U N I V E R S I T Y O F J Y V Ä S K Y L Ä

School of Business and Economics

Factors Favouring or Hindering the Market Entry of Finnish Environmental Firms in India

Corporate Environmental Management

Master's Thesis

September 2009

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Name of the study

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Major subject	Type of the study
Corporate Environmental Management	Master's Thesis
Date	Number of pages
September 2009	82

Abstract

Environmental technology is one of the promising sectors of the Finnish economy. Environmental firms from Finland are looking with growing interest at the possibilities for entering emerging markets, such as China or India. This Master's thesis aimed at providing some understanding about how Finnish environmental technology could be exported to India by identifying factors that favoured or hindered the entry of the first generation of Finnish environmental companies in the country. In particular, the study tried to uncover the main success factors for doing business with green technology in the Indian market and the importance of the Finnish origin in this respect. For this purpose, a qualitative research, including seven semi-structured interviews, was conducted. The examination of the data collected at five Finnish environmental firms and the Italian Trade Commission in India, showed that previous indirect presence in the Indian market, reputation and technical competence of the Finnish enterprises were favouring factors for market entry. By contrast, lack of price competitiveness, legislation, bureaucracy and corruption appeared among the main hindrances. Based on these results, it was concluded that to enter the Indian market successfully a solid Indian platform was required. In addition, to avoid lack of price competitiveness the adoption of an alternative strategy from the part of the companies willing to enter the Indian market was perceived as necessary. A successful strategy could be based on either cost minimization or differentiation of the ”made in Finland” brand.

Key words

Environmental technology, Finnish environmental companies, Market entry, Success factors, Country of origin, India.

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1 INTRODUCTION

1.1 Background

Since 2005 there has been a growing interest about India in Finland. This is largely due to the extraordinary number of new business opportunities that are unfolding within the Indian economy. As a result, a number of initiatives have been undertaken to strengthen the cooperation between the two countries. For instance, in 2005 the Finnish Ministry of Trade and Industry set up two networks to facilitate the exchange of information and foster the commercial relationships with the South Asian country (Ministry of Employment and the Economy 2009). In the following years, an agreement on science and technological co-operation between Finland and India was also signed (Ministry of Employment and the Economy 2008).

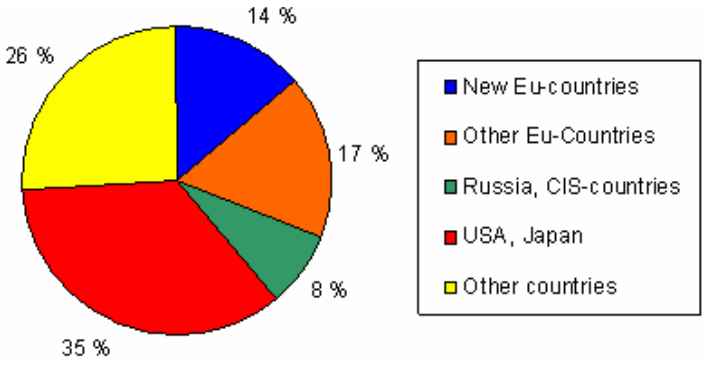
Almost simultaneously, SITRA, the Finnish National Fund for Research and Development, started a three and a half year program aiming at providing the Finnish public with information about India and presenting Finnish expertise in the South Asian market. During this initiative several studies about the Indian economy, culture and business framework were published (Grundström & Lahti 2005; Bhide, Mukhopadhyay & Singh 2006; Bound, Leadbeater, Miller & Wilsdon 2006). The emergent interest towards India attracted even the concern of the national air-flight company, Finnair, which introduced for the first time, in the autumn 2006, a direct flight from Helsinki to Delhi (Mathur 2007, 41).

Traditionally, the sectors of major economic interest for Finnish corporations in India have been telecommunications, IT services, electronics, logistics, paper machinery, forestry and large construction projects. Nowadays, other than these, a new area of economic importance seems to have emerged. In fact, according to the estimations of SITRA and FICCI (The Federation of Indian Chambers of Commerce and Industry) one of the new sectors of economic interest in India for Finnish companies is environmental technology (Loikala et al. 2006; FICCI 2009).

1.1.1 The Finnish Environmental Sector

Finland is a leading country for technology and innovation (Energy & Enviro Finland 2009). In particular, Finland is considered a top country in environmental performance (SITRA 2007, 15). The Finnish clean-tech sector is expected to become one of the main sectors of the national economy. As stated in a Finpro annual report "Export of Finnish energy technology is experiencing strong growth. It has been anticipated that the next giant of industry, the future Nokia, will emerge from clean technologies." (Annual Report Finpro 2007, 16.)

