market. Nokia in Finland and Teva in Israel are two well-known mega examples, but there are many others.

Iceland is a very extreme case of this process. With a little more than 300,000 people, the local market in Iceland hardly exists. Moreover, unlike small countries like the Netherlands and Sweden, Iceland has no history of international trade. Yet, in a very short time, Icelandic firms and financial institutions became active and meaningful players in the global market. This short
period of very rapid global growth ended in October 2008 with a severe financial and economic crisis.

Several research questions are addressed to get the answer to the overall question of the thesis. The sub research questions addressed in this dissertation are: What were the main reasons for the rapid growth of the global business activities in Iceland? Why did they collapse in October 2008? Is it possible or likely for the global sector of Iceland to recover from the crisis of 2008? This multifaceted issue is discussed by examining the data on the rise and fall of the global activities of Icelandic companies and banks in the context of similar research that was performed pertaining to other small counties.

Global business proves itself to be an important driver of economic growth in small countries. As the recent history of Iceland shows, it is also extremely risky. An important aspect of this dissertation is to discuss the way in which the competitive advantages of Icelandic companies and financial institutions can be maintained without risking a crisis. The dissertation is comprised of four papers that, put together, provide a complete analysis of the following questions:

1. How did Icelandic companies become global players in the period 2004–2007
2. What was the main motivation behind their foreign direct investments?
3. Are the global expansion strategies for Icelandic firms different from those of Irish or Israeli firms?
4. Did Icelandic managers have some special managerial capabilities to manage such rapid growth?
5. Did they have integrative capacity in their headquarters?
6. What was the role of the Icelandic banks and the global financial community in facilitating this growth? And
7. What were the main reasons for the crisis and is there a way to resurrect the global activities of Icelandic companies?
**Theoretical approaches**

Benito et al. (2002) postulate that micro–macro interaction is pronounced in the case of multinational enterprises (MNEs) from small open economies (SMOPECs), since they outgrow their home base more easily, and small countries are more dependent on their large companies. The literature has illustrated that small open economies tend to be more internationalized, with a relatively large share of the value-added activity being conducted with the explicit purpose of serving overseas markets. Firms from these countries tend to be competitive in a few niche sectors, as small countries tend to have limited resources and prefer to engage in activities in a few targeted sectors, rather than spreading these resources thinly across several industries (Benito et al., 2002). The current international business literature extensively covers the firm-level determinants of foreign direct investments (FDI) and empirical research in the field is commonly based on Dunning’s eclectic paradigm, ownership, location and internalisation advantages-based framework (OLI) and/or focused on what firms are seeking when investing abroad. In the past, though, research on the multinational enterprise has to a large extent focused on large, mature corporations originating from the leading and larger OECD countries. Moreover, considerable attention has been given to transition economies, the Central European economies and China. A very small proportion of previous contributions deal specifically with SMOPECs and the motivating factors that drive MNEs originating from small countries to undertake outward FDI. On the contrary, the magnitude of research does not reflect the relevance of FDI to small economies. In fact, Hogenbirk and Narula (1999) note that the role of MNEs in small countries is significant and growing, as generally “the MNE has become pivotal in economic growth and development through its overseas production, its intra-firm and inter-firm trading activities, and other forms of cross-border economic activity” (Hogenbirk & Narula, 1999: 23). Here the focus is on small economies, not their openness.
A variety of theoretical perspectives have been used to approach the question of why companies engage in foreign direct investment, ranging from international trade theories (see e.g. Morgan & Katsikeas, 1997) and market imperfections theory (Caves, 1971; Hymer, 1976; Kindleberger, 1969) to internalization theory (Buckley & Casson, 1976; 1985; Rugman, 1981) and eclectic paradigm (Dunning, 1980; 1988; 2000). For a quick review, the basic macroeconomic explanation of international investments is the classical theory of international trade (Mundell, 1957), which emphasizes “the factor endowments of an economy and implies that a firm’s international investments follow the comparative advantages of different locations” (Arvanitis & Hollenstein, 2006: 5). In other words, firms are claimed to engage in international production because of the resources available in foreign locations that are not available at home. Market imperfections theory then recasts FDI in microanalytical terms (Nicholas & Maitland, 2002) and shares the basics of new trade theory (Ethier, 1986; Helpman, 1984) in its view that firms capitalize on specific capabilities that can be exploited abroad independently of the economic attractiveness of the foreign location, with the advantage that these particular capabilities are not shared by competitors in the foreign country. The market imperfections theory then further explains how advantages come into being by challenging the model of perfect competition, and stating that the reality of imperfect competition enables firms to achieve different types and degrees of competitive advantages (see Porter, 1985). In other words, market imperfections theory explains FDI as a means to exploit firm-specific capabilities in new markets. On the other hand, it does not explain why FDI is considered the most desirable method to take advantage of those. Internalization theory, however, addresses this issue. Internalization theory is rooted in transaction cost economics (Williamson, 1975; 1985) and predicts that because of market imperfections firms may face high transaction costs in foreign intermediate
markets. This brings firms to develop their own internal markets, transferring assets within the organization through hierarchies instead of via the market whenever transactions can be made at a lower cost that way. Hence, firms internalize their international activities using FDI rather than alternative forms of foreign market entry, such as exporting or contractual agreements, in order to minimize cost and/or increase efficiency.

**Definition of a small economy**
When inspecting literature and reports concerning small economies (see e.g. Hogenbirk & Narula, 1999; Merrett, 2002; Thorhallsson, 2000; Walsh, 1988), it is clear that definitions of the concept of a small economy vary between authors and context. Indeed, it is widely agreed that no single definition of a small economy exists and that there are many criteria on which one can classify the size of a country. Within the international business literature, the most commonly used criteria for classifying the size of markets and, hence, economies are: a) population and b) different measures of gross domestic product (GDP) – absolute size of GDP, GDP per capita and growth of GDP (see e.g. Bora, 2002; Merrett, 2002; Thomas & Grosse, 2001; Veugelers, 1991; World Bank Group, n.d.). Whereas measures such as GDP and territory size have been found to be highly correlated with population, population can be concluded to be a good indicator of size and will be used as a benchmark for the purpose of this particular paper (World Bank Group, n.d.). Economies with an upper limit of 10 million people may therefore be referred to as small economies. Taking into consideration only sovereign developed economies, Iceland is, according to this definition, a small economy along with the countries presented in Figure 1.
Different population thresholds have been used in the past, for example, an upper limit of 1.5 million people has been used when discussing developing countries (World Bank Group, n.d.). Using the upper limit of 10 million people, however, conforms for example to Simon Kuznets’s (1960) definition of a small country. It should be noted that the particular population threshold has no particular significance. Rather, it is used as an indicator since no single definition is likely to be fully satisfactory. Indeed, according to information from the World Bank Group (n.d.) website, “there is a continuum, with states larger than whatever threshold is chosen sharing some or all of the characteristics of smaller countries”.

When reviewing the literature on SMOPECs and FDIs, this is evident as much of the literature takes examples of economies with a population of 5–10 million people, for example, Switzerland, Austria, Denmark, Finland and Sweden. There are also examples of countries with a population slightly over 10 million people but with a relatively small GDP, and even a country like Australia, which is considered as a small open economy although having around 20 million inhabitants as the GDP generated is also relatively low when compared with the larger economies, like France, Germany, the UK and the US.

A relatively large population threshold is chosen here because of the economic development stage of Iceland. If one were to compare Iceland’s economy with other countries of
a more similar size in terms of population, most of the counterparts would be developing countries generating a significantly smaller GDP per capita than Iceland in the period under study (see World Bank Group, n.d.).

Recent studies have found evidence against the idea that small countries suffer from an inability to exploit increasing returns to scale and moreover that small states have a higher GDP per capita than other states, when controlling for location (Easterly & Kraay, 2000), small economies do have greater volatility of annual economic growth rates, partly because they are more vulnerable to trade shocks, which in turn is caused by their greater openness (Easterly & Kraay, 2000).

The small economy under study
We have defined a small economy and, as stated above, the focus of this thesis is on one of the smallest sovereign economies in the world, Iceland, the country that has led the World Investment Report in the last few years in outward foreign direct investments and the first country to be hit seriously by the financial crisis that is shaking the world today. Globalization is not a new concept to the Icelandic nation. Over 1,000 years ago, the country was actively involved in international trade when the “Vikings” sailed across the oceans. Despite their barbaric reputation, they were no more than merchants who took advantage of their more advanced sailing skills at the time.

If we start by looking back only three years, we can see that Icelandic businesses have experienced an extraordinary rate of international growth and expansion. This phenomenon has caught the attention of economists, analysts, the media and even the general public around the world. Such expansion, motivated by domestic and international factors, is a natural development as companies outgrow the local market and turn their attention to finding new
markets abroad (Óladóttir, 2009). Icelandic organizations now own or hold a majority stake in many long-established businesses, primarily in Britain and the Scandinavian countries. This aggressive expansion of Icelandic businesses into Europe has resulted in extensive media coverage, and considerable coverage by financial analysts and rating agencies. Volatility and economic imbalances have given rise to concerns about the financial stability of Iceland’s economy and financial system during 2006.

Due to these imbalances and the risk posed by the looming correction process, Fitch Ratings put Iceland’s sovereign credit rating on a negative outlook in February 2008. In the following weeks, negative discussion escalated when several pessimistic reports were released by bank analysts and rating agencies. Those concerns were understandable at that time to a certain degree: it is a tiny country, with a little more than 300,000 people living on a rock in the Atlantic Ocean and, following the dramatic transformation of Iceland’s economy over a relatively short period of time, key indicators appeared abnormal and even alarming.

Among these was a double-digit current account deficit, phenomenal growth in corporate debt and considerable volatility in the currency. The sudden presence of Icelandic companies in the global economy demands an explanation of the factors leading to such rapid expansion. If this information is not adequately provided to key stakeholders, decisions may be made based on the wrong assumptions.

Hence, the biggest risk facing the Icelandic economy in 2006 was that misguided and often negative media coverage would lead to hostility toward Icelandic firms, causing further instability in Iceland’s economy and financial system. But was it really misguided and negative media coverage or even hostility or did others see the situation that is now facing the world before the people that live in this small and maybe too open economy did?
Looking further at Iceland’s size in context with other small developed economies shows that, in terms of population, Iceland is most closely comparable with the microstate Malta with approximately 405,000 inhabitants. Still, Iceland is not considered a microstate, most likely because of its large land area. Another comparison could be Luxembourg, which close to 500,000 people inhabit. Therefore, most of the countries that fall within the given definition of a small economy and are dealt with as small open economies in the current literature differ markedly in size relative to Iceland when referring to population. Gross domestic product (GDP) is the standard measure of the value of the goods and services produced by a country during a period. Each country calculates GDP in its own currency and, in order to compare countries, these estimates have to be converted into a common currency. Often, the conversion is made using exchange rates, but these give a misleading comparison of the real volumes of goods and services in the GDP (OECD, 2007). Then, examining size in terms of GDP, the absolute GDP of Iceland is rather low in this comparison and ranked number 138 of 227 countries when comparing GDP worldwide in 2006, generating a GDP of US$10.9 billion (OECD, 2007). On the other hand, when looking at the GDP per capita, Iceland sat in thirteenth place in the same year with approximately US$36,000 (OECD, 2007).

Despite its smallness, Iceland now “has all the characteristics of a modern welfare state” (Central Bank of Iceland, 2007: 19) and is a prosperous modern economy with two-thirds of the labour force employed in services. Less than a century ago, however, Iceland counted as one of the poorest economies in Europe, with almost two-thirds of the labour force employed in agriculture. The Icelandic economy has therefore gone through very rapid changes in the past decades. The country modernized quickly in the second half of the twentieth century and rapid

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1 Microstates are very small sovereign states, usually having both a very small population and a small land area. Other microstates are: Andorra, Liechtenstein, Monaco, San Marino and the Vatican City.
economic progress was achieved as a result of market liberalization, fiscal consolidation, privatization and other structural reforms implemented in the late 1980s and 1990s. However, it was not until the middle of the 1990s that economic growth started to gain momentum. The liberalization process continued in the second half of the 1990s, involving the restructuring of the Icelandic financial markets and financial institutions as well as changing the exchange rate policy to become more flexible (Central Bank of Iceland, 2007). In 1994, Iceland became a member of the European Economic Area (EEA), which integrated the country into the single European market of the European Union (EU). During the past ten years, the Icelandic economy has grown faster than ever before, with one of the most dramatic changes of the economic structure being the globalization of the Icelandic business environment (Portes & Baldersson, 2007; Tómasdóttir et al., 2007). The policy changes in the past decades have enhanced access to foreign markets, liberated the flow of labour, goods and capital and thus turned Iceland into an open market economy.

**Methodology of the thesis**

Iceland is like a black hole in the study of FDI in the Nordic countries (Hellgren and Schriber, 2003). That is why an exploratory approach was chosen on the internationalization of Icelandic firms investing abroad. Different methods were used to collect data to gain as broad an overview of the internationalization process as possible. Primary data and secondary data were used to see how Icelandic firms had invested abroad. Published data, companies’ web pages, databases, interviews, emails, conversations with managers and surveys were used to obtain a broad picture of outward foreign direct investments of Icelandic firms. These mixed methods in data collection
were used because data about FDI from Iceland were not available and no research had been conducted previously that could be used.

The present study focuses on the internationalization and on the motives behind outward FDI undertaken by firms from small economies, with special emphasis on Icelandic firms. A combined research method, meaning both qualitative and quantitative research methods, is used in this thesis to obtain the best data, information and knowledge possible regarding the subject under study.

As has been presented before, the thesis is built on four individual papers, plus an introductory chapter and a concluding chapter where further research is suggested. Each paper includes its own methodology chapter. Here, a broad overview of the methodology chosen is presented. The thesis starts with a broad overview of the internationalization of firms from a small economy, Icelandic firms. Then, the motivation behind those OFDIs is studied. Iceland is then compared with two other small economies, Ireland and Israel, and finally a paper that studies the relationship between headquarters and their subsidiaries abroad is presented.

**Choice of research methods**
In this thesis, it was found necessary to use different kinds of research methods to approach different angles of the internationalization of firms from small economies, both to gain a broad overview and also to gain more in-depth information. Both exploratory research and descriptive research methods are used where quantitative and qualitative methods are combined.

Out of several approaches to case-based empirical research identified in related literature (Eisenhardt, 1989; Yin, 1993), the choice was made to follow the procedures of comparative case analysis as presented by Eisenhardt.
To understand the motivation behind foreign direct investments as will be presented below, a multiple-case method is preferred over a single-case study because of the inductive approach of the research and because general explanations will be sought in cases that cannot be considered as rare, critical or revelatory.

**Collected data**

To achieve the objective of triangulation, both primary and secondary data were collected. Semi-structured interviews were chosen as one of the data collection methods. The answers to the questions provided mainly factual data. The interview data were supplemented with written background questionnaires, which were confirmed by managers at the companies under study.

Data were also drawn from company reports and news reports (from the Icelandic stock exchange) where possible. Company reports (and other secondary data, e.g. stock exchange news) were the main source for triangulation, as these provided some information about the objectives and strategies of the companies in the past years.

As stated above, no data were available about the OFDI of Icelandic firms and no research had been conducted about OFDI from Iceland. It was thus very important to gain an overview to try to see the broad picture about how Icelandic managers saw the future of the OFDI of Icelandic firms and if and how they had invested abroad. It was necessary to see how many Icelandic firms had invested abroad, if they planned to invest abroad, how they had done it and how they had financed it. That is why a cooperation with Gallup in Iceland was chosen for a telephone survey among Icelandic managers. The survey was carried out by telephone from 13 January until 27 February 2006. A random sample was used. The original sample consisted of 1000 companies in Iceland. Of these, 32 companies had quit their operation and 165 companies in the sample had fewer than 10 employees. That gave a final sample of 803 companies. The
managers of 191 companies refused to answer and Gallup could not reach the managers of 115 companies. Managers of 497 companies participated in the survey, which is a 61.9% response rate. The classification of the firms was service companies and manufacturing firms. The minimum number of employees was 10.

The data that were collected with the telephone survey\(^2\) raised more questions than they answered. Why did 4% of the managers invest abroad in the last 12 months and why were 8% planning to invest abroad in the following 12 months? That led to the conclusion that very few Icelandic firms were investing abroad. The data collected were new data on the overseas activities of 21 Icelandic companies, which were collected in the period from November 2004 until July 2006. The underlying companies make up the majority of companies listed on the Icelandic Stock Exchange (NASDAQ, OMX), as well as a few others that are not listed but that have been investing considerably abroad. At the year end of 2004, those 21 companies represented 88.9% of the total outward FDI stock and represented 89.2% of total outward FDI flow. Information was gathered from the websites of the relevant companies and from the website of the Icelandic Stock Exchange, as well as from databases of Icelandic and foreign newspapers. The information collected about each company included: the year of establishment; investments undertaken; investment year, country and industry; and, finally, the overall purpose of these investments. The factors that motivated those companies to internationalize were also investigated. The data about each company were then sent to the CEOs – in most cases – of the companies under investigation, who were asked to confirm the information about the internationalization of their companies. The CEOs were also asked to provide additional information about the financing of their operations abroad. This process resulted in the creation

\(^2\) The questions asked can be seen in the Appendix 2 of the thesis.
of a unique firm-level database of the leading Icelandic MNCs. Finally, data from the Central Bank of Iceland about the outward FDI (flows and stocks) from 1998–2005 were also used.

To be able to gain insight into the motivation behind the foreign direct investments of Icelandic firms, four case studies, representing Icelandic MNCs in different industries, were carried out. This approach enables the integration of primary and secondary data, exploring managers’ perceptions of motives and underlying influences as well as reading between the lines of reports available from the case companies. The twofold research problem under scrutiny is seen as an ambiguous and unstructured problem. The answers to the research questions can, for example, not all be listed beforehand (Ghauri & Grønhaug, 2002) and research is needed to gain a better understanding of the different dimensions of the problem (Zikmund, 2000). This suggests an exploratory research design (Ghauri & Grønhaug, 2002; Zikmund, 2000).

The data sets collected were broader in scope than those presented in the present study. The collected data cover the period 1992–2007. To enrich the database, interviews were carried out with the CEOs of the companies or with the corporate communication managers whereever information was missing. Those interviews were semi-structured, starting with very open questions on the companies’ internationalization processes and the motivations behind each investment, but using the conceptual framework and a research-question form to ensure that all the important areas were covered. The interviews were recorded and transcribed. In addition, annual reports, company presentations, press releases, journal articles, books and book chapters, newspaper articles and public statistics were used in case study analyses. Archive work was performed in building cases. The selected cases come from different industries. Actavis is a high technology manufacturing firm, Bakkavor is a medium technology manufacturing firm, Kaupthing Bank is in financial services and Baugur Group in other services. The selected cases
were found to enable different dimensions for gaining understanding of the subject. For example, based on the literature review, it is known that different motives may characterize initial versus sequential FDI. As the characteristics of the firms differ, the four cases might therefore also represent different motives for engaging in FDI. Thereby, the four cases chosen have been justified.

Also, an exploratory study was conducted working with published data on three economies. In the empirical analysis of the expansion strategies of firms from Iceland, Ireland and Israel, we investigate the determinants of investment expansion strategies employing a multinomial logistic regression approach where the probability of a firm having a particular strategy for investing is modelled as a function of firm-specific and location-specific variables. This model is appropriate as it is used to model relationships between a multiple response variable and a set of regressors (Greene, 2003; Wooldridge, 2002).

The maximum likelihood estimates are obtained using Stata 10. It is customary in the literature to report the estimates of multinomial regression analysis as relative risk or odds ratios. The coefficients are then interpreted as changes in the relative risk of the respective category over the base category. While important in understanding the determinants of firm motivations behind decisions to invest, relative risk ratios are not directly interpretable in terms of incremental impacts on probabilities of respective motives. This is achieved through the calculation of marginal effects or elasticities.

The final paper in the thesis covers how a firm from a small domestic base, with the headquarters located in Reykjavík, Iceland, can manage to be an MNC, or the relationship between the headquarters and the subsidiaries and if they have the capacity they need integrated.
The overall strategy of the Integrative capacity paper is a case study, where the headquarters of Marel and its subsidiaries and Actavis and its subsidiaries are the primary focal point. Primary data were collected through interviews with 25 people at all levels of the organization in Marel and the CEO and the deputy CEO of Actavis and the manager of corporate communication at Actavis. Additionally, secondary data issued by Marel and Actavis have been used to complement and supplement the gathered data and account for any missing information in the interviews.

Initial primary data were collected through lengthy unstructured interviews with two employees of Marel and Actavis. By doing so, information regarding the industries in which the companies work and the historical background of the companies and the acquisitions were gained.

The following interviews at manager level were semi-structured, allowing for the comparison of the answers and to gain a more complete look into both a strategic level and a more practical level of their activities. The interviews took place in four series.

**The execution of data collection**
At the beginning, as stated above, no data were available about OFDI of Icelandic firms. When the Central Bank of Iceland was contacted, the answer was that those data they had were confidential and the managers sent information if they felt like it, so they were not reliable anyway. That is when the companies’ web pages and the database of the main newspapers in Iceland were studied to see what information was available; the companies’ annual reports were studied and the stock exchange and conversations with managers in different fields gave ideas about companies to study. In the beginning, a database of 28 companies was conducted but ended in a database of 21 companies that had invested heavily abroad in the recent years. After
the database about the internationalization had been compiled, the CEOs of the 21 companies were contacted to review the information about their company.

The interviews were carried out in November 2006 and February 2007 in the case companies’ headquarters in Reykjavik. Semi-structured questions were asked, based on an interview guide that had been developed after surveying previous literature. At the end of the interview sessions, the respondents were asked to provide company reports that might prove useful, which they did.

Structure of the thesis
This thesis is built on four individual papers that all reflect on the internationalization from small economies and is structured in the following way: after the introductory chapter comes an empirical paper about the internationalization of Icelandic firms. Iceland has been like a black hole in the study of FDI from the Nordic countries: there has been a gap in the literature about FDIs from Iceland. This paper is the first empirical study to address the outward foreign direct investment of Icelandic firms. The purpose is to demonstrate how Icelandic companies have invested abroad through foreign direct investments. The overall objective of this paper is to describe the key characteristics of Icelandic multinational corporations (MNCs) and to gain a deeper understanding of the internationalization processes of firms from a small domestic base. Most Icelandic outward FDI has been directed at European countries, with the UK and Denmark in the front seats for host countries. In recent years, though, investments have increasingly been made in more distant countries, for example in North America and Asia. Acquisitions have accounted for most of the outward FDI from Iceland (Óladóttir, 2009). This is in line with world
trends as, “according to UNCTAD (1997), between 55 percent and 60 percent of FDI flows over the period 1985-1995 was accounted for by mergers and acquisitions” (Dunning, 1998: 49).

Besides, FDI has been the most common means of expanding abroad and the total stock of FDI by Icelandic residents grew by over 55% per year on average over the period 1996–2006 (Central Bank of Iceland, 2007). Consequently, the net international investment position is highly negative and increasing (Portes & Baldursson, 2007), meaning that the total stock of outward FDI is much higher than the inward FDI stock owned in Iceland by foreigners. As already mentioned, Iceland has rapidly climbed to the top of UNCTAD’s outward FDI performance index and ranked first in 2004–2006, which further indicates the relative importance of Icelandic OFDI against the country’s economic size.3

Keeping in mind the contrasting elements of the relatively small size of the country in terms of population, the short history of FDI activity of Icelandic firms, the recent growth of outward FDI stock, the high ranking of GDP per capita and the high level of foreign assets as a proportion of GDP leading to a number one position in the outward FDI index in the past few years, one cannot help wondering whether the outward FDI engagement of Icelandic firms is in some way peculiar; why has the growth of outward FDI flows been as tremendous as is evident, and has the size of the country or some other country-specific characteristics influenced the evolvement of firms’ FDI activity or is the Icelandic case perhaps not so different from other small open economies? Attempting to answer wide-ranging questions like these calls for a comprehensive approach, examining a wide range of companies and FDI activities.

Many of the Icelandic companies have been investing heavily abroad over the last six years4. Some have acquired companies that are relatively larger than themselves, at least if one

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3 In terms of GDP
4 Examples of OFDI of Icelandic firms can be seen in table 6 in Appendix of the thesis.
studies the increase in the number of employees. The main motive for this increase in foreign
direct investments is access to a new market. The Icelandic market is simply not large enough for
companies to be categorized as medium and large companies in the global environment. What
also supports this is that, as mentioned above, the outflow of FDI from Iceland was very low in
the last century (Óladóttir, 2009). Following the empirical research on the FDI of Icelandic
firms, we gain a macro story (in International business (IB) terms) about the motivation behind
those FDIs. Why did Icelandic managers want to invest abroad? The motivation is studied with
multiple case studies that were conducted among four Icelandic firms who had invested abroad.
Empirical data were collected that gave valuable insights into what has motivated outward FDI
of Icelandic firms and whether the small size of the Icelandic economy has had something to do
with that. Our analysis reveals several important facts. First, seeking new markets and strategic-
asset seeking are the main motives behind the OFDI of the case companies under study. Second,
by far the majority of investment projects are carried out in northern Europe. Third, the case
companies are mainly exploiting their ownership advantages when investing abroad (Óladóttir,
2009a).

Firms must have both an ownership (O) advantage and an internalization (I) advantage,
while the foreign market must offer a locational (L) advantage (Dunning, 1980). Obviously,
location advantages are relevant in determining where the firm chooses to manufacture its
products, which leads us to the fourth paper in this thesis, which is a comparison of global
expansion strategies for Icelandic, Irish and Israeli multinationals. The aim of the paper is to
analyse the overseas activities of multinational corporations (MNCs) coming from small open
economies (SMOPECs) and their global expansion strategies behind outward foreign direct
investments (OFDI). Recent data in the annual World Investment Report (UNCTAD, 2007a)
show that, in the top 20 of the outward foreign direct investment (FDI) performance index for 2006, appeared countries like Iceland, Ireland and Israel. Thus, we do see that leading FDI performers do not limit themselves to what we traditionally consider as large and developed countries such as the US or the UK but include a variety of countries ranging from small developed countries with a long-standing history in the international investment scene. At the same time, as we already indicated, another group of countries, including Iceland, Israel, Ireland and others, emerges as potential key players in the global business environment. The focus countries are Ireland, Iceland and Israel. Using a sample of 1089 foreign operations, of which 187 are Icelandic, 444 are Irish and 458 are Israeli operations, we explore the geographical and industrial pattern of their direct investment strategies. Our analysis reveals several important facts. Firstly, most of the OFDI is directed to finance, insurance and real estate services for all the countries. Secondly, by far the majority of investment projects are carried out in Europe and North America, which are almost equal in terms of frequency of investments. Finally, with regard to their investment strategies, risk-diversification strategies seem to be the dominant expansion strategy choice followed by horizontal integration expansion strategies (Óladóttir, Papanastassiou, Hobdari & Sinani, 2009).

However, the location is not the only important issue, as Dunning has pointed out. Firm-specific advantages are also important. As has been stated, ownership advantages take the form of firm-specific assets both tangible, e.g. products or technologies, and intangible, e.g. patents or brands. Hence, the firm is more than able to offset the incremental transaction costs of multinational operation because of the cost or demand benefits conferred by the ownership advantage. Multinational firms also need an internalization advantage in the sense that benefits accrue to the enterprise by exploiting the ownership advantage from choosing to produce abroad.
internally, rather than through the market by franchising or licensing the product or process internationally. The fifth paper in this thesis focuses on the inter-firm managerial issues in global firms, with a focus on MNCs that have their headquarters in Iceland. Here, we touch upon a new term in the international business literature: integrative capacity.

The past decades have been characterized by profound changes and an increased rate of globalization. As a result, there have been dramatic shifts in the way businesses are organized and how firms compete. These rapid changes in the nature of global competition have caused international managers and international management researchers alike to search for new ways to frame problems and answer questions about how to manage complex multinational corporations most effectively. When a corporation establishes a subsidiary in a foreign country, through greenfield or acquisition, its managers must decide how much control they need to maintain over the subsidiary. Should the company operate separately or should it be integrated into the corporation? The control relationship between headquarters and foreign subsidiaries can be either centralized or decentralized. Too much centralization or decentralization can lead to an ineffective corporation so there has to be a good balance. A good balance is attained when the managers in the headquarters have global vision, core values and cultural principles that are shared by all the subsidiary managers. The managers in the headquarters make decisions based on an understanding of the cultural and other needs of foreign subsidiary managers. They also have to have an understanding of the needs of specific organizational situations; they have to have integrative capacity in the corporation. Integrative capacity can be described in the following way: the strategic infrastructure of the corporation is seen as a multidimensional system that contains strategic resources or capability and organizational infrastructure, which might provide a foundation for global expansion and latent linkages within the MNC. When the
firm boundaries are fuzzy, a conventional organizational structure is unable to satisfy the internal need for ecological evolution within its network. In a situation like this, a strategic infrastructure is necessary for the coordination and integration of business units that are geographically dispersed, while also maintaining internal differentiation and local responsiveness amongst individual subunits. To succeed with the flow of knowledge, capital and products between the headquarters and the subunits, the multinational corporation must have integrative capacity embedded in the organization (Óladóttir, 2009a).

The final part of this thesis is a concluding paper. There, some issues regarding what has really been going on in Iceland are pointed out and questions raise about the business model that has been used in Iceland and how this aggressive growth was financed. The paper deals with the business model of the boom period: An aggressive growth through FDIs. We also mention the cross ownership and we ask if the Central Bank, the government and the Financial Supervisory Authority in Iceland were awake during those years when Icelandic “Vikings” invested abroad. However, all these issues are relevant and need to be researched in detail.
References


Óladóttir, Á.D. (2009a). The rise of Icelandic multinationals (MNCs); A multiple case study approach.


2. Internationalization from a small domestic base

An empirical analysis of foreign direct investments of Icelandic firms

By Ásta Dís Öladóttir

Abstract and Key Results

- Iceland has been like a black hole in the study of FDI from the Nordic countries, there has been a gap in the literature about FDIs from Iceland. This paper is the first empirical study that addresses the outward foreign direct investment of Icelandic firms. The purpose is to demonstrate how Icelandic companies have invested abroad through foreign direct investments.

- The overall objective of this paper is to describe the key characteristics of Icelandic multinational corporations (MNCs) and to gain a deeper understanding of the internationalization processes of firms from a small domestic base.

- Many of the Icelandic companies have been investing heavily abroad over the last six years. Some have acquired companies that are relatively larger than themselves, at least if one studies the increase in number of employees. The main motive for this increase in foreign direct investments is access to a new market. The Icelandic market is simply not large enough for companies to be categorized as medium and large companies in the global environment. What also supports this is that, as mentioned above, the outflow of FDI from Iceland was very low in the last century.

Key Words
Internationalization process, stage models, born globals, FDI, small economies and Iceland.
If a metaphor would be used to describe the process of the internationalization of Icelandic firms, it would be appropriate to liken Icelandic FDI to the volcanic activity for which the island nation is famous. Much like the run-up to a volcanic eruption, the Icelandic business environment bubbled in pre-investment seismic activity from around 1946 to 1999. Businesses knew of this seismic activity but it was not until 2000, when the Icelandic investment volcano exploded, that the outside world knew of the activities. One can assert that the volcanic activity changed the business environment in Iceland for good; its lava has cooled to form a new landscape which will shape the economy for years to come.

Introduction and Background
The internationalization process has traditionally been understood as an incremental and gradual process. More recent international business (IB) research has shown, however, that the internationalization of firms is often a swift process—one in which firms skip several entry modes and enter remote markets soon after their establishment. This paper aims to discuss the internationalization of firms from a small domestic base, with special emphasis on the experience of the internationalization of Icelandic firms: an almost unknown phenomenon until the late 1990s. The internationalization of Icelandic firms is an interesting subject to study because Iceland is one of the smallest economies in the world. Despite its relatively small GDP—in fact, Iceland has the smallest economy within the OECD nations—Iceland has made proportionately significant foreign direct investments since 2000. Iceland invests almost 60% of its GDP in foreign direct investments (FDI): a higher proportion than any other OECD nations (OECD, 2006). According to the Central Bank of Iceland (2006), the flow of foreign direct investment between 1998 and 2005 increased from 55.2 million euros to 4.669.2 million euros. This is nearly an 85-fold increase in just 7 years and a remarkable annual outward FDI flow in 2005:
over 43% of GDP, accounting for 6,783.7 million Euros. The increasing advance of Icelandic firms into foreign markets is attributable to several factors. It is safe to say that the economy has undergone more changes in past decades than ever before in the country’s history. In addition to internal structural changes and financial liberalization, a favourable global and domestic business environment has led Icelandic companies toward a broad-minded global perspective rather than a myopic, inward-looking one. In 2005, approximately 75% of the revenue of companies listed on the Iceland Stock Exchange was generated abroad. This development has left many quite puzzled outside Iceland, especially since it was not until quite recently that any outsiders took an active interest in the affairs of this tiny economy, which had based its growth mainly on its export of fish and fish products.

This paper is the first systematic empirical study on the outflow of FDI by Icelandic multinational corporations (MNCs). To shed light on the scope and the pattern of the internationalization of Icelandic firms, an empirical study of 21 Icelandic firms is presented. Those firms represent more than 89% of the total Icelandic outward FDI. In order to understand the internationalization pattern of Icelandic MNCs, it is appropriate to ask the following two research questions (RQ). RQ1: What is the degree of internationalization of Icelandic MNCs? RQ2: Which model of internationalization explains the internationalization process of Icelandic firms? The rest of the paper is organized as follows. In section 2, the theoretical framework is analysed based on the theories of internationalization, including the literature on internationalization that takes place incrementally or the stages models and the opposing theories of international new ventures or the theories of the born global. Section 3 describes the research

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5 Source: Central Bank of Iceland, 17 July 2006. The used exchange rate of the euro/IKR is 94.1.
focus and approach. In section 4, the empirical findings follow, and in the last section we conclude and raise issues for further discussion.

**Theoretical framework**
There are two traditional approaches to internationalization: the innovation model (Cavusgil 1980) and the Uppsala model (Johanson/Vahlne 1977, Johanson/Wiedersheim-Paul 1975). Both models are referred to as “stages models” because they propose that the internationalization occurs in incremental steps. Earlier studies concerning the internationalization from a Nordic perspective are mainly based on the stage models or the Uppsala internationalization model. According to the Uppsala model, firm internationalization has long been regarded as an incremental process, wherein firms gradually internationalize through a series of evolutionary stages. They enter “psychically close markets” and increase their commitment to international markets step by step. The learning and commitment stages that a firm gradually progresses through as it internationalizes are as follows: no regular export; export through agents; grounding of an overseas sales subsidiary or overseas production (Johanson/Wiedersheim-Paul 1975). In this traditional view, firms make their export debut when they have a strong domestic market base. The choice of market also occurs in stages: firms begin to export to a market that has a close psychic distance. Then they expand the export sales into markets that have increasingly greater psychic distances.

The concept of psychic distance relates to differences from the home country in terms of language, culture, political systems, information flow, business practice, industrial development and educational systems (Johanson/Vahlne 1977, 1990). The firm chooses an incremental approach to internationalization because it lacks experiential knowledge and because the decision to internationalize is risky. Johanson and Vahlne’s (1977) central argument is that, as
the firm gains more knowledge about a market, it will commit more resources to that market. Newly established firms tend to start their internationalization on close-by markets, and with increasing commitment and better understanding of markets abroad, firms enter into markets that are increasingly dissimilar to their home market. It has been argued that if firms have surplus resources, they can be expected to take larger steps toward internationalization (Johanson and Vahlne 1990).