FIGURE 1: Target Markets for Finnish Environmental Technology (Energy & Enviro Finland 2009).



According to the official statistics of the Finnish Ministry of Trade and Industry, in 2003, one half of the turnover in the environmental technology sector was generated from exports. Finnish environmental companies abroad earned profits for about EUR 1.3 billion (Energy & Enviro Finland 2009; Ympäristö 2009). Furthermore, one half of the environmental technology turnover consisted of services which accounted for the largest share (Ympäristö 2009).

Currently, the Finnish environmental sector comprises approximately 1300 companies that, in many instances, operate in markets overseas. As shown in FIGURE 1, Finnish environmental technology is mainly exported towards the US, Japan and the EU countries. (Cleantech Cluster Finland 2009; Energy & Enviro Finland 2009.)

In a recent survey among 800 Finnish environmental companies, it emerged that firms are expecting a significant expansion of their operations in the near future. The projected growth for the next years is 10% to 30% (Cleantech Finland 2009). The Finnish environmental companies,

among others, have significant expertise in certain specific areas such as water purification, waste-water treatment, waste management, environmental monitoring, recycling and utilization of renewable energy sources (FICCI 2009).

1.1.2 The Indian Market for Environmental Technology

While, on the one hand, we have Finland, which is considered a model country for environmental sustainability, on the other, there is India, one of the fastest growing economies in the world and one of the largest consumer markets which is witnessing a serious environmental degradation (Nopponen 2006; EconomyWatch 2009). Actually, according to the latest national report on the state of the environment in India (SoE)[1], environmental deterioration is on the increase. Above all, five key environmental issues are arising among the others: land degradation, biodiversity, air pollution with special reference to vehicular pollution in large cities, water contamination and hazardous waste. Such environmental problems seem to be the connected to the intensive urbanization process and the fast industrial development of India. (Loikala et al. 2006, 15.)

TABLE 1: Structure of Indian Environmental Market and Growth Rate (Swedish Trade Council 2008, 9).

Cleantech Sectors	Market Size (USD Billion)	Growth rate
Energy Efficiency & Renewable Energy	2.5	15%
Solid Waste Management	2	20%
Water & Wastewater Treatment	1.2	15%
Air Pollution Control	0.4	15%
Hazardous Waste Management	0.2	10%
Environment Consulting	0.124	20%
Total	**6.424**	**15%**

The Indian authorities are starting to invest more in environmental protection and pollution prevention. In particular, since the country is experiencing an increasing demand for energy, the local government and industries are looking at the possibility to improve energy efficiency and use more wind, biomasses and other renewable energies.

[1] The National State of the Environment Report. India: state of the environment (2001).

Environmental legislation is well in place in India and it constitutes one of the main drivers for the development of the environmental market. Other drivers include international conventions and industrial standards (Roiha & Mäkinen 2008). Both governmental and private initiatives are contributing to the increase in the demand for technological solutions in India.

According to the statistics of the US Commercial Service, the Indian market for clean energy alone is worth $600 million with an annual growth rate of 25%. Furthermore, the market is expected to grow by up to $9 billion in 2010 (EXPORT.GOV 2009). As TABLE 1 shows, energy efficiency and renewable energy represent the largest share of the Indian environmental market. However, other relevant market segments are solid waste management, water and waste water treatment, and air pollution control. (Swedish Trade Council 2008, 9.)

Foreign companies prefer to enter the Indian market, mainly, through partnership with local companies rather than selling their products directly to the customers (UK Trade & Investment 2008, 15). The US firms have the most abundant number of joint venture partnerships, 33%, followed by other countries such as Germany 14%, the UK 13% and Canada 7 % (TABLE 2). With a 40% market share the US is also the market leader. However, European companies from Germany, the Netherlands, the UK and France are successfully competing with the US firms (Swedish Trade Council in 2008, 10).

TABLE 2. Countries and Number of Partnerships in the Field of Environmental Technology in India (UK Trade & Investment 2008, 15).

Country	Proportion of the total number of partherships (%)
US	33
Germany	14
UK	13
Canada	7
Netherlands/France/Italy	5

1.2 Motivations for the Study

This study is conducted for the Finnish Trade Organization (Finpro) and the Finnish Association of the Environmental Enterprises (Ympäristöyritysten Liitto ry). The research is carried out to gain a greater understanding on how Finnish environmental firms could enter the Indian market.