Once market conditions are stable and homogeneous, important market knowledge can be acquired by the firms in other ways than through their own experience. A firm may have considerable experience from markets that have similar characteristics and in a situation like this it may be possible to generalize this experience to the specific market (Johanson/Vahlne 1990). Another important aspect is the claim by several authors (Porter 1980, Levitt 1983) that the world generally has moved towards homogenization. Levitt (1983) claims that technology especially is the contributing factor to a more homogenous business world since development within the field of information technology has “made” the distances between countries smaller, and thus the communication flows faster.

An underlying assumption of stage models including the Uppsala model is that firms are well established in the domestic market before venturing abroad. Criticisms that such conceptualizations wrongly assume step-wise progression and forward motion pay insufficient attention to industry, company or people contexts and are generally too deterministic emanated as long ago as the late 1970s (Cannon/Willis 1981, Rosson 1984). Buckley, Newbould and Thurwell (1979) argued that firms do not necessarily adopt consistent organizational approaches to internationalization. Turnbull (1987) also found little empirical support for incremental internationalization as firms often omitted stages in the process. Firms may choose
different entry modes and internationalization patterns in different countries. Entry modes and internationalization processes also tend to differ by industry. Despite criticism of the Uppsala model, there is empirical evidence that many firms have internationalized in incremental stages and that others continue to do so. Several streams of research in the 1990s have served to challenge seriously stage process models. Although challenged, the importance of the stage model is that it makes clear the importance of cautious and incremental steps in the internationalization process. The model is valid for any firm size and it analyses the whole internationalization process. The model’s limitations, however, are that it overemphasizes the role of market-specific knowledge, it does not include all (hybrid) entry modes, it does not explain the leapfrogging⁶ behaviour and decreasing foreign commitment and, finally, it is less suitable to explain the internationalization of service companies (Andersen 2000, Autio/Sapienza/Almeida 2000, Björkman/Eklund 1996, Forsgren 1989, Knight/Cavusgil 1996, Turnbull 1987).

In the recent literature, there has been clear evidence of rapid and dedicated internationalization by so-called born global firms. This view holds that firms do not internationalize incrementally but rather enter international markets soon after the firm’s inception. This contradicts the stages model, which posits that firms begin to export from a strong domestic market base.

In the literature, these firms have been termed “international new ventures” (McDougall/Shane/Oviatt 1994), “born globals” (Knight/Cavusgil 1996, Knight 1997, Madsen/Servais 1997, Harveston/Kedia/Davis 2000), “global startups” (Oviatt/McDougall 1994), “born international firms” (Majkgård/Sharma 1999) and “committed internationalists”

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⁶ The term “leapfrogging” describes the rapid change made by a company to a higher level of development without going through the intermediate stages observed in other cases.
Here, the term “born globals” is used. Born globals are thought to be smaller entrepreneurial firms that internationalize from inception or shortly thereafter, targeting small, highly specialized global niches and which implement a global strategy from inception (Bell/McNaughton/Young 2003, McDougall/Oviatt/Shrader 2003). Born global firms perceive international markets as providing opportunities rather than obstacles (Madsen/Servais 1997). Such firms may not even have sales in their domestic market (Jolly/Alahuhta/Jeannet 1992, Knight/Cavusgil 1996, McKinsey and Co. 1993, Oviatt /McDougall 1994). An increasing number of smaller firms behave in a manner that is contradictory to the stages models. Jolly, Alahuhta and Jeannet (1992, p. 71) focus on the ability of entrepreneurially inclined startup companies to pursue global strategies: “...by leapfrogging some of the traditional intermediate stages of internationalization (to become) significant global players ... in a relatively short time”. They identify sets of entrepreneurial competences as drivers of competitive advantage, such as having a global vision, a focused approach to doing business, the ability to recognize technological opportunities and to capitalize on them, together with the insight of the founder of the organization. The resultant internationalization behaviour experienced by these hi-tech firms is described as a functionally specialized global network which needs careful management. Knight and Cavusgil (1996) see this born global phenomenon as a challenge to accepted internationalization theories where “small technology oriented companies are operating in international markets from the earliest days of their establishment and tend to be managed by entrepreneurial visionaries who view the world as a single, borderless marketplace from the time of the firm’s founding.” Some companies do internationalize rapidly by developing international networks, offering adapted and customized products and generally being much more flexible and faster in their approach to business than their larger competitors.
By operating in niche markets and utilizing their distinct sets of competencies, the smaller firm can compete with larger organizations, despite resource limitations (Madsen/Servais 1997). The same can be said for firms from small economies: they tend to be competitive in a few niche sectors, as they have limited resources and prefer to engage in activities in selected sectors, rather than spreading the available resources thinly across several industries (Benito et al. 2002). In addition, they also draw on the work of Oviatt and McDougall (1994), who identify an international new venture as an organization which may initially have one or a few employees but has a proactive international strategy from the inception of the business. It is also important, according to Madsen and Servais, to understand the background characteristics of the founder of the organization in shaping internationalization behaviour.

There are several different definitions of born globals, so it is not clearly determined how many markets such a firm should enter in a certain period of time, how soon since its establishment a company should expand to foreign markets or which countries it should prefer. Oviatt and McDougall (1994, p. 49) define born global as “a business organization that, from inception, seeks to derive significant competitive advantage from the use of resources and the sale of outputs in multiple countries.” They are global from inception or internationalize within two years of their establishment. Knight and Cavusgil (1996, p. 11) define born global as “small, technology oriented companies that operate in international markets from the earliest days of their establishment.” Then they define them further and say that born globals: are small firms; have fewer than 500 employees; have an annual turnover of approximately US $100 million; have leading-edge technology; and manufacture high technology products for a particular niche in international markets (Knight/Cavusgil 1996, p. 11). The literature reveals a considerable difference of opinion about how quickly and how widely a firm must internationalize for it to be
recognized as a born global. To be considered a born global, the maximum time for the firm’s internationalization debut ranges from within two years (McKinsey and Co. 1993), to six years (Zahra/Ireland/Hitt 2000) to seven years (McDougall/Shane/Oviatt 1994).

In conclusion, in the past years, the phenomenon of born globals has inspired several empirical studies which deal with initiating forces and success factors of rapid internationalization. Summing up their results, market conditions and firm resources can be identified as important initiating forces of born globals. Particularly relevant are international experiences of the founders or top management team as well as their integration in worldwide networks with suppliers, customers and cooperation partners. Despite the different definitions of born-global firms in the literature, two central characteristics can be observed which allow distinguishing between born-global firms and traditional internationalizers, namely the speed of internationalization (born) and the geographic scope (global) of internationalization.

**Research focus and approach**

This paper is based on new data on the overseas activities of 21 Icelandic companies, which were collected in the period from November 2004 until July 2006. The underlying companies make up the majority of companies enlisted in the Icelandic Stock Exchange (NASDAQ, OMX), as well as a few others that are not listed, but which have been investing considerably abroad. At the year end 2004, those 21 companies represented 88.9% of the total outward FDI stock and represented 89.2% of total outward FDI flow. Information was gathered from the websites of the relevant companies and from the website of the Icelandic stock exchange, as well as from databases of Icelandic and foreign newspapers. The information collected about each company included: the year of establishment; investments undertaken; investment year, country and industry; and, finally, the overall purpose of these investments. The factors that motivated those
companies to internationalize were also investigated. The data about each company was then sent to the CEOs—in most cases—of the companies under investigation, who were asked to confirm the information about the internationalization of their companies. The CEOs were also asked to provide additional information about the financing of their operations abroad. This process resulted in the creation of a unique firm-level database of the leading Icelandic MNCs. Finally, data from the Central Bank of Iceland about the outward FDI (flows and stocks) from 1998–2005 are also used.

**Empirical findings: analysis of the key characteristics of Icelandic MNCs**

As already discussed, the main purpose of this section is to show the degree to which the firms in this study became international and to understand their internationalization model. Icelandic MNCs were initially grouped into manufacturing and services which, in turn, were divided into four final industrial categories. High technology manufacturing firms included four firms and medium technology manufacturing firms included five companies. The service sector was also divided into two categories: financial services, which included five companies and then other services, which included seven companies. The MNCs included in this study are presented in Table 1.
Table 1. The year of establishment by industry

<table>
<thead>
<tr>
<th>Industry</th>
<th>Established</th>
<th>Industry</th>
<th>Established</th>
</tr>
</thead>
</table>

(Source: Author's survey, 2004-06)

The establishment years from a historical point of view

As Table 1 shows, there is a variance in the number of firms established between 1885 and 2006, with a clear dominance of firms established since the 1980s. Although the data cannot directly link the historical elements from the business environment, it would be useful to relate the date of establishment with corresponding developments in the Icelandic economy. In this spirit, it was, in fact, in the 1990s when the Icelandic economy opened up. Around 19% of the companies were established after 1991. Until approximately 1956, the Icelandic economy was highly regulated and there was trade protectionism from 1946–1955. Foreign currency was in such short supply that a variety of restrictions were imposed on trade and commerce. In an attempt to cope with the difficult economic situation, the currency was devalued, but correcting the persistent current account deficit proved difficult. Five of the companies were established in that period. During the latter part of the 1960s, the Icelandic economy suffered a series of setbacks. The herring stocks collapsed in 1967–1968 and prices for other principal seafood exports fell sharply. Once more, the authorities tried to put the economy back on an even keel.
through devaluation, which fanned inflation. Nine of the companies in this study were established in 1960–1985, when inflation was extremely high in Iceland. From 1986 until around 1995, the entrenched inflation subsided so rapidly that it had reached a level on a par with that in neighbouring countries. Deposit institutions were indirectly involved and contributed to restraining price levels by agreeing, as part of this consensus, to accelerate cutbacks in their interest rates. At last, a long-sought era of stability had dawned. Business dealings were altered to conform with more modern practices and electronic communications began to change the face of banking. It is not only the electronic communication but also the privatization of the Icelandic banks that triggered this wave of foreign direct investment that started around the year 2000. In 1997–2002, the government in Iceland went through the privatization of many firms, first by changing them into limited liability companies, then by selling to private investors. That, along with The European Economic Area (EEA) agreement in 1994, has triggered all foreign acquisitions of the Icelandic firms. The banks had been privatized and started their internationalization. They became a stronger supporter of other Icelandic firms and access to financial resources opened. Most of those Icelandic MNEs were established before the changes were made in the Icelandic economy around 1992. To reiterate, Iceland’s participation in the European Economic Area in 1994, along with the many other changes mentioned above, have altered the legal and financial environment of Icelandic business in recent years and, thus, have greatly influenced the internationalization of the Icelandic firm.

Before analysing further characteristics of the expansion process of Icelandic MNCs, it is important to see which countries are the main recipients of Icelandic outward FDI.
As Table 2 shows, most of the FDIs are in the EU countries, in which the financial services firms have invested the most. Other service firms follow, with 68% of their investments in the EU countries. The countries that Icelandic firms have invested in the most are the UK and Denmark, which are countries that could be categorized as closest to Iceland in many senses, even though the language, for example, is different. In recent years, Icelandic firms have also invested further away, for example in North America and in Asia. Asia and Eastern Europe are growing investment countries for Icelandic firms.

**Elapsed time from company establishment until internationalization**

In order to understand the internationalization process of Icelandic firms, we first estimated the elapsed time since their establishment until their first outward FDI project by mode of entry i.e. greenfield or acquisition. The very first greenfield investment of an Icelandic company took place in 1915, when a shipping company opened its first sales office in Denmark. Forty years would elapse before the first Icelandic foreign acquisition took place in the UK. From 1955 until 1999, very few foreign acquisitions took place. This long period of elapsed time seems common for the Icelandic business environment.
Table 3. Time elapsed from the establishment of the firms until their first FDI

<table>
<thead>
<tr>
<th>Time spread - acquisitions</th>
<th>Same year</th>
<th>1-5 years</th>
<th>6-10 years</th>
<th>11-20 years</th>
<th>x&gt; 21 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acquisition/#of firms</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Greenfield/#of firms</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>4</td>
<td>6</td>
</tr>
</tbody>
</table>

(Source: Author's survey, 2004-06)

As can be seen in Table 3, this study sample shows that more than 21 years elapsed from the time of establishment until the first acquisition took place for 38% of the firms studied. More than 21 years elapsed from the time of establishment until the first greenfield investment was made for 28% of the firms studied. It would seem, therefore, that approximately one-third of the Icelandic firms studied fit into the Uppsala model. Ruzzier (2005) carried out research on firms from Slovenia.

Most SMEs in the study by Ruzzier started internationalizing at an early stage of their existence. It took, on average, 3.3 years for their share of international sales to reach 20%; 57% of them had affiliates in more than three countries; and on average they had about 40% of their sales abroad. Those companies employed as many as 46% of their workers abroad. Let us look at the modes of expansion by time periods to see how the development has been from the year 1915 until 2006.
As can be seen in Figure 1, Icelandic firms have invested more abroad through acquisitions. This is especially true for the time period from 1999–2006, in which acquisitions were the dominant entry mode for Icelandic firms into new markets (Tómasdóttir/Ólafsson/Óladóttir/Thorláksson/Thorsteinsson 2007). It is also quite interesting to see the elapsed time from the industry point of view. Though the average years indicate that Icelandic firms are late movers to international markets, service companies enter new markets by acquisitions or by greenfield relatively early after establishment. One financial firm served the domestic market for 114 years before it entered foreign markets through an acquisition and 119 years passed before it established a company abroad. If compared with the average age of Slovenian firms, it can be seen in research by Svetlicic and Rojec (2003) that the average age of companies investing abroad is 35 years. This is in line with theoretical predictions that older (i.e. more experienced) firms have a greater propensity to internationalize through outward FDI.
**Industrial composition and mode of expansion**

Significant shifts in Iceland’s business environment greatly influenced the internationalization of the Icelandic firms. According to the data, industrial classification also seems to be related to the internationalization process. In Figure 2, outward FDIs by industry can be seen.

**Figure 2. Modes of expansion by industry**

![FDIs by Industries](image)

(Source: Author's survey, 2004-06)

Figure 2 demonstrates that Icelandic firms enter foreign markets through acquisitions, which can also be seen in Figure 1. Greenfield investments were more popular from 1915 until around 1998 but then Icelandic firms started acquiring companies abroad. As can be seen, all industries use acquisitions more than greenfield investments when investing abroad. As can be seen in Table 4, in which the investments are divided by industry, companies that enter foreign markets within five years after establishment are categorized as new. Firms that invest abroad or start exporting 6–20 years after establishment are categorized as experienced firms. If more than 21 years elapse from establishment until FDI or an export, the companies are called matured companies.
It is also interesting to see the number of years that elapsed, both minimum years and maximum years, by industry by export, acquisition and greenfield investments. As can be seen in Table 5, a minimum of two years elapsed from establishment until the firms started exporting in the high technology industry. Medium technology firms started the same year.

For one medium technology firm, 38 years elapsed from the establishment until the firm started exporting. One high technology firm didn’t start exporting until 36 years after its establishment. The financial services firms conduct FDIs very soon after their establishment. Only one firm didn’t enter foreign markets until 114 years after its establishment. Then it acquired a few firms in a row 4 years later, or 119 years after its establishment.
Table 5. Breakdown between industries of minimum and maximum years

<table>
<thead>
<tr>
<th>Industry</th>
<th>Export</th>
<th>Acquisition</th>
<th>Greenfield</th>
</tr>
</thead>
<tbody>
<tr>
<td>high tech manufacturing</td>
<td>Min</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Max</td>
<td>36</td>
<td>43</td>
</tr>
<tr>
<td>medium tech manufacturing</td>
<td>Min</td>
<td>0</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Max</td>
<td>38</td>
<td>63</td>
</tr>
<tr>
<td>financial services</td>
<td>Min</td>
<td>n/a</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Max</td>
<td>n/a</td>
<td>114</td>
</tr>
<tr>
<td>other services</td>
<td>Min</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Max</td>
<td>n/a</td>
<td>77</td>
</tr>
</tbody>
</table>

(Source: Author's survey, 2004-06)

**Degree of internationalization in terms of foreign employment**

In order to measure the degree of internationalization of Icelandic MNCs, we applied two measures, i.e. foreign employment and overseas turnover. A factor limiting the largest companies’ domestic growth is the small size of the workforce. Despite the fact that labour participation in Iceland is among the highest in the world and the country has one of the highest retirement ages in Europe, the total labour force amounts to 160,000 people. Nevertheless, it is interesting to see how the Icelandic companies included in this research have penetrated foreign markets in terms of foreign employment. If the growth in number of employees is compared between January 2000 and July 2006, it can be seen that many of them have grown significantly as outlined in Figure 3. Many companies start international operations when they are comparatively small. Most of the Icelandic firms were rather small in the beginning but have grown through acquisitions. To give examples, one of the high technology firms had, in the year 2000, 146 employees but after acquiring companies abroad, the number of employees increased to around 10,000 employees. The firm has increased in size 68-fold in terms of employees. In percentages, the growth for that firm was 6849% in only 6 years.
Figure 3. Average increase in employees by industry from 2000–2006

As Figure 3 shows, these Icelandic companies have increased their size in terms of number of employees. The most extreme cases are one high technology manufacturing firm which has been mentioned. It has increased its size by 68-fold and one of the services firms has 50-folded its size.\(^7\) To give more examples, one of the medium technology manufacturing firms, previously a small family-owned export company with few employees at the time of its establishment in 1986, has grown to large size status with approximately 16,000 employees. This is a significant change in 20 years. This company used to be a seafood manufacturer but let go of its seafood business and replaced it with a focus on chilled convenience food. As Figure 3 shows, acquiring firms has allowed companies with a high demand for labour to grow much faster than they could have in Iceland. The aggregate growth in these companies’ number of employees is almost equal to the total labour force in Iceland. If the growth in number of employees is classified by industries, the high technology firms have been growing the most between the years 2000 and 2006. Medium technology firms and other services have been growing quite similarly in terms of number of employees but firms in financial services have not been growing that fast in terms of employees. However, it is not

\(^7\) Employee numbers include both parent companies and their subsidiaries.
only interesting to see how much growth there has been in the number of employees; it is also interesting to see how many employees are located in Iceland and how many are abroad. A perusal of the structure of the Icelandic companies that are investing abroad indicates a rather international structure in which more than half of the employees are located abroad: this is detailed in Table 6. Under high technology are 4 firms, and each line in the table represents each company’s number of employees in Iceland and abroad, in total 20 companies.

Table 6. Employees in Iceland and abroad

<table>
<thead>
<tr>
<th>Industry</th>
<th>Iceland</th>
<th>Abroad</th>
</tr>
</thead>
<tbody>
<tr>
<td>High technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>500</td>
<td>9,500</td>
<td></td>
</tr>
<tr>
<td>235</td>
<td>1,065</td>
<td></td>
</tr>
<tr>
<td>380</td>
<td>1,020</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>203</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>16,000</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>3,494</td>
<td></td>
</tr>
<tr>
<td>108</td>
<td>419</td>
<td></td>
</tr>
<tr>
<td>120</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>1,050</td>
<td>1,450</td>
<td></td>
</tr>
<tr>
<td>1,139</td>
<td>586</td>
<td></td>
</tr>
<tr>
<td>893</td>
<td>305</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>10,600</td>
<td>51,400</td>
<td></td>
</tr>
<tr>
<td>1,500</td>
<td>5,000</td>
<td></td>
</tr>
<tr>
<td>57</td>
<td>3,236</td>
<td></td>
</tr>
<tr>
<td>1,700</td>
<td>1,300</td>
<td></td>
</tr>
<tr>
<td>650</td>
<td>790</td>
<td></td>
</tr>
<tr>
<td>800</td>
<td>700</td>
<td></td>
</tr>
<tr>
<td>1,050</td>
<td>450</td>
<td></td>
</tr>
</tbody>
</table>

(Source: Author’s survey, 2004-06)

As can be seen in Table 6, manufacturing firms, both high technology and medium technology firms, have most of their employees abroad. Financial services firms have more than half of their employees in Iceland, or 57%. Other services firms have almost 80% of their employees abroad. Most of the growth of the Icelandic firms has been abroad, through acquisitions and greenfield investments, which explains this high number of employees located abroad. More than 80% of the total labour in those 21 Icelandic firms is located
abroad. To be more specific, 14 companies have more than half of their employees abroad. There are examples in this study of firms that have more than 99% of their employees abroad. Only 5 of the companies have more employees in Iceland than abroad.

Degree of internationalization in terms of overseas turnover
For small firms, internationalization represents a higher risk than for larger companies (Vahlne/ Nordstroem/Torbacke 1996). This is because of a lack of information, as has been mentioned, but is also on account of the relatively high negative impact that taking the wrong decision in international business can have on the very existence of the whole firm. It has also been stated that firms will only begin to internationalize when they have become relatively large. It does not matter which measurement is used: the increase in number of employees between 2000 and 2006 or the increase in turnover between 1998 and 2005. Both measurements show an enormous increase and, as shown below, most of the turnover of the Icelandic firms is originated abroad and many of the companies have more than half of their employees abroad. Even though many of the Icelandic companies could not be categorized as large companies, they were very small when they started their internationalization process. They have, as said before, grown a lot through their FDIs and did not have a very established market before they started internationalizing, counter to what was mentioned above (Frjáls Verslun 1999, 2006).

One medium technology firm has the most increase in turnover between 1998 and 2005. It is interesting to see that the companies have increased their turnover; however, what is more interesting is that most of their turnover, except for the financial services, today comes from abroad. All of the firms studied generate more than 25% of their turnover from abroad. Out of those 21 firms, 7 generate more than 95% of their turnover abroad. Four companies generate 75–95% of their turnover abroad and 10 companies generate 25–75% of their turnover from abroad. There are cases in which up to 99.9% of the turnover comes from
abroad. The average increase in turnover from 1998 to 2005 is in financial services. Medium technology firms have the second largest increase in turnover or on average around 2,300%. However, even though the highest increase in turnover has been in the financial services, the highest turnover from abroad comes from manufacturing firms. This is slightly more from medium technology manufacturing firms or around 90% of their total turnover and 87% of the turnover in the high technology manufacturing firms. Around 46% of the total turnover for the financial services firms comes from abroad and almost 62% of other services.

Motives and driving forces for internationalization

A firm’s decision to initiate global market involvement often arises for a variety of reasons. Many of these motivational factors have been identified in previous international models (Albaum 1983, Bilkey/Tesar 1977, Malhotra/Agarwal/Baalbaki 1998). A review of the literature reveals that firms may be influenced in their internationalization by more than one motive. The firms’ motivational factors could be due to success in the domestic market, due to a saturated domestic market, due to a geographical location advantage, due to some technological improvements or due to any other motive. Initially, most firms invest outside their home countries to acquire natural resources or gain access to markets. As they become increasingly multinationalized, they use their activities abroad to improve their global market condition by raising their efficiency or acquiring new sources of competitive advantage (Dunning 1993, p. 57).

The motives can vary from firm to firm based on past experience, current market circumstances and future market trends. The motives list could be endless. For the Icelandic firms, there are two main motives, market seeking motives and strategic asset seeking ones, as can be seen in Table 7. Behind these two motives are 330 instances of foreign direct investments.

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8 Turnover from abroad for the case companies can be seen in table 3 in Appendix of the thesis.
This outcome agrees with Hollenstein (2005), who shows that market seeking strategies are more prevalent than cost-oriented strategies, which, however, are quite important for small and medium sized firms. In February 2006, a telephone survey was conducted among managers of Icelandic firms. Of 497 participating managers in the survey, almost 65% answered\(^9\) that the main motive for investing abroad is access to new markets (Óladóttir 2006). Another factor that is likely to have motivated the Icelandic firms to expand their operations abroad is to diversify risk. It is well known that investors should not keep all their eggs in the same basket. The same applies to companies: in order to diversify their income streams, acquisitions in foreign markets are an optimal strategy. A prime example of this is the banks, which have expanded their markets through strategic acquisitions. If the motivation behind the Icelandic FDI is compared with Slovenian firms, it can be seen that it is similar. The small domestic market and relatively high labour costs in Slovenia are key drivers of outward FDI. Maintaining and expanding foreign market shares have been priorities for Slovenian enterprises (Svetlicic 2007).

**The characteristics of Icelandic investments**

It can be said that three things characterize the Icelandic FDIs. It does not matter that the economy is small or that the firms are small in the beginning. If they focus on those three

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\(^9\) The questions can be seen in Appendix 2 of the thesis.
things, they might have a more efficient external growth through FDIs. Those three things are: *investment scope, speed* and *specificity*. Regarding scope, Icelandic firms seem to follow an investment pattern, or perhaps an investment strategy, in which they grow significantly in size through single investments. As such, they seem to aim for relatively large, well-known and established companies with a strong customer base instead of buying small and unknown companies as a stepping stone into the foreign market. Secondly, speed is something that seems to characterize the FDI of those Icelandic firms. The investment execution, from target screening to deal-making and purchase, of Icelandic companies seems to be very fast. As an example, the fastest growing Icelandic companies have a record of purchasing close to 30 foreign companies over a period of 6 years, from 2000–2006. In May 2007, according to new research carried out by Deloitte International, Baugur Group (retail company) is the company that has grown the most of all retail companies in the whole world or about 106% per year for the last five years. Norvik, another company in this study, is also on the list of the fastest growing companies in Scandinavia. Finally, for specificity, investment focus seems to be very narrow, i.e. Icelandic companies seem to follow an investment pattern (or strategy) of obtaining a leading position and size in a given market niche. To give examples, an orthopedic design firm, was named by the World Economic Forum as a “technology pioneer” for the year 2006. Another one develops and markets high tech processing equipment for the food industry. Both companies are among industry leaders within their fields. Among the firms in this study is also a high technology firm which could be categorized as a leading company because it is the fifth largest generic pharmaceutical company in the world. Yet another example is the largest rotational-molding plastics group in the world. Another characteristic of many of the Icelandic firm is that in all industries there are cases of new owners, new structure and strategy, and even new products or services, can be seen. A new name for the firms also follows those dramatic changes. There have
been some kind of changes in almost all of the companies and almost half of them have also
gone through the name changing process. In some cases, it happened because new owners
acquired the companies. The generic pharmaceutical company mentioned above is yet
another example. It was originally established in 1956 under a different name, with the sole
purpose to import and later to manufacture drugs for the domestic market. In 1999, new
owners and a management team who had much experience of internationalization by working
abroad came along. Immediately, the strategy was to create an international pharmaceutical
company. Today, the company has subsidiaries in 32 countries and generates almost all its
turnover abroad with 95% of its employees located abroad. The internationalization of this
firm can, to some degree, be explained by the Uppsala model. It started on the domestic
market and then it started exporting. No existing theory can, however, explain the boom that
has been in its investments in the last couple of years.

Conclusion and discussion
The question that usually rises is why study Iceland? Iceland has been like a black hole in the
study of FDI from the Nordic countries, there has been a gap in the literature about FDIs from
Iceland. As has been explained, the market in Iceland, like in the other Nordic countries, is in
general small in terms of growth potential and sales possibilities. This fact has forced
Icelandic companies to engage in international trade, i.e. export or FDIs. The purpose of this
paper was to present the main characteristics of the major Icelandic MNCs and to investigate
their internationalization patterns. With the changes in the economy in 1992—particularly
the changes in the financial sector—and with the participation in multilateral trade
organizations like the EEA in 1993, new markets opened up for Icelandic companies, which
gave them an opportunity to invest heavily abroad as most of the companies presented in this
study has been doing since 1998.
From 1915 until July 2006, those Icelandic firms that are investigated in this study have acquired over 200 firms overseas and established around 130 new units\textsuperscript{10}. Looking at the foreign direct investment behaviour, the Icelandic firms in general start up their international commitments with foreign acquisitions and greenfield investments. Most of the acquisitions have taken place after the changes were made in the economy, so it has happened in a relatively short period of time. As has been stated in the theory of the Uppsala internationalization model, it is mainly built on research on manufacturing firms. Only very few of the Icelandic firms have internationalized according to the Uppsala model, starting with a focus on the home market, then started exporting and soon thereafter increased their commitment in overseas markets through greenfield or by an acquisition. This mainly fits with some of the medium tech manufacturing firms in this study. Due to the above-mentioned changes in the economy, the increase in Icelandic FDIs seems to be more toward the theory of the born global. Even though some of the companies didn’t start their FDIs within the given time frame put forth in the literature about born globals, this was not possible for them because of the structure of the Icelandic economy before 1993. As soon as the structure of the economy changed, all of the companies started investing abroad.

As previously mentioned, born globals perceive the world to be one market and thus do not confine themselves to a single country. This is what many Icelandic companies included in this study have been doing lately, they do not confine themselves to Iceland. As already shown, most of those 21 Icelandic companies have more than half of their employees abroad. All of the firms studied generate more than 25% of their turnover from abroad and there are cases of companies having up to 99% of their turnover from abroad. Another characteristic of born globals, according to the literature, is that they target small, highly specialized global niches and they implement a global strategy from inception. From the

\textsuperscript{10} Examples can be seen in table 6 in the Appendix of the thesis.
literature of born globals, it can be concluded that a critical incident, for example a change in the ownership, may trigger a firm’s internationalization. This has been the case in several firms in this study. Among firms in all industries, new owners, new structure and strategy, and even new products or services, can be seen. A new name for the firms also follows those dramatic changes. There have been some kind of changes in almost all of the companies and almost half of them have also gone through the name changing process. In some cases, it happened because new owners acquired the companies.

It is safe to say that at least some of the Icelandic companies have been investing heavily abroad over the last six years. Some have acquired companies that are relatively larger than themselves, at least if one studies the increase in number of employees. The main motive for this increase in foreign direct investments is access to a new market. The Icelandic market is simply not large enough for companies to be categorized as medium and large companies in the global environment. What also supports this is that, as mentioned above, the outflow of FDI from Iceland was very low in the last century. In 1998, Iceland ranked number 21 on the list published in the World Investment Report (WIR) of the developed countries; in 2001 it was number 11. In the year 2004, however, Iceland led the list. The same happened in 2005 and 2006. To answer the main research question in this paper, which model could be used to explain the internationalization of Icelandic firms, then it is safe to say that Icelandic companies have been developing quite fast and many of them can be considered as born globals or even “leapfrogging globals”, i.e. they become global in a very short time by jumping over some stages predicted by evolutionary models.

For future research it could be interesting to study further the main characteristics of the Icelandic FDIs. When conducting the study, three main characteristics came to light, as mentioned above, which other small economies could keep in mind when investing abroad. It does not matter that the economy is small or that the firms are small in the beginning. If
they focus on those three things, they might have a more efficient external growth through FDIs. Those three things are: investment scope, speed and specificity. Regarding scope, Icelandic firms seem to follow an investment pattern, or perhaps an investment strategy, in which they grow significantly in size through single investments. As such, they seem to aim for relatively large, well-known and established companies with a strong customer base instead of buying small and unknown companies as a stepping stone into the foreign market. Secondly, speed is something that seems to characterize the FDI of those Icelandic firms. The investment execution, from target screening to deal-making and purchase, of Icelandic companies seems to be very fast. As an example, the fastest growing Icelandic companies have a record of purchasing close to 30 foreign companies over a period of 6 years, from 2000–2006. Finally, for specificity, investment focus seems to be very narrow, i.e. Icelandic companies seem to follow an investment pattern (or strategy) of obtaining a leading position and size in a given market niche. These characteristics of the Icelandic firms need to be tested among firms from other small economies, to see if this could help firms to grow faster and in a more efficient way through FDIs.
References


3. The Rise of Icelandic Multinationals (MNCs): A multiple case study approach

By

Asta Dis Oladottir11

Abstract

Based on the cases of four multinational corporations (MNCs) whose headquarters are located in Iceland, we explore the geographical patterns and the motivation behind the outward foreign direct investments (OFDI) of Icelandic firms. Our analysis reveals several important facts. Firstly, new-market seeking and strategic-asset seeking are the main motives behind the OFDIs of the case companies under study. Secondly, the majority of investment projects are carried out in Northern Europe, showing an underlying regionalization in the geographical expansion of Icelandic MNEs.

Keywords: Outward foreign direct investment, small economies, small and medium-sized firms, OLI, the eclectic paradigm, speed, scope, specificity, Iceland, MNCs, Actavis, Bakkavör, Baugur Group, Kaupthing Bank.
Introduction
One of the distinguishing features of the Icelandic economy during the past two decades has been the significant rise of outward foreign direct investment (OFDI) activity of Icelandic firms. In this period, various Icelandic firms have grown from being small or medium-sized domestic companies to large multinational corporations (MNCs) in a fairly short period of time with some of the investing firms having already become world leading companies in their sectors, like Promens in Roto moulding, Össur in orthopaedics and Actavis as the fifth largest generic pharmaceutical company, to name a few.

Previous work by Óladóttir (2009) showed that Icelandic firms choose to invest abroad mainly through acquisitions and they invest in countries that are relatively close to Iceland, such as the UK and Denmark. This study assesses the geographical expansion of Icelandic MNCs in terms of foreign direct investment (FDI) motivations. As the internationalization of Icelandic firms is still in its infancy, the particular phenomenon under investigation has not been subject to research to any significant degree in the existing literature. In this context, this paper provides fresh new evidence on the understanding of the new emerging MNCs. The remainder of the paper is organized as follows: it starts with the theoretical background and an overview of the literature, then the methodology and an introduction to the case companies under study. The motivation behind their outward foreign direct investment is then introduced and discussed, followed finally by a conclusion.

Theoretical Background and Literature Review
Outward foreign direct investment (OFDI) has been widely covered by international business scholars. For more than four decades now, authors have endeavoured to explain the nature, causes and consequences of foreign direct investments made by MNCs. A variety of theoretical perspectives have been applied to approach the question of why companies engage in FDI. These include both macro- and micro-level models (Maitland & Nicholas, 2002b;

Market imperfections theory then recasts FDI in microanalytical terms (Nicholas & Maitland, 2002) and shares the basics of new trade theory (see Arvanitis & Hollenstein, 2006; Helpman, 1984) in its view that firms capitalize on specific capabilities that can be exploited abroad independently of the economic attractiveness of the foreign location, with the advantage that these particular capabilities are not shared by competitors in the foreign country (Porter, 1985). In other words, market imperfections theory explains FDI as a means to exploit firm-specific capabilities (competitive advantages) in new markets. However, it does not explain why FDI is considered the most desirable method to take advantage of firm-specific capabilities. Internalization theory, however, addresses this issue. Internalization theory has its roots in transaction cost economics (Williamson, 1975; 1985) and predicts that, because of market imperfections, firms may face high transaction costs in foreign intermediate markets. This brings firms to develop their own internal markets, that is, to transfer assets within the organization through hierarchies instead of via the market, whenever transactions can be made at a lower cost that way. Hence, firms internalize their international activities using FDI rather than alternative forms of foreign market entry, such as exporting or contractual agreements, in order to minimize cost and/or increase efficiency. Finding no single approach able to explain firms’ international activities fully, Dunning (1980; 1988) proposed converging the different strands of research into an analytical framework, the eclectic paradigm of which has become one of the most popular theories to explain OFDI. OLI stands for ownership, internalization and location (Dunning, 1980; 1993).
Dunning states that foreign investment occurs because firms have certain ownership (O) advantages, which they exploit through a process of internalization (I) in countries that offer the requisite location (L) advantages. Dunning grouped the former literature of international business (IB) theories into three sub-paradigms, as explained above, that represent the interaction of different variables that determine whether or not a firm will engage in FDI. In short, the eclectic paradigm provides an ownership, location and internalization (OLI) advantages-based framework to analyse why, where and how MNCs engage in international production. For a further explication of the OLI parameters, ownership-specific advantages (O-advantages) represent the firm-specific competitive advantages of MNCs that make it possible for them to go abroad. The O therefore represents the answer to the why question. Further, O-advantages “must be sufficient to compensate for the costs of setting up and operating a foreign value-adding operation, in addition to those faced by indigenous producers or potential producers” (Dunning, 1988: 2). Ownership advantages may arise because of three things: firstly, “exclusive privileged possession of or access to particular income generating assets” (Dunning, 1988: 2) such as monopoly power or better resource capability and usage; secondly, because of the advantages enjoyed by branch plants in terms of economies of scale in overhead costs for example; and, thirdly, as a result of multinationality per se, or put differently, the wider opportunities and abilities enabled by already-established foreign operations (Cantwell & Narula, 2001; Dunning, 1988). The ownership advantage of a firm can be seen as something that gives the firm market power or cost advantage, while other firms have no access to these benefits. These advantages include patents, blueprints and brand names.