Another motivation for doing this study is due to the fact that Finnish environmental know-how could contribute to the process of sustainable development in India and, in particular, to the process of transition in this South Asian country from poor environmental practices to the adoption of more eco-friendly technologies.

In addition to this, extensive research on the business opportunities for Finnish environmental companies in India (Loikala et al. 2006) as well as a few studies on the opportunities for technology development between Finland and India (Bound et al. 2006) have been published. However, to this date, there is no information on how the Finnish environmental companies have taken advantage of such possibilities available in India.

1.3 Aim and Scope of the Study

The aim of this research is to investigate which factors favoured the entry of the first Finnish environmental companies in the Indian market. Since the two organizations that promote this study have a growing need to better comprehend the best manner in which to export Finnish green-technology to India, this study tries to provide some suggestions by learning from the experiences of the Finnish environmental firms that are currently operating in India.

The scope of the research covers only those Finnish environmental companies that have directly[2] entered the South Asian country. Thus, those Finnish firms that are exporting or working through agents in the Indian market are not considered.

1.4 Research Problems

The study of Loikala et al. (2006) clearly shows that environmental issues are a major problem in India and that while this represents a threat for that country it can also be a business opportunity for Finnish providers of clean technology. However, how the Finnish environmental enterprises have made the most of such opportunities is a problem still unsolved. This thesis begins from

[2] These are companies that are physically present in India with their offices. They have entered the Indian market via a joint venture, subsidiary or representative office.

this starting point and tries to shed light on the factors that favoured or hindered the market entry of the first Finnish environmental companies in India. Consequently, the identification of such factors represents the core research problem of this study.

In addition, the research aims also at solving two sub-problems which originate from the main one. The first sub-problem focuses on the key success factors in doing business in India with environmental technology. By solving it the research tries to identify those elements that are required in the Indian market to be successful with green technology. The second sub-problem is concerned with the competitive advantage of "made in Finland". Here the study aims at verifying if, in the experience of the Finnish providers of green technology in India, their Finnish origin is a competitive advantage.

The research problems that the study tries to resolve can be formulated with the following questions:

1. Which are the factors that have favoured or hindered the entry of the Finnish environmental companies in the Indian market?

    1.1 What are the key success factors in doing business in India?
    1.2 Is the Finnish origin a competitive advantage in the Indian market?

1.5 Former Research in the Field

Several studies have been published on the drivers of success for market entry in the Asian countries (Lyles & Steensma 1996; Elg, Ghauri & Tarnovskaya 2008; Johnson & Tellis 2008). Moreover, the internationalization of the Finnish companies is a theme that has been previously studied. In particular, the Finnish IT sector has, lately, received much attention (Ojala 2008). Similarly, some research on the Finnish environmental sector can also be found. In this respect, the study of Keltanen and Salminen (1993), especially, has shed light on the characteristics of the Finnish environmental sector and its main international target markets.

Another important study focusing on the structure of the Indian environmental market was carried out by the Swedish Trade Council in 2008. The research investigated the structure of the Indian market for clean technologies and revealed some key factors for doing successful business in India with green technology. The report also described some of the main market barriers of the South Asian country. (Swedish Trade Council, 2008.)

An additional pre-existing paper on a closely related topic is a study made by Finpro on the environmental trends and legislation in India. The research investigated the development of environmental regulations and standards in India and identified the possible areas of business cooperation between Finland and the South Asian country. (Roiha & Mäkinen 2008.)

Despite the great number of papers on related topics, to date, the theme of the market entry of the Finnish environmental companies in India is a subject that has not yet been investigated. This thesis starts from the above mentioned knowledge on the drivers of success for market entry and tries to fill the gap which has not yet been covered by the other earlier studies about the Finnish environmental sector. Therefore, the research focuses on a known subject which, here, is investigated in a new unexplored context.

1.6 Thesis Outline

This thesis consists of five chapters. Chapter 1, Introduction, presents some background information about the Finnish cleantech sector and the Indian market for environmental technology. Furthermore, the research problems for the study, the motivation and aim of the research are introduced. Chapter 2, Theoretical Framework, introduces an operative definition of environmental technology and the main theory, concepts and definitions utilized in this thesis. The chapter also describes some of the current literature on success factors for market entry, market barriers and country image.

In the beginning of chapter 3, on methodology, a more detailed presentation of the research problems and their implications for the research are illustrated. Then, the methodological choices and methods adopted to conducting the study are described. Chapter 4 is dedicated to the

presentation of the results including a description of the field research, participants of the study and background information about the companies involved in the research. Finally, chapter 5 contains a summary of the study and the main conclusions. At the end some managerial implications are also presented.