Location-specific advantages (L-advantages) represent the question of where to locate, or, to put it differently, why produce in one country rather than another. L-advantages therefore arise due to the location attractions of alternative countries that firms may use along
with their O-advantages in a more profitable way abroad than could be achieved in the home country. Location advantages refer to various features owned by the potential host country that make the country profitable for multinational production. Cheap labour, for example, is the most obvious source of the location advantage. Trade barriers such as tariffs and transport costs are also sources of location advantages if the finished goods of MNCs are sold on foreign markets, but they deter investment if much of the final output is shipped back to the home country, as are a large market size or a friendly business environment in terms of government policies (Dunning, 1988; 2000).

Finally, internalization advantages (I-advantages) represent the question of how to engage in international production. Transferring the possessed O-advantages across countries within the organization, in other words, engaging in foreign production, may involve lower transaction costs than relying on the market by for example subcontracting or leasing the right of use to foreign-based enterprises (Dunning, 1988). The lower transaction costs are in that way the source of I-advantages. Then again, the eclectic paradigm claims that three conditions influence whether or not a firm will engage in FDI: first, the more ownership-specific advantages a firm possesses, the more likely it is to engage in FDI; secondly, the greater the need for location-specific advantages of a foreign country for the value-added activity, the greater the probability of favouring a foreign presence; and, thirdly, the greater the benefits of internalizing markets, the more likely it is that the firm engages in FDI rather than using a lower commitment mode of entry (Dunning, 2000).

The eclectic paradigm thereby integrates the diverse former poles of thought into a more holistic view. Further, it provides an umbrella for different aspects when thinking about FDI and the motives behind FDI as well as for analysing and explaining how the situation varies between firms, industries and countries over time (Dunning, 1988; Tahir & Larimo, 2005). In that way, it is an analytical framework for facilitating empirical investigation,
drawing researchers’ attention to the relevant theories rather than being a theory in itself. The OLI advantages can be referred to as the drivers or determinants of FDI and may be explained as the parameters that are the precondition for FDI, that is, the elements needed for firms to find FDI desirable (Dunning, 2000). The more OLI advantages available, the more likely a firm is to engage in FDI, that is, if managers identify extensive options for using OLI advantages, they will be more eager to exploit those. However, enterprises will only invest abroad if there is something that motivates them, that is, if they are seeking something and realize that they can exploit the existing OLI advantages to attain their goals. To underpin the interrelationship between the OLI parameters and motivation, Dunning (1980) stated: “The more the ownership-specific advantages possessed by an enterprise, the greater the inducement to internalize them; and the wider the attractions of a foreign rather than a home country production base, the greater the likelihood that an enterprise, given the incentive to do so, will engage in international production” (Dunning, 1980: 9). According to Dunning (1993; 2000), scholars have identified four main types of foreign-based MNC activity representing the different motives behind FDI: resource-seeking, market-seeking, efficiency-seeking and strategic asset-seeking activities. One or more of these factors may motivate businesses to engage in FDI. Moreover, motives may differ over time and motives for initial versus sequential investments may differ (Dunning, 1997); there can also be more than one motive behind each investment. In this way, resource- and market-seeking motives are claimed typically to characterize initial FDI while efficiency- and strategic asset-seeking motives are said to characterize sequential FDI (Dunning, 1997).

Scholars have claimed that firms from small countries have been found to demonstrate particular patterns when it comes to OFDI. As already stated in the introductory chapter, the most commonly used criteria in the international business literature for classifying the size of markets and, hence, economies are: a) population and b) different
measures of gross domestic product (GDP) – absolute size of GDP, GDP per capita and growth of GDP (see e.g. Bora, 2002; Merrett, 2002; Thomas & Grosse, 2001; Veugelers, 1991; The World Bank Group, retrieved January 10th 2008). Whereas measures such as GDP and territory size have been found to be highly correlated with population, population can be concluded to be a good indicator of size. Benito et al. (2002) argued that MNCs from smaller economies have a higher propensity to internationalize than firms from larger home economies. Moreover, it has been concluded that MNCs from small countries tend to be competitive in a few niche sectors (Hogenbirk & Narula, 1999) as a result of their limited resources and a preference to engage in activities in a few targeted sectors rather than spreading the available resources thinly across several industries. In addition, Bulatov (2001) and Mulino (2002) showed that the leading factors for OFDI include the striving of parent companies to know the business situation and provide their presence on foreign markets in order to provide assistance to their own export and import operations via foreign affiliates, whilst Hsien and Yang (2003) found that smaller MNCs play a vital role in foreign investment. In particular, considerable attention is given to the location-specific advantages of the particular host countries, analysing the specific attributes of the host countries that are attractive to the investing firms from small open economies (SMOPECs). Studies have, for example, concentrated on the incentives for MNCs from specific small countries to invest in a particular target country or region, including Johansen et al. (2000), studying Nordic MNCs’ investment in the Baltic countries, and Tahir and Larimo (2006), who investigate Finnish MNCs’ expansion in Asia. In an investigation into the OFDI of the Nordic economies where the purpose was specifically to analyse the role that domestic MNCs play in their respective home economies, Herstad and Jonsdottir (2006) indicate that the main overall driver of internationalization of Nordic MNEs is market access. Additionally, the access to cheap factors of production is historically found to be of fairly low importance. These results
are reported with a notice that the large diversity in motives between different sectors is neglected. It should be noted that the report synthesizes data from all of the five Nordic countries, but these countries have been found to differ from each other in many ways despite their many resemblances (Davidsdottir, 2006) and therefore maybe should not be taken as one when investigating their motives for undertaking outward FDI. In addition to the above review, motives behind outward FDI from particularly small countries have sometimes been summarized as an introduction to other FDI subjects. Blomström and Kokko (1994) summarize the motives and patterns of Swedish FDI. They discuss how Swedish multinationals have mostly based their competitiveness on either local raw materials or technological assets. The motive behind FDI in Sweden has been to avoid transportation costs and trade barriers and to become closer to customers. “The foreign operations of Swedish multinationals have seldom been undertaken to secure access to foreign raw materials, and access to cheap foreign labour” (Blomström & Kokko, 1994: 3). Also, they point out that the motives for foreign production have remained largely unchanged over time but that some motives changed in the late 1980s as industries needed to prepare for the European Single Market possibly excluding Sweden, creating a stronger need for market access. Varblane et al. (2001), in their analysis on motives behind Estonian OFDI, revealed that market-related motives, and more specifically, gaining additional market shares and facilitating exports of goods and services, are predominant among the factors that make Estonian firms invest abroad. Further, Reiljan (2002) claims Estonian firms to show some efficiency-seeking behaviour.

Empirical research on the determinants of outward FDI from small economies has also investigated why MNCs from small economies invest in foreign R&D; in particular, Arvanitis and Hollenstein’s research focuses on the motives behind Swiss firms’ investment in R&D abroad, and finds O- and I-advantages to be the main drivers and market seeking the
most important motive followed by an intermediate importance of knowledge- and human-resource seeking. Andersson (1998), on the other hand, particularly discusses the role of outward FDI for R&D in small countries and analyses both the causes and consequences of the internationalization of R&D in this context, using firm-specific data from Swedish-based manufacturing firms in the period 1965–1994. He finds that the main causes for the internationalization of Swedish R&D, in the period under investigation, is the need to reduce transfer costs and, moreover, he finds support for the need for a higher level of technical progress to push the internationalization process of firms. Carr and Garcia (2003) compare Spanish MNCs and local players and their internationalization strategies.

Outward FDI from Slovenia is covered by Svetlicic et al. (2007). He emphasizes how the motives of Slovenian firms have changed over time. According to Svetlicic, the main motives during the early stages of internationalization of national firms were market seeking, followed by strategic-asset seeking, efficiency seeking and resource seeking. While cost considerations were not an overwhelming reason for outward FDI in the past, they are now gaining importance. Also, resource-seeking and strategic asset-seeking (augmenting assets or the desire to become major players in local markets) motives have also become more important than before for Slovenian MNCs in the last few years. This is consistent with Dunning’s (1998) argument concerning an increasing importance of strategic asset-seeking motives. Further, Svetlicic finds the small domestic market and relatively high labour costs in Slovenia to be the key drivers of outward FDI. Expanding foreign market shares, utilizing excess production capacity and the need to be close to customers are therefore all factors that play a decisive role for Slovenian investors.

Gugler (2008) studies the motives of the internationalization of R&D by Swiss MNCs, where he compares the motivation behind the internationalization of R&D in developing countries, developed countries and then in China. Finally, in regard to Icelandic
MNCs, Portes and Balduresson (2007) touch upon the motives of Icelandic banks to internationalize in their report on *The Internationalisation of Iceland’s Financial Sector* and claim that the main factors leading to foreign expansion are generally the same as within other national sectors, namely: going beyond exhausted market opportunities in Iceland, decreasing risk through income diversification and capitalizing on favourable economic conditions. They also point out that other Icelandic businesses engaging in foreign expansion and the banks have complemented each other in their advance into new markets. Óladóttir (2009) discusses the motivation of leading Icelandic companies where the main motive is to access new markets.

**Methodology: Sample and Data Collection**
The study reported in this paper is a cross-border multiple-case study, which is based on an in-depth analysis of four MNCs from Iceland. The study aims to understand the motives of leading Icelandic MNCs within the given industries to engage in outward foreign direct investment. The case study offers an excellent opportunity to understand these issues (Yin, 2003). Moreover, a multi-case study improves generalizability compared with a pure single-case study (Miles & Huberman, 1994). The literal replication method, building on earlier theories, improves robustness and allows generalization from the sample, although this generalization does not have statistical grounds (Saunders et al., 2003; Silverman, 2005; Yin, 2003). This “analytic generalization” tactic follows the recommendations of Eisenhardt (1989) and Yin (2003). In the literal replication method, the cases that all predict similar results will be chosen (Silverman, 2005: 127; Yin, 2003); that is, the case companies in this study were selected from typical examples, rather than randomly. In this type of purposive sampling method, the aim is for the cases to provide illustrative and rich data to focus on specific research questions/propositions (Saunders et al., 2003; Silverman, 2005). This method enables comparisons with theories of motivations of MNEs from small countries, but
also allows new interpretations (Strauss & Corbin, 1998). The multi-case study protocol was built based on the recommendations of Pauwels and Matthyssens (2004) and Yin (2003). The primary data for the empirical analysis derived from a study conducted on Icelandic MNCs that have been investing broadly abroad (Óladóttir, 2009). Four case companies were chosen. Those companies are Actavis, a generic pharmaceutical company; Bakkavör, a producer of fresh prepared food; Baugur Group, which operates within media, property and retail; and Kaupthing, a commercial and investment bank.

**The criteria for the selection of the four case companies were as follows:**

- the companies had to be leading companies in their sector
- the investments had to have taken place between 2001 and 2006
- the companies must have had a minimum of 10 FDI projects in that time period
- the companies had to generate a minimum of 50% of their turnover from abroad
- the companies had to have at least 2000 employees
- the companies can be both listed companies and private companies

The data were gathered in the period 2005–2007 from the websites of the relevant companies, from the website of the Icelandic stock exchange as well as from databases of Icelandic and foreign newspapers. The data sets collected were broader in scope than those presented in the present study. Among the data collected about each company were the year of establishment, investments undertaken, investment year, country and industry, financial data and finally the motivation behind the foreign direct investments. Having established these criteria, a list with information about each company was sent to the CEO of the company to verify the information. The collected data cover the period 1992–2007. To enrich the database, interviews were carried out with managers of the companies, the CEOs, deputy CEOs and managers of corporate communications where ever information was missing. Those
interviews were semi-structured, starting with very open questions on the companies’ internationalization processes and the motivations behind each investment, but using the conceptual framework and a research-question form to ensure that all the important areas were covered. The interviews were recorded and transcribed. In addition, annual reports, company presentations, press releases, journal articles, books and book chapters, newspaper articles and public statistics were used in case study analyses. Out of several approaches to case-based empirical research identified in related literature (Eisenhardt, 1989; Ragin et al., 1994; Yin, 1993), the choice was made to follow the procedure of comparative case analysis as presented by Eisenhardt (1989) and Ragin et al. (1994). This procedure consists of three steps. First, within-case analysis is conducted for each case. The task of this analysis is to determine the direction of dependencies between the studied variables in a concrete individual case so that a comparative analysis can ensue. The second step is to compare the results of individual cases in order to find cause–effect dependencies between the occurrence or non-occurrence of some variables and the occurrence or non-occurrence of other variables. Finally, the results of comparisons between cases are contrasted with the results of theoretical inquiry, making it possible to draw hypotheses and conclusions. This way, a generalized theoretical model of dependencies can be constructed. This model may be later subject to further empirical research to test its adequacy. In this sense, the results obtained are of an exploratory character.

**Description of the Case Companies**

Actavis was originally founded in 1956, under the name Pharmaco, as a purchasing alliance of Icelandic pharmacists. A few years later, it began production of its own pharmaceuticals for the domestic market. In 1981, Pharmaco established Delta to manufacture registered pharmaceutical products. A decade later, the ties between Pharmaco and Delta were severed because of a conflict of interest, only to merge again in 2002. At that time, the advance on
foreign markets had already begun with Pharmaco’s acquisition of Balkanpharma in 1999. This deal was a major milestone in Icelandic business history and laid the foreground for what was coming in other industries. In May 2004, Pharmaco Group changed its name to Actavis Group, aiming to benefit from a single strong brand name. Actavis is derived from two Latin words, “acta”, meaning action, and “vis”, meaning strength. The name is supposed to reflect the attitude and mindset of the company as a whole. Actavis’ expansion process has been both aggressive and fast. For the last decade, the total sales have grown intensely with multiple acquisitions and the market value has grown even faster. So far, the acquisition strategy seems to have been successful and focused. Upcoming years will reveal how well Actavis will succeed in gaining benefits from synergy and integration.

The Actavis Group is now one of the world’s leading players in the field of high-quality generic pharmaceuticals. It is among the world’s five largest companies in the industry and shows no intentions of slowing down. The group, headquartered in Iceland, has 11,000 employees operating in 40 countries around the globe. The sales in 2006 were €1.4 billion. The EBITDA was 20.8%, net income 8% and equity value €2.6 billion (Annual Report, 2006). The Actavis Group has development and manufacturing facilities in Europe, the US and Asia. The location of Actavis’s activities can be seen in table 1 and their internationalization process can be seen in figure 1 below.
Table 1. Location of Actavis’s activities

<table>
<thead>
<tr>
<th>Country</th>
<th>Manufacturing</th>
<th>R&amp;D facilities</th>
<th>Sales &amp; marketing</th>
<th>Third party sales</th>
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Source: Company reports various years and author compilation.
Bakkavör was founded in August 1986. In the beginning, operations were primarily focused on processing and exporting cod roe to Scandinavia. Ten years later, the company had become a medium-sized Icelandic company and had reached its goal of manufacturing and selling fully processed goods directly to European retailers. The year 2000 became a turning point for the Bakkavör Group. The company was listed on the OMX Nordic Exchange in Iceland and announced that it would change its strategic focus from seafood to fresh prepared foods. The fresh prepared foods market was the most dynamic segment of the food industry and therefore represented an excellent growth opportunity. The final step in the transition was taken in 2003, when Bakkavör sold the seafood part of its operations. The Bakkavör Group is
now the largest provider of fresh prepared foods and produce in the UK, and develops and produces meal solutions under its customers’ own brands. Its key customers are food retailers (mainly in the UK, but also in continental Europe and China). The group manufactures 4,700 products in 17 product categories, such as ready meals, pizzas, convenience salads and leafy salads. The group operates nearly 50 factories and employs over 17,000 people in 8 countries with a pro-forma turnover in 2006 of over £1 billion. The group’s Head Office is in Reykjavik, Iceland. In addition to the UK and Iceland, the group also has business operations in France, Belgium, Spain, China, the Czech Republic and South Africa and is well positioned for further expansion. The two brothers who founded the company have successfully managed Bakkavör Group’s growth through its 20-year history and they are still the group’s largest shareholders through their ownership of Exista hf in Iceland, which owns the single largest stake in Bakkavör Group. The turnover in 2007 was £1.5 billion. EBITDA was £149 million in 2007 (Annual Report 2005; 2006; 2007).
The history of Baugur Group can be traced back to the establishment of Bónus, an Icelandic grocery retailer, in 1989. It started off as a family business and operations grew considerably during the next few years as several new Bónus stores opened. In 1992, the owners of Hagkaup, an Icelandic retailer, acquired a 50% share in Bónus. In the following year, Hagkaup and Bónus established a joint purchasing company named Baugur and eventually the companies merged under that name. Baugur was listed on the OMX Nordic Exchange in Iceland in 1998, and acquired several other Icelandic retailers before the company started its advance on foreign markets. In 2002, proposals were approved to change the name of Baugur to Baugur Group hf and to rearrange the company’s organizational structure. In May 2003, Mundur ehf. a holding company mainly owned by the original Bónus family, acquired all the outstanding stock of Baugur Group and, soon afterwards, the company was delisted from the
OMX Nordic Exchange. Since then, Baugur’s operations have changed dramatically, primarily emphasizing influential investments in the Danish and British retail markets. The company has also been active on the real estate markets in those countries, especially in Denmark. Now, Baugur Group’s main policy is to focus on investments in the retail, service and real estate sectors, in Iceland and Northern Europe. The company seeks out shares in companies that have a strong market position, yet also show potential for further growth, and are run by a strong team of managers interested in cooperating with the company. Companies related to Baugur Group employ close to 74,500 people worldwide in over 3,700 stores. The annual turnover for companies in which Baugur Group is a major shareholder totalled GBP 8.7 billion in 2005. The foreign advance of Baugur Group has been extensive, and its status as an unlisted company means that the demand for detailed information is not as strong. Therefore, the following coverage of its acquisitions will include only the company’s main investments, and a brief enumeration of its foreign investments is provided.
Figure 3. The internationalization process of Baugur Group

In March 2009, the structure of one of the largest companies in Iceland, Baugur Group, looked like this:
As can be seen in figure 4, there are quite a few holding companies operating around Baugur Group. In Iceland, it has been quite fashionable to separate companies into holding companies, operational companies and property companies. The reason for showing the structure of Baugur Group is because the structure of the company is the key to the business model that was used in Iceland and is only showed here to give an example of the structure of the Icelandic MNCs and will be discussed more in the concluding chapter.

**Figure 4. The structure of Baugur Group**

Kaupthing hf. was originally established at the dawn of financial liberalization in Iceland, in 1982. It started off as a small agency for financial advisory services and securities brokerage. In the mid 1990s, Kaupthing began to flourish in securities brokerage and asset management. At the same time, it widened its focus to include opportunities abroad. Kaupthing Bank became licensed as an investment bank in 1997 and was granted a commercial banking
licensure in January 2002. Kaupthing Bank is a European bank offering financial services to companies, institutional investors and high net-worth individuals. These services include corporate banking, investment banking, capital markets services, treasury services, asset management and comprehensive wealth management for private banking clients. Kaupthing Bank has continued to strengthen its international operations through acquisitions and the establishment of subsidiaries, expanding beyond the Nordic region’s borders and defining its presence in Northern Europe. Initial developments include the acquisitions of the brokerage house Sofi Oyj in Finland in 2001 as well as the Swedish bank JP Nordiska AB (now Kaupthing Bank Sverige AB) in November 2002. In 2003, the investment bank, Kaupthing Bank and Búnardarbanki, a corporate and retail bank, merged under the name Kaupthing Bank. The two most recent acquisitions, of Danish bank FIH Erhversbank A/S and Britain’s Singer & Friedlander Group plc (now Kaupthing Singer & Friedlander), are the most significant. Kaupthing Bank hf. is an Icelandic public limited company with its registered office and headquarters in Reykjavík. The bank is the parent company in a financial group that provides a wide range of financial services and products.
Motivation and Geographical Expansion of Icelandic MNEs
According to Dunning (1993), firms will only invest abroad if the configuration of OLI advantages is desirable and, moreover, if some incentives exist, they are seeking something and realize that they can exploit the existing OLI advantages to attain their goals. The competitiveness of all of the case companies is based on strong ownership advantages, for example technological specialization, know how and broad scope of experience. Exploiting the specialized O-advantages in international markets has therefore been a fundamental driving force in their internationalization. In this way, strong O-advantages have influenced the companies’ motives for investing abroad, making it desirable to capitalize on the firm-specific assets in order to achieve the goals of the companies. The motivation to exploit O-
advantages in foreign markets is closely related to the market-seeking behaviour as the small domestic market has limited the opportunities to exploit the possessed O-advantages fully.

If we look at the case companies, it can be seen that the main motivation for OFDI is to gain access to new markets. For instance, Actavis aimed to grow faster than the competition in any given market and to gain a top five position in all of its key markets. “Building a business organically in different countries is not always easy”, says the former CEO of Actavis, Robert Wessman. The company is constantly gaining access to new markets through acquisitions, and it works to ensure that all products are cross-registered in Actavis’s main market segments around the world. Today, Actavis has located business units and developed partnerships strategically where cost efficiencies can also be achieved. It continues to expand its market reach through the opening of new offices and strategic acquisitions. Acquiring a base will enable the firm to penetrate the market with its products more quickly and those acquisitions must add value on a stand-alone basis. “We look specifically for companies that can strengthen our core business and create synergies within our Group. To date we have acquired almost 20 companies” (Robert Wessman, CEO, Interview with Wall Street Reporter, 24 March 2005). In 2008, it acquired more than 25 foreign companies.

Another case company, Bakkavör, operates in a high-growth market too (the fresh prepared foods market, which grew by 11% in 2007). Bakkavör recently entered the Asian market where, in China for example, the annual market growth for food is around 15%. Looking at the motivation behind Bakkavör OFDI, it has mainly been market seeking, through acquisitions. The company has increased its market share in certain countries by acquisitions and strengthened its sales and marketing network through both acquisitions and greenfield investments.
In recent years, Kaupthing Bank has been one of the fastest growing financial groups in Europe. In 1998, Kaupthing was the first of the three Icelandic banks to expand its operations abroad, when it started Kaupthing Luxembourg SA, a securities firm. The bank’s expansion has been achieved through *organic growth* and a number of strategic acquisitions. The aim of this growth was to enhance further the bank’s ability to provide comprehensive services to its client base in the UK, the Nordic countries and elsewhere in Northern Europe. Kaupthing has been by far the most aggressive of the Icelandic banks in relation to acquisitions. The total value of the companies it has acquired during the past decade is approximately EUR 5 billion. The largest ones have been the acquisition of the Danish FIH bank in 2004 (approx. EUR 1 billion), which at that time doubled the size of the bank, and Singer & Friedlander in the UK, which was acquired in 2005 (approx. EUR 0.8 billion).

The need to be close to large and fast-growing international markets as well as the need for geographical proximity, in terms of being close to customers, adapting to local needs and extending the network of services worldwide are also all factors that fall within the market-seeking criteria and are reported as incentives behind the OFDI of Kaupthing Bank.

All of the companies are also driven by the desire to grow within specialized market niches, not only by exploiting firm-specific ownership advantages, but also by augmenting these with foreign acquisitions of companies that complement their core capabilities and enable them to expand their operations and value chains. The sequential investments all comply with these focused strategies and add capacity, specialization and knowledge to the investing companies’ operating assets. All of the case companies have coordinated their cross-border activities effectively.

Reviewing the importance of location-specific advantages, large and growing markets appear to be the most desirable source of L-advantages in selecting host countries. From the case analyses, a notable common emphasis was put on the objective to gain access to large
and attractive growth markets. On the other hand, other location-specific advantages such as cheap factors of production, for example in terms of natural resources, cheap labour or a friendly business environment are not found to have influenced the FDI engagement of the case companies. Rather, the existence of and a relatively easy access to large markets (compared with the small domestic one) in which strong O-advantages may be exploited are the most prominent attraction and market-seeking behaviour is deemed as the most important motive behind outward FDI for all our case companies. Although Europe and North America tend to attract the majority of Icelandic OFDIs, it is interesting to see how the motives differ between regions.

**Europe**

**Eastern and Southern Europe**
The empirical literature provides several studies that investigate scope, structure and motives of Western FDI in Eastern Europe on a regional level (Borsos, 1995 for the Finish–Baltic region; for the Greek–Bulgarian–Albanian region see Petrakos, 1996; for the Austrian–Slovakian region see Altzinger et al., 1998). All these studies report the predominance of market-driven FDI. Empirical studies of firms from Austria present the motives of FDI in the CEECs (Altzinger, 1998). Most of them present the results from a survey that is based on the self-assessment of the investors. These studies testify that the predominant motive of Austria’s FDI in the CEECs is “market access/to secure sales”. Out of the four case companies, only Actavis and Bakkavör have invested in Eastern Europe. Bakkavör has two acquisitions in Eastern Europe, i.e. the acquisition of Norpol Sp. Z.o.o in Poland in 2000 and it also has a 51% share in Heli Food Fresh in the Czech Republic. The motives are mainly market-seeking motives in an effort to strengthen their position in this region. Actavis has mainly been market seeking in the Eastern European countries as well. It has extended that focus to sales and marketing, a strategy reflected in its acquisitions in Poland, the Czech
Republic and Slovakia for example. In 2004, Actavis entered Poland by the acquisition of Biovena. That acquisition was mainly carried out to expand its presence in Eastern Europe. The same motive was behind its investment in the Czech Republic with the acquisition of Pharma Avalanche. Its investments in Eastern Europe are mainly motivated by seeking new diversified markets. Hoskisson and Hitt (1988) and Simpert and Duhaime (1997) argued that diversification could lead to lower levels of investment in new product and process technologies. Similarly, Bettis (1981) revealed that narrowly diversified firms had higher levels of expenditures on R&D and on advertising. In order to strengthen their sales and marketing strategy and to control a larger part of the value chain, it acquired Higia AD in Bulgaria in 2005 and a few weeks later it acquired Keri in Hungary. The same can be said about the acquisition of Sindan in Romania in 2006. The motive was to gain access to the market of oncology, which is a new market for Actavis. By that acquisition, Actavis was able to compete in a new market segment. Its acquisition of ZiO Zdorovje in Russia goes under the same category, market access. By controlling factories in Russia, Actavis could participate in public tenders and thus overcome institutional barriers to foreign investors. It has been quite a challenge for the Russian authorities to improve the business climate and make the private sector thrive within the market environment and a lot of restructuring has taken place. To meet this challenge, structural concentration and discretion in regulatory practices and barriers to new entry have to take place (Broadman, 1999).

Out of the four case companies, Actavis is the only one that has invested in Southern Europe. Actavis entered the southern part of Europe when it acquired Fako in Turkey. With that acquisition, it wanted to build a strong platform, enabling the company to register its products in those markets. Fako was a major investment for the small Actavis at that time in 2004 so the investment scope was quite large. It provided a launch pad for the growing Turkish market and the expansion of the company into countries that are adjacent to Turkey
in Southern Europe. In 2008, Actavis entered Southern Europe when it acquired a manufacturing site, Pfizer, in Italy. The main motive was strategic asset seeking as, behind that acquisition, the aim was to meet the growth projections for an injectable oncology (cytotoxic) product portfolio over the coming years.

Western Europe
The Nordic countries and the UK play a dominating role as host countries for Icelandic OFDIs. By comparison with most regions in the world, the Nordic countries constitute a homogenous area. Sweden, Finland, Denmark and Norway are of about the same size; their history is intertwined and their economies relatively similar. Because their economies are open, Nordic firms depend extensively on countries outside the region for business (Björkman & Forsgren, 2000). The influence of Cyert and March (1963) and of Penrose (1959) largely explains why many Nordic researchers have perceived the internationalization of a firm as an incremental process, which is the main characteristic of the Uppsala model. Managers are risk avoiders rather than risk takers, and decisions about foreign investments are primarily based on experiential, individual knowledge. This theoretical background still inspires Nordic researchers (e.g., Eriksson, Johanson, Majkgard & Sharma, 2000). When discussing the Uppsala model, it is necessary to mention the root of the model. It can be said that the starting point behind the model was a collection of articles published by researchers at the University of Uppsala (Johanson & Wiedersheim-Paul, 1975; Johanson & Vahlne, 1977; Welch & Wiedersheim-Paul, 1980). In those articles, it was outlined what later was acknowledged as the Uppsala internationalization model. In this model, the internationalization of a firm is seen as an incremental process in which the firm gradually increases its international involvement. A considerable effort has been made to test the validity of the Uppsala model empirically. According to Björkman & Forsgren (2000), the sequence of foreign markets entered has been studied in Sweden (Engwall & Wallenstal, 1988; Johanson & Sharma, 1987; Lindqvist, 1991; Nordstrom, 1991), Norway (Benito &
Gripsrud, 1992), Denmark (Strandskov, 1995) and Finland (Luostarinen, 1979; while the sequence of market-entry modes has been analysed by Swedish (e.g., Ågren, 1990; Hedlund & Kverneland, 1985), Danish (Petersen & Pedersen, 1997), Norwegian (Juul & Walters, 1987) and Finnish researchers (Bjorkman & Eklund, 1996; Luostarinen, 1979). However, Iceland is almost like a black hole in the study of the Uppsala model but Óladóttir (2009) showed that some Icelandic firms have followed the Uppsala model in the past.

In 2002, Actavis acquired UNP in Denmark to gain access to new markets. A year later it acquired another Danish firm, Colotech. The same year it established a new unit in Sweden. In 2006, Actavis acquired Pliva Nordic Region, mainly to expand its European presence in the Nordic markets further. Bakkavör has mainly been market seeking in its investments in Northern Europe. The internationalization of the firm started in 1994 when it entered the UK market with a greenfield investment and Bakkavör UK Ltd was established, but its first foreign acquisition was in Sweden in 1999 when it acquired Lysekil Havsdelikatesser. In 2000, Bakkavör acquired Vine and Dine in the UK. In 2001, the firm entered Finland through a greenfield investment. Bakkavör Finland OY was established. To strengthen its presence in the UK market, it acquired Katsourish Fresh Food in the UK in 2001. In 2002, it established a new unit in the UK and in 2004 it went through its largest acquisition so far when it acquired shares in Geest. The acquisition was completed in 2005. In 2005, it acquired Hitchen Foods in the UK. In 2006, Bakkavör strengthened its position in the UK market by acquiring four more firms.

In 2000, Kaupthing Bank entered the Danish market by establishing a unit in Denmark. The same year, Kaupthing Bank also opened up an office in the Faroe Islands, the USA, Sweden and Switzerland. In 2001, Kaupthing acquired Sofi Financial Services Oyj in Finland, which was its first acquisition abroad. That was its first step to establishing its
presence in the Nordic region. In 2002, the bank only acquired one firm and that was in Sweden, when it acquired Aragon Holding AB.

In the year 2003, the bank acquired several firms abroad: Tyren Holding AS in Norway, JP Nordiska in Sweden, Noversita Oyj in Finland and BMY Corporate Finance Limited in the UK. In 2004, Kaupthing Bank established another office in the UK and acquired A. Sundvall AS in Norway and FIH Erhvervsbank through its largest acquisition so far. The acquisition of FIH Erhvervsbank was a part of the bank’s strategy to increase its corporate banking capabilities and expand its presence in the Nordic region. The acquisition doubled the size of the balance sheet at the time and provided a leading position in the Danish corporate banking sector. Since the acquisition, the bank has focused on realizing revenue through expanding into new business areas and cross selling products. That was achieved by the acquisition of Singer & Friedlander. Kaupthing Bank acquired Singer & Friedlander in the UK in July 2005. The acquisition formed part of the bank’s strategy to expand the product offering in the UK in order to be able to provide SMEs and high net-worth individuals with an integrated and wide range of banking services. The year 2006 was quiet for Kaupthing Bank: it only made one greenfield investment in the UK.

It also entered the Isle of Man by the acquisition of Derbyshire Offshore. Derbyshire Offshore will be integrated into Kaupthing’s existing Isle of Man operation. Kaupthing’s strategy for the business is to increase deposits and cross sell additional products. Gudni Adalsteinsson, Chief Treasurer (2007), says: “This acquisition is in line with Kaupthing’s strategy to increase the level of deposits within the bank. Derbyshire’s Offshore business is very efficiently run and will be a great addition to our current operations in the Isle of Man.”
The Americas

All of the companies except Bakkavör have invested in North America to gain access to much larger markets. A combination of dynamic market and strategic asset-seeking motives underscore Actavis’s expansion in the US. In 2003, Actavis wanted to gain access to the North American market so it established Pharmaco Inc in the USA. In 2005, Actavis further penetrated the US market by acquiring Amide. A few months later it acquired the human generic part of Alpharma. Through the human generic part of Alpharma, Actavis also gained access to markets in Western Europe, China and Indonesia and other countries in that area in which Actavis had not operated before. Through the human generic part of Alpharma, the company gained access to the UK, Germany and the Netherlands, where it had not had its own brands distributed before and it managed to cover a larger part of the Nordic countries and Scandinavia through this acquisition. In November 2007, Actavis entered into the speciality generic markets by the acquisition of Abrika Pharmaceuticals Inc in the US to gain a stronger foothold in the high value controlled release market. Bakkavör is the only firm of the case companies that has invested in South America. That was in 2000, when Bakkavör acquired Pesquera Isla Del Rey in Chile.

Asia

The main motive behind Actavis’s expansion in Asia can be claimed to be strategic asset and efficiency seeking. In 2005, Actavis wanted to gain access to lower-cost contract research organization (CRO) capabilities in India, so it acquired the firm Lotus. Lotus Laboratories in India plays an important role in Actavis’s R&D capabilities. Actavis continues to strengthen Lotus Laboratories’s operation, including its bio-analytical and clinical capacity where the unit now has a capacity of over 300 beds. What is interesting here is that a generic pharmaceutical company seeks knowledge in an emerging economy like India, which has emerged as a significant force in the global biotech industry, according to Ernst & Young’s report for the year 2002. Two more acquisitions followed in India, i.e. in 2006 Grandix
Pharmaceuticals in India was acquired to gain access to low-cost manufacturing capability and in 2007 the company acquired the API division of Sanmar Speciality Chemicals Ltd, India. The rationale behind that acquisition was to gain the ability to develop and manufacture its own active pharmaceutical ingredients. With this acquisition, Actavis gained access to R&D activity, so the main motive was strategic asset seeking but also efficiency seeking as this would lead to lowering the manufacturing costs of such operations. China was also targeted by Actavis for strategic and efficiency-seeking purposes. In 2008, Actavis acquired Zhejiang Chiral, which is a medicine chemical company in China specializing in R&D and the production of active pharmaceutical ingredients (APIs).