2 THEORETICAL FRAMEWORK

2.1 Environmental Technology

The concept of environmental technology (ET) has evolved remarkably over the past two, to three decades. It has matured in parallel with the growing understanding of the relationship between human activities and environmental degradation.

Actually, what today we name environmental technology, traditionally, was a concept associated to the civil engineering profession, which was used to deal with the design, build and operation of facilities for health protection. Therefore, originally, environmental technology was a minor branch within civil engineering and had several different names such as sanitary, public health, pollution control and environmental health engineering. (Nathanson 2000.) Later on, with the growth of the technology and the emerging of ecological problems, it became a more definite and independent subject.

Nowadays, environmental technology refers generally to the measurement and prevention of risks or damage to human health and natural ecosystems. It encompasses some key activities such as environmental cleanup and the development of alternative energy sources or enhanced energy production systems. The ultimate aim of environmental technology is the diminishing of the ecological burden of human activities on the natural environment, anthropogenic causes of ecological degradation, through the achievement of sustainable development. Moreover, environmental technology does not refer to machinery and other artifacts only, but also to processes and procedures. (Jørgensen 2001, 6393.)

On the whole, environmental technology can be classified in two main categories. The first one consists of those technologies that intend to remove pollution from the environment and make it natural again, whilst the second category, includes those technologies that prevent pollution. (Peltoniemi, Haapasalo & Alasaarela 2004, 862.)

2.1.1 Moving Towards an Operational Definition

A classic definition of environmental technology can be found in the work of Keltanen and Salminen (1993, 3). In the words of the two authors "environmental technology seeks ways to decrease the burden on the environment" and it can be divided into four main areas:

1) protection of air
2) protection of water
3) protection of soil
4) waste management

The above description represents the traditional approach to the categorization of environmental technology. However, such approach appears to be mainly concerned with the concept of "protection" which refers to the remediation of environmental damage when it has been already generated. Thus, the above definition seems to be shaped on a concept of "end of the loop" solution rather than on a sustainable model of environmental conservation.

The first definition of environmental technology which, instead, seems to embrace a more extensive concept of ecological sustainability is proposed in chapter 34 of Agenda 21 by the UNDSD:

> Environmentally sound technologies protect the environment, are less polluting, use all resources in a more sustainable manner, recycle more of their wastes and products, and handle residual wastes in a more acceptable manner than the technologies for which they were substitutes. Environmentally sound technologies in the context of pollution are process and product technologies that generate low or no waste, for the prevention of pollution. They also cover end of the pipe technologies for treatment of pollution after it has been generated. Environmentally sound technologies are not just individual technologies, but total systems which include know-how, procedures, goods and services, and equipment as well as organizational and managerial procedures. This implies that when discussing

> transfer of technologies, the human resource development and local capacity-building aspects of technology choices, including gender-relevant aspects, should also be addressed. Environmentally sound technologies should be compatible with nationally determined socio-economic, cultural and environmental priorities. (UNDSD 2009.)

Probably, the latter definition has been the first relevant attempt to integrate the concept of environmental protection into a wider model of sustainable development. The importance of the UNDSD's definition is such that it influenced even the definition of environmental technology adopted in the action plan of the EU. The definition is reported in the paragraph below:

> Environmental technologies encompass technologies and processes to manage pollution (e.g. air pollution control, waste management), less polluting and less resource-intensive products and services and ways to manage resources more efficiently (e.g. water supply, energy-saving technologies). Thus defined, they pervade all economic activities and sectors, where they often cut costs and improve competitiveness by reducing energy and resource consumption, and so creating fewer emissions and less waste. (ETAP 2004, 2.)

Nevertheless, the above EU definition of environmental technology seems to focus more on the economic advantages that green technologies can provide. In fact, many of such technologies have not only the great potential to improve the environment but can also contribute to generate new economic opportunities and employment.

Based on the UNDSD and EU definitions, examples of environmental technologies range from recycling systems for waste water to energy efficient car engines, to pollution remediation techniques and also, so called, end-of-pipe (EOP) technologies. They are essentially any technology that does the same thing as other similar technologies but with less impact on the environment.

Both of the two previous definitions also encompass end-of pipe technology, which is a realistic

choice. In fact, most of the current environmental protection devices are still based on filtering systems such as scrubbers on smokestacks and catalytic converters on automobile tailpipes.

According to the Organization for Economic Cooperation and Development (OECD) the definition of environmental technology should look closer at the concept of ‘‘cleaner technology”. Thus, in the opinion of the OECD, environmental technologies can be only those technologies which are cleaner than conventional ones. (Kuehr 2007, 1317.)