**Discussion and Conclusions**
Recent developments in the international investment scene, such as the rise of MNCs from emerging economies, has put emphasis on the contextual nature of the configuration of the OLI parameters. The situation facing each particular firm, the response of the firm to the OLI configuration at hand and, thus, the decision to engage in FDI reflect the contextual variables specific to each firm (Dunning, 2000). In this contextual framework, we distinguished certain key characteristics of Icelandic MNCs. These characteristics are labelled as the three Ss, which stand for scope, speed and specificity. In particular:

**Scope:** reflects OFDI.s that are intended to capitalize on a strong customer base and reputation. Building on Dunning (1988), scope reflects primarily asset-related ownership advantages (Oa). In this sense, the MNC (in our case the Icelandic MNC) either exploits its existing ownership advantages or acquires, instead of generating, foreign proprietary assets in order to meet the pressures of international competition. At the same time, as Dunning suggests, there is an element of transaction ownership advantages (Ot) in scope as the MNC decides to internalize additional unique proprietary assets by acquiring a foreign firm instead of using the market mechanism, i.e. licensing or franchising. In such a case, the coexistence
of Oa and Ot determines the nature of the scope. Scope also reflects locational advantages: the exploitation of Oas is related to a particular market. Thus, scope reflects the interdependence between ownership advantages and location/market advantages (Dunning, 1988: 4) and, contrary to Dunning, actually explains not only common ownership but also the mapping of the location of the subsidiary network of the MNC. Recent work by Rugman and Verbeke (2004) and also empirical work related to the OFDI of small countries does suggest that MNEs show a particular regional pattern in the spread of their subsidiary network. It is consequently logical to assume that scope bridges common ownership with the location choice and identity of foreign subsidiaries. For example, Icelandic firms seem to have followed an investment strategy where they grew significantly in size through single investments. As such, they seem to have aimed for relatively large, well-known and established companies with a strong customer base instead of buying small and unknown companies as a stepping stone into the foreign market. All of the four case companies have invested in this way. For Kaupthing Bank, the acquisition of the Danish bank FIH Erhvervsbank was by far the largest takeover that the bank had been involved with in the year 2004. Sigurdur Einarsson, the chairman of the board of Kaupthing Bank said, “I believe that FIH Erhvervsbank is an exceptional company and this acquisition will prove to be a first-rate investment. It has balanced the income distribution of the Bank and increased its geographic diversification. Having FIH on board presents a broad range of growth opportunities in Norway, Sweden and Denmark” (Annual Report, 2004). For Actavis, the acquisition of Alpharma was a really large acquisition that placed Actavis at number five in the world of generic pharmaceutical companies.

**Speed** assesses the efficiency of investment execution, from target screening to deal making and purchase. Speed falls primarily into a transaction ownership advantage (Ot) as it reflects efficiency in the internal decision-making process and coordination implementation.
In extending the argument, speed also captures internalization advantages (I) as it reflects the effectiveness of management control (Dunning, 1988: 12, Figure 1). Internalization theory suggests that the growth of an MNC may come through cross-border transactions providing a more macro view of OFDI. If a micro view of OFDI is taken, then the ultimate focus will be on the quality of a specific managerial decision (Dunning, 2000). In such a case, the experience of the manager, the strategic goals of the firm alongside its O advantages, as well as the L advantages, result in very complex and specific investment decisions. As Dunning (2000) stated, organization scholars and transaction costs theorists emphasize the role of management (such as Prahalad, Doz and Williamson). In this case, the unit of analysis is even narrower, to that of the manager, and eventually these unique managerial capabilities, which are very tacit in nature, reflect dynamic Oas. Speed in a contemporary context brings forward the contribution of corporate governance scholars who explicitly address the role of boards in the decision and implementation of strategic investment and it also stresses the role of institutions as a distinctive location factor in monitoring the impact of management processes. At the same time, speed is related to the internationalization model of MNCs. Efficient management processes should be evaluated in terms of the pool and quality of information surrounding the prospect OFDI. This could eventually explain either a gradual or more aggressive foreign market entry. This explains the “born global” nature of many Icelandic MNCs (Óladóttir, 2009). Speed is a clear characteristic of Icelandic FDI. Investment execution, from the target screening to the deal making and purchase, of Icelandic companies seems to have been very fast. As an example, one of the fastest-growing Icelandic companies has a record of purchasing close to 30 foreign companies over a period of 6 years, from 2000–2006. In May 2007, according to a study conducted by Deloitte International, Baugur Group was the company that had grown the most of all retail companies in the whole world, or about 106% per year for the previous 5 years. The other 3 case companies have also
grown extremely fast in recent years. The former deputy CEO of Actavis, Svafa Grönfeldt, said: “Our flexibility is a strength, our decision making is quick and we make speedy implementations like Robert Wessman will tell you. We educate each and every member of staff about our progress and our goals. For years, we have built a winning mindset within a winning team” (Grönfeldt, 2007). To give an example of the speed during the investment process, in the year 2005, Actavis acquired 6 different firms overseas or 1 every other month.

The chairman of the board of Kaupthing Bank, Sigurður Einarsson, says in the Annual Report of 2003 that “Despite the Bank’s rapid growth rate, lines of communication have always been short and clear. A critical component of Kaupthing Bank’s competitive edge is its swift decision making process, and this is something appreciated by our customers. The careful and considered decision making process is not compromised by speed but is driven by the efficiency of the Bank’s organisation.”

Finally, specificity assesses the OFDI in terms of the relative position of OFDI among its competitors. Thus, it provides a supply-side element of the OFDI project that Icelandic firms look into when they invest abroad as they need to augment their competitive advantages. Specificity, like scope, reflects mainly Oa advantages. However, in contrast to scope, specificity reflects the potential for asset-generating ownership advantages and thus embodies the characteristic of dynamic ownership advantages. Specificity incorporates the elements of uniqueness and stickiness and thus non-replicability (Hymer, 1960). MNCs from small countries would mostly tend to acquire unique assets abroad as their foreign operations would play a more extensive role in the internationalization process compared with headquarters. Foreign operations are also more exposed to global competition compared with domestic operations and thus are more sensitive in assessing the dynamic context of the Oa necessary for sustainable competition. Thus, the third characteristic of the Icelandic investments is specificity, where investment focus seems to be very narrow, i.e. Icelandic
companies seem to follow an investment pattern (or strategy) of obtaining a leading position and size in a given market niche. Firms in the food processing industry and generic pharmaceuticals, to name two, would evidently fall into this category. Bakkavör has specialized in the fresh prepared foods markets, which is a growing market, especially in Asia. Actavis has focused on the generic pharmaceutical market and has, as mentioned above, placed itself at number five in the world. Kaupthing Bank has focused on a special market niche as well. For example, the bank acts as an integrated financial services provider for SMEs, institutional investors and high net-worth individuals, whom the bank believes are not adequately served by larger financial institutions (Kaupthing Annual Report, 2007). The retail, property and media company, Baugur Group, has also been quite focused and has changed the structure of the company to fit its strategy better. A research by Dimitratos, Johnson, Slow & Young (2003) shows that MNCs have to develop and nurture their key resources in order to satisfy, in an apparently unique way, customer needs in their market niches.

In concluding, one or more factors may motivate each firm to engage in FDI. Moreover, motives may differ or change over time and often motives for initial versus sequential investments may differ (Dunning, 1997). In assessing the relationship between the 3 Ss with different motivations, we would expect scope to be related mostly to market seeking (as it reflects a static Oa). Specificity would then be related to strategic asset seeking (being a dynamic Oa). Although we could expect efficiency seeking in the deployment of speed, we could claim that Speed, being a dynamic Ot, transcends OFDI regardless of the motivation. Finally, it is important to note that, for scope and specificity, the unit of analysis is the firm, whilst for speed, the unit of analysis is the manager and/or the Board of Directors.

The comparison of the four case companies showed considerable consistency regarding their motives. All of them emphasize strongly that a great deal of self-confidence in
their respective firm-specific ownership advantages has driven them to internationalize. This can mainly be seen in the *scope* of their investment and in the *speed* of the international expansion. Limited growth potential in the domestic market was a major impetus for all of the companies to invest abroad, and their primary objective to sustain future growth and increase profitability. All of the companies have followed a focused corporate strategy with highly ambitious goals of becoming market leaders in their market niches (Kaupthing Bank is the only company that has not achieved this already but its goal was to become one of the fifty largest banks in the world). Furthermore, the investments of the case companies have served both to replicate the domestic services in foreign countries as well as to expand their portfolio of activities further. Recent developments cast doubt on the efficient application of the 3 Ss. Future research should evaluate the failure of the 3 Ss by investigating issues such as the decision-making processes (an Ot characteristic) and the lack of institutions- as a determining L- characteristic- controlling for the decision-making process in both Iceland and the host countries that were affected by the collapse of Icelandic MNCs.
References


4. Global expansion strategies for Icelandic, Irish, and Israeli Multinationals

By
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Evis Sinani

Abstract

The aim of the paper is to analyse the overseas activities of multinational corporations (MNCs) coming from small economies and their global expansion strategies behind outward foreign direct investments (OFDI). The focus countries are Ireland, Iceland, and Israel which are listed in the top 20 most dynamic outward investors in the World Investment Report (2007). Using a sample of 1089 foreign operations, of which 187 are Icelandic, 444 are Irish, and 458 are Israeli operations, we explore the geographical and industrial pattern of their direct investment strategies. Our analysis reveals several important facts. Firstly, most of the OFDI is directed to finance, insurance, and real estate services for all the countries. Secondly, by far the majority of investment projects are carried out in Europe and North America, which are almost equal in terms of frequency of investments. Finally, with regard to their investment strategies, risk-diversification strategies seem to be the dominant expansion strategy choice followed by horizontal integration expansion strategies.

Keywords: OFDI, MNC, Horizontal integration, Vertical integration, Lateral integration, small economies, Iceland, Ireland, Israel.

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Introduction

Foreign direct investment (FDI) is one of the main engines of growth for national economies. In particular, many small and medium-sized countries have grown through promoting and attracting FDI. At the same time, FDI enables a country to integrate better into an intensive globalized economic environment and successfully face the challenges set by international competition (Pearce, 2009). Recent data (UNCTAD, 2007a) indicated that newcomer small economies lead in the growth of global outward foreign direct investment (OFDI). Iceland holds the leading performance position as an outward investor, Ireland is ranked eighth, and Israel ranks in place 15: all of them are among the 20 top countries (out of 140) in outward investment performance. All three countries are small countries and their multinational corporations (MNCs) are emerging as dynamic competitors in the international investment scene. In view of these facts, the main purpose of this paper is a) to analyse the determinants of the global integration strategies of Icelandic, Israeli, and Irish MNCs by focusing on a number of firm- and country-level factors and b) to map the network of their foreign operation activities. In order to quantify our research, we constructed a categorical strategy variable by comparing the four-digit industrial classification of each operation abroad in the sample with that of its ultimate parent. The rest of the paper is organized as follows: in the next session, we analyse our theoretical thoughts and the relevant literature. We proceed with the data and country presentation and then we analyse the econometric results. Finally, we conclude.

Theoretical background and literature review

There is considerable evidence that there are certain common characteristics in small open economies (e.g., Bellak & Cantwell, 1998; Dunning & Narula, 1996; Freeman & Lundvall, 1988; Hoesel & Narula, 1999; Van Den Bulcke & Verbeke, 2001) that cause their firms to be
more globalized than firms from larger countries. Globalization, as used here, refers to economic globalization, which we define as the increasing cross-border interdependence and integration of production and markets for goods, services, and capital. This process leads both to a widening of the extent and form of international transactions and to a deepening of the interdependence between the actions of economic actors located in one country and those located in other countries (Narula & Dunning, 2000). The literature has illustrated that small open economies tend to be more internationalized, with a relatively large share of the value-added activity being conducted with the explicit purpose of serving overseas markets. Furthermore, firms from these countries tend to be competitive in a few niche sectors, as small countries tend to have limited resources and prefer to engage in activities in a few targeted sectors, rather than spreading these resources thinly across several industries (Benito et al., 2002). At the same time, there is appreciable variation between countries because small and open economies (SMOPECs) are by no means a homogenous group. There can be many factors that encourage a firm from a small economy to expand outside its home market. The limited domestic market size means that, if such firms are to achieve economies of scale in production, they must seek additional markets to that of their home location in order to increase their market size (Bellak & Cantwell, 1998; Narula, 1996; Walsh, 1988). First, a small market size constitutes a disadvantage in the development of process technology as economies of scale are not present, but may provide a competitive advantage in product innovation (Walsh, 1988). Second, firms from small countries have access to fewer kinds of created location advantages at home. That is, the infrastructure and national business systems tend to be focused on fewer industrial sectors. Globalization has also meant that firms increasingly need to maintain competencies in several areas, as products become increasing multi-technological in nature (Granstrand, Patel, & Pavitt, 1997; Krugman, 1998). In this context, it is well documented in the international business literature that MNCs can generate
and implement a wide range of global integration strategies that eventually fit into certain organizational structures, which in turn correspond to distinctive expansion motives. Traditionally, there are two main, distinct motives for companies to invest in foreign countries. The two main reasons are to serve a local market better and to access lower-cost inputs. The desire to serve a local market better is often referred to as horizontal FDI (Dunning, 2003; Grossman, Helpman, & Szeidl, 2003). It typically involves the duplication in foreign locations of the activities of the firm in the home market in order to supply foreign customers better. It can be said that the main motive here is to reduce the costs involved in supplying the foreign market and also to improve the firm’s competitive position there. It can be said that horizontal FDI arises as a substitute for exporting and from a desire to place production close to customers and thereby avoid trade costs, being both transportation costs and trade barriers (Buckley & Casson, 1981). This may be particularly appealing to a company when its home market is small and saturated and there are barriers to exporting. Accessing lower-cost inputs or resource seeking is another motivation for FDI. This form of foreign investment is often characterized as vertical FDI, since it involves breaking up the vertical chain of production and relocating part of the firms’ activities in a lower-cost location. Firms with labour-intensive operations, but based in advanced high-cost countries, may establish operations in lower-wage countries to cut costs. Markusen and Maskus (2001) note that the choice between vertical and horizontal production structures basically depends on country characteristics. Relative size and relative endowment differences and trade and investment costs, respectively, can determine the choice of foreign strategic expansion. Their review of recent empirical work leads to the conclusion that most OFDI is of the horizontal type. Since horizontal FDI is most prevalent among countries that are similar in both size and relative endowments, they say “that it is similarities between countries rather than differences that generate the most multinational activities” (Markusen & Maskus, 2001: 39). Vertical FDI
is traditionally related to the desire of MNCs to carry out unskilled-labour-intensive production activities in locations that have relatively abundant unskilled labour (Baconier, Norback, & Urba, 2005; Dunning, 2003; Grossman et al., 1986; Markusen, 1995). It is well known that the distinctions between horizontal and vertical FDI can become a little fuzzy sometimes because overseas investments may serve more than one purpose, for example to lower costs and improve sales in a foreign market or even some other purpose, or because firms may also invest overseas to acquire new technologies perceived as being important for future competitive success. It could also be argued that firms want to spread the risk or risk diversify through the global exploitation of unique assets as yet another reason to invest abroad (Hymer, 1976).

Nevertheless, the investment choices of many multinational enterprises today are far more complex. Firms often follow strategies that involve vertical integration in some countries and horizontal integration in others. Grossman et al. (1986) conclude that MNCs can pursue more complicated international integration strategies that are determined by factors such as transport costs, productivity, and the relative size of the host market.

Yet another important aspect that can explain the pursuit of complex investment strategies is inspired by the transaction cost literature. Location factors should then be complimented with firm-level factors to explain the form of integration a firm will pursue through its network of affiliates (Grossman & Hart, 1986; Luo, 2002). This is the case for lateral integration. Associated with efficiency-seeking motives, it can be said that lateral integration is affected by the organizational infrastructure and the strategic capabilities of a firm (Dunning, 1993; Luo, 2002). A distinct variant of lateral integration is the pursuit of new

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13 Vertical FDI and horizontal FDI have been tested in a number of empirical papers, including those by Brainard & Riker (1997), Carr, Markusen, and Maskus (1998), Markusen and Maskus (1999), Markusen and Maskus (2001), and Yeaple (2003).
competences in the form of new knowledge in other markets (Hashai & Almor, 2008). In this paper, we support that MNCs from small economies pursue complex integration strategies beyond the combination of horizontal and vertical strategies, which also include lateral integration as well as risk- diversification strategies through the network of their overseas subsidiaries. Indicatively, the Icelandic firm Actavis has 28 units abroad,\(^{14}\) 11 of which reflect the horizontal integration strategy, in four cases lateral integration and in 13 cases the company was diversifying risk. In Ireland, Experian Group Ltd has 19 overseas production operations, 12 of which were integrated horizontally and seven were for diversification. Finally, in Israel, the RAD Group reports 10 units abroad. Four of them are involved in horizontal integration strategies, four in lateral integration, and two in diversification. In this paper, we use country-level MNC subsidiary data for Iceland, Ireland, and Israel in order to understand the determinants of the four types of international expansion strategies of Icelandic, Irish, and Israeli MNCs’ overseas operations or OFDIs. In the following parts, we define four types of expansion strategies via OFDI and we analyse the determinants of each strategy based on the examination of firm- and country-level factors.

**Data, Descriptive Statistics, and Variables**

In this section, we explore the investment trends and patterns of Icelandic, Irish, and Israeli MNCs. To this end, we use a sample of 1089 overseas operating units,\(^{15}\) of which 187 are Icelandic, 444 are Irish, and 458 are Israeli. These data are for the year 2008 and are obtained from the Spring 2008 edition of the Lexis Nexis Corporate Affiliations Plus directory, which contains detailed information on the firm-level variables used in our analysis. Companies listed in the Directory usually report revenues in excess of $10 million and employment larger than 300 persons.

\(^{14}\) See section 3 on definitions

\(^{15}\) We use the terms overseas production units or operations in order to avoid confusion with the term subsidiary, which in this paper is used a proxy for the legal status of the overseas unit.
Location has been a key consideration for foreign investment activities (Buckley & Casson, 1976; Dunning, 1998; Porter & Sölvell, 1998; Root, 1994). Market potential or size (Agarwal & Ramaswami, 1992; Brouthers & Brouthers, 2000), political and legal environments (Delios & Beamish, 1999; Gomes-Casseres, 1989), and production and transportation costs (Root, 1994) have been emphasized as major factors that an MNC should consider before selecting target countries. Recently, international locations have gained additional strategic importance as sources of new learning, of knowledge creation, and of new or enhanced competitiveness (Dunning, 1998; Dunning & Lundan, 1998; Frost & Zhou, 2000; Makino, Lau, & Yeh, 2002; Porter & Sölvell, 1998).
Table 1: Geographical distribution of overseas operating units

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<td>155</td>
</tr>
<tr>
<td>Isle of Man</td>
<td>1</td>
<td></td>
<td>1</td>
<td>Uruguay</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>1</td>
<td>4</td>
<td>10</td>
<td>United Kingdom</td>
<td>73</td>
<td>96</td>
<td>26</td>
</tr>
<tr>
<td>Jersey</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>Vietnam</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kazakhstan</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>187</strong></td>
<td><strong>444</strong></td>
<td><strong>458</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Lexis Nexis Corporate Affiliations Directory, 2008 (authors’ calculations)

Table 2: Regional distribution of subsidiaries

<table>
<thead>
<tr>
<th>Region</th>
<th>Africa</th>
<th>Asia Pacific</th>
<th>Europe</th>
<th>Middle East</th>
<th>North America</th>
<th>South America</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iceland</td>
<td>0</td>
<td>9</td>
<td>132</td>
<td>0</td>
<td>34</td>
<td>2</td>
<td>177</td>
</tr>
<tr>
<td>Ireland</td>
<td>1</td>
<td>18</td>
<td>172</td>
<td>1</td>
<td>244</td>
<td>4</td>
<td>440</td>
</tr>
<tr>
<td>Israel</td>
<td>1</td>
<td>43</td>
<td>142</td>
<td>0</td>
<td>167</td>
<td>14</td>
<td>367</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2</strong></td>
<td><strong>70</strong></td>
<td><strong>446</strong></td>
<td><strong>1</strong></td>
<td><strong>445</strong></td>
<td><strong>20</strong></td>
<td><strong>984</strong></td>
</tr>
</tbody>
</table>

Source: Lexis Nexis Corporate Affiliations Directory, 2008 (authors’ estimations)
Table 1 shows the geographical distribution of foreign units by host country. The geographical distribution reveals that there are 57 host countries in which Icelandic, Irish, and Israeli firms have established operations. Among them, Icelandic, Irish, and Israeli firms have the highest number of operating units in the USA and the UK. If, however, the focus is set on the geographical distribution of these units (see Table 2), we would observe that, instead of being globally distributed, there is a strong regional dimension, with almost an equal number of units being directed to Europe and North America. The second distant destination is Asia Pacific, hosting 70 units, followed by South America. In contrast, Africa and the Middle East are hosting very few operations from the three countries.

### Table 3: Definition of expansion strategies

<table>
<thead>
<tr>
<th>Subsidiary</th>
<th>Parent</th>
<th>Expansion strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Same core industry</td>
<td>Horizontal integration</td>
</tr>
<tr>
<td></td>
<td>Natural resource industries</td>
<td>Vertical integration</td>
</tr>
<tr>
<td></td>
<td>Operate in the same industry/different stages</td>
<td>Lateral integration</td>
</tr>
<tr>
<td></td>
<td>Unrelated industries</td>
<td>Risk diversification</td>
</tr>
</tbody>
</table>

As the aim of this paper is to analyse the global expansion strategies of MNCs coming from small economies, we have constructed a categorical variable by comparing the four-digit industrial classification of each overseas unit in the sample with that of its ultimate parent. Based on this, the strategy is deemed to be horizontal integration if the overseas unit operates in the same core or related industry as its parent. In order to distinguish among resource and efficiency seeking motivated investment (Dunning, 1993) we identified two types of strategies i.e. vertical integration capturing overseas investment in natural resource industries and lateral integration capturing investment in different stages of the value chain, forward or backward. Finally, we identified a fourth strategy, i.e. that of diversification if the overseas unit and its parent operate in unrelated industries.\(^{16}\)

---

\(^{16}\) Most of the subsidiaries had multiple industrial profiles, i.e., more than one industrial classification. The data allowed us to distinguish the core industry of the subsidiary as well as the core industry of the parent.
Table 4: Regional Distribution and Expansion Strategies by Icelandic, Irish and Israeli firms.

<table>
<thead>
<tr>
<th>Expansion Strategies</th>
<th>Horizontal Integration</th>
<th>Vertical Integration</th>
<th>Lateral Integration</th>
<th>Risk Diversification</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Country of Origin &amp; Regional Distribution</strong></td>
<td>Iceland</td>
<td>Irish</td>
<td>Israeli</td>
<td>Iceland</td>
<td>Irish</td>
</tr>
<tr>
<td>Africa</td>
<td>0 0 0 0 0</td>
<td>1 0 0 0 1</td>
<td>1 0 0 0 1</td>
<td></td>
<td>1 0 0 0 1</td>
</tr>
<tr>
<td>Asia Pacific</td>
<td>5 0 1 3 9</td>
<td>9 0 9 0 18</td>
<td>48 10 92 22 172</td>
<td></td>
<td>48 27 72 97 244</td>
</tr>
<tr>
<td>Europe</td>
<td>55 0 22 55 132</td>
<td>48 9 54 30 142</td>
<td>0 0 1 0 1</td>
<td></td>
<td>49 17 26 90 167</td>
</tr>
<tr>
<td>Middle East</td>
<td>0 0 0 0 0</td>
<td>0 0 0 0 0</td>
<td>0 0 0 0 0</td>
<td></td>
<td>0 0 0 0 0</td>
</tr>
<tr>
<td>North America</td>
<td>14 0 7 13 34</td>
<td>48 27 72 97 244</td>
<td>0 0 0 0 0</td>
<td></td>
<td>34 17 26 90 167</td>
</tr>
<tr>
<td>South America</td>
<td>2 0 0 0 0</td>
<td>4 0 0 0 4</td>
<td>0 0 0 0 0</td>
<td></td>
<td>7 4 3 0 14</td>
</tr>
</tbody>
</table>

Source: Lexis Nexis Corporate Affiliations Directory, 2008 (authors’ estimations)

Table 4 looks at the expansion strategies by country of origin. It can be seen that Irish firms are mainly investing in North America and Europe, and that their expansion strategy is mostly lateral integration in Europe and diversification in North America. Icelandic firms have mainly focused on Europe as their host region for OFDI and their dominant expansion strategy is horizontal integration and diversification. Israeli firms have invested mainly in North America, through horizontal integration and diversification, whilst lateral integration is the dominant strategy of expansion in Europe.
Table 5: Industrial Distribution of Icelandic, Irish and Israeli overseas units

<table>
<thead>
<tr>
<th>Industry</th>
<th>Number of Icelandic Firms</th>
<th>Number of Irish Firms</th>
<th>Number of Israeli Firms</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, Forestry &amp; Fishing</td>
<td>0</td>
<td>8</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Mining &amp; Construction</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Manufacturing: Food, Textile, Furniture, Chemicals.</td>
<td>62</td>
<td>43</td>
<td>68</td>
<td>173</td>
</tr>
<tr>
<td>Manufacturing: Rubber, Leather, Stone, Electronics and Transportation Equipment</td>
<td>19</td>
<td>132</td>
<td>75</td>
<td>226</td>
</tr>
<tr>
<td>Wholesale &amp; Retail Trade</td>
<td>0</td>
<td>26</td>
<td>11</td>
<td>37</td>
</tr>
<tr>
<td>Finance, Insurance &amp; Real Estate</td>
<td>89</td>
<td>136</td>
<td>89</td>
<td>314</td>
</tr>
<tr>
<td>Transportation, Communication, Electric, Gas and Sanitary Services</td>
<td>7</td>
<td>23</td>
<td>17</td>
<td>47</td>
</tr>
<tr>
<td>Services: Hotel, Business Service</td>
<td>5</td>
<td>50</td>
<td>86</td>
<td>141</td>
</tr>
<tr>
<td>Services: Health and Legal Services</td>
<td>5</td>
<td>18</td>
<td>11</td>
<td>34</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>187</td>
<td>440</td>
<td>358</td>
<td>985</td>
</tr>
</tbody>
</table>

Source: Lexis Nexis Corporate Affiliations Directory, 2008 (authors’ estimations)

Table 5 shows the distribution of overseas units across industries defined at the SIC four-digit level. Across all three origin countries, subsidiaries are concentrated in the manufacturing and finance, insurance, and real estate industries with no or very few investments in agriculture and in mining and construction.
Analysing the scale of investment would have required data on investment spending for each country. In their absence, we use sales as a proxy for the size of investment projects/units. For the purposes of this analysis, we have classified units into five groups according to the sales revenue they generate\(^\text{17}\) as follows and can be seen in Table 6: those generating up to 100 million dollars in sales, those generating between 100 and 500 million dollars, those generating between 500 million and 1 billion dollars, those generating between 1 and 1.5 billion dollars, and those generating more than 1.5 billion dollars.

As Table 6 shows, most of the OFDIs are of a relatively small size. Out of a total of 965 operations for all of the three countries,\(^\text{18}\) 810 generate sales under 500 million dollars. For all the countries, most firms generate sales between 100 and 500 million dollars.

### Table 6: Size Distribution of overseas operations by country of origin

<table>
<thead>
<tr>
<th>Sales</th>
<th>Number of Icelandic Firms</th>
<th>Number of Irish Firms</th>
<th>Number of Israeli Firms</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 100 million $</td>
<td>48</td>
<td>147</td>
<td>112</td>
<td>307</td>
</tr>
<tr>
<td>100 - 500 million $</td>
<td>87</td>
<td>211</td>
<td>205</td>
<td>503</td>
</tr>
<tr>
<td>500 million - 1 billion $</td>
<td>26</td>
<td>39</td>
<td>16</td>
<td>81</td>
</tr>
<tr>
<td>1 – 1,5 billion $</td>
<td>11</td>
<td>18</td>
<td>10</td>
<td>39</td>
</tr>
<tr>
<td>More than 1,5 billion $</td>
<td>5</td>
<td>25</td>
<td>5</td>
<td>35</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>177</strong></td>
<td><strong>440</strong></td>
<td><strong>348</strong></td>
<td><strong>965</strong></td>
</tr>
</tbody>
</table>

Source: Lexis Nexis Corporate Affiliations Directory, 2008 (authors’ estimations)

\(^{17}\) We do not possess data on the exact level of sales. Rather, we have data on the interval where sales fall. In constructing the intervals, we have balanced the need to keep their number manageable and not to pool together firms of substantially different sizes.

\(^{18}\) The number of observations may differ due to a lack of information per variable analysed.
Reviewing the ownership control of establishment in foreign markets (see Table 7) shows that subsidiaries are the most preferred mode of establishment, across the origin countries. According to the definitions provided by the Corporate Affiliations Directory, subsidiary indicates majority ownership (more than 50%), affiliate indicates ownership less than 50%, and joint venture indicates a share of ownership.

Out of 171 overseas units for Icelandic firms, 119 are established as subsidiaries, 28 as affiliates, and 24 as joint ventures. Furthermore, Icelandic MNCs prefer diversification and horizontal expansion strategies and do not use vertical expansion strategies. Regarding Irish firms, out of 440 establishments, 322 are subsidiaries, 66 affiliates, and 52 joint ventures and their preferred expansion strategy is lateral expansion, followed by diversification. Similarly, most Israeli firms are established as subsidiaries and their preferred expansion strategy is diversification, followed by horizontal and lateral integration. Hence, we notice that, regardless of the nationality of foreign units and the expansion strategy, MNCs desire to have majority control over their overseas operations with subsidiaries being the dominating ownership control. The MNC achieves advantages through both vertical and horizontal integration (Buckley & Ghauri, 2004).

**Variables and Hypotheses**

**Dependent Variables:** Our dependent variable is the type of investment strategy. The strategy is deemed to be horizontal integration if the overseas unit operates in the same core or related industry as its parent; vertical integration if investment abroad is made in natural resource industries; lateral integration if the overseas unit and its parent operate at different stages of the value chain; and diversification if the overseas unit and its parent operate in unrelated industries.¹⁹

---

¹⁹ Most of the subsidiaries had multiple industrial profiles, i.e., more than one industrial classification. The data allowed us to distinguish the core industry of the subsidiary as well as the core industry of the parent.
**Independent variables:** Based on Dunning (1993), Markusen and Maskus (2001), and Narula and Dunning (2000), we assume that different ownership- and location-specific advantages will stimulate different expansion strategies. Thus, the set of independent variables consists of both firm-specific and location-specific ones.

**Firm-specific variables include:**
The ownership control of establishing an operation abroad, namely, the affiliate, subsidiary, or joint venture, captured by their respective dummies. Multinationals can choose between establishing an affiliate or acquiring existing firms when entering foreign markets. However, regardless of the choice, they control full equity (i.e., majority owned subsidiaries) or shared ownership with local partners (i.e., joint ventures). Therefore, depending on the stake taken in the targets, international acquisitions can be classified into two major categories, full or partial. This distinction is missing in many previous studies (Chen, 2008).

In addition, it is common knowledge that the share of ownership falls under the literature on entry mode (Anderson and Gatignon, 1986). The understanding is that the higher the ownership share the higher the desire to control foreign operations. Key underlying factor is the need for the MNCs to secure and also to develop proprietary capabilities through their overseas subsidiaries. In this context, when the foreign unit is pursuing a strategy that is driven by the requirement of unique resources the more likely it would be for the MNC to secure a high ownership control (Berry and Sakakibara, 2006). We thus formulate hypothesis one as follows:

**H1:** The higher the ownership and thus the more demanding the strategy in deploying and developing resources the higher the probability for the subsidiary to be engaged in diversification strategies.
The *hierarchy* within the MNC also plays a significant role in the chosen investment strategies. We include a measurement on *Hierarchy* which identifies the reporting node of subsidiaries within their MNC group with 1 being the value of the node of the ultimate parent. Subsidiaries reporting to higher value nodes suggest that their have different immediate reporting parent companies. As it has been stated in the international management literature corporate business and functional strategies are not hierarchical necessarily. They are contemporaneous and interactive. Instead of a hierarchy of strategies, we should also think in terms of a heterarchy of strategies (Hedlund, 1986). In a hierarchy, every strategic decision-making node is connected to at most one parent node. In a heterarchy, however, a node can be connected to any of its surrounding nodes without needing to go through or obtain permission from some other node (Chakravarthy & Henderson, 2007). In a heterarchical MNC we will find more autonomous subsidiaries which will pursue strategies that end up in developing products and services adding to the existing trajectory of the MNC. This type of subsidiaries have been labelled in the relevant literature as strategic leaders (Bartlett and Ghoshal, 1986). We thus formulate hypothesis two as follows:

*H2: The less likely for the subsidiary to report to the ultimate parent the more it pursues diversification strategies.*

*Firm size* has often been operationalized in prior research using sales, a measure also adopted in this study. Since Hymer (1960) and Horst (1972), firm-level empirical studies have identified a firm’s size as a key determinant of its propensity to undertake FDI. Blomström and Lipsey (1991), Swedenborg (1979), and Trevino and Daniels (1994) have found that firm size (as well as R&D expenditures, export intensities, and previous investment experience) contributes to increased FDI likelihood. As sales reflect also the performance of the firm we
would expect that higher sales to represent riskier strategic choices. In this light we formulate hypothesis three as follows:

\[ H3: \text{The higher number of sales the higher the probability for the subsidiary to pursue diversification strategies} \]

*Parent age* controls for possible effects of firm age and accumulated experience on integration decisions. It is constructed as the difference between 2008 (the year to which the data belong) and the year of establishment. Few papers in the literature have incorporated the parents’ age variable into the investment strategy. More experienced firms are expected to have the managerial capacity to integrate their activities (Chandler, 1990; Rumelt, 1974) so they could follow much more complicated integration strategies than firms that have less experience. Various studies support the positive relationship between firm age and degree of internationalization (Kotha, Rindova, & Rothaermel, 2001). In this context parent age can be explained through the literature on the “liability of foreignness” as experienced parents equip their subsidiaries with the necessary management skills to overcome the adversities of a new business environments (Zaheer, 1995; Peng, 2001; Luo 2000).

We thus formulate hypothesis 4 as follows,

\[ H4: \text{The more experienced the parent company is the more likely for the subsidiary to pursue lateral integration and/or diversification strategies.} \]

*MNC international network experience* is measured as the number of overseas units each parent company has reported in a given year. It is included in order to capture how the MNC’s international network experience affects the investment strategy of its overseas
operating units. Feinberg and Keane (2003), who conducted a study on U.S. multinationals with affiliates in Canada, and showed that 69% of the companies in the study use complex integration strategies. Foreign operations are often seen as means to assimilate new capabilities from their local, external network and integrate these capabilities into the multinational corporation (Schmid & Schurig, 2003). Further to this argument, Rugman and Verbeke (2004) support that short-term strategies seem to be negatively affected by wide geographical operations as these would put a constraint on resources availability. We consequently expect that larger MNC groups, with a diversified network of foreign operations or with international experience, will tend to pursue more complex integration strategies, have a long-term perspective than MNCs with a limited foreign presence (Elang, 2009). Thus hypothesis five is formulated as follows:

\[ H5: \text{The higher the number of overseas subsidiaries of the MNC group the higher the probability for the subsidiary to engage in lateral and/or diversification strategies.} \]

Finally, and following the literature on small countries -which shows that a handful of MNCs are responsible for the majority of OFDI- we created a variable of top tier MNCs international network which estimated the number of foreign units for the top five parent companies. Information from FORFAS (2006) on Ireland states that 10-15 companies were responsible for the majority of OFDI. According to Bellak (1996) the leading 20 manufacturing Austrian MNCs comprised of almost 75% of total employment in overseas subsidiaries in 1989 through a network of 669 subsidiaries. On top of that significant was the role of a single MNC namely that of Austria Industries AG. As Bellac states their investment in 1990 represented 40% of the total Austrian OFDI. Similarly a study by Oxelheim and Gartner (1996) showed how the top 10-15 MNCs from Finland, Sweden, Denmark and
Norway respectively were the main engines of growth for the Scandinavian economies. In this context and building on Pfaffermayr and Bellak (2000) and Eden et al. (1997) we would suggest that firm specific advantages (FSAs) can be a distinctive source of difference between larger and smaller MNCs. In addition larger MNCs would have also the capability to operate in international value chains (Porter, 1990) and thus “inducing further gains from specialisation of affiliates vis-à-vis smaller non fragmented firms” (Pfaffermayr and Bellak, 2000, p.11). Thus, we formulate hypothesis six as follows:

*H6: Leading MNCs subsidiaries would be more likely to be engaged in lateral integration and/or diversification strategies*

**Location-specific variables include**

*Country-level data* collected from publicly available statistics such as the World Development Indicators, the World Intellectual Property Organization, and the International Labour Organization (ILO). These variables consist of: *gross domestic product (GDP in constant prices)*, included to account for the market size of the host country. A larger market makes the realization of economies of scale in production more feasible and thus favours FDI servicing rather than export (Venables, 1999; Vernon, 1966). Various studies use GDP as a core determinant of an MNC’s decision to invest, with the underlying hypothesis of a positive sign (Barrell & Pain, 1996; Braunerhjelm & Svenson, 1996; Culem, 1988; Veugelers, 1991; Wheeler & Mody, 1992). We thus formulate hypothesis seven as follows:

*H7: The larger the host market the more likely for the subsidiary to pursue lateral and/or diversification strategies*
Trade openness, measured by two alternative measures, namely, merchandise trade as a percentage of GDP and ores and metals exports as a percentage of total exports. Assuming that trade is a sign of country competitiveness, value chain based OFDI (Porter, 1990; Amiti and Wakelin, 2001) we would expect that subsidiaries operating in such an environment will be part of FDI stimulating trade activities creating a virtuous growth cycle for the host economy (Markusen, 1997). In this context we would formulate hypothesis eight as follows:

\[ \text{H8: The more trade open the host economy the more likely for the subsidiary to be engaged in vertical, lateral and/or diversification strategies.} \]

In order to capture the capability of the host country to generate new knowledge we used two technology and knowledge related variables, i.e. R&D expenditures as a percentage of the GDP of the host country and the number of patents granted by the host country. We build on Syr neonidis (1996) who distinguishes between “innovative input” and “innovative output” and Neven and Siotis (1996) who calculated an R&D intensity ratio at a host country level and, as they do, we also assume that a country committed to R&D would attract FDI associated with knowledge and technology sourcing. Filippaios and Papanastassiou (2008) used patents as an indicator of the efficiency use of innovate inputs.

We hence formulated hypothesis nine and ten as follows:

\[ \text{H9: The higher the share of R&D expenditures in the host country the more likely the subsidiary to be engaged in lateral and/or diversification strategies.} \]

\[ \text{H10: The higher the number of patents granted in the host country the more likely the subsidiary to be engaged in diversification strategies.} \]
Labour cost is measured as constant hourly labour cost, included to account for the cost of production. Labour cost is a major component of the cost of production, and thus is frequently tested in the literature. However, there are no uniform empirical results for the effect of labour cost on investment incentives. While some studies have shown no significant role for labour costs, others have shown a positive relationship between labour costs and FDI. The latter result is often attributed to the level of labour productivity or the quality of human capital that may be reflected in the wage variables (Bevan & Estrin, 2000; Egger & Stehrer, 2003; Holland & Pain, 1998; Weise, Bachtler, Downes, McMaster, & Toepel, 2001). We then formulate hypothesis eleven as follows:

\[ H11: \text{The higher the labour costs in the host country the less likely for the subsidiary to be engaged in horizontal, vertical and lateral integration strategies.} \]

The last location variable tested is the Economic Freedom Index (EFI) which serves as an indicator of the institutional environment of the host country. The political stability of a government and a sound rule of law are important factors to foster the inflow of FDI. Uncertain political environments and their related risks may impede FDI inflows in spite of favourable economic conditions (Aizenman and Noy 2005; Wei, 1997). In the past we experienced how trade barriers encouraged import substituting FDI in the form of horizontal integration. The index ranks annually more than 150 countries (with lower values standing for freer countries) and takes into account 10 factors of “economic freedom” of the host economy.\(^{20}\) It is therefore an indicator of the “market-friendliness” of the economic policies of the host country. In this spirit we formulated hypothesis twelve as follows:

\[ \text{Economic Freedom Index (EFI)} \]

---

\(^{20}\) Such factors include trade policy, taxation, government intervention in the economy, monetary policy, foreign investment, banking, wage and price controls, property rights, regulation, and black market activity.
H12: The more market friendly the host country is, the more likely for the subsidiary to be engaged in vertical, lateral and diversification strategies.

Control Variables: include country dummies and parents’ industry affiliation dummies.

Table 8: Correlation Matrix of Key Variables

<table>
<thead>
<tr>
<th>Constructs</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.Sales/Firm Size</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.Host Country GDP</td>
<td>0.12</td>
<td>1</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.R&amp;D Expenditure</td>
<td>0.08</td>
<td>0.48</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.Merchandise Trade</td>
<td>0.10</td>
<td>0.54</td>
<td>0.29</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.Ores and Metals Trade</td>
<td>0.05</td>
<td>0.49</td>
<td>0.23</td>
<td>0.13</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.Patents</td>
<td>0.03</td>
<td>0.11</td>
<td>0.58</td>
<td>0.51</td>
<td>0.59</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.Economic Freedom Index</td>
<td>0.14</td>
<td>0.26</td>
<td>0.13</td>
<td>0.44</td>
<td>0.29</td>
<td>0.19</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.Labor Cost</td>
<td>0.21</td>
<td>0.28</td>
<td>0.10</td>
<td>0.44</td>
<td>0.52</td>
<td>0.08</td>
<td>0.34</td>
<td>0.55</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>9.Parent Age</td>
<td>0.25</td>
<td>0.34</td>
<td>0.22</td>
<td>0.31</td>
<td>0.19</td>
<td>0.46</td>
<td>0.11</td>
<td>0.15</td>
<td>0.17</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 9: Variance Inflation Factor Test for the Pooled Sample

<table>
<thead>
<tr>
<th>Constructs</th>
<th>VIF</th>
<th>1/VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales/Firm Size</td>
<td>1.98</td>
<td>0.51</td>
</tr>
<tr>
<td>Host Country GDP</td>
<td>2.04</td>
<td>0.49</td>
</tr>
<tr>
<td>R&amp;D Expenditure</td>
<td>2.38</td>
<td>0.42</td>
</tr>
<tr>
<td>Merchandise Trade</td>
<td>3.67</td>
<td>0.28</td>
</tr>
<tr>
<td>Ores and Metals Trade</td>
<td>2.12</td>
<td>0.47</td>
</tr>
<tr>
<td>Patents</td>
<td>2.61</td>
<td>0.38</td>
</tr>
<tr>
<td>Economic Freedom Index</td>
<td>3.11</td>
<td>0.32</td>
</tr>
<tr>
<td>Number of Subsidiaries per Parent</td>
<td>2.82</td>
<td>0.36</td>
</tr>
<tr>
<td>Labor Cost</td>
<td>1.26</td>
<td>0.79</td>
</tr>
<tr>
<td>Parent Age</td>
<td>2.83</td>
<td>0.35</td>
</tr>
</tbody>
</table>

The correlation matrix of the independent variables, Table 8, shows that the pairwise correlations do not seem to present serious multicollinearity problems for the multivariate analysis, as none of the variables have correlation coefficients above 0.60. This conclusion is further confirmed by the VIF test, which reveals values much smaller than 10.
Econometric framework and empirical results

In the empirical analysis, we investigate the determinants of investment expansion strategies, employing a multinomial logistic regression approach where the probability of a firm having a particular strategy for investing is modeled as a function of firm-specific and location-specific variables. This model is appropriate as it is used to model relationships between a multiple response variable and a set of regressors (Greene, 2003; Wooldridge, 2002). The specification that we estimate then is the following:

\[ Y_{ij} = \alpha_0 + \beta_j * X_{ij} + \delta_c * Z_c + u_{ij} \]  

where \( X_{ij} \) is a vector of variables for firm \( i \) in industry \( j \), \( Z_c \) is a vector of host-country-specific variables, and \( u_{ij} \) is the error term. The dependent variable, \( Y_{ij} \), is the categorical investment strategy variable for firm \( i \) in industry \( j \), where the investment strategy is divided into the following categories:

1 = horizontal integration; 2 = vertical integration; 3 = lateral integration; 4 = diversification.

The probabilities estimated in the multinomial logistic model are:

\[ \Pr(\text{ob}(Y_{ij} = k | X_{ij}, Z_c) = \frac{e^{\beta_j * X_{ij} + \delta_c * Z_c}}{1 + \sum_{k=1}^{4} e^{\beta_j * X_{ij} + \delta_c * Z_c}}, \text{ for } k(\text{category}) = 2, 3, 4 \]  

For the base category, \( k = 1 \), the probability estimated is:

\[ \Pr(\text{ob}(Y_{ij} = 1) = \frac{1}{1 + \sum_{k=2}^{4} e^{\beta_j * X_{ij} + \delta_c * Z_c}} \]  

The maximum likelihood estimates are obtained using Stata 10. It is customary in the literature to report the estimates of multinomial regression analysis as relative risk or odds ratios. The coefficients are then interpreted as changes in the relative risk of the respective category over the base category. While important in understanding the determinants of firm
motivations behind decisions to invest, relative risk ratios are not directly interpretable in terms of incremental impacts on probabilities of respective motives. This is done through the calculation of marginal effects or elasticities, reported in Table 10 for all the strategic categories.

Table 10. Marginal Effects of Explanatory Variables on Motivation for Outward DI for Pooled Sample\(^1\). (with GDP and R&D Expenditure and Parent Age)

<table>
<thead>
<tr>
<th>Diversification</th>
<th>Lateral Integration</th>
<th>Vertical Integration</th>
<th>Horizontal Integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subsidiary</td>
<td>0.038 (0.218)</td>
<td>-0.095** (0.018)</td>
<td>-0.064*** (0.003)</td>
</tr>
<tr>
<td>Subsidiary</td>
<td>0.134 (0.167)</td>
<td>-0.032** (0.016)</td>
<td>-0.097 (0.311)</td>
</tr>
<tr>
<td>Hierarchy</td>
<td>0.058 (0.276)</td>
<td>0.014* (0.071)</td>
<td>0.012 (0.568)</td>
</tr>
<tr>
<td>Sales/Firm Size</td>
<td>-0.093 (0.254)</td>
<td>0.034 (0.127)</td>
<td>-0.108 (0.196)</td>
</tr>
<tr>
<td>Host Country GDP</td>
<td>-0.024 (0.218)</td>
<td>0.031** (0.027)</td>
<td>0.011** (0.047)</td>
</tr>
<tr>
<td>Parent Age</td>
<td>0.105 (0.218)</td>
<td>0.052 (0.134)</td>
<td>-0.025** (0.026)</td>
</tr>
<tr>
<td>R&amp;D Expenditure</td>
<td>0.121 (0.269)</td>
<td>0.025** (0.031)</td>
<td>0.025* (0.088)</td>
</tr>
<tr>
<td>Merchandise Trade</td>
<td>0.001 (0.412)</td>
<td>0.030 (0.163)</td>
<td>0.031** (0.025)</td>
</tr>
<tr>
<td>Ores and Metals Trade</td>
<td>0.077*** (0.031)</td>
<td>0.089 (0.216)</td>
<td>0.127 (0.407)</td>
</tr>
<tr>
<td>Patents</td>
<td>0.026 (0.196)</td>
<td>-0.044** (0.017)</td>
<td>0.003 (0.195)</td>
</tr>
<tr>
<td>Economic Freedom Index</td>
<td>0.025 (0.117)</td>
<td>0.026** (0.031)</td>
<td>-0.068** (0.018)</td>
</tr>
<tr>
<td>Subsidiaries per Parent</td>
<td>0.063 (0.173)</td>
<td>0.084* (0.058)</td>
<td>0.153** (0.015)</td>
</tr>
<tr>
<td>Subsidiaries for top 5 Parents</td>
<td>0.016 (0.218)</td>
<td>0.107 (0.116)</td>
<td>0.211*** (0.009)</td>
</tr>
<tr>
<td>Labor Cost</td>
<td>0.027 (0.167)</td>
<td>-0.018*** (0.009)</td>
<td>-0.012** (0.021)</td>
</tr>
<tr>
<td>Food Industry Dummy</td>
<td>0.134 (0.197)</td>
<td>0.048 (0.167)</td>
<td>0.145 (0.457)</td>
</tr>
<tr>
<td>Rubber Industry Dummy</td>
<td>0.081 (0.148)</td>
<td>0.003 (0.105)</td>
<td>0.017 (0.332)</td>
</tr>
<tr>
<td>Manufacturing Dummy</td>
<td>0.011 (0.227)</td>
<td>0.093* (0.082)</td>
<td>0.015** (0.048)</td>
</tr>
<tr>
<td>Finance Dummy</td>
<td>0.001 (0.162)</td>
<td>0.004 (0.137)</td>
<td>0.005** (0.015)</td>
</tr>
<tr>
<td>Iceland*Affiliate</td>
<td>-0.008** (0.017)</td>
<td>-0.018 (0.349)</td>
<td>0.018 (0.349)</td>
</tr>
<tr>
<td>Country</td>
<td>Variable</td>
<td>Estimate 1</td>
<td>Standard Error 1</td>
</tr>
<tr>
<td>---------</td>
<td>-------------------------------</td>
<td>------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Iceland</td>
<td><em>Subsidiary</em></td>
<td>-0.107*</td>
<td>(0.062)</td>
</tr>
<tr>
<td>Iceland</td>
<td><em>Hierarchy</em></td>
<td>0.000</td>
<td>(0.187)</td>
</tr>
<tr>
<td>Iceland</td>
<td><em>Sales/Firm Size</em></td>
<td>-0.117*</td>
<td>(0.0723)</td>
</tr>
<tr>
<td>Iceland</td>
<td><em>Parent Age</em></td>
<td>-0.017*</td>
<td>(0.069)</td>
</tr>
<tr>
<td>Iceland</td>
<td><em>Host Country GDP</em></td>
<td>0.024</td>
<td>(0.172)</td>
</tr>
<tr>
<td>Iceland</td>
<td><em>R&amp;D Expenditure</em></td>
<td>0.085</td>
<td>(0.662)</td>
</tr>
<tr>
<td>Iceland</td>
<td><em>Merchandise Trade</em></td>
<td>0.041</td>
<td>(0.179)</td>
</tr>
<tr>
<td>Iceland</td>
<td><em>Ores and Metals Trade</em></td>
<td>0.183</td>
<td>(0.533)</td>
</tr>
<tr>
<td>Iceland</td>
<td><em>Patents</em></td>
<td>0.034**</td>
<td>(0.047)</td>
</tr>
<tr>
<td>Iceland</td>
<td><em>Economic Freedom Index</em></td>
<td>-0.028**</td>
<td>(0.015)</td>
</tr>
<tr>
<td>Iceland</td>
<td><em>Unit Labor Cost</em></td>
<td>-0.004**</td>
<td>(0.044)</td>
</tr>
<tr>
<td>Iceland</td>
<td><em>Subsidiaries per Parent</em></td>
<td>0.026**</td>
<td>(0.037)</td>
</tr>
<tr>
<td>Iceland</td>
<td><em>Subsidiaries for top 5 Parents</em></td>
<td>0.076**</td>
<td>(0.047)</td>
</tr>
<tr>
<td>Iceland</td>
<td><em>Food Industry Dummy</em></td>
<td>0.037</td>
<td>(0.319)</td>
</tr>
<tr>
<td>Iceland</td>
<td><em>Rubber Industry Dummy</em></td>
<td>0.033</td>
<td>(0.178)</td>
</tr>
<tr>
<td>Iceland</td>
<td><em>Manufacturing Dummy</em></td>
<td>0.003*</td>
<td>(0.067)</td>
</tr>
<tr>
<td>Iceland</td>
<td><em>Finance Dummy</em></td>
<td>0.013***</td>
<td>(0.002)</td>
</tr>
<tr>
<td>Israel</td>
<td><em>Affiliate</em></td>
<td>-0.047</td>
<td>(0.286)</td>
</tr>
<tr>
<td>Israel</td>
<td><em>Subsidiary</em></td>
<td>0.169</td>
<td>(0.331)</td>
</tr>
<tr>
<td>Israel</td>
<td><em>Hierarchy</em></td>
<td>0.001</td>
<td>(0.197)</td>
</tr>
<tr>
<td>Israel</td>
<td><em>Sales/Firm Size</em></td>
<td>-0.047**</td>
<td>(0.033)</td>
</tr>
<tr>
<td>Israel</td>
<td><em>Parent Age</em></td>
<td>-0.009**</td>
<td>(0.032)</td>
</tr>
<tr>
<td>Israel</td>
<td><em>Host Country GDP</em></td>
<td>0.000</td>
<td>(0.572)</td>
</tr>
<tr>
<td>Israel</td>
<td><em>R&amp;D Expenditure</em></td>
<td>0.022</td>
<td>(0.108)</td>
</tr>
<tr>
<td>Israel</td>
<td><em>Merchandise Trade</em></td>
<td>0.041*</td>
<td>(0.085)</td>
</tr>
<tr>
<td>Israel</td>
<td><em>Ores and Metals Trade</em></td>
<td>0.125</td>
<td>(0.298)</td>
</tr>
</tbody>
</table>
In order to account for country-specific effects, we have included in the regression the interactions of country dummies for Iceland and Israel with all the independent variables. Consequently, the variables without interactions indicate the respective marginal effects for Ireland. We estimate different versions of our equations by experimenting with the variables included in the specifications. For instance, we run regressions with GDP per capita or GDP growth. Standard model selection criteria, such as individual coefficients’ significance, the pseudo R2, Akaike Information Criteria, and Schwartz Information Criteria, were then used to discriminate among models. The results presented are those for the best performing model. Overall, the results of Table 10 provide evidence that both firm-specific and location-specific factors are important in the determination of the motive when investing.

Focusing on firm-specific variables, the *ownership control* of establishing an operation abroad, indicated by dummies for establishing an affiliate or subsidiary versus establishing a joint venture, is a significant determinant of the motivation to invest. In fact,
the results on ownership control confirm H1 and underline the importance of ownership control when it comes to risk-diversifying strategies, with subsidiaries and affiliates being a more preferred form of controlling foreign assets. These results also seem to be consistent across countries. For instance, Icelandic firms significantly increase the probability of engaging in risk-diversification (0.031, p < 0.059) investment and decrease the probability of lateral integration (-0.008, p < 0.017), while at the same time decreasing the probability of engaging in other types of investment strategies. Similar pattern holds for the other countries as well.

Our results on hierarchy differ according to the investment strategy the subsidiaries are pursuing. We see that H2 is verified for diversification strategies, and we also find a positive statistically significant result for vertical integration strategies suggesting a flatter organization form. For example, for Israeli firms, hierarchy is of statistical significance in risk-diversifying subsidiaries, indicating some form of transnational organization structure, i.e., more independent subsidiaries (e.g., product mandates) and a less authoritative centre (Papanastassiou & Pearce, 2006). Hierarchy is of no significance for Icelandic firms.

Our results on firm size point to the significant role of firm size in adopted investment strategies and in particular in risk-diversifying strategies confirming H3. Thus, larger firms tend to become involved in strategies seeking new knowledge through involvement in new sectors whilst smaller firms tend to follow market-seeking strategies capitalizing on an established portfolio of products with a less fragmented structure (via horizontal integration). At country level, as revealed by the interactions, for Icelandic firms, the size significantly decreases the probability of having horizontal integration (-0.117, p < 0.069), suggesting that smaller firms tend to pursue horizontal strategies of a market-seeking nature, but it is of no significance to other types of investment strategies.
Results confirm the importance of parent age in a chosen integration strategy. In particular, our results show, in accordance to H4, that experienced firms are more likely to choose a risk-diversifying strategy compared with younger corporations, which are more likely to choose a market-seeking strategy in the form of horizontal integration. Specific results per country show that the older and more experienced the Icelandic and Israeli firms are, the lower the likelihood of having a horizontal integration investment and the higher the likelihood of diversification. In the international business literature, it has been assumed for a long time that the parent company is the sole source of important capabilities within the firm (Birkinshaw & Hood, 1998; Birkinshaw, Hood, & Jonsson, 1998; Lipparini & Fratocchi, 1999). Furthermore, the literature also acknowledges that multinational corporations can enhance their pool of capabilities through foreign operations. Hanson, Mataloni, and Slaughter (2001) state that the literature’s benchmark distinction between horizontal and vertical FDI does not capture the range of strategies that multinationals use. Hence, we see more internationalized firms that tend to pursue horizontal, lateral, and risk-diversifying strategies. Results on the MNC international network experience confirm partially H5 as they show a statistically positive relationship with diversification strategies. At the same time we see that MNC network experience is positively associated with horizontal integration suggesting a hybrid nature of MNCs from small economies in the sense that they operate both on fragment value chain operations and on non-fragmented value chain operations. The later reflects the characteristic of small firms which suggests that MNCs from these economies have not reached an established MNC large status (Pfaffermayr and Bellak, 2000). Comparing results for individual countries, the number of foreign units per parent company shows that for Icelandic firms, the number of foreign units increases the likelihood of horizontal integration (0.026, p < 0.037) investment and also of diversification (0.108, p < 0.027). For Israeli firms, the number of foreign units per parent company increases the
likelihood of horizontal integration (0.027, p < 0.086) and diversification (0.032, p < 0.032), as for Icelandic companies.

In regards to the top tier MNCs international network, as for the previous variable, we assume that leading MNCs with an expanded network of foreign units will pursue complex integration strategies. The results for this variable, as in the case of H5, partially confirm H6 and they show that very large MNCs from small countries are usually more likely to be involved both in horizontal integration (which reflects the geographical expansion of small MNC groups) and in diversification (which reflects the diversified portfolio of larger MNCs). These mixed results confirm the unique capabilities of large MNCs from small countries compared to other MNCs but at the same time confirm their relative small size compared to other international competitors. Focusing on country differences we see that the number of subsidiaries for top 5 parents significantly increases the likelihood of Icelandic firm to engage in horizontal integration (0.076, p<0.047) and diversification strategies (0.018, p<0.021), whereas significantly increases the likelihood of Israeli firm to engage only in horizontal integration (0.017, p<0.0058).

Results on size of the host country market, captured by GDP, support H7. In addition, we find a statistically significant positive relationship with horizontal integration suggesting that capturing a foreign market, probably larger than the home country with an existing array of products and services characterizes a serious strategic option for MNCs coming from small countries. The size of the market of the host economy is thus an important determinant of horizontal, vertical, and risk-diversification strategies. In particular, it does not seem to impact the same strategies followed by Icelandic and Israeli firms. It also increases the likelihood of vertical integration (0.031, p < 0.027) strategies and risk-diversification (0.079, p < 0.028) strategies. The results show that, for Icelandic firms, the host country GDP is not
significant; however, for Israeli firms, the host country GDP is significant in the risk-diversification (0.091, \(p < 0.037\)) strategy.

*Trade openness* captures the importance of a country’s openness to international trade. However, it is also an indicator of competitiveness and thus can be used as an indicator of economic reforms, where domestic reforms and foreign trade reforms go hand in hand. It is expected that FDI and trade openness are positively related (Helpman, 1984), because FDI is encouraged if the trade regime of the host economy is liberal (Bevan & Estrin, 2004). Both measures of trade openness seem to have a positive effect. However, contrary to H8, trade openness measured by merchandise trade has a positive significant effect on horizontal integration in the case of Israel (0.041, \(p<0.085\)). This result may suggest that horizontal types of activities tend to be directed to countries with documented competitive firms. In addition, trade openness measured by trade in ores and metals is positively related to lateral integration, suggesting that, when investment is directed to resource-rich but also economically advanced countries, further processing is necessary before exporting takes place. For instance, ore and metals trade increases the likelihood of lateral integration for Israeli firms (0.019, \(p < 0.042\)), as well as for Icelandic firms (0.017, \(p<0.022\)).

*With regards to R&D expenditure*, the majority of overseas operations of the MNCs in our sample are located in advanced technological regions, i.e., Europe and North America. The classic ownership advantage involves some form of technological superiority, namely, competitive advantage, and because of property rights protection, a firm will set up production facilities in a foreign country through FDI as long as there are specific advantages in the host country that make FDI preferable to exporting (Buckley & Casson, 1976; Dunning, 1979, 1988, 1993). More recent literature, such as by Cantwell (1989, 1991) and Pearce (1999), has characterized such advantages as being generated through R&D and linked to the exploitation of economies of scale. Recent work in this area attempts to
characterize ownership advantages in a given location (Criscuolo & Martin, 2004; Griffith, 1999; Griffith & Simpson 2001). Thus, results confirm H9 and the statistically significant positive result on horizontal integration shows that these operations are of a dynamic nature, reflecting the fact that even horizontal types of operations face serious competitive pressures that push firms to look constantly for new sources of ideas and knowledge. Our results show that R&D expenditure for Icelandic firms increases the probability of having diversification (0.059, p < 0.063) but is not significant in other integration strategies. In Israeli firms, R&D expenditure significantly increases the likelihood of vertical integration (0.021, p < 0.047) and diversification (0.013, p < 0.037) (Almor & Hashai, 2004; Hashai & Almor, 2008).

Results on patents do not support H10 as they are proven statistically insignificant. The statistically significant negative relationship with vertical integration suggests that small country MNCs will pursue this type of strategy in countries that they do not possess companies with explicit ownership advantages in the exploitation of natural resources and are thus less superior to MNCs from small economies.

Results on labour cost suggest that higher labour costs are detrimental to the strategy chosen with labour costs having a negative impact on the probabilities of horizontal integration, vertical integration, and diversification supporting partially H11 as we would expect that labour costs as an indicator of the quality of labour to have potentially a positive relationship on diversification strategies.

Regarding the Economic Freedom Index (EFI), the negative and significant results across all three countries the results show that countries with a more liberal business environment do not tend to attract horizontal types of foreign operations. On the contrary, the positive sign for vertical integration confirms H12 and suggests ease of controls and liberalisation in sensitive sectors such as primary resources in advanced economies. This
creation of friendly business conditions in the exploitation of primary resources reflects the increased pressures of competitiveness that lead countries and firms to work closer together.

Finally, looking selectively at the results for the control variables, namely, the dummy variables for the three countries and their respective industries, we see that Israeli manufacturing firms are more likely to engage in horizontal integration (0.018, p < 0.031), vertical integration (0.037, p < 0.061), and diversification (0.012, p < 0.017), while Icelandic manufacturing firms are likely to engage mainly in horizontal integration (0.003, p < 0.067) and diversification (0.013, p < 0.019). Regarding the financial sector Icelandic firms are more likely to engage in a horizontal integration strategy (0.013, p < 0.002) and diversification (0.008, p < 0.012), while Israeli firms will mostly use diversification (0.005, p < 0.002).

**Conclusion**

Using a sample of 1089 subsidiaries, of which 187 are Icelandic subsidiaries, 444 are Irish subsidiaries, and 458 are Israeli subsidiaries, we explored the geographical and industrial pattern of their direct investment strategies. In this paper, we distinguished four different types of expansion investment strategies. For this reason, we constructed a categorical variable by comparing the four-digit industrial classification of each subsidiary in the sample with that of its ultimate parent. Based on this, the strategy is deemed to be *horizontal integration* if the subsidiary operates in the same core and related industry as its parent, it is deemed to be *vertical integration* if investment abroad is made in natural resource industries, it is deemed to be *lateral integration* if the subsidiary and its parent operate in different stages of the value chain, and, finally, it is deemed to be *diversification* if the subsidiary and its parent operate in unrelated industries. A set of firm- and location-specific variables seem to exert a different influence on each strategic choice. In our empirical work, in order to investigate the determinants of investment expansion strategies, we employed a multinomial logistic regression approach where the probability of a firm having a particular strategy for
investing is modelled to be a function of firm-specific and location-specific variables. Our empirical results confirmed the differentiating effect of firm and location variables on each strategic choice. For instance, mature and experienced MNCs tend to expand via risk-diversification strategies whilst younger MNCs tend to prefer horizontal integration. Similarly, we saw that certain location factors, such as the Economic Freedom Index, tend to favour vertical integration and not horizontal integration. In addition, we saw that the three countries exhibit different investment patterns, which nevertheless are commonly characterized by the adoption of a complex global strategy plan that involves the adoption of more than one strategic option. In all cases, the network of overseas operations is the key implementer of such strategies and thus plays a crucial role in the sustainable competitiveness of small country MNCs.
References


## Appendix

### Definition of variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation</td>
<td>A categorical variable defined as follows: 1 – Market seeking motive, 2 – Efficiency seeking motive, 3 – Resource seeking motive, 4 – Risk Diversification motive. Constructed by comparing the 4-digit industrial classification code of the relevant company and that of its ultimate parent.</td>
</tr>
<tr>
<td>Type</td>
<td>Classifies companies by their legal relationship to their parent as affiliates, branches, divisions, joint ventures, operations, group insurers, plants, subsidiaries or units. 3 dummy variables were constructed as follows: 1 if the company is a subsidiary and 0 otherwise, 1 if the company is a joint venture and zero otherwise, and 1 if the company is any other form than subsidiary and joint venture and zero otherwise.</td>
</tr>
<tr>
<td>Sales range</td>
<td>An interval measure of yearly company sales as follows: 1) Up to 100 million USD in sales 2) between 100 and 500 million USD in sales 3) between 500 million and 1 billion USD in sales 4) between 1 and 1.5 billion USD in sales and 5) over 1.5 billion USD in sales.</td>
</tr>
<tr>
<td>Hierarchy</td>
<td>Classifies companies by the reporting hierarchy within the multinational.</td>
</tr>
<tr>
<td>Merchandise Trade</td>
<td>Measured as percentage of GDP. Obtained from World Development Indicators.</td>
</tr>
<tr>
<td>Ore and Metal Exports</td>
<td>Measured as percentage of merchandise exports. Obtained from World Development Indicators.</td>
</tr>
<tr>
<td>R&amp;D expenditure</td>
<td>Measured as percentage of GDP. Obtained from World Development Indicators.</td>
</tr>
<tr>
<td>Economic freedom index</td>
<td>The index takes values between 1 and 10, with 10 denoting the country with the most liberal economic environment</td>
</tr>
<tr>
<td>Patents Granted</td>
<td>Number of patents granted by host countries in 2005, obtained from World Intellectual Property database.</td>
</tr>
<tr>
<td>Labor cost</td>
<td>Constant 2000 dollar hourly labor cost. Obtained from ILO database.</td>
</tr>
<tr>
<td>Parent Age</td>
<td>Defined as the difference between 2008, that is the year the data belong to, and the year of establishment.</td>
</tr>
<tr>
<td>Number of subsidiaries per parent</td>
<td>The absolute number of subsidiaries each parent has. Obtained from the Corporate Affiliations directory 2008.</td>
</tr>
<tr>
<td>Number of subsidiaries of the leading 5 firms</td>
<td>The sum of subsidiaries for top 5 parents with the highest number of subsidiaries. Obtained from the Corporate Affiliations directory 2008.</td>
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5. Integrative capacity: *The relationship between headquarters and subsidiaries*

Ásta Dís Óladóttir

**Abstract**
The past decades have been characterised by profound changes and an increased rate of globalisation. These rapid changes in the nature of global competition have caused international managers and international management researchers alike to search for new ways to frame problems and answer questions about how to manage complex multinational corporations most effectively. When a corporation establishes a subsidiary in a foreign country, through greenfield or acquisition, its managers must decide how much control they need to maintain over the subsidiary. Should the company operate separately or should it be integrated into the corporation? The control relationship between headquarters and foreign subsidiaries can be either centralised or decentralised. Too much centralisation or decentralisation can lead to an ineffective corporation so there has to be a good balance. A good balance is attained when the managers in the headquarters have a global vision, core values, and cultural principles that are shared by all the subsidiary managers. The managers in the headquarters make decisions based on an understanding of the cultural and other needs of foreign subsidiary managers. They also have to have an understanding of the needs of specific organisational situations; they have to have integrative capacity in the corporation. Integrative capacity builds on the ability of the MNC to learn from its experience and also how it plans and executes its acquisitions. The lessons learned from previous acquisitions are those that must be fed into the planning and execution of the next. Only then do they provide the feedback loops for each other.

**Keywords:** Integrative capacity, roles of subsidiaries, Iceland, MNCs

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Introduction
When businesses establish operating subsidiaries in foreign countries, headquarters’ management must establish an effective relationship between headquarters and the foreign subsidiary. Traditional management thinking posits that a relationship may be one of centralisation, where the managers of the headquarters do not give much autonomy to the subsidiary managers and they make the most of the important decisions that affect all the local operations, or it may be one of decentralisation, where the subsidiary managers are given a great deal of autonomy and they make the most of the important decisions relating to local operations.

A recurring theme in the literature on the strategy of the multinational corporation (MNC) has been the important role played by subsidiaries as contributors to the development of firm-specific advantages within the corporation. Scholars like Bartlett and Ghoshal (1986), Gupta and Govindarajan (1994), and Hedlund (1986) introduced the subsidiary as an active participant in the formulation and implementation of strategy within the network. Firm-specific advantages shifted from being the concern of the headquarters to being a collective responsibility of the whole network, which means that the headquarters have to have integrative capacity to handle the network substantively. The integrative capacity of a firm can be seen as the strategic infrastructure of a firm, which is a multidimensional system that contains strategic resources or capability, and organisational infrastructure, which could provide a foundation for global expansion and latent linkages within the MNC. The strategic infrastructure is necessary for the coordination and integration of business units that are geographically dispersed, while also maintaining internal differentiation and local responsiveness amongst individual subunits. The MNC must have such integrative capacity embedded in the firm.
In this paper, we introduce the concept of integrative capacity in the context of Icelandic MNCs with special focus on mergers and acquisitions. To define the concept of integrative capacity, two things have to be kept in mind, that is, learning from previous experience and how to plan and execute acquisitions. The lessons learned from previous mergers and acquisitions are those that must be fed into the planning and execution of the next acquisition. Consequently they provide the feedback loops for each other. The concept will be discussed in more detail below.

There are a number of articles that have examined the different roles of subsidiaries and how they can contribute to the corporation (Birkinshaw, Morrison, and Hulland, 1995) Ghoshal and Nohria, 1989; Gupta and Govindarajan, 1991; Jarillo and Martinez, 1990; Roth and Morrison, 1991). In this paper, we try to see the development of the role of the subsidiaries within the MNC and the importance of having the capacity integrated into the corporation. We pick out the subsidiaries’ participation in the strategy of the firm and how well subsidiaries are integrated into the network following an acquisition. We think that subsidiaries are not only receiving the given strategy of the MNC, but they are participating more. Have the case companies chosen in this paper learned from their previous acquisitions and do they utilise that knowledge in the planning and execution of their next acquisition?