In addition, while the definition adopted by Agenda 21 also included end-of-pipes devices, the OECD’s concept of environmental technology excludes such devices as they are considered temporary solutions which, often requires even more energy and materials. However, the OECD is in agreements with Agenda 21 on the fact that environmental technology not only includes goods, services and technical know-how but also organizational and management skills. (Kuehr 2007, 1317.)

End-of-pipe technologies belong to the category of environmental innovations called process innovations. They do not constitute part of the main production process but rather tend to be an “add-on” just to comply with the given environmental regulations. Some examples are waste water treatment plants, noise abatement and catalytic converters. In contrast, cleaner productions tend to remove pollution at the source through an improvement in the entire production process. This means that while cleaner technologies improve the overall efficiency of the production process and, thus, its environmental impact, on the other hand, end-of-pipe technologies reduce environmental pollution only temporarily. This is because, generally, end-of-pipe technologies generate polluting by-products and are more energy and material intense technologies. As a consequence, cleaner technology is often more advantageous than end-of-pipe technologies both from an environmental an economic point of view. (Frondel, Horbach & Rennings 2007, 573.)

However, as probably the replacement of end-of-pipe technologies with cleaner technology will likely take place slowly, especially if we consider the current legislative framework of the developing economies, it appears that a comprehensive definition of environmental technology should include, at least for the time being, end-of-pipe technology as well. Consequently, an

operative definition of environmental technology should encompass not only cleaner production systems such as, for example, improved combustion chambers or low emission fuel technologies but also filtering devices, catalytic converters, desulphurization and CO2 removal technologies.

Luken and Van Rompaey (2008, 76) in their work suggest that environmental technology consists of two main categories: end of the pipe technologies and cleaner techniques and technologies (CTs). As seen earlier, end-of-pipe technologies include systems for the treatment of wastes from water, air and soil. On the contrary, cleaner techniques and technologies (CTs) can include the following categories:

1. “Input material change”: mainly, the replacement of raw materials with less toxic materials or renewable materials or by other materials which have a longer service duration;

2. “Better process control”: change in the working measures, processes and machines programs aiming at increasing efficiency , waste and air emissions minimization;

3. “Equipment modification”: replacement of the existing production equipment by adding, for instance, measurement and control appliances that aim at increasing the overall efficiency;

4. “On-site recovery and reuse”: recycling of used materials during the same process or for a different utilization in another process at the plant;

5. “Useful by-products”: utilization of the remaining materials from a certain production process as raw materials for another production process;

6. “Major technology change”: substitution of the existing technology with a better performing one in order to minimize waste, energy consumption and generation of toxic substances during the manufacturing phase;

7. “Product modification or reformulation”: adjustments of the product design and features aimed at decreasing the environmental burden of the product during its entire life cycle. (Luken & Van Rompaey 2008, 76.)

Different from Luken and Van Rompaey (2008, 76) in Kuehr (2007, 1319) the definition of environmental technology includes not only end-of-pipe and cleaner technologies but also measuring and clean technology. Furthermore, in Kuehr (2007, 1319) clean technology is also referred to as zero emission.

According to Kuehr (2007) measuring technologies include all those devices, tools and machines that are utilized to measure and control the state of the environment or the level of pollution. In this same category are also included all those complex systems which prevent negative environmental impact on mankind such as, for example, floods or shortage of water. The aim of this category of technologies is the understanding of the natural environment and the prevention of natural catastrophes. On the other hand, clean or zero emission technologies are those technologies that do not have any harmful impact on the environment or that use the outputs of a certain process as inputs in other processes. (Kuehr 2007, 1319.)