It can be argued that mergers and acquisitions are the fastest way for a company to grow. The reason why foreign acquisitions are chosen as an entry mode is because other entry modes do not include close integration between headquarters and subsidiaries. In this paper, we only discuss acquisitions and greenfield investments. Jemison and Sitkin (1986) differentiated between making a merger and acquisition (M&A) decision and making an M&A work.
Making an M&A decision has to do with the selection process (recognising the synergistic potential). Making an M&A work has to do with the management of the integration process, i.e. releasing the potential.

**Theoretical background and literature review**
It has been pointed out by several scholars within the field of international business that implementing global strategies can give headquarters a significant role in controlling the behaviour of a subsidiary (see, for example, Bartlett and Ghoshal, 1989; Chakravarty and Doz, 1992; Cray, 1984; Doz and Prahalad, 1981; Doz et al., 1990; Hedlund and Rolander, 1990; Kogut, 1985). Using the terminology from Williamson (1985), one can say that corporate control over a certain subsidiary can be thought of as a governance mechanism used by the corporation to regulate transactions between the headquarters and the subsidiary under focus. It is argued that such transactions occur along three key dimensions: the flow of knowledge, capital, and products. This flow is in line with the corporate strategy. To put it differently, the MNC can be thought of as a network of transactions of knowledge, capital, and products among subsidiaries located in different countries and coordinated by the headquarters. This is a perspective that is consistent with the analyses of Bartlett and Ghoshal (1989), Calvet (1981), Lessard (1979), and others. It is clear that many MNCs assign different strategic roles to different subsidiaries (Bartlett and Ghoshal, 1989; Doz, 1978; Hedlund, 1986; Poynter and Rugman, 1982). There has also been extensive discussion about the mechanisms that can be used by headquarters to accomplish the required control (see, for example, Baliga and Jaeger, 1984; Bartlett and Ghoshal, 1995; Doz and Prahalad, 1981; Edström and Galbraith, 1977; Egelhoff, 1984, 1988; Martinez and Jarillo, 1989).

Headquarters’ control becomes more difficult because, rather than being a single entity facing a homogeneous environment, the multinational corporation (MNC) is composed of a set of differentiated structures and processes, each of which exists in one of the subunits
of the organisation (Ghoshal and Westney, 1993; Rosenzweig and Singh, 1991). For instance, it has been argued that the control mechanisms used by the headquarters, formal as well as more informal and subtle means, must be adapted to the environmental and resource contingencies faced by the different subsidiaries (Bartlett and Ghoshal, 1989; Ghoshal and Nohria, 1989).

As mentioned above, the multinational corporation can be viewed as a network of transactions that helps pinpoint the following specific ways in which the strategic contexts of various subsidiaries can differ. We could start by looking at the scope of transactions. For each type of transaction (i.e. capital, product, and knowledge flows), subsidiaries can differ regarding whether or not they engage in any intracorporate transactions, and, if they do, the volume and criticality of these transactions. For instance, it would generally be true that the extent of capital flows from a parent to a subsidiary would be greater for subsidiaries located in larger and/or growing rather than smaller and/or mature national markets. Similarly, the extent of knowledge flows to a subsidiary may be greater for subsidiaries located in less developed rather than more developed national markets. We could also look at the directionality of these transactions. To the extent that subsidiaries engage in intracorporate transactions, they can also differ regarding whether they are either the receivers or the providers of what is being transacted. For example, a pharmaceutical manufacturer’s sourcing subsidiary in India might be primarily a provider of product flows, whereas a marketing subsidiary in the Nordic countries might be primarily a receiver of product flows. Similarly, subsidiaries that serve as global platforms for the MNC (Porter, 1986) are likely to have major responsibility for knowledge outflows to other subsidiaries. In contrast, subsidiaries that do not serve as global platforms are likely to engage primarily in knowledge inflows. It is all a matter of the integrative capacity of the multinational corporation, how much capacity the MNC has to control its subsidiaries, how well the subsidiaries are integrated within the
MNC, and how this flow is controlled by the headquarters. Many researchers have dealt with the process of integration within a firm (see, for example, Bower, 2001; Croyle and Kager, 2002 and Gammelgaard, 2002). Integration per se is not enough, however; the subsidiaries’ local context has to be taken into consideration, the size and function of the organisation, the management preferences and leadership, the culture, and how much integrative capacity the organisation has.

**Different roles of subsidiaries and centres of excellence**

A great deal of literature deals with the different roles that subsidiaries play within the MNC, ranging from sales channels to very independent R&D units (Bartlett and Ghoshal, 1986, 1989; Birkinshaw, 1996; Birkinshaw, Morrison, and Hulland, 1995; Forsgren and Pedersen, 1998; Gupta and Govindarajan, 1994; Nohria and Ghoshal, 1997; Papanastassiou and Pearce, 1997; Roth and Morrison, 1991). More recently, the centre of excellence approach has emerged in the literature and the focus is on the creation of competence that takes place within certain subsidiaries.

In multinational companies, it is really important to consider ‘centres of excellence’ because they are able to access different resources in different countries (Frost, Birkinshaw and Ensign, 2002). Centres of excellence can be defined as business units that produce or develop particular competences, services, or products that place the subsidiary in charge within a well-defined area. The theoretical point of origin is the resourced-based view where administrative systems and heterogeneous resources display a capability that is hard for competitors to imitate (Barney, 1986; Penrose, 1959; Rumelt, 1984; Wernerfelt, 1984). What the headquarters needs to decide is whether it should place the future development of competence centrally or disperse this into subsidiaries. It is obvious that not every unit can be a superior centre of excellence or a competence centre so it is up to the managers of the MNC.
to decide which subsidiaries deserve the mandate and the necessary resources for the
development of competences (Gammelgaard, 2000).

In the study of foreign direct investments, this term may prove even more important
to the understanding of multinational firms. That is because firms that are brought together
may have different capabilities which can be traced to their different background and location
and thereby can be a ground for centres of excellence (Frost, Birkinshaw and Ensign, 2002).
It is important that all parts of the MNC can benefit from knowledge and other activities of
the centres of excellence. When acquiring a firm the acquirer can utilize the knowledge from
the acquired firm and the other way around and that can lead to or increase the competitive
advantage of the MNC (Dimitriades, 2005; Peteraf, 1993). Knowledge-sharing is facilitated
between the two previously separate firms in what is called a network organisation (Hedlund,
1994). The MNC could also pursue preservation. If that is done, the acquired firm will to a
large extent be kept separate from the acquirer because it needs to remain its autonomy. Such
firms can be acquired because they possess certain capabilities that are needed in the
acquirer’s firm and which must be kept autonomous. However, the flow of knowledge
between the units is really important. A research conducted by Gammelgaard (2005) shows
that if there is a low level of inflow of knowledge from the acquirer into the acquired unit,
and the autonomy is kept high, the created knowledge will be disparate from the rest of the
MNC. Firms that were acquired because of their possession of particular competences,
however, would often be sources of specialised knowledge that could feed into larger
knowledge creation projects within the MNC.

Planning and executing acquisitions
First, to argue what has been proposed above, the firm must acquire continuously. As part of
acquiring often and continuously, companies must screen many targets that they do not
acquire (Aiello and Watkins, 2000). If the firms know what is ‘on the market’ they will better
understand their own capabilities and can easily compare themselves to what is on the market (Rigby and Zook, 2002). By acquiring frequently, the result will not only be good performance of the units eventually acquired, but will also provide the company with a very good way of assessing its own core competences and needs. Those firms that acquire frequently seem to perform better over time compared with those that only acquire occasionally (Rovit and Lemire, 2003). It is not enough to know what is on the market. A careful due diligence must be undertaken before the acquisitions to get better knowledge of the target firm. Due diligence is almost always performed before an acquisition but a post-merger due diligence is hardly ever performed. To make it more clear, employees from both firms are needed that can help to explain and introduce the integration plan in the firms. This can also be a facilitation of knowledge-gathering (Burgelman and McKinney, 2006). Naturally, the lessons learned by previous acquisitions are those that must feed into the planning and execution of the next. Consequently, they provide the feedback loops for each other.

Learning from previous experience
Acquisitions create complex organisational challenges, and both individual and organisational experience may be required to avoid integration problems (Haseslagh and Jemison, 1991). On the individual level, a lack of acquisition experience may make a CEO particularly susceptible to escalation of commitment, which can lead to the completion of deals at an unreasonably high cost (Haseslagh and Jemison, 1991). Additionally, experience from past acquisitions may build facilitating processes for the identification (Hitt, Harrison, Ireland, and Best, 1998) and integration of acquired firm resources, which may be required to improve post-acquisition performance. Consistent findings on the relationship between acquisition experience and post-acquisition performance do not, however, exist. Prior acquisition experience has been found to predict success in later acquisitions (Bruton, Oviatt,
and White, 1994), to predict a decline in performance as the number of acquisitions increases (Kusewitt, 1985), and to have no impact on acquisition performance (Lahey and Conn, 1990). Still, Hitt, Harrison, and Ireland (2001, p. 55) caution that the importance of the link between managerial experience and M&A success should not be underestimated. As mentioned above, it is necessary to codify the experience gained by each acquisition or establishment of a new unit. To acquire the knowledge in the subsidiary and transfer it to the headquarters so the headquarters will have the integrative capacity within it, the acquisitions of companies must be institutionalised in the headquarters. Knowledge needs to be transferred from the acquired units to the headquarters. In order to create and develop an effective integrative capacity, the headquarters have to invest time and effort in the attempt to extract all the relevant lessons to be learned from previous experiences, codify those lessons into paper-based or electronic support tools and update these tools after every new experience. Learning from rare, heterogeneous, and complex experiences such as mergers and acquisitions does not happen automatically through a learning-by-doing process: one has to work hard at it (Singh and Zollo, 1998). Whether or not an MNC should and can maintain high integration or high responsiveness associated with particular businesses depends on interrelated systems of information, coordination, and resource flows (Roth and Morrison, 1991). A subsidiary with greater experience is more likely to commit resources, knowledge, and investment to local operations (Chang, 1995). This configuration reduces financial risks and operational uncertainty in a volatile environment, where lack of experience is an important obstacle to market expansion. In contrast, firms with little experience may need high integration because it can reduce a subsidiary’s vulnerability to the contextual hazards precipitated by a host country’s institutional and task environments (Miller, 1992; Luo, 2002). Such hazards are generally beyond organisational control, thus calling for internalisation. Internalisation is an effective mechanism for attenuating risk propensity and economic exposure to such an
environment (Root, 1988). When making a decision about the right headquarters–subsidiary relationship, managers will have to take into consideration all that has been mentioned above: the local context of the subsidiary, the size of the firm, management preferences and leadership, the culture, and how much integrative capacity the firm has.

**Integrative capacity**

Integrative capacity is a new concept in the international business theory. Given different organisational dynamics, different firms may have idiosyncratic abilities to cope with environmental conditions by reducing their dependence on or increasing their control over external resources (Pfeffer and Salancik, 1978). This perspective is of importance in diagnosing the differentiation–integration balance for multinational corporations (MNCs) because complex organisations are characterised by structural indeterminacy, internal differentiation, fuzzy boundaries, and business multidimensionality (Doz and Prahalad, 1981). When there is such complexity and heterogeneity, firms need to establish a solid strategic infrastructure, which can quickly adapt to external hazards and contextual changes.

Strategic infrastructure is seen as a multidimensional system that contains strategic resources or capability and organisational infrastructure which could provide a foundation for global expansion and latent linkages within the MNC. When the firm boundaries are fuzzy, a conventional organisational structure is unable to satisfy the internal need for ecological evolution within its network (Egelhoff, 1988). In a situation like this, a strategic infrastructure is necessary for the coordination and integration of business units that are geographically dispersed, while also maintaining internal differentiation and local responsiveness amongst individual subunits. The MNC must have integrative capacity embedded in the firm.

Haspeslagh and Jemison (1991) touch upon the capability to integrate but do not develop the idea further. Likewise, many authors have touched on parts of the issue, such as codifying previous mergers and acquisition experience (Zollo and Singh, 2004), involving line
management early (Rovit and Lemire, 2003), appointing a specialised integration manager (Ashkenas and Francis, 2000), and how to ensure a focus on the corporate customers (Gammelgaard, 2002). We believe, however, that there is need for a compilation of this dispersed set of thoughts, which we have divided into two separate, generic points. First, learn from previous experiences and, second, plan and execute acquisitions. This has to be embedded in the firm’s culture both tacitly and explicitly. Naturally, the lessons learned from previous acquisitions are those that must feed into the planning and execution of the next. Consequently they provide the feedback loops for each other and the capacity of a firm to integrate following a merger or acquisition; this is how we define integrative capacity, which is essential for headquarters that manage and control subsidiaries.

It is clear that the headquarters office has to have familiarity with local conditions of subsidiary units and provide an explanation for all final strategic decisions. The subsidiary has to have the ability to challenge the headquarters’ strategic decisions and there has to be two-way communication between the headquarters and the subsidiaries, meaning that some parts of the operation have to be centralised but the firm also has to have a flexible approach to other things (Rodriques, 1995).

Integrative capacity in general has two levels. First, it can be explicit. The subsidiary managers can read about it; they can attend seminars and courses. The second level is tacit and has not been written down or communicated in other ways. One actually has to do it oneself and gain experience in order to become a good integrator in the corporation. Being able to have a good integrative capacity embedded in the firm means that the persons who are responsible for all the mechanisms in the firm have to make an intelligent choice of integration techniques and that choice is contingent upon a number of factors. In a particular situation, the relevant integration techniques and the ability to pursue them is part of the integrative capacity of the firm. What could be a really interesting question in the
international business literature and in the field of integration following an acquisition is whether the headquarters actually learns something from its subsidiaries and if it utilises that knowledge for the corporation’s benefit. Despite the large global M&A activity, only very few companies consistently execute merger activity well and it seems that firms that go through mergers and acquisitions, and therefore would have first-hand experience to make this work, do not retain the knowledge they need to be able to execute a merger or an acquisition well the next time around. They don’t seem to integrate the knowledge into the corporation and therefore they do not have a good integrative capacity. According to Zollo and Singh (2004) experience accumulation from previous mergers in general do not influence future performance but if knowledge is codified (tacit knowledge is made explicit) it can at least at a higher levels of integration, influence the performance. The experience, the tacit knowledge of how to integrate two companies into one can’t be kept tacit, it has to made explicit so others within the firm can have access to that knowledge.

Rovit and Lemire (2003) argued that the processes of acquiring firms must be institutionalised, which sits very well with the argument of making tacit knowledge explicit as stated above. It is really important that processes are in line so tacit knowledge can be made explicit and stored within the firm.

Methodology: Sample and data collection
The empirical evidence for this paper is drawn from a study of two MNCs and their subsidiaries abroad. Case study research was adopted as the method here, since it permits in-depth understanding and appreciation of the dynamics present within a single setting and is especially suitable for poorly-explored phenomena such as post-acquisition integration and ‘how?’-type research questions. Furthermore, a case study was chosen because it is a suitable method for examining context-bound phenomena in situations where the boundaries between
the phenomenon and the context are blurred, just as in the natural, real-world setting. Integration is inherently embedded in the overall merger and acquisition context and thus the case study approach is suitable for studying it and for understanding the mechanism in the MNC. The case study approach permits a flexible and iterative approach where the researcher interacts with a problem domain and along the way gains a more profound understanding. In our quest to extend existing theories and explore their match with and suitability for the post-merger context, this flexibility is vital. The cases in the study were selected for their similarities as well as their differences. To shed light on their mechanism and their level of integrative capacity, we chose two contrasting companies.

First, a review of the existing theories on the topic of the relationship between headquarters and subsidiaries was conducted, and, second, primary data were collected by conducting interviews with managers of Marel Iceland, Scanvaegt Denmark, Carnitech Denmark, and AEW Delford UK: all in all, 12 interviews. For Actavis, only two formal interviews were conducted and that was because they could not provide more at that time, in the middle of a big acquisition, but we gained access to a few managers who did not want to grant an interview but told us their story and how they felt. Unfortunately, their comments cannot be presented in this paper because they were not part of formal interviews, even though everything said was very positive. The approach stems from our interest in advancing the current understanding of this relationship between headquarters and subsidiaries.

**Data collection**
The overall strategy of this paper is a case study of two MNCs, where the headquarters of Marel and its subsidiaries and Actavis and its subsidiaries are the primary focal point. Primary data were collected through interviews with 14 people of all levels of the organisation in Marel, and with the CEO and the Deputy CEO of Actavis. Additionally, secondary data issued by Marel and Actavis have been used to complement and supplement
the gathered data and account for any missing information in the interviews. Initial primary data were collected through lengthy unstructured interviews with two employees of Marel and Actavis. This meant that information regarding the industries in which the companies work and the historical background of the companies and the acquisitions was gained. The following interviews at manager level were semi-structured, allowing for the comparison of the answers and to gain a more complete look at both the strategic level and the more practical level of their activities. The interviews took place in four series in the end of 2006 and in the beginning of 2007, the interviewees, their positions, and the companies they work for are listed below:

Table 1. List of interviews conducted

<table>
<thead>
<tr>
<th>Company</th>
<th>Interviewees</th>
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<tbody>
<tr>
<td>Marel</td>
<td>Manager in the Marketing Centre of Marel and a manager from the Business Centre of Marel and the CEO of Marel</td>
</tr>
<tr>
<td>Actavis</td>
<td>The CEO of Actavis, the Deputy CEO of Actavis and the Manager of Corporate Communications (which was not recorded)</td>
</tr>
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</table>

Several interviews were conducted but not recorded owing to certain circumstances as the managers did not want their name or their statements into the thesis and therefore are not referred to in this thesis. However some of their responses are referred to as “manager at Marel”. These interviews did, however, provide valuable background information on the companies and their industries.

The primary data collection was conducted through on-site semi-structured interviews, which allowed for subjects to arise during the interviews that might otherwise have been excluded from fully-structured interviews. The secondary data consist of material
from the companies, corporate websites, promotion material, and internal communiqués, press coverage, and public data, for instance from the Icelandic Stock Exchange, ICEX. The use of largely primary data allowed in-depth investigation of the research topic and provided first-hand understanding of the industries, the companies, and the process they were going through.

**Validity and reliability**

Even though the interview guide for all the interviews was semi-structured, there was a difference in the direction the interview took, depending on each interviewee and the role s/he played within the organisation. Furthermore, the interviews were conducted in four series over a period of six months, which could have resulted in the questions being incoherent owing to the time lapse and/or the different dispositions of the interviewers. In terms of reliability, this could have yielded observer errors. As the answers unfolded, however, and since the interpretation was not conducted individually but rather discussed openly, the potential observer error and observer bias were limited. Various internal data from both Actavis and Marel and their subsidiaries were made available, which was appreciated.

To ensure relevance, the substantive area discussed, integration after an acquisition, was conducted on similar terms. Furthermore, in both cases, the business environment was in a state of dramatic shift simultaneously with the post-merger integration processes. Differences were sought in organisational and acquisition-related dimensions, such as industry, size, and management preferences, and the subsidiaries’ local context, integration speed, structure, and culture. These differences should allow useful contrasts to be made during data analysis, which in turn should challenge and elaborate the emerging framework.
The background of the case companies
The following section briefly outlines the case companies’ histories and background, current market focus, and respective organisational cultures. The information is extracted from the interviews that were conducted and through use of the respective companies’ websites. Additionally, a brief outline of the integration approaches that were assessed as suitable is given.

Marel
Marel manufactures equipment for the protein industries. Despite its early history as a supplier to the fishing industry, the company has changed and focuses on fish, meat, and poultry alike. The company’s products are part of the processing chain from primary processing onwards with the intention of strengthening its position in further processing but no intention of entering the slaughtering process segment.

Marel was founded in 1983 as a spin-off from a university enterprise when a group of engineers began developing and manufacturing scales for fish production plants. In 1985, Marel started exporting its scales to Norway and the same year established a wholly-owned subsidiary in Canada. Its initial public offering in 1991 led to further international expansion over the next few years, and its first acquisition was conducted in 1997 when Carnitech was the target. This acquisitive behaviour lay dormant for four years until the German equipment manufacturer, TVM Maschinenbau, was acquired in 2001 followed by Pols, a small Icelandic manufacturer, which became part of Marel in 2004. In early 2006, Marel announced its plans to increase its turnover to between 400 and 500 million euros over the span of three years, fuelled by internal growth as well as acquisitions of two to four companies. With the acquisition of UK-based AEW Delford and Danish company Scanvægt later that same year, the company took large steps to meet that end. The end of September 2006 was Marel and its subsidiaries employing 2080 people in 22 countries, almost half of those employees in Denmark. There were 358 in Iceland, 330 employees in the UK and the rest around the
world, as will be addressed in the discussions. With these two acquisitions, the group’s combined annual turnover is 270 million euros. The US market is by far the largest, accounting for approximately 40% of the group’s sales (Hörður Arnarsson, CEO of Marel)

**Actavis**

Actavis Group, headquartered in Iceland, was founded in 1956 as a local purchasing alliance under the name of Pharmaco. The company started producing pharmaceuticals for the local market in 1972, and by the time Pharmaco went public on the Icelandic Stock Exchange (ICEX) in 1997 it was the largest domestic pharmaceutical company. In 1999, the company had around 100 employees, generic sales were around fourteen million euros, and it suffered from heavy losses. The company was illiquid. In 1999, Actavis undertook the first step to expand its business internationally with the acquisition of the Bulgarian pharmaceutical manufacturer Balkanpharma. This deal was a major milestone in Icelandic business history and laid the foundation for what was coming in other industries. In 2006, the number of employees was around 11,000 and the company had a presence in 40 countries. The sales were about 1.4 billion euros and the equity value was over three billion euros. Actavis in 2006 had over 650 products on the market and 397 products in the pipeline. Their research and development sites were in the US, Romania, Malta, and India. In 2006, Actavis had major manufacturing sites in the US, India, Bulgaria, and Malta and a total of 21 plants. That same year, the firm completed 26 international acquisitions.
Performance of the case companies
To give a brief overview of the growth of the case companies, we studied the increase in their turnover from 1998 until 2005, as can be seen in figure 1, and whether the turnover came from Iceland or abroad. Around 95% of Actavis’ turnover came from abroad and so did almost 73% of Marel’s total turnover.

Figure 1: Increase in turnover from 1998 to 2005
Source: Company reports various years and author compilation

There has been a considerable increase in the firms’ equity from 1998 until 2005, especially in Actavis, as can be seen in figure 2.

Figure 2: Increase in equity from 1998 to 2005
Source: Company reports various years and author compilation

163
As can be seen in figure 3, there has also been an enormous increase in employees from 2000 to 2006, especially for Actavis, which grew from 146 employees in 2000 to 10,000 employees in 2006. That is an increase of 6800% in six years. Marel had 1,400 employees in 2006 but 543 employees in the year 2000 so it is two and a half times larger if only employees are studied.

**Understanding Icelandic multinationals**

In order to understand Icelandic MNCs it is important to understand the business environment where the headquarters of these case companies are located. ‘We have a joie de vivre. Enjoy what we are doing’, says Róbert Wessman, CEO of Actavis. ‘Work hard, play hard. Conquer, vanquish, and then celebrate our victories. And we and women share the burden as equals, as in the Viking days. Danes spend 80% of their time planning, 20% of their time implementing. We Icelanders spend 5% of our time planning, 80% implementing, 15% correcting mistakes. We don’t have time for long conversations—we may make mistakes, but we never lose time. We look for the 2-3 page business plan’, says Róbert Wessman. According to Jóhannesdóttir and Óladóttir (2008), the Nordic management styles are similar but each nation has its own character, which is strongly related to the nationality
of the manager. Icelandic managers have set themselves apart by being fast at decision-making, hard-working, and extremely optimistic in the way that they believe that everything is possible (e.g. a ‘just do it’ attitude).

**Roles of subsidiaries**

Multinational business operations can take several different forms. The multinational companies (MNC) have fully autonomous units operating in multiple countries. These companies have traditionally given their foreign subsidiaries a great deal of latitude to address local issues such as consumer preferences, economic trends in different regions of the world, and political pressure, to cite examples. These subsidiaries, however, are frequently run as independent companies, without any integration.

As of 2008, Marel Food Systems is a multinational corporation (MNC), with subsidiaries in 24 countries and more than 4,000 employees worldwide, made up of eight business units located in the Netherlands, Denmark, the United States, Iceland, Slovakia, and Singapore. In addition, its extensive global sales and service network spans more than 40 countries. The largest number of its employees is based in the Netherlands (37%), followed by Denmark (23%), the United States (20%), and Iceland (9%), with the remainder (11%) spread out around the globe – from Brazil and several other locations in South America all the way across to Australia and New Zealand in the Pacific. Most of the company’s products are manufactured in Iceland, Denmark, the UK, and Slovakia, with smaller production facilities in Singapore and Brazil. In addition, the company operates a network of 60 agents and distributors in about 40 countries that market, sell, and service the company’s products around the world.

Actavis is one of the world’s leading players in the development, manufacture, and sale of generic pharmaceuticals. Founded in 1956, as stated above, the company has led an
assertive programme of expansion, making close to 30 acquisitions in the past eight years while maintaining strong organic growth. As of 2008, the group has approximately 11,000 employees operating in about 40 countries around the globe. The global corporation Actavis’ headquarters are in Iceland.

**Globally dispersed companies**

The global corporation can be viewed as a multinational firm that maintains control of operations back in the home office. This kind of firm tends to treat the world market as a unified whole and tries to combine the activities in each country to maximise efficiency on a global scale. These companies operate much like a domestic firm, except that they view the whole world as their market. In terms of the relationship between the headquarters and the subsidiaries, we can see that the managers’ preferences for learning from the subsidiaries are quite good. Hörður Arnarsson CEO of Marel says, ‘Yes, we learn a lot. The biggest change will probably be in Marel. So we are definitely taking up a lot of things from the other companies. For example, the way Scanvægt are running their service organisation will have a big effect on Marel’.

Actavis’ top management consisted of three groups of people reporting to the CEO and Deputy CEO in the headquarters. One group included the regional managers, who were responsible for the major revenue-generating areas: North America, Western Europe, and Central and Eastern Europe. In the second group there are functional executives responsible for finance, R&D, operations for Europe and the rest of the world, operations for India and the United States, and the global supply chain. The third group includes the staff experts covering M&A, quality, human resources, legal, business development, hospital business, product launches, global product portfolio, and in-licensing says Róbert Wessman. Only a small fraction of the executive group was located in Actavis’s headquarters in Iceland. The
top management team had a one-hour meeting every Monday, with other specialists attending as needed, this was done to see what resources were missing in each unit and how the subsidiaries could support each other and what the headquarters could do to make it work. Svafa Grönfeldt commented about Actavis being a globally dispersed company: ‘It is neither an advantage nor disadvantage to be located in Iceland, it doesn’t matter and like Róbert stated once: Headquarters is an old-fashioned word’.

The strategy Marel has implemented of establishing centres of excellence is one that will lead to its being a multi-centre firm. To ensure the coherence of the company, it is necessary to facilitate a similarity between the organisational units as well as implementing measures for organisational learning.

Carnitech displays the clearest example of the contours of the globally dispersed firm that Marel may develop into. By keeping the company separate for so many years before transferring the responsibility for the global salmon industry to Carnitech Salmon, Marel has effectively created a separate division with aspirations of independence while possessing the cutting-edge technology in that specific segment. For Marel to be able to harness the learning from that part of the group it must implement a structure to do so.
Planning and executing acquisitions

Both Marel and Actavis have been quite active in foreign direct investments in the recent years and their growth has mainly been through acquisitions as can be seen in table 2.

Table 2. The major foreign direct investments of Actavis and Marel

<table>
<thead>
<tr>
<th>Actavis Major FDIs</th>
<th>Year</th>
<th>Marel Major FDIs</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balkanpharma</td>
<td>1999</td>
<td>Marel Enquipment</td>
<td>1985</td>
</tr>
<tr>
<td>Pharmamed</td>
<td>2001</td>
<td>N/A</td>
<td>1991</td>
</tr>
<tr>
<td>Zdravljje</td>
<td>2002</td>
<td>N/A</td>
<td>1996</td>
</tr>
<tr>
<td>UNP</td>
<td>2002</td>
<td>Marel USA</td>
<td>1996</td>
</tr>
<tr>
<td>Velefarm</td>
<td>2003</td>
<td>Carnitech</td>
<td>1997</td>
</tr>
<tr>
<td>Colotech</td>
<td>2003</td>
<td>Marel UK</td>
<td>1998</td>
</tr>
<tr>
<td>Fako</td>
<td>2003</td>
<td>Arbor</td>
<td>2000</td>
</tr>
<tr>
<td>Pharmaco Inc</td>
<td>2003</td>
<td>TVM Maschinenbau</td>
<td>2000</td>
</tr>
<tr>
<td>N/A</td>
<td>2003</td>
<td>OL-Tool Production Aps</td>
<td>2001</td>
</tr>
<tr>
<td>Pliva Pharma Nordic</td>
<td>2004</td>
<td>CP Food Machinery a/s</td>
<td>2001</td>
</tr>
<tr>
<td>Pliva Pharma Nordic</td>
<td>2004</td>
<td>N/A</td>
<td>2002</td>
</tr>
<tr>
<td>Biovena</td>
<td>2004</td>
<td>N/A</td>
<td>2003</td>
</tr>
<tr>
<td>Higia</td>
<td>2005</td>
<td>Marel Russia</td>
<td>2003</td>
</tr>
<tr>
<td>Pharma Avalanche</td>
<td>2005</td>
<td>Marel Spain</td>
<td>2003</td>
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<td>Ophtha</td>
<td>2005</td>
<td>Röscherwerke GmbH</td>
<td>2004</td>
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<tr>
<td>Kéri Pharma</td>
<td>2005</td>
<td>Pols</td>
<td>2004</td>
</tr>
<tr>
<td>Lotus</td>
<td>2005</td>
<td>Dantech Food PTE</td>
<td>2005</td>
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<tr>
<td>Alpharma</td>
<td>2005</td>
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<td>2005</td>
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<tr>
<td>Lorabid</td>
<td>2005</td>
<td>Marel Carnitech Tailand</td>
<td>2005</td>
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<td>Amide</td>
<td>2005</td>
<td>AEW Delford</td>
<td>2006</td>
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<tr>
<td>Sindan</td>
<td>2006</td>
<td>Scanväegt</td>
<td>2006</td>
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<td>Zio Zdorovje</td>
<td>2006</td>
<td>Stork Food systems</td>
<td>2008</td>
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<tr>
<td>Abrika</td>
<td>2006</td>
<td></td>
<td></td>
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<tr>
<td>Manufacturing plant</td>
<td>2006</td>
<td></td>
<td></td>
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<tr>
<td>API</td>
<td>2007</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturing site</td>
<td>2008</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zhejiang Chiral medicine</td>
<td>2008</td>
<td></td>
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</table>

Source: Company reports various years and author compilation

‘We have been quite aggressive in our acquisitions’ says Svafa Grönfeldt, ‘but aggressive in a good way’ says Róbert Wessman, ‘We had good R&D capabilities and we understood the regulatory environment. What Actavis lacked was scale in manufacturing and marketing as well as R&D. So the choice was simple: we could either remain a small, uninteresting R&D
group or we could become global. The banks and board were completely puzzled by this approach, and sceptical. They said, ‘It is your reputation on the line here’. I promised them I would succeed, and invested all of my personal assets in the shares of the company. Hörður Arnarsson, CEO of Marel, says, ‘We can say we started in 2002 or 2003 when we had gone through a period of strengthening the infrastructure of the company and reached a level that we believed made us ready for takeovers. We took a strategic decision with the board. Then we did a lot of analysing work, where to position the company. And we can say that we did a lot of work analysing the current situation in the segment’. He continues, ‘The reason for the growth strategy is that we believe that our segment will develop as almost all segments have developed. You get this window of opportunity when you get these companies starting but then you get consolidation driven by many aspects: both the cost effectiveness, by economies of scale, but also being able to deliver a total solution. We believe that our segment will develop as any other, that we will get two or three competing companies with 15 to 20% market share that can become quite profitable. But then you get some niche companies that are very specialised that are also quite profitable in narrow segments with patents or high entry barriers. And then you get a lot of these companies with bad profitability. And we decided that we wanted to be one of these two or three companies and that we wanted to lead the consolidation and thereby select where we would position ourselves. So it is really to create a market leadership’, says the CEO about Marel’s growth strategy. In the interview with Svafa Grönfeldt, she mentioned that it was clear from the beginning that the new CEO of the company had plans and he had a vision to make something out of the almost bankrupt company he had taken charge of. ‘Our vision was to be a major generic player, with world class research and development, a low cost global supply chain, and with presence in all major markets around the world. I had no doubt that we could accomplish this’, recalled Róbert Wessman. So what did Actavis do to retain their goal to become a leading company
in their field? They didn’t have the necessary resources. To give an example of the strategic acquisition rationale of Actavis, six acquisitions will be mentioned. In Serbia and Bulgaria, Actavis acquired Balkanpharma. The purpose of the acquisition was to use opportunities created by privatisation efforts in Bulgaria to gain a strong foothold abroad, to gain a new market for the existing portfolio, to benefit from poorly-managed former government-operated facilities through restructuring and to gain access to low-cost manufacturing sites. The acquisition of Biovena in Poland expanded the market scope for Actavis’s products in new markets to which they did not have access before. The same goes for the acquisition of Pharma Avalanche in the Czech Republic and Slovakia. When Actavis acquired Lotus in India, it provided the company with priority access to low-cost bio studies and clinical testing and the firm achieved a lower development cost. Amide in the US was a platform for Actavis onto the world’s largest generic market and gave the firm a rapid introduction of new products into the US market and obviously expanded their portfolio. The acquisition of Sindan in Romania was a platform onto the high value oncology sector for Actavis. In only eight weeks, the firm achieved full financial and development integration and acquired rapid product introduction into all Actavis’s markets ahead of schedule. Alpharma Generics was a gateway to the Western European markets and a market share increase in the US. The firm benefits from synergies through overlapping development projects, the consolidation of manufacturing capacity, new markets, and new product application. ‘As you can see, they are all a part of a big puzzle, we needed certain resources so we acquired the knowhow and the expertise we needed and we could move our manufacturing to low cost countries, that is how we reached our goal and maybe our only chance to be able to establish centre of excellence,’ says Svafa Grönfeldt.

Svafa Grönfeldt continues, ‘We carefully planned our acquisitions, we have conducted over 200 due diligences so our decision process is streamlined: we don’t study and
recommend, we just do it quickly’. She continues, ‘Just three years ago we were a second-tier player, coming from out of the blue into the top tier, and we were not always seen as a serious acquirer, sometimes we were seen as too small players to participate, but we planned the whole process, even though we were a much smaller company than the one we were acquiring and we had the capacity that we needed to be able to integrate the new firms into the corporation’.