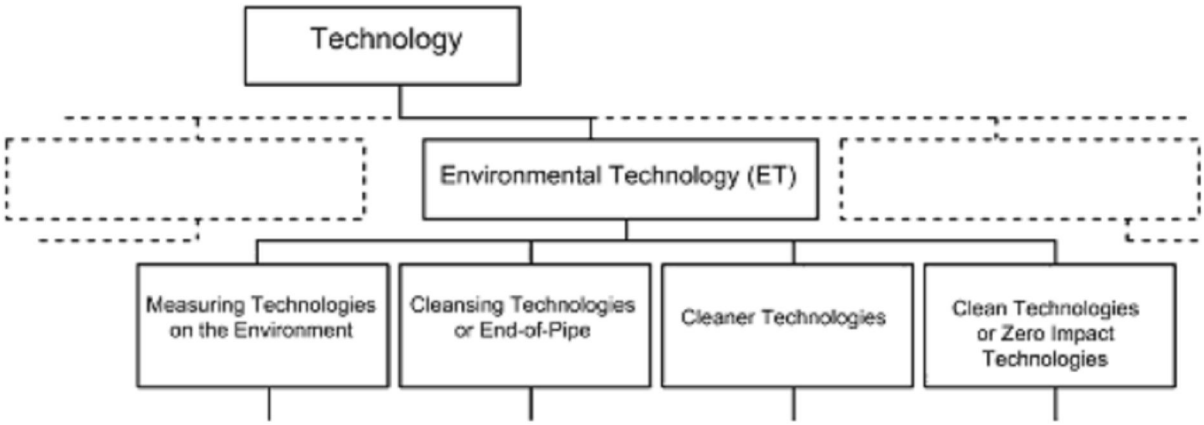
Though the concept of zero emissions has widely been adopted as a term referring to some technologies that have a very minimal level of environmental impact, it is important to remember that there are no completely zero emission technologies as such because the outputs or by-products of a certain process cannot be re-used endlessly (Kuehr 2006, 1198). Actually, even clean energies such as solar power, wind power or hydroelectric power are not completely clean if we consider them from a more holistic point of view. In fact, the production of steel and concrete for wind turbines or hydroelectric dams, require large quantities of electricity, which contribute to CO2 emissions.

With the above considerations in mind it is possible to come to a first operative definition of environmental technology defined by Kuehr (2007, 1320):

> Environmental Technologies (ET) contain four different categories: measuring, cleansing, cleaner, and clean technologies differing in their ecological effectiveness. ET reduce pollution at least in one environmental medium, only accepting the transformation of emissions into another form or into another medium as a short term measure in order to cope with harmful pollutants. Thus, ET implements the continuous improvement of processes, products and services by the conservation of raw materials and energy and by the reduction of toxic substances, waste and emissions within the production cycle. (Kuehr 2007, 1320.)

As we can notice, the concept of environmental technology has shifted from environment improving devices only, known as end-of-pipe technologies, to mainly cleaner and clean production technologies, which are more efficient, more economically sound and have a minimal environmental impact. The categories identified by Kuehr (2007, 1320) are showed in FIGURE 2. Kuehr's (2007, 1320) definition appears interesting, not only for its wide approach, but also because it sets a link between the term environmental technology and other two terms often found in the literature: clean and cleaner technology.

FIGURE 2: Environmental Technology and Categories (Kuehr 2007, 1320).



Though the above operative definition represents a solid starting point to categorize environmental technology, it still does not say everything about what kind of technology should be included. In truth, Kuehr's (2007, 1320) definition does not specify if environmental technologies are only those mature technologies which can be found already in the market or if

the concept encompasses also those which are under scientific research. Although many new technologies are considered the promising answers to the current environmental problems, many of them are still under scientific research or are not yet commercialized. Some examples of this are the environmental use of nanotechnologies or super-durable materials.

Wong (2006, 183) offers a different categorization of environmental technology, which consists of biosphere-conservation-oriented environmental technologies, business oriented environmental technologies, transitional environmental technologies, and mature and infant environmental technologies. Biosphere-conservation-oriented environmental technologies refer to those traditional environmental measures which try to protect the natural environment with any means but that do not integrate economic aspects in their implementation. Thus, this category of environmental technologies can be extremely valid from an environmental point of view but fails in terms of commercial applicability. They include all those scientific solutions which have not yet found a commercial development. Transitional and infant environmental technologies represent those technologies whose applicability is temporary, such as end-of-pipes devices, or that have been not yet implemented on a commercial scale. Lastly, business oriented environmental technologies are those technologies that improve efficiency, productivity and competitiveness. In this category, are also all those managerial solutions and techniques such as environmental management systems, which increase corporate competitiveness and added value. The study of Wong (2006) which focuses on the business-oriented type technologies, does not consider environmental technologies that are under scientific research but only mature technologies with a market experience of at least a decade. (Wong 2006, 184.)

In this thesis, the definition of environmental technology refers to the definition elaborated by Kuehr (2007, 1320). However, congruent with Wong (2006, 185) this study does not consider in the operative definition adopted those environmental technologies that are still under scientific research or that have not yet found a commercial application in the market.

2.1.2 Environmental Technology and Market Creation

In the opinion of Keltanen and Salminen (1993, 4) "the market for environmental technology is

created by the need for environmental protection". This implicates that with the growing of new environmental policies and the diffusion of environmental standards the market for environmental technology expands. The demand for environmental technology is driven by different factors. One of the most important factors which contributes to the increase of the market demand for environmental technologies is legislation (Luken and Van Rompaey 2008, 75). Environmental regulations oblige industries to adopt new processes that limit their environmental impact.

Luken and Van Rompaey (2008, 75) in their study of the drivers of environmental technology in nine of the main developing countries found out that environmental regulations is the second cause for the adoption of environmental technology in the industrial sector. Other factors that determine the adoption of cleaner technologies found in the study, were future environmental policies and production costs. As industries expect a sudden increase in the number of environmental regulations, they try to be proactive adopting cleaner technology today in order to be in compliance with the future environmental regulations of tomorrow. In addition, as generally the adoption of environmental technology generates cost efficiency, this constitutes a relevant economic driver. (Luken & Van Rompaey 2008, 75.) Other drivers of environmental technology can be identified in the financial incentives such as loans, grants or tax exemptions that some governments make available to the national industries. Furthermore, also within the supply chain there are incentives to adopt cleaner technology. In fact, as customers and suppliers require more environmental added value, industries are becoming more and more concerned about environmental image and performance. (Luken & Van Rompaey 2008, 70.)

In certain instances environmental technology can be favoured by product specifications in foreign markets. Indeed, the growing globalization of the international trade and markets requires companies that export from the less developed countries to meet the stricter product standards of the developed economies if they want to gain market access there. Furthermore, public pressure exerted by local communities, NGOs, and the media on environmental issues can act as a further driver for the growth of the market for environmental technologies. (Luken & Van Rompaey 2008, 70.)

According to some estimates, in 2003 the global market for environmental technologies and connected services was worthy of approximately US $556 billion and is expected to reach the value of US $850 billion dollars by 2010. In Europe alone environmental technologies give work to over two million people and the rate of people employed in this sector continues growing. The OECD reports that the international trade of cleaner technology accounts only for about 1% of the total market of environmental technologies and services, thus, a significant expansion of this sector is expected in the near future. (Montalvo & Kemp 2008, 2.)

2.2 Market Entry Theory

The terms “market entry” or “entry” are often found in the literature together with the other term “expansion” (Whitelock & Jobber, 2004). The fact that these two words are often used together indicates that they refer to the enlargement of the trading operations of a company to, either, a previously served market or to a new market in an overseas country.

In Geroski (1991, 210) the definition of market entry is associated to the idea of “an additional source of supply” in a new market. Anderson and Coughlan (1987) refer to the concept of market entry as to the introduction of a certain product in a certain market ex novo. The two latter authors bring up a notion of market geographically defined. Consequently, according to them a market entry corresponds to the expansion of the corporate boundaries to a new, geographically defined market. In this thesis, the term “entry” refers to the above described concept of commercial expansion into a geographically defined country.

2.2.1 Internationalization Models

The entry of a large company in a new market is an event that constitutes part of a wider expansion process which is called internationalization. The internationalization of the company is “the process of increasing involvement in international operations” (Luostarinen & Welch 1990, 249). It describes the dynamics followed by the firm to enlarge its operations in a foreign country.

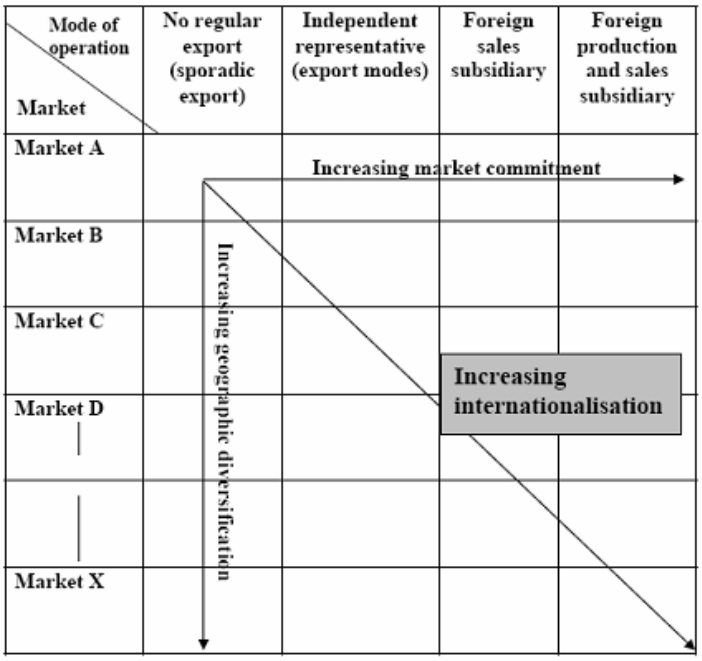
A number of theories and models have been presented to explain the process of

internationalization of the company. In this thesis, the Uppsala model is presented to give theoretical foundation to the investigation of the market entry of the Finnish environmental companies in India. The Uppsala model was selected as it is one of the most well known and used models for explaining the entry of large corporations in overseas markets. Furthermore, the model was also selected because it has been often applied to examine the internationalization process of Scandinavian companies and, in particular, of Swedish and Finnish firms (Clark, Pugh & Mallory 1997, 616). The model is illustrated in its essential aspects in the following paragraph.