**Integrative capacity**

As mentioned above, different firms may have different ways of coping with environmental conditions by reducing their dependence on or increasing their control over external resources. This perspective is of importance in diagnosis of the differentiation and/or integration balance of firms that are located in many countries. The infrastructure of the case companies contains strategic resources like knowledge, capital, and products which can quickly adapt to external hazards and contextual changes if the headquarters has embedded integrative capacity in the firm. Often the firm boundaries are fuzzy and a conventional organisational structure is unable to satisfy the internal need for ecological evolution within the network. In a situation like this, a strategic infrastructure is necessary for the coordination and integration of business units that are geographically dispersed but the headquarters has to make sure it maintains internal differentiation and local responsiveness amongst individual subunits. It is interesting to see that the experience that is gained through acquisition can be maintained by an integration team that passes on its knowledge or articulates and codifies it, depending on how often managers expect to acquire a company. It is impossible to have an integration expert if the process is sequential but not continuous. For the headquarters, it could well be a good idea to codify the knowledge and the experience gained through those acquisitions and collect knowledge and experience from other subsidiaries. The level of integrative capacity depends on the frequency of the acquisitions. If the acquisitions are not
so frequent, then it is easiest to codify the knowledge that is accumulated through each acquisition. If a company acquires many firms each year, it is likely that the firm will have an integration team that has the knowledge, whether tacitly or explicitly. It is not so much what one buys, as what done does after one has bought it, and how well, that matters in distinguishing failure from success. In figure 4 we summarise the dominating factors that were brought through in our interviews by our respondents: the most influencing factors of the integrative capacity, which is good planning and fast executing of mergers and acquisitions and learning from previous mergers and acquisitions. More analytically managers must have a clear global vision and core values, and it is important to note that culture also plays a significant role. This study, however, does not touch upon culture explicitly.

![Source: Authors interpretation of the concept](image)

**Figure 4: Integrative capacity**

As has been stated several times appropriating value from mergers and acquisitions presents its own set of challenges, which may be no less significant than those associated with internal growth. Until researchers can provide managers with better guidance on how value can be created through mergers and acquisitions, the apparent bias towards external growth over internal growth is likely to continue to result in disappointing performance outcomes. Second, and related to the preceding point, managers are advised to be as explicit as possible about where, why, and how acquisitions can be reasonably expected to strengthen their firms.
Vague rationalisations that go no further than the common synergy argument are advised to be viewed with scepticism. If managers cannot explain, in clear and compelling terms, how acquisitions positively serve the interests of their firms, those acquisitions will not be consciously managed to the best effect (King, Dalton, Daily, and Covin, 2003). The cadre of 11,000 employees was the result of Actavis’ extensive acquisition activity, and close to 5,000 people in total had been let go as part of those processes. Svafa Grönfeldt commented, ‘I never liked it, but it had to be done. After the acquisition of Alpharma part of the executive team had to be squeezed out. Some people take it well when they are offered an alternative position that fits their skills, but sometimes people cannot grow with the company says Svafa Grönfeldt. ‘It is hard to combine speed of integrating acquisitions with making the right decisions, so we make mistakes. Often we put the wrong person in a key management role only to find out nine months later, and we have to replace them. But there are also many examples of people being able to turn around their behaviour and grow, as long as you sit with them honestly’, says Svafa Grönfeldt. In Marel, Ingólfur Örn Guðmundsson on Marel marketing centre says, ‘Carnitech just happened, I think. It was about gaining market access into Denmark and gaining capabilities. Complementary products to the Marel line then. In addition, it had a better stronghold in the meat business, being pork’. ‘With AEW Delford and Scanvægt, those companies were selected by a team of consultants that worked with Marel and it laid down a list of 120 companies that were feasible for buying. To have a good product fit, so to speak. Scanvægt was probably the company that we would have targeted as number one’, says Ingólfur Örn Guðmundsson and he continues, ‘After the acquisition of Scanvægt, the first months will be spent on, what the hell did we buy? What kind of company is it and how do they operate? The strategy is, we have learned, ´do not shake them up´. 
The integration capacity of Actavis becomes quite clear through the following. Actavis made successful integration paramount, the achievement of which depended on Actavis aligning the goals, management systems, and understanding of widely disparate companies. The operation in Malta had been operated as a non-profit NGO prior to Actavis’ acquisition. Alpharma had been part of a publicly-listed American corporation. Serbia had been a privatised state-owned enterprise, and the Turkish operation had been run single-handed by the owner for forty years. ‘The challenge is always to create one team with one vision living with one set of values’, explained Wessman. ‘When Alpharma joined us, they were surprised that we let their line managers be part of the integration, and our speed and our enthusiasm seemed to energise them. We flew a large group to Iceland for a retreat where we set specific integration targets, then we flew together to Alpharma’s major sites, after which we made the tough management decisions of whom to keep and whom to let go at the top. You make it sound easy’. Sometimes, significant restructuring is required. ‘When we set up our first major manufacturing site in Malta, where the work ethic was strong, costs were low, and government support was high, we had to double the plant size and then get EU certification. It is not unusual for us to completely refurbish the plants we buy’.

Integration, however, is not always easy. That is why integration capacity is even more important than ever. Róbert Wessman continues, ‘In Serbia the integration was more volatile, because we had to make a thousand people redundant and change the management team, but they were violently furious at the lay-offs and one day surrounded us in the plant. Róbert Wessman met with ministers but they did not lift a finger to help at the time. Finally, there were floods and the town asked for their help, which they gave, but on the condition that their manager could come back. The country was still suffering from the shock of the recent war in Serbia. Róbert Wessman says, ‘In Bulgaria we found a guy hiding in the basement listening to all of our phone conversations and monitoring all of our emails’. Dr
Svafa Grönfeldt served as Actavis’ Deputy Managing Director for several years, as mentioned above, where she was in charge of the integration process: ‘‘We do not integrate just for integration’s sake, rather only where it creates additional, tangible value, areas that we identify even before we consummate the acquisition’. Each project is centred on key integration areas with task forces for each, and tasks are broken down into manageable pieces that the managers of Actavis can track financially and operationally. Svafa Grönfeldt says, ‘Tracking of tangible synergies is important for all of the stakeholders, including our shareholders and other parts of the Actavis organisation. We start with low-hanging fruit, the major integration pieces that can be accomplished rapidly. Then we assess the quality and quantity of people needed and the available talent. Furthermore, we identify and retain key people, simplify structures and reporting lines, make sure roles and accountability are clear, and link performance rewards to integration success. Needless to say, strong project management is needed’. The last but certainly not the least important piece of the integration process is communication. ‘You can never communicate enough before, during, and even after a merger’, says Svafa Grönfeldt. The relationship between the headquarters and subsidiaries and between subsidiaries can be seen in the following statement: ‘We acquired Sindan primarily to get its R&D expertise in oncogenerics, and we could immediately offer their products in our other markets. We created a team of a dozen Sindan and Actavis people, met in Romania for a day, and then broke into small teams covering the different areas to estimate the sales potential of each new project, set specific objectives, establish market share and revenue metrics, and decide who would do what. Then Róbert and our finance people set bonuses for people in Romania and Iceland (including me) for achieving those objectives. This is a way of life for us, we are always integrating something, and it seems simple to us. We cannot figure out why our competitors don’t do it. They make it too complex’. Hörður Arnarsson, CEO of Marel, says, ‘Carnitech was bought much earlier than the others and was
bought on completely different arguments. It is not a part of the strategy that Marel has recently adopted. In 1997, when Carnitech was acquired, it was more of an opportunistic acquisition and in fact people were mainly buying production capacity. Marel at that time did not have the infrastructure to take over a company. Carnitech at that time had a much stronger infrastructure’. Marel and Carnitech did not merge. They were kept as separate companies. Hörður continues, ‘And I think it was definitely correct at that time, because Marel simply did not have the infrastructure. The companies were also very different’. When we study this, one question arises: can we measure the success of a merger or acquisition and how is the success of an acquisition measured? Hörður Arnarsson, CEO of Marel, says, ‘We do not measure it as such. The only thing we measure is the profitability of the company and the growth. You can never compare the current situation at this time to status quo two years ago. We mainly like to see growth and increased profitability in that profit are that we acquire’. Asked about how this is measured, Hörður says, ‘We use KPIs like return on investment (ROI) but you cannot look at an individual number. It is difficult to measure. But we do that with all our investments. We look at ROI. And then return on capital employed in the company. But those very often have a positive effect on other units in the group, so it is not so easy to measure them’.

Róbert Wessman says, ‘Actavis had developed a set of nine KPIs, which were used to generate specific management targets and monitor achievement. These were revenue, cost, EBITDA, new product launches, number of complete tactical plans, integration synergies, exemplifying corporate values, employee satisfaction, and customer satisfaction. The KPIs were used to generate performance evaluation criteria that were applied throughout the company’.
**Core values**

The development of global corporate core values, that is, values that cut across all the subsidiaries located throughout the globe, would help provide a balance. Corporate cultures reflect nationality, demographics of employees and managers, industry, and market; they are related to organisational structure and control systems; but all of these leave room for unique and idiosyncratic elements. Actavis’s executives inevitably referred to the Icelandic culture, relishing the contrasts with other Scandinavians, particularly Danes. ‘As Icelanders, we are people of the sea: when there are fish to be caught, you seize the moment and go out and catch fish, regardless of the weather, regardless of the time. In Europe, bankers say that when the European bankers go home, the Icelanders stay in the office. There is no line between personal life and business’, says Róbert Wessman. The atmosphere at Marel is a little bit different. Ingólfur Örn Guðmundsson says, ‘We are based on ideas from the University. So we are a pretty relaxed culture, we are pretty open-minded and not too bossy in terms of management style’. He continues, ‘The headquarters (Marel) is more innovative, more responsive, more flexible than Carnitech, our subsidiary’. Ingólfur Örn Guðmundsson says, ‘We have shown them our ideas and they have followed. We have not told them that this is what you are supposed to do. We have said, this is a good example of what you can do, by working with their marketing people’. Georg Gisli Andersen is also a manager at Marel’s headquarters, operating in Marel business centre. He says, ‘I have been involved with Denmark since the year 2000’. He continues, ‘I have often said that instead of teaching cultural differences between Iceland and China in schools, you should start teaching cultural differences between Iceland and Denmark, because there are quite a few. And then Iceland and Great Britain’. Marel bought Carnitech in 1997 ‘…without really realising the differences and then the humongous differences in company culture that are between the two. Carnitech is a totally different company, it could be located in China’, says Georg Gisli
Andersen. Managing a globally dispersed company can be difficult and is related to the culture, both national and corporate culture. There is a lot of peer pressure here in the Icelandic school system, which is similar to others in the Nordic countries, but in Iceland there is not the same discipline as in the other Nordic countries. There is one good thing about it, however: nobody is punished for thinking outside the box. Icelanders are egalitarian; everybody is called by his or her first name, regardless of whether s/he is your neighbour or the president. ‘In general, Icelanders are much less organised than people in the neighbouring countries, willing to jump into things, think laterally. Many others plan things to death’, says Róbert Wessman.

The management team had specified six values that they would inculcate in the organisation to provide additional unity. An employee orientation document listed them: ‘Ambition—Show ambition in every task you do. Customer care—Provide first class customer care. Teamwork—Foster teamwork to achieve more together than alone. Efficiency—Value resources and work efficiently every day. Flexibility—Be flexible enough to seize the opportunities around you. Pro-Activity—Be pro-active and be the one to make things happen’ says Svafa Grönfeldt.

It is a management preference whether they decide to integrate a subsidiary or not. Do they want to maintain strong control, stability, or even adaptability and flexibility? The deputy CEO of Actavis says, ‘One of the issues in acquisitions is the uncertainty of key staff, “what will happen to me?”’, and this can lead to in-fighting. We try to deal with the emotions by having very clear frameworks and timelines so that people know what needs to be done and their role in the process, particularly with those we want to retain so we start the integration process by identifying key managerial talent even before the deal is done, so we can move quickly to form teams to set targets and implement them. ‘I used to be in charge of the implementation after mergers and the bulk of the integration is completed in 90 days. Day
1 of the integration is a town meeting-style kick-off meeting with a few people from Actavis and several dozen from the acquired company present’. Svafa Grönfeldt, deputy CEO of Actavis continues, ‘We do not have a corporate integration team, rather a steering committee. The integration team consists of managers from the acquired company mixed with people from various Actavis operations around the world, whoever makes sense, and they set up several task teams… After three days the teams have identified synergy targets, which are tracked. Teamwork is emphasised, so is our Winning Formula. We keep emphasising our key performance indicators. We strive to get the people who are responsible for setting and achieving the integration objectives involved in leading the process’.

**Conclusion**

In a global business, management competes worldwide against a number of other multinationals in the world market. A good balance within a MNC is attained when the managers in the headquarters have a global vision, core values, and cultural principles that are shared by all the subsidiary managers. The managers in the headquarters make decisions based on the needs of foreign subsidiary managers. They also have to have an understanding of the needs of specific organisational situations; they have to have integrative capacity in the corporation. Integrative capacity builds on the ability of the MNC to learn from its experience and also how it plans and executes its acquisitions. Global vision and core values are very important. The lessons learned from previous acquisitions are those that must be fed into the planning and execution of the next. Only then do they provide the feedback loops for each other and it must be embedded into the MNC culture. As mentioned above, although culture is recognized as a factor in the integration process, it is not considered in detail in this paper. It should, however, be looked at in detail in further study. Strategy is centralised, and various aspects of operations are decentralised or centralised as economics and effectiveness dictate.
The company seeks to respond to particular local market needs, while avoiding a compromise of efficiency of the overall global system. Many companies that adopt the global strategy approach also adopt the matrix organisational structure. In the matrix structure, there is extensive cooperation between all the operating subsidiaries. Both Actavis and Marel are examples of that, and the companies have a matrix structure.

Both of the case companies have grown a lot in the past five years or so from local Icelandic firms into MNCs. In the acquisitions Actavis has made over the years, it has always changed the name of the acquired companies to Actavis, but the companies that Marel has acquired have kept their original names. Actavis has integrative capacity embedded in its headquarters and so does Marel, but Marel is not using it as effectively as Actavis does. The subsidiaries of Marel are more independent and less integrated than those of Actavis. The generic pharmaceutical market is totally different from the market that Marel is operating within. The flow of products, knowledge, and capital seems to be effortless for Actavis. The headquarters has a meeting every week, discussing the coming week, what the subsidiaries are lacking, and how the flow can be channelled that week so the resources of the company are best utilised. It can be said in general that Icelandic managers with globally dispersed companies are coming off a big wave of change. Actavis has more integrative capacity than Marel does and Actavis has examples of centres of excellence, where special knowledge and R&D functions are the core centres of the company with their centre of excellence in their headquarters in Iceland. Empirical evidence points to the need for a structure to facilitate the transfer of Marel’s knowledge to the subsidiaries. At present, the strengths are exploited where they originated, with the exception of the group’s first centre of excellence, Carnitech Salmon. To ensure that the group benefits from all its capabilities, Marel must instigate a learning measure.
For Marel, in the cases of Carnitech and AEW Delford, there is the potential for sustaining a multi-centre firm, although an institution for continuous learning updates is lacking. Establishing centres of excellence would improve the management structure and clarify responsibilities. Since Scanvægt overlaps with Marel to a large degree, establishing it as a separate centre of excellence could be detrimental to the group.

Although there is a clear will within the organisations’ employees to learn from each other, structure is lacking to ensure that the learning takes place, resulting in the potential loss of reciprocated learning.

The managers of these companies are strongly action- and success-oriented, but owing to the circumstances of the global financial markets, nobody is expecting any major acquisitions in the near future. Therefore, Icelandic managers—in particular managers at Marel and Actavis—must transition from being hunters to become farmers. That is their big challenge.
References


**Interviews**

Georg Gísli Andersen, The Business Center of Marel

Hörður Arnarsson, CEO of Marel

Ingólfur Örn Guðmundsson, The Marketing Center of Marel

Robert Wessman, CEO of Actavis

Svafa Grönfeldt, deputy CEO of Actavis
Appendix
The interviews for the paper Integrative capacity took place in four series in the end of 2006 and in the beginning of 2007, list of the interviewees, their positions, and the companies they work for are listed below:

List of interviews conducted

<table>
<thead>
<tr>
<th>Company</th>
<th>Interviewees</th>
</tr>
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<tbody>
<tr>
<td>Marel</td>
<td>Manager in the Marketing Centre of Marel and a manager from the Business Centre of Marel and the CEO of Marel</td>
</tr>
<tr>
<td>Actavis</td>
<td>The CEO of Actavis, the Deputy CEO of Actavis and the Manager of Corporate Communications (which was not recorded)</td>
</tr>
</tbody>
</table>

Several interviews were conducted but not recorded owing to certain circumstances as the managers did not wanted their name or their statements into the thesis and therefore are not referred to in this thesis. These interviews did, however, provide valuable background information on the companies and their industries. The interviews were in Icelandic and sample questions who have been translated are below.

The primary data collection was conducted through on-site semi-structured interviews, which allowed for subjects to arise during the interviews that might otherwise have been excluded from fully-structured interviews. The secondary data consist of material from the companies, corporate websites, promotion material, and internal communiqués, press coverage, and public data, for instance from the Icelandic Stock Exchange, ICEX. The use of largely primary data allowed in-depth investigation of the research topic and provided first-hand understanding of the industries, the companies, and the process they were going through.
Sample questions for the interviews for the Integrative capacity paper:

Information given before the interviews: the size of the company, number of subsidiaries, the industry and number of employees. *Note that the interviews were conducted in Icelandic and few examples are shown below.*

Which language is the official organizations language?
Does the size matter in terms of controlling the organization (number of employees, number of units/subsidiaries etc...)?
Does the size matter in regards of communications?
Describe the subsidiaries local context.
What is the function of each subsidiary?
Describe the culture of the organization
Is there a one single culture or is the culture fragmented?
How are mergers and acquisitions planned?
Is the knowledge and the experience codified in any way (if yes, how)?
How is performance measured?
Does the company have a clear vision?
Can you describe the core values of the organization?
Does the location of the headquarters matters?
How does the headquarters search for new targets to acquire?
Does speed matters in the acquisition process?
Does it matters if the target companies are smaller companies than you are or larger?
How are subsidiaries integrated into the organization?
Does the company have an integration team?
How is the organizational structure of the firm?
Which is more important, internal growth or external growth?
Is research and development important for the organization?
Is technology important for the organization?
6. The business model of the boom period: Some final critical thoughts

Ásta Dís Óladóttir

Abstract
The term ‘the business model of the boom period’ accounts for a number of business models which were once commonly used but are no longer appropriate. The world today is experiencing an almost unprecedented financial crisis of a global nature whose depth and breadth are equally great. It is not confined to any one geographic area or one specific industry sector but is hitting everybody and everything – to some extent at least. ‘The business model of the boom period’ is defined as aggressive growth through investments and especially foreign direct investments. This paper attempts to analyse ‘the business model of the boom period’ that many Icelandic companies seem to have followed in recent years. We study the enormous growth of Icelandic firms and how they have managed to grow so fast in only a few years. What was the real motivation behind their aggressive growth through FDI? How was it possible for such a small economy to grow as fast as it did?

Before analysing the actual growth of Icelandic companies it is necessary to understand which factors contributed to this growth and what triggered the growth in Iceland. The factors can be divided into both internal and external factors. Is the ‘business model of the boom period’, hereafter ‘Yesterday’s Business Model’, gone for good or is it in fact ongoing?

Keywords: Growth, FDI, leveraged buyouts, performance, Iceland, Yesterday’s Business Model.

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Introduction
The term ‘Yesterday’s Business Model’ can apply to any number of business models whose application was common practice. The question that we address is whether yesterday’s way of doing business is now past or if it is ongoing. The phrase has been used a number of times in recent years to indicate some form of behaviour that is out-dated or something that worked yesterday but for some reason has become obsolete and is no longer viable (Spagat, 2009; Nambiar, 2008; Asay, 2007; Herbold, 2007). When viewed from the perspective of Icelandic firms the ‘Yesterday’s Business Model’ can be defined as a model that companies followed in the time leading up to the 2008 financial crisis. There seems to have been a pattern going on before the crisis, where many companies conducted their business in a similar manner, especially when it came to growing, expanding, and changes in the geographical operating areas. In the years leading up to the crisis companies were growing like never before, and this growth was mainly achieved through acquisitions, greenfields, mergers, buy-outs and takeovers. More often than not, the growth was highly leveraged and company stocks were used as payment. Companies were growing at breakneck speeds and there did not seem to be many barriers on where they could go and what they could do. Nothing seemed out of reach. It did not matter how large the target company was; if they wanted it, then companies found a way to acquire it. Who would believe that Iceland would lead the world investment report list year after year? Who could have imagined that Icelandic investors or Icelandic firms would acquire shares in the American airline, FIH, Store Brand, Sampo, Finnair, Refresco, Keops, Atlas ejendom, Hamleys, Magasin du Nord, Illum, Woodward, Goldsmiths, Mappin & Webb, Oasis, Karen Millen, LxB II, Julian Graves, MK One, Jane Norman, Sterling, Easy Jet, Finnair, Coast, Whistles, Merlin and many, many others? Who would have believed that companies from Iceland could have
become leaders in their field? Bakkavör is one of the leading food processing companies in the world, Actavis is a leading generic pharmaceutical company, Promens is at the forefront in the roto-moulding industry, Óssur in prosthetic and orthotic devices, Flaga Group in sleep diagnostics and services. Their success is, however, understandable, given their core competences. For example, the Hampidjan Group is one of the largest suppliers to the fishing industry around the world. This, then, raises the question of how it was all possible. How did they do it, what was their motivation? Are they behaving any differently from firms in other economies like Ireland and Israel? And how did they manage this rapid growth with their headquarters in Iceland and numbers of subsidiaries all over the world? The research question that we attempt to answer in this paper is whether the Yesterday’s Business Model is gone for good or is in fact an ongoing way of doing business. We will start by explaining the model, define it, discuss growth of firms and then discuss the questions raised above.

Yesterday’s Business Model
There appear to be several contributory factors, but no matter which way you look at it there seems to be one dominant factor: cheap money. In the last few years access to borrowed money has become increasingly easy, up to the point where it appeared as if anybody could borrow money for anything from anyone. Icelandic and international financial institutions, investors, the government, the central bank, the financial supervisory authority and others were part of this game. If they had not been, the situation in Iceland would not be as serious as it is today. The financial models were based on predicted cash flow generation of the businesses acquired and the ability to service the interest payment requirement. This was accompanied by extreme optimism and a ‘things-will-work-themselves-out’ mentality where the only way was up – a typical mindset leading to a bubble. Bubbles, however, are known to burst, and that is exactly
what has happened; the managers simply thought it would not happen so soon. We are experiencing an almost unprecedented financial crisis of a global nature whose depth and breadth are almost unprecedented. It is not confined to any one geographic area or one specific industry sector but is hitting everybody and everything – to some extent at least. Many firms are facing bankruptcy, many have already gone bankrupt, and yet others are facing momentous struggles in order to avoid the same fate. There are some firms, however, which seem to be coping, as if the crisis is not affecting them as much.

Scholars have found numerous reasons why a company fails. They include inability to adapt to a changing environment (Kim, 2007; Levinson 1994), psychologically illogical organisational structure and compensation schemes (Levinson, 1994), inability to recognise and manage cognitive complexity (Levinson, 1994), and high-risk growth strategies such as aggressive acquisitions (Fogg, 1976; Moulton, Thomas & Pruett, 1996). A study by Moulton and colleagues (1996) also found that ‘debt-funded, forced-growth strategies create a high risk of failure regardless of industry growth rate’. Icelandic companies which have been following Yesterday’s Business Model have been guilty of at least one or more of these peccadilloes yet some have faced extreme difficulty and bankruptcy while others appear to operate uninterruptedly. One thing which unites them all is that they have been growing aggressively through foreign direct investments. The Yesterdays Business Model can therefore be defined as aggressive growth through FDI, growth that happened at breakneck speed, acquiring companies that were larger than the acquiring company itself.
**What Triggered the Phenomenal Growth?**
Before we explain the Yesterdays Business Model and analyse the actual growth of Icelandic companies it is necessary to understand what factors contributed to this growth. Only by understanding how it was possible can we understand what went wrong. The factors can be divided into internal and external factors. Internal factors include the things that were happening within these companies. The external factors are things that were happening in the companies’ external environment.

**Internal Factors**

**Increased Experience in the Business Sector**
For most of the twentieth century the Icelandic economy was heavily regulated, centralised and very dependent on its fishing industry. Therefore, the transformation of the economy into market capitalism is relatively recent and primarily caused by changes in the exporting of fish (Danielsson and Zoega, 2008: 2) The institutional experience and tradition of running a modern commercial banking system only go back a decade (Danielsson and Zoega, 2008). As the Icelandic economic system quickly adopted a more capitalist and free market system, which gave rise to the growth in the banking system, there was increased demand from the banks for people with business-related education. The high salaries offered by the banks encouraged students to choose such studies. According to the Statistical Bureau the number of people studying business-related studies has gone up considerably. The number of graduates from social sciences, law or business was 435 in 1995 but in 2007 this number had gone up to 1,372 (Hagstofa, 2009).

Furthermore, an increasing number of individuals has sought education abroad, which has been an important factor driving the globalisation of Icelandic businesses. The percentage of Icelandic students enrolled in an institution of higher education abroad is much higher than the OECD average (Tómasdóttir, Ólafsson, Óladóttir, Thorláksson and Thorsteinsson, 2007).
Increased education opportunities created a young workforce, often educated abroad, which has given rise to an entrepreneurial class of executives. The pension fund system also served as an indirect educational tool which helped train investment managers and provided challenging opportunities for young experts often educated abroad. The opportunity to manage the assets of the pension system provided opportunities for a new generation of financial managers who were also helped by a stable economic environment during the 1990s. The outcome was a vibrant financial market that quickly outgrew the Icelandic market (Tómasdóttir, Ólafsson, Óladóttir, Thorláksson and Thorsteinsson, 2007).

**Pressure for High Returns**
In the last couple of years there has been excessive pressure from stockholders in Iceland for high yearly returns (up to 20%). In the long run it becomes extremely hard to maintain such high returns and managing a company which is growing as fast as some of the Icelandic companies did would be extremely difficult for any manager. But stockholders are not the only factor. Many of the Icelandic companies were recently bought by new owners. When the owners of a company are the ones running it the manager’s income becomes directly related to the growth of the company. The benefits of growth in revenue are an immediate profit for them, and a loss (or reduction) in revenue results in an immediate loss in revenue for the owners. As a result, Eichner (1987) found that it became a natural instinct (or rationale) to try and maximise the short-term benefits, regardless of the long-term effect this might have on the organisation (as cited in Shapiro, 1990). In addition to that, Moulton and colleagues (1996) concluded that debt-funded, forced-growth strategies create a high risk of failure regardless of industrial growth rate.
**Excessive Risk-Taking**

Investments that offer an extremely high potential reward invariably come with a high level of risk (Little, 2009). The risk-adjusted return on capital must be higher than the cost of capital (Modigliani and Miller, 1958). Therefore, as risk aversion diminished, the threat of investment failure was growing. Yet in order to maintain such high returns some companies were faced with having to resort to risky business behaviour. Aggressive leveraging became common practice. The banks encouraged their customers to take loans in foreign currencies and would lend them up to 100% of the value of a house. According to Blum (2008) the crisis was caused by changes in the make-believe world of finance capitalism. The market believed value was being created, but in fact excessive growth is more like a machine which does not produce anything and the value created never materialised in any real value for the economy. Even though people like Sigurður Einarsson, chairman of the board of Kaupthing Bank, said ‘We take intelligent risk’, the risk was there. Probably it was not such an intelligent risk they took after all and not just Kaupthing Bank, but everybody in Iceland, was trapped

**New Generation of Managers**

With increased globalisation (and different schools of thought) the mindset of a lot of managers changed. Leveraging to increase assets became an accepted practice both in business and private life. But the mindset of the managers was not the only thing that changed. There was also a change in the people running the companies. We saw a new generation of managers. The banks were privatised, ownership of many companies changed and new managing directors could be seen, young well-educated managers. As the banks changed from a stable, government-run environment to a more dynamic environment, their competitive advantage became to react quicker than the competitor. Icelandic companies began an aggressive growth strategy through
FDIs yet, according to a study by Greening and Johnson (2006), firms whose top managers' time and energy is devoted to managing acquisition and divestment activities are more likely to experience crisis events. If we look at the managers and the chairmen of the companies that invested the most around 2005 and 2006 we see that there have been some changes since then. The name of the CEOs and the chairman of the board can be seen in table 1.

Table 1: CEOs and chairmen who ran Icelandic companies in 2006

<table>
<thead>
<tr>
<th>Company</th>
<th>CEOs</th>
<th>Chairman of the board</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actavis</td>
<td>Róbert Wessman</td>
<td>Björgólfur Thor Björgólfsson</td>
</tr>
<tr>
<td>Alfesca</td>
<td>Xavier Govare</td>
<td>Ólafur Ölafsson</td>
</tr>
<tr>
<td>HF Eimskipafélag Islands (Avion Group)</td>
<td>Magnús Porsteins</td>
<td>Magnús Porsteins</td>
</tr>
<tr>
<td>Bakkavör</td>
<td>Ágúst Guðmundsson</td>
<td>Lýður Guðmundsson</td>
</tr>
<tr>
<td>Baugur Group</td>
<td>Jón Ásgeir Jóhannesson</td>
<td>Hreinn Loftsson</td>
</tr>
<tr>
<td>Eimskip</td>
<td>Baldur Guðnason</td>
<td>Magnús borsteins</td>
</tr>
<tr>
<td>FL Group</td>
<td>Hannes Smárason</td>
<td>Skarphéðinn Berg</td>
</tr>
<tr>
<td>Flaga Group</td>
<td>David Baker</td>
<td>Bogi Pálsson</td>
</tr>
<tr>
<td>Fons</td>
<td>Pálmi Haraldsson</td>
<td>Pálmi Haraldsson</td>
</tr>
<tr>
<td>Glitnir</td>
<td>Bjarni Ármannsson</td>
<td>Einar Sveinsson</td>
</tr>
<tr>
<td>Hambíðjan</td>
<td>Jón Guðmunn Pétursson</td>
<td>Bragi Hannesson</td>
</tr>
<tr>
<td>Icelandic Group</td>
<td>Björgólfur Jóhannesson</td>
<td>Magnús Þorsteins</td>
</tr>
<tr>
<td>Kaupþing</td>
<td>Hreiðar Már Sigurðsson</td>
<td>Sigurður Einarssoon</td>
</tr>
<tr>
<td>Kögun</td>
<td>Bjarni Birgisson</td>
<td>Örn Karlsson</td>
</tr>
<tr>
<td>Landsbankinn</td>
<td>Sigurjón Árnason</td>
<td>Björgólfur Guðmundsson</td>
</tr>
<tr>
<td>Marei</td>
<td>Hörður Árnason</td>
<td>Árni Oddur Þórðarson</td>
</tr>
<tr>
<td>Norvik</td>
<td>Jón Helgi Guðmundsson</td>
<td>Jón Helgi Guðmundsson</td>
</tr>
<tr>
<td>Plastprent hf</td>
<td>Sigurður Bragi Guðmundsson</td>
<td>Ásgeir Thoroddssen</td>
</tr>
<tr>
<td>Promens</td>
<td>Ragnarhlurd Geirsdóttir</td>
<td>Geir A. Gunnlaugsson</td>
</tr>
<tr>
<td>Samskip</td>
<td>Ásbjörn Gíslason</td>
<td>Ólafur Ölafsson</td>
</tr>
<tr>
<td>Össur</td>
<td>Jón Sigurðsson</td>
<td>Niels Jacobsen</td>
</tr>
</tbody>
</table>

Source: author data 2006.

There have been a lot of changes in only a year or so. For companies like Actavis, FL group, Glitnir, Kaupthing, Landsbankinn and many others, a lot has changed since they started the internationalisation of their firms. The managers and the chairmen of these companies are all gone and new persons have taken over. The Icelandic government took over the three big banks in Iceland, Kaupthing, Glitnir and Landsbankinn in October 2008. Baugur Group went bankrupt in March 2009 and many other companies are today facing a lot of problems. As we can see in

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23 Age of the CEOs and the chairman of the board of the companies can be found in table 5 in the Appendix of the thesis.
197

Table 1, there is only one woman in charge in these companies. Usually the CEOs are men and the board of directors are usually a group of three, five or seven men, with possibly one or two women. Since March 2009 Kaupthing, which was the largest company in Iceland, has had a board of five women. There is no man on the board, unheard of in Iceland. This is very unusual, and from the corporate governance perspective, it will be interesting to see what kind of changes will be made and how the board will perform in the future.

**External Factors**

There are without a doubt many external factors that supported the growth in Iceland. One of the most powerful forces in the evolution was when Iceland joined the European Economic Area in 1994 and thereby adopted the legislation relating to the so-called ‘freedom of four’ (Tómasdóttir, Ólafsson, Óladóttir, Thorláksson and Thorsteinsson, 2007). By joining the EEA, Iceland gained access to the internal market of the EU and therefore took a big step towards integration into the global economy. The fact that Iceland had to adapt to the EEA rules and legislation as well as to ensure obligations according to the agreement was a big factor in enabling the economy to grow. This is because the adaptations to the Icelandic regulations that affect business, for example legislation regarding mergers, state monopolies, cartels, abuse of dominant positions, had the effect of increasing Iceland’s competitiveness as the legislation regarding business became more parallel with that of the European markets (Tómasdóttir, Ólafsson, Óladóttir, Thorláksson and Thorsteinsson, 2007). This meant that financial institutions had the opportunity to expand to other countries within the European Economic Area and had the same rights and responsibilities as other countries within the area. This really gave their growth great dynamism (Tómasdóttir, Ólafsson, Óladóttir, Thorláksson and Thorsteinsson, 2007; Danielsson and Zoega, 2008).
It was not only the deregulation or change in legislation, however, that made the growth of Icelandic companies possible. There were of course other factors that supported the growth. With the turn of the century a golden era began worldwide Global economic growth was high and an unusual situation was created in global financial markets where interest rates were lower than they had been for a century and capital seemed to be unlimited. The result was that the Icelandic financial institutions as well as other Icelandic companies were able to take advantage of what seemed to be endless resources of cheap capital to boost their growth with a high degree of leverage (Tómasdóttir, Ólafsson, Óladóttir, Thorláksson and Thorsteinsson, 2007).

The Icelandic nation was not the only one that believed in the Icelandic growth and what was behind it. Credit rating agencies all around the world gave the Icelandic banks good ratings, which made it even easier for them to get cheap capital and enter into the bond market. All of a sudden the nation that had been depending on fish had become a modern country that was a popular member in the world of market capitalism (Danielsson and Zoega, 2008). Other factors are a limited home market, the growth of pension funds in Iceland, access to finance and other factors.

**Limited Home Market**

In the last ten years or so, Iceland’s advance on foreign markets has been a rapid process, caused by a number of domestic factors. The local market (and population) of Iceland is very small and companies felt they needed to expand to other countries in order to become competitive (Oladottir, 2009). Trade barriers and legislation were not very strict with regard to this and the privatisation of the banking system provided new sources of financing for companies wishing to expand operations abroad. In addition to that, an increasing proportion of the young workforce had been educated abroad, bringing with them international knowledge and an entrepreneurial mindset (Tomasdottir, Ólafsson, Óladóttir, Thorláksson and Thorsteinsson, 2006).
Privatisation of Banks

The two state-owned banks, Landsbanki and Búnaðarbanki, were privatised in stages between 1999 and 2003. FBA (which later merged with Íslandsbanki) was privatised between 1998 and 1999. The development of banks and firms abroad was made possible by the state’s efforts at privatisation. The total assets of the Icelandic banking system grew from approximately 120% of GDP in 2001 to more than 500% at the end of 2006. By any standard, this is a high figure, but it would be higher if assets of subsidiaries were included. The privatisation of the banking system is one of the factors that created incentives to invest abroad (Tómasdóttir, Ólafsson, Óladóttir, Thorláksson and Thorsteinsson, 2007). When the banks changed from being state-owned to being owned mainly by private investors and pension funds their main aim became shareholder return and profitability on investment. The shareholders encouraged senior management of the banks with generous share option schemes which in certain cases comprised both call and put options (Glitnir, 2007) meaning that senior management was rewarded when the share price went up, but had no downside risk. This encouraged the management of the banks to expand the bank’s balance sheet aggressively, with the belief that a larger institution would produce larger profits and hence share price expansion. First, the liability side of the bank’s balance sheet was largely provided by international wholesale funding activities, later to be boosted by international retail deposits. The banks also raised funding from bond issues listed on the Icelandic Stock exchange (Kaupthing, 2007). Significant buyers of the bonds were both pension funds and mutual funds managed by the investment management companies of the bank (Glitnir, 2008). The extent of the wholesale funding led to obvious re-financing risk (Barclays Capital Research, 2006), not only in terms of being able to obtain new funding upon the maturity of their debt, but also in terms of pricing risk owing to changes in the international interest rate environment. On the asset side of the balance sheet the banks needed to invest their finance once
achieved. This led to large investments in Icelandic domiciled companies wishing to expand overseas, such as Baugur and Bakkavör (BusinessTimes online, 2009). In many instances the Icelandic banks secured the riskier junior and mezzanine positions in the financing of their Icelandic customers’ international loans (Glitnir, 2007) meaning that in the event of a loan default, the Icelandic banks would be ranked behind many of the other suppliers of financing. Also, in the apparent rush to satisfy their clients, the banks prided themselves on being quick and flexible in their decision-making (BusinessTimes Online, 2009). This may, in hindsight, point to internal procedural and risk management issues, where the granting of loans was not thoroughly analysed and approved as should have been the case. The Icelandic banks borrowed too much, and invested heavily in risky asset purchases, with their balance sheets showing excessive growth.

**Pension Funds**
The Icelandic pension system is composed of a tax-financed public pension scheme (pillar 1), mandatory funded occupational pension schemes (pillar 2) and increasing voluntary private pension savings (pillar 3). Iceland has the largest per capita pension fund in the world. The growth in pension funds’ assets took off during the period between 1979 and 1986 when indexation and free interest rates were introduced. With the liberalisation of the financial system the distribution of assets became less restricted and pension funds had more choices of investment. Strong demand by the pension funds for financial instruments along with new opportunities for supplying securities triggered a vibrant market for securities in Iceland (Tómasdóttir, Ólafsson, Óladóttir, Thorláksson and Thorsteinsson, 2007). Much to the envy of many other countries Iceland’s pension fund system was well-structured and well-managed. Over the last decade the total assets of the pension funds grew to over 120% of the GDP by
2006. This figure stood at 50% of the GDP in 1994. The pension fund system was an important force behind increased FDI by Icelandic companies in the last few years. The funds served as major investors in most of Iceland’s largest companies and created massive liquidity and savings (Tómasdóttir, Ólafsson, Óladóttir, Thorláksson and Thorsteinsson, 2007). Compared with other countries, these pension funds are not highly regulated and can therefore provide capital for investments.

**Access to Finance**
Apart from Iceland, the interest rates in the developed world had become considerably lower than the interest rates found in Iceland. Investors used this to their advantage by borrowing money from the US, EU, UK, Switzerland, and Japan, and then lending it to others at a higher rate against increasingly poor collateral.

**Interests of Politicians in the Business Sector**
Until this century the banking system consisted of relatively large state-run banks along with a couple of privately-owned banks. The financial system was characterised by political interference and severe restrictions, with politicians representing the banks’ boards and decisions on loans often made on the basis of a person’s political affiliation. The three largest banks each ‘belonged’ to a separate political party. This political structure can also be seen in the Central Bank, with each of the three governors representing one of the main political parties. Therefore, the Central Bank has always been closely linked to the government, which has often raised doubts about its independence and has reduced its credibility (Danielsson and Zoega, 2008).

Even though politics and business are not as intertwined now and decisions on loans are no longer ruled by party affiliation there are considerable connections. There are many examples of
politicians or politically appointed people with interests in some of the banks or publicly listed companies prospering. One can imagine that when politicians are directly connected to the financial sector and have interests in some specific banks or companies it is very difficult for them to be neutral in decision-making owing to clashes of interest.

**Regulation Framework and Supervision**

It is the legal responsibility of both the Financial Supervisory Authority (FSA) and the Central Bank of Iceland to ensure that a certain financial stability is present in the economic system of Iceland. In order to make that possible these organisations need to have legal competence and good access to information on the institutions that are under their supervision to prevent instability in the banking and financial sector. The obligatory tasks of the FSA should, for example, be regular gathering of information concerning the operations and finances of parties subject to supervision which should give an overview of the situation in specific areas of the financial market as well as an indication about the performance of individual firms. The FSA should also act as a supervisory party with a range of specific on-site investigations conducted in the case of individual firms; it should also deal with various communications from parties subject to supervision regarding their operating licences and interpretation of laws and regulations relating to their operations. The FSA has the responsibility for investigating and supervising 109 pension funds, commercial banks, insurance companies, securities companies and so forth, many of which have vast operations spread around the world. The institutional and supervisory environment lagged behind the development in the banking sector as it seems that neither the FSA nor the Central Bank had the ability, the autonomy or the manpower to pursue their duties with necessary actions. The bottom line is that the supervision was not kept in line with the growth of the banking sector (Danielsson and Zoega, 2008). Furthermore, there is even evidence that the companies that were supposed to be
supervised by the FSA were able, in a sense, to manipulate the institution, as the supervisory institution itself participated in marketing efforts of internet savings accounts in Holland only a few months before the economic collapse in Iceland. Within the banks the regulatory framework appears to have failed as there was nobody from outside the bank to make sure that it was upheld. This happened in the US as well, where the lack of supervision of mortgage loans created the infamous sub-prime loan crisis (Zuckerman, 2008).

**Monetary Policy**

In 2001, Iceland adopted a monetary policy similar to that of Europe and the United States by focusing on inflation targets. Inflation, however, remained higher than the target rate, prompting the Central Bank to increase interest rates repeatedly from 5.3% in 2003 to 18% at the beginning of 2009. There are many explanations as to why the inflation target was not successful but the inflow of foreign currencies is the most prominent. The comparatively high interest rates in Iceland compared with international currencies tempted private homes and companies to take out loans in foreign currencies. Because of the Central Bank’s poor track record of keeping inflation under control the higher interest rates had limited effects on long-term rates which reflect inflation expectations (Danielsson and Zoega, 2008). The high interest rates attracted foreign investors to take loans in low-yielding currencies such as the Japanese yen and Swiss franc and buy Icelandic kronas. If the currency exchange rate remained stable the holder of Icelandic kronas expected to make significant profits. This was known as the carry trade. The success of the carry trade strategy became a self-fulfilling prophecy, and led to an increased demand for kronas, which in turn fuelled the appreciation of the currency (Danielsson and Zoega, 2008). If compared internationally the Central Bank of Iceland would be considered as a weak institution. Around the time of the economic collapse the currency reserves of the Central Bank were 3.5 billion dollars which was

203
around 30% of the GDP. That in itself is a very high ratio if compared internationally. For example, the currency reserves in Sweden were merely 7% of the GDP at the end of 2007. When all short-term liabilities of the Icelandic banks are considered as a percentage of the GDP, however, it is clear that the currency reserves were far too small. The debt of the financial sector at the beginning of 2008 was 211% of the GDP, which left the Central Bank with little or no means to maintain financial stability and back the financial sector up (*Financial Times*, 2008).

**Simple and Efficient Tax System**
One of the things that made Iceland an attractive place for investors was the fact that the corporate income tax was reduced from 51% in 1991 to 18% in 2002, and today it is 15% (Haarde, 2004). The tax on capital gains is flat in Iceland or 10% (Bill to Congress no. 90/2003). This is one of the things that have made the tax system in Iceland simple and attractive. It has not only attracted foreign investments but also made it more attractive for Icelandic investors to stay in Iceland. That is, to have a home base in Iceland and expand from there instead of moving their headquarters abroad.

**Definition of Yesterday’s Business Model**
The roots of what is now called Yesterday’s Business Model, or the business model of the boom period, can be traced back to the fact that valuations of companies emerging from the downturn which ended in late 2002 were very low. There was a considerable amount of money in circulation, interest rates fell from just under 7% to just below 4% in 2002 and there was straightforward access to foreign funding. There was generational shift in many companies (owners – family owned companies, retired or did not have the financial clout to buy out other people). The business model was based on acquiring companies which were performing quite well at a low EBITDA multiple. Many companies were consequently divided into real estate
companies or management companies. The Icelandic banks were quick to take advantage of this and it was initially highly profitable. What the banks did was to:

(a) Identify investment opportunities,
(b) Provide funding for acquisitions
(c) List the companies on the stock exchange and offer the sellers private banking services.

If the owners of the bank sold the companies, then the bank received deposits, managed these funds and the company's EBITDA began to increase. People got involved in mergers, acquisitions and various streamlining measures. Companies were set up (holding companies) which were leveraged, subsidiaries were then refinanced and the excess capital was then used to buy other companies and the ‘gearing’ used as equity in transactions. Gradually these multiples began to increase and equity accumulated in the holding companies, forming opportunities to provide further loans for investments in other companies.

Some acquired companies were listed but others were private and they were acquired in Iceland and abroad, almost exclusively in leveraged buy-outs, i.e. no new equity was usually injected into the company, and if this was done then it was often injected into the original holding company or the first management company. When the Icelandic banks grew, they transferred this business model to their foreign operations and kept on going. This is a highly risk-seeking, fee-driven model in which fees were charged all the way along the line.

**Theoretical Differences in Firm Growth Measures**

Although empirical reviews on organisational growth are numerous, researchers have recently noted some important inconsistencies in findings. In a study of 193 companies, Weinzimmer, Nystrom, and Freeman (1998) found that the explanation could be found in the different approaches used to measure growth. Whereas some researchers chose to look only at changes in
sales, others would look at the number of employees, the value of assets, dividends paid, or return on investment. As if that is not confusing enough, they also found that the researchers chose different methods of analysing the data. Some focused on quarterly reports, others on the mean change between years. Some used relative numbers, others absolute, and yet others would look at the overall change between the start and end of a chosen period.

Comparing results from research with completely different research methods can range from being demanding to simply impossible when, for example, one is faced with comparing growth in relative sales of one company with growth in number of employees in another. Scholars have therefore struggled to find a ‘one-best-way’ solution to measure growth and have suggested that research should strive towards finding one way or a few ways, of measuring organisational growth. As a result, many have resorted to using Gibrat’s model of growth from 1933. His model is the simplest way of measuring organisational growth and assumes that (1) growth is independent of company size and (2) it is uncorrelated in time. His model has since been rejected empirically but is still used by many for lack of an alternative (Stanley et al., 1996).

It has been suggested by Delmar, Davidsson, and Gartner (2003) that different types of companies should in fact be measured differently. According to their study of over 11,000 listed companies in Sweden it is apparent that high-growth companies grow in different ways. They defined seven growth strategies which can be roughly divided by industry, age, size, and governance (affiliation with a company group vs. independent). They concluded that, by ignoring the differences in an organisation’s internal and external environment, scholars ignore the fact that organisational growth is not a simple number, but rather a multidimensional approach.
Difference in Types of Organisational Growth

Although theoretical implications suggest that dissimilar companies should be measured differently, that is not to say that companies end up with a particular growth pattern at random. Instead, how companies grow is related to the characteristics of these companies and their environment (Delmar, Davidsson and Gartner 2003). Andrew J. Sherman has written seventeen books on the legal and strategic aspects of business growth and capital formation and consequently has extensive knowledge of the subject. Through his experience he believes that the key question which all companies face at one point or another is how and when to grow (Sherman, n.d.). One way of answering HOW to grow is to start by defining the different types of organisational growth into internal and external growth. Internal growth could happen through specialisation and increased sales, by the introduction of new products or services, or through diversification – while still maintaining the old. An example of internal growth could therefore be when a company optimises its manufacturing production which increases sales while still keeping the same number of employees. External growth, on the other hand, can be accomplished through acquisitions, joint ventures, or vertical integration (Dalton and Kesner, 1985).

Empirical Research on how Growth Relates to Performance

Dalton and Kesner (1985) suggest that absolute size, whether obtained through internal or external growth, is not correlated to the financial performance of companies. They also note that if a merger is undertaken in order to increase profits, it is usually unsuccessful in doing so, and economies of scale cannot explain the sheer size of some companies. Therefore, whereas in some cases growth results in higher levels of performance, at some point the formula is reversed and the growth of a business begins to exceed the benefits of its size and performance decreases. The ‘optimal’ size of a business may therefore be well below the ‘actual’ size. As size increases, so
does complexity, until the point when the company becomes unmanageable (Dalton and Kesner, 1985).

This raises the question why, if a merger will not increase profits and economies of scale will eventually cease to be a good reason for growth, some companies continue to grow at the phenomenal rate witnessed in Iceland. Dalton and Kesner (1985) suggest that pure size in itself was in fact a desirable state for some and that with size come other benefits such as more pay, challenge, and prestige for top management. When the top management consists of the owners, Eichner (1987) found that it becomes a natural instinct to try to maximise the short-term benefits, regardless of the long-term effects this might have on the organisation (as cited in Shapiro, 1990). ‘Fast growth - Quick profits’ may therefore become the epitome of Yesterday’s Business Model in the future.

It would be extremely interesting to see the relationship between growth and companies’ performance. We have not been able to find any empirical research on the relationship between growth and company performance. As stated earlier, there is little direct evidence of a relationship between actual size and performance. The growth strategy chosen by a company may, however, be directly linked to its performance. At least we have not found any evidence in the literature which states otherwise. In order to analyse whether the growth strategies of companies affect their performance it is necessary to compare the form of growth with measurements of performance.

**Measurements of Growth**

There are different measurements of growth. To use a single growth measure would probably provide only one aspect of a company’s growth. Multiple measures and methods for exploring organisational growth are also important for an understanding of a company’s growth process.
According to the research done by Delmar, Davidsson and Gartner (2003), it is necessary to measure different forms of growth with different growth measures. Classifying how companies grow helps to us to understand their growth strategies. Ultimately, however, it will be the owners’ and managers’ strategies and objectives that determine a company’s growth. As Yesterday’s Business Model, in the context of this study, has been defined as aggressive growth through FDI, it follows that the Icelandic companies grow mainly through foreign acquisitions. As such, they should all show signs of a strong positive development in absolute sales and in number of employees, but negative development in organic employment, indicating that growth is achieved mainly through acquisitions.

Financial Crisis
The whole world is now facing a financial crisis. Some economies are experiencing a worse situation than others and Iceland is one of them. Financial crises can be damaging and contagious, prompting calls for swift policy responses which has been very loud in Iceland. The financial crises of the past have led affected economies into deep recessions and sharp current account reversals. Some crises turned out to be contagious, rapidly spreading to countries with no apparent vulnerabilities. Among the many causes of financial crises has been a combination of unsustainable macroeconomic policies; including large current account deficits and unsustainable public debt, excessive credit booms, large capital inflows, and balance sheet fragilities, combined with policy paralysis owing to a variety of political and economic constraints. In many financial crises currency and maturity mismatches were a salient feature, whereas in others off-balance sheet operations of the banking sector were prominent (Laeven and Valencia, 2008).
To choose the best way of resolving a financial crisis and accelerating economic recovery is far from unproblematic. There has been little agreement on what constitutes best practice or even good practice. Many approaches have been proposed which have tried to resolve systemic crises more efficiently. Some of these differences may arise because objectives of the policy advice have varied. Some have focused on reducing the fiscal costs of financial crises, others on limiting the economic costs in terms of lost output and on accelerating restructuring, still others on achieving long-term, structural reforms. Trade-offs are likely to arise between these objectives (Claessens, Klingebiel and Laeven, 2003; Hoelscher and Quintyn, 2003; Honohan and Laeven, 2005). Governments may through certain policies consciously incur large fiscal outlays in resolving a banking crisis, with the objective of accelerating recovery, or structural reforms may be politically feasible in the context of a severe crisis with large output losses and high fiscal costs (Laeven and Valencia, 2008).

**Discussion and Conclusion**

In the contextual framework of this thesis, we distinguished certain key characteristics of Icelandic MNCs. These characteristics are labelled as the three Ss, which stand for scope, speed and specificity (Óladóttir, 2009). Scope reflects OFDIs that are intended to capitalise on a strong customer base and reputation. Building on Dunning (1988), scope reflects primarily asset-related ownership advantages (Oa). In this sense, the MNC (in this case the Icelandic MNC) either exploits its existing ownership advantages or acquires, instead of generating, foreign proprietary assets in order to meet the pressures of international competition. Scope reflects the interdependence between ownership advantages and location/market advantages (Dunning, 1988: 4) and, contrary to Dunning, actually explains not only common ownership but also the mapping of the location of the subsidiary network of the MNC. Recent work by Rugman and
Verbeke (2004), and also empirical work related to the OFDI of small countries, does suggest that MNCs show a particular regional pattern in the spread of their subsidiary network. It is consequently logical to assume that scope bridges common ownership with the location choice and identity of foreign subsidiaries (Óladóttir, 2009).

**Speed** assesses the efficiency of investment execution, from target screening to deal-making and purchase. Speed falls primarily into a transaction ownership advantage (Ot) as it reflects efficiency in the internal decision-making process and coordination implementation. If we extend the argument, speed also captures internalisation advantages (I) as it reflects the *effectiveness of management control* (Dunning, 1988: 12, Figure 1). Internalisation theory suggests that the growth of an MNE may be the result of cross-border transactions providing a more macro view of OFDI. If a micro view of OFDI is taken, then the ultimate focus will be on the quality of a specific managerial decision (Dunning, 2000). In such a case, the experience of the manager, and the strategic goals of the firm alongside its O advantages, as well as the L advantages, result in very complex and specific investment decisions. Speed in a contemporary context elicits the contribution of corporate governance scholars who explicitly address the role of boards in the decision and implementation of strategic investment, and it also stresses the role of institutions as a distinctive location factor in monitoring the impact of management processes. At the same time, speed is related to the internationalisation model of MNCs. Efficient management processes should be evaluated in terms of the pool and quality of information surrounding the prospective OFDI. This could eventually explain either a gradual or more aggressive foreign market entry. It also explains the ‘born global’ nature of many Icelandic MNCS (Óladóttir, 2009). Speed is a clear characteristic of Icelandic FDI. Investment execution, from the target screening to the deal-making and purchase, of Icelandic companies seems to have been very fast
Finally, **specificity** assesses the OFDI in terms of its relative position among its competitors. Thus, it provides a supply-side element of the OFDI project that Icelandic firms look into when they invest abroad, as they need to augment their competitive advantages. Specificity, like scope, reflects mainly Oa advantages. Unlike scope, however, specificity reflects the potential for asset-generating ownership advantages and thus embodies the characteristic of dynamic ownership advantages. Specificity incorporates the elements of uniqueness and stickiness and thus non-replicability (Hymer, 1960). MNCs from small countries would mostly tend to acquire unique assets abroad, as their foreign operations would play a more extensive role in the internationalisation process compared with headquarters. Foreign operations are also more exposed to global competition compared with domestic operations and thus are more sensitive in assessing the dynamic context of the Oa necessary for sustainable competition. Thus, the third characteristic of the Icelandic investments is specificity, where investment focus seems to be very narrow, i.e. Icelandic companies seem to follow an investment pattern (or strategy) of obtaining a leading position and size in a given market niche. It is important to note that, for scope and specificity, the unit of analysis is the firm, whereas for speed the unit of analysis is the manager and/or the Board of Directors (Óladóttir, 2009).

It is safe to say that the Icelandic business environment has changed a lot in the last ten to fifteen years. Very dramatic changes have taken place from 1998 to 2008. The Icelandic banks, as mentioned earlier, were privatised between 1998 and 2002, which was one of the most influential factors in the aggressive growth of Icelandic firms in the same time period. In 2008 the Icelandic bank, however, became state-owned again, which led to discussion of Yesterday’s Business Model, something that exists no longer. In those ten years the Icelandic firms grew at a very fast pace in terms of assets, revenues and employees. Regardless of which measurement is
used, it was an aggressive growth from a small domestic base. A likely explanation of the companies’ success is the managerial aspect of the growth. Investment management and risk evaluation in relation to the high level of leverage as well as other factors have played a significant role in managing the rapid growth of these companies. Let us call them bad morals.

Related to the changes in managers’ mindset is the view that the Icelandic companies were riddled with bad morals. Fast profits and short-term growth were put before the long-term well-being of companies. Some companies even created subsidiaries whose primary goal was withdrawing money from the parent company (although official explanations were different). The parent company suffered heavy losses, but the owners of the subsidiary gained millions in a short space of time. According to the law, these practices are legal, but they definitely test our understanding of moral behaviour. Another question is whether we were living in a culture bubble. We could say that Icelanders are used to living in an unpredictable world. Many believed the fluctuations in the market were a natural occurrence, when others began to become more risk-averse. A common expression in Iceland has always been ‘Everything will work itself out’. In this regard the mindset of Icelanders is different from that of many others. When warning signs from various analysts were pouring in, Icelanders simply shrugged them off as the paranoid imaginings of people who simply did not understand the ‘Icelandic way of doing business’, or even as jealousy. There is no doubt that the Icelandic business landscape was characterised by over-aggressive growth through FDI: aggressive risk-taking actions, cross-ownerships, lack of supervision from authorities, leveraged capital structures, heavy borrowing, easy access to capital and competitive aggressiveness with the will to become large in the global market. The so-called model is most definitely something that was but is no longer. The fact is that we saw aggressive external growth. It was impressive growth on the balance sheet but usually the
growth was not solid and in some instances, not all, it was purely fake. As the bottom line, Iceland grew faster than any other small economy in the world. The country led the world investment report list in a few years, something that should have been impossible for such a small country, but the managers, the government, the public in Iceland have, we hope, learned that aggressive growth through FDI is perhaps not the best way for the economy to grow. The country has a lot to offer. It should slow down, restrict the scope of its investments and focus on their specificity.

References


Hagstofa (2009). Retrieved June 15, 2009 from http://hagstofa.is/?PageID=783&src=/temp/Dialog/varval.asp?ma=SKO04205%26ti=Brautskr%E1ningar+%E1+h%E1sk%F3lastigi+og+doktorsstigi+eftir+svi%F0i%2C+pr%F3Fgr%E1%F0u+og+kyni+1995%2D2007+%26path=../Database/skolamal/hsProf%26lang=3%26units=Fjöldi


Implications for Further Research

There are many interesting research topics that has arrised after October 2008 when the Icelandic economy collapsed. Here few are mentioned.

The Core Competences of the Economy
Nothing seems to be irrelevant for Icelandic investors. If we look at the strengths of the economy, the fishing industry and renewable energy are the main resources. In about three decades Iceland has gone from relying on imported coal for 75 per cent of its energy needs to meeting 82 per cent of its needs today with renewable sources. Iceland now imports oil only to power the nation’s vehicles and its fishing fleet and the country intends to run entirely on renewable energy sources by 2050. ‘We see Iceland as the world’s laboratory for a decarbonised future’, said Iceland’s foreign minister, Óssur Skarphéðinsson in an television interview. A volcanic island, Iceland has a relatively easy path to that future because it benefits from geothermal heat to power steam generators for electricity. The country is also now exporting its geothermal know-how to China and other nations as the world gears up to exploit deeper sources of geothermal energy. There is much potential for the economy to recover fast from the financial crisis that has hit the whole world but Iceland the worst. Iceland could become a leading country by focusing on its specificity, by focusing on the core competence of the nation, and by focusing on niche markets.

What Really Happened in Iceland
Future research should focus on what really happened in Iceland. Can we blame it all on the Icelandic banks and on the útrásarvikingar, meaning the Icelandic managers who organised and managed the aggressive growth of the Icelandic firms in a relatively few years? Iceland as has been highlighted many times before as one of the smallest economies in the world whose
investments were way above the capacity of the economy itself. We can see that the United Kingdom, Ireland, Spain, Denmark and many other countries are facing difficulties at the moment but they have the critical mass and the connections they need. Icelandic investors and Icelandic firms, however, have invested enormously in the foreign financial sector, food industry, pharmaceuticals, airlines, insurance and real estates, orthopaedics, media, retail of all kinds, and telecommunications,

Measuring Performance
Measuring how the Icelandic companies performed would be very valuable for the future. Indicators of company performance can be obtained through various formulas and financial ratios which have stood the test of time in the financial industry. In order to analyse a possible relationship between the growth of a company and its performance it is necessary to look at how a company is performing at the same time as it is growing. If a company’s stock price, ROE, and revenues are growing at the same pace as the company size it indicates that the growth strategy has a positive effect on company performance and vice versa. If there is no apparent relationship between growth and performance then it may also indicate that the excessive growth of some of the Icelandic companies was not the only factor in their downfall and that in fact there may be other, more confounding, factors which led to their demise.

Corporate Governance and Cross-Ownership
Future research should also focus on ownership and corporate governance in general in Iceland and of course in other countries. There is a question mark over the actual independence of Icelandic companies’ boards. Cross-ownership is another subject for further research. If we look at companies like Marel and Actavis, which have been discussed before, we can relate them
both to Landsbanki today. Who actually owns these companies? How leveraged are they after this aggressive growth?

**Regulations and Supervision**
The rules and regulations are properly the subject of other research, as is the question of what the Central Bank of Iceland, the Financial Supervisory Authority and the Icelandic government, have done in past years to support the economy and to make sure that the foreign direct investments of these Icelandic firms were not as aggressive as they have been. Did they do their job or were they sleeping during the years when the Icelandic economy grew beyond its strength?
**Appendix I.**

Table 1. Information about the Icelandic MNCs used as a background in various papers

<table>
<thead>
<tr>
<th>Company</th>
<th>Industry</th>
<th>Established</th>
<th>First greenfield investment</th>
<th>The first acquisition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actavis</td>
<td>Generic pharmaceutical</td>
<td>1956</td>
<td>2003</td>
<td>1999</td>
</tr>
<tr>
<td>Alfesca</td>
<td>Convenience food</td>
<td>1932</td>
<td>1980</td>
<td>1990</td>
</tr>
<tr>
<td>Avion Group</td>
<td>Transportation and logistics</td>
<td>2005</td>
<td>n/a</td>
<td>2005</td>
</tr>
<tr>
<td>Bakkavör</td>
<td>Convenience food</td>
<td>1986</td>
<td>1994</td>
<td>1999</td>
</tr>
<tr>
<td>Baugur Group</td>
<td>Retail and real estate</td>
<td>1989</td>
<td>1999</td>
<td>2001</td>
</tr>
<tr>
<td>Eimskip</td>
<td>Transportation and logistic</td>
<td>1914</td>
<td>1915</td>
<td>1991</td>
</tr>
<tr>
<td>FL Group</td>
<td>Investment company</td>
<td>2005</td>
<td>n/a</td>
<td>2005</td>
</tr>
<tr>
<td>Flaga Group</td>
<td>Sleep diagnostic and services</td>
<td>1988</td>
<td>2003</td>
<td>2002</td>
</tr>
<tr>
<td>Fons</td>
<td>Investment company</td>
<td>2002</td>
<td>n/a</td>
<td>2005</td>
</tr>
<tr>
<td>Hampiðjan</td>
<td>Manufacturing</td>
<td>1934</td>
<td>1990</td>
<td>1997</td>
</tr>
<tr>
<td>Icelandic Group</td>
<td>Seafood company</td>
<td>1942</td>
<td>1945</td>
<td>1955</td>
</tr>
<tr>
<td>Kögun</td>
<td>Information technology</td>
<td>1988</td>
<td>2001</td>
<td>2001</td>
</tr>
<tr>
<td>Landsbankinn</td>
<td>Commercial and investment bank</td>
<td>1986</td>
<td>2005</td>
<td>2002</td>
</tr>
<tr>
<td>Marel</td>
<td>Manufacturing in high tech industry</td>
<td>1983</td>
<td>1985</td>
<td>1997</td>
</tr>
<tr>
<td>Norvik</td>
<td>Retail</td>
<td>1942</td>
<td>1993</td>
<td>2002</td>
</tr>
<tr>
<td>Plastprent hf</td>
<td>Plastic manufacturing</td>
<td>1957</td>
<td>n/a</td>
<td>2003</td>
</tr>
<tr>
<td>Samskip</td>
<td>Transportation and logistics</td>
<td>1990</td>
<td>1993</td>
<td>1998</td>
</tr>
<tr>
<td>Óssur</td>
<td>Manufacturer of prosthetic and orthotic devices</td>
<td>1971</td>
<td>1995</td>
<td>2000</td>
</tr>
</tbody>
</table>

Table 2. Employees and number of countries in 2006

Used as a background in various papers

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Actavis</td>
<td>146</td>
<td>700</td>
<td>10000</td>
<td>900</td>
<td>9000</td>
<td>30</td>
</tr>
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<td>Alfesca</td>
<td>370</td>
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<td>3500</td>
<td>6</td>
<td>3494</td>
<td>5</td>
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<td>Avion Group</td>
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<td>4400</td>
<td>6900</td>
<td>1500</td>
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<td>14</td>
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<td>16000</td>
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<td>16000</td>
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<tr>
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<td>52000</td>
<td>62000</td>
<td>10000</td>
<td>5000</td>
<td>4</td>
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<tr>
<td>Eimskip</td>
<td>1200</td>
<td>1370</td>
<td>1500</td>
<td>1050</td>
<td>450</td>
<td>16</td>
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<tr>
<td>FL Group</td>
<td>0</td>
<td>8</td>
<td>16</td>
<td>12</td>
<td>4</td>
<td>3</td>
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<tr>
<td>Flaga Group</td>
<td>54</td>
<td>220</td>
<td>210</td>
<td>7</td>
<td>205</td>
<td>5</td>
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<td>Fons</td>
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<td>50000</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>1082</td>
<td>1232</td>
<td>937</td>
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<td>Hampiðjan</td>
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<td>537</td>
<td>527</td>
<td>108</td>
<td>419</td>
<td>10</td>
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<td>2700</td>
<td>3200</td>
<td>57</td>
<td>3238</td>
<td>13</td>
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<tr>
<td>Kaupthing</td>
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<td>2117</td>
<td>2900</td>
<td>1050</td>
<td>1450</td>
<td>10</td>
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<tr>
<td>Kögun</td>
<td>55</td>
<td>917</td>
<td>1300</td>
<td>800</td>
<td>700</td>
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<td>Landsbankinn</td>
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<td>1121</td>
<td>1725</td>
<td>1139</td>
<td>586</td>
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<tr>
<td>Marel</td>
<td>541</td>
<td>836</td>
<td>1400</td>
<td>360</td>
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<td>15</td>
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<tr>
<td>Norvik</td>
<td>700</td>
<td>2560</td>
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<td>1700</td>
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<td>Plastprent hf</td>
<td>150</td>
<td>560</td>
<td>420</td>
<td>120</td>
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<td>Promens</td>
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<td>1300</td>
<td>1600</td>
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<td>Óssur</td>
<td>112</td>
<td>912</td>
<td>1300</td>
<td>235</td>
<td>1065</td>
<td>7</td>
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</table>
Table 3. Turnover from abroad in 2006
Used in paper 2 The Internationalization from a small domestic base

<table>
<thead>
<tr>
<th>Company</th>
<th>Turnover abroad in 2006</th>
</tr>
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<tbody>
<tr>
<td>Actavis</td>
<td>95%</td>
</tr>
<tr>
<td>Alféscia</td>
<td>99,80%</td>
</tr>
<tr>
<td>Avion Group</td>
<td>76,90%</td>
</tr>
<tr>
<td>Bakkavör</td>
<td>99,90%</td>
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<td>Baugur Group</td>
<td>82,90%</td>
</tr>
<tr>
<td>Eimskip</td>
<td>30%</td>
</tr>
<tr>
<td>FL Group</td>
<td>25%</td>
</tr>
<tr>
<td>Flaga Group</td>
<td>96,60%</td>
</tr>
<tr>
<td>Giltnir</td>
<td>24,50%</td>
</tr>
<tr>
<td>Hampiðjan</td>
<td>79,50%</td>
</tr>
<tr>
<td>Icelandic Group</td>
<td>98,20%</td>
</tr>
<tr>
<td>Kaupþing</td>
<td>58,00%</td>
</tr>
<tr>
<td>Kögun</td>
<td>46,60%</td>
</tr>
<tr>
<td>Landsbankinn</td>
<td>33,90%</td>
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<tr>
<td>Marel</td>
<td>72,80%</td>
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<td>Norvik</td>
<td>43,30%</td>
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<td>71,40%</td>
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<tr>
<td>Promens</td>
<td>95,60%</td>
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<tr>
<td>Samskip</td>
<td>54,80%</td>
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<tr>
<td>Össur</td>
<td>81,90%</td>
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Table 4. Changes in number of employees from 2000-2006
Information used in paper 2, The Internationalization from a small domestic base.

<table>
<thead>
<tr>
<th>Company</th>
<th>Year 2000</th>
<th>Year 2006</th>
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Table 5. Age of the CEOs and the chairman of the boards of the Icelandic MNC (since 2006)
Used as a background information in various papers regarding young age of Icelandic managers.

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### Table 6. Examples of investment of the Icelandic MNC

Part of the data that author collected during his Ph.D study.

*Note: due to a certain circumstances, not all the investments are included in the list.*

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Appendix 2.
Questions asked in cooperation with Gallup in Iceland in 2006, used in paper 2, The Internationalization from a small domestic base.

q1) All/single answer
Does your company operate only in Iceland, in Iceland and one other country or in Iceland and several other countries?
1. Only in Iceland
2. In Iceland and one other country
3. In Iceland and several other countries
4. Refuses to answer
5. Does not know

q2) All/single answer
Has your company bought a ruling shareholder position in a company abroad during the last 12 months?
1. Yes
2. No
3. Refuses to answer
4. Does not know

q3) Those that have not bought a ruling shareholder position in a company during the last 12 months
But has your company considered buying a ruling shareholder position in a company abroad during the next 12 months?
1. Yes
2. No
3. Refuses to answer
4. Does not know

q4) All/single answer
Which do you believe to be better for your company, to buy a relatively large company and high growth potential or to buy a smaller company and grow slower?
1. Large company
2. Smaller company
3. Both
4. Refuses to answer
5. Does not know

q5) Those that have bought a ruling shareholder position in a company abroad / Multiple answer allowed
What is the motivation behind buying a company abroad? Is it access to a market, access to distribution channels, access to knowledge, access to a workforce, increased revenue or increased profit?
1. Access to a market
2. Access to distribution channels
3. Access to knowledge
4. Access to a workforce
5. Increased revenues
6. Increased profit
7. Other – What?
8. Refuses to answer
9. Does not know

q6) Those that have bought a ruling shareholder position in a company abroad / Single answer
### How does your company finance the growth abroad? Through loans or equity.

1. Loans  
2. Equity  
3. Combination of loans and equity  
4. Other methods – what?  
5. Refuses to answer  
6. Does not know

q7) If answered "1" or "3" in q. 6 / Single answer

### Are the loans borrowed from domestic or foreign loan institutions?

1. Domestic loan institutions  
2. Foreign loan institutions  
3. Combination of domestic and foreign loan institutions  
4. Refuses to answer  
5. Does not know

q8) All / Open question

### What do you believe to be the key for success in growing the company abroad?

1. Open question – list everything  
2. Refuses to answer  
3. Does not know
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