2.2.2 The Uppsala Model

The Uppsala model belongs to the family of the so called "stage" models (FIGURE 3). It was developed by Johanson, Vahlne and Wiedersheim-Paul in the Swedish University of Uppsala during the 1970s. The model is based on the behavioural theory of the firm and was originally used to explain the internationalization process of some Swedish multinational companies. The authors found out that some Swedish firms started their operation abroad from nearby markets and only gradually entered more distant markets. The researchers also noticed that the firms started to engage in international operations by small steps over time. The companies first started with sporadic export, then established independent representatives and finally, opened a subsidiary or production unit in the targeted country. On the base of these observations, the researchers concluded that companies involved in international operations tend to enter first markets that are considered similar to their home market and then gradually move to other countries, which are geographically more distant. Furthermore, companies become

FIGURE 3: Stepwise Internationalization Model (Hollensen 1998, 41).



progressively more committed to overseas markets when their experience and knowledge in international operations increase. (Johanson & Vahlne 1977, 24.)

In other words, Johanson and Vahlne (1977) suggest that firms favour types of entries that require low levels of knowledge about the country targeted. Then, when their understanding and knowledge increase through their activities abroad, companies establish direct operations in the targeted country.

Another relevant element of the Uppsala model is the concept of psychic distance which, according to Johanson and Vahlne (1977, 24), is "the sum of factors preventing the flow of information from and to the market". According to the two authors differences in language, culture, political systems, level of education and industrial development constitute factors that influence business activity. When such factors in a foreign country appear remarkably different from the home country, the levels of psychic distance and uncertainty perceived are higher (Johanson & Vahlne 1977, 24). This is the reason why companies prefer to enter first markets that are located geographically closer to their home country. Generally, most companies tend to avoid risks of new entries especially when they do not have enough market information and the level of psychic distance perceived is high.

The Uppsala model also presents some exceptions to its core concept of stepwise internationalization. Actually, these exceptions were introduced several years after the presentation of the initial model in 1977. After an extensive review of their work Johanson and Vahlne (1990) introduced three cases where the commitment and psychic distance dimensions of their model do not apply. The first is the case when the companies own large resources that allow them more intense internationalization operations. The second case is when the market conditions appear stable and homogenous over time. This favours the process of knowledge transfer. The last case can be found when companies have extensive experience of international business in markets that have similar conditions and such experience can be used in the entry of a new market. (Johanson & Vahlne 1990.)

Though the Uppsala model has been one of the most used theories to explain the dynamics that

lead companies to enter foreign markets, it also has some key limitations. Many studies have shown that the internationalization process of the company does not always happen in a gradual way as described in the Uppsala model. Especially nowadays firms seem to skip some of the stages identified in the work of Johanson and Vahlne (1977) by entering earlier psychically distant markets (Forsgren 2002, 271).

Furthermore, one of the core assumptions of the Uppsala model is the fact that companies tend to expand their international operation only when they have gathered certain levels of market knowledge or experience. Forsgren (2002, 271) maintains that companies can have different patterns of internationalization that do not depend on the level of knowledge and experience acquired. Companies can, for instance, enter new markets without much experience just imitating the leading firms that already operate there. In addition, companies may not have the time to gather sufficient market information as the most relevant thing could be the advantage of first mover (Forsgren 2002, 271).

Another relevant critic to the Uppsala model comes from the advocates of the Network model. The Uppsala model attributes the internationalization patterns of a company only to the process of managerial learning. However, companies may be driven to enter new markets because they are influenced by a network of relationships. Thus, the internationalization patterns and the choice to enter a certain market before others could be influenced by the fact that there are close relationships with customers or suppliers in the country targeted. (Coviello & Munro 1997, 364.)

2.3 Entry Mode

Entry mode is another recurrent term that is found in the literature together with market entry. Root (1994, 5) defines a market entry mode as an: “institutional arrangement that makes possible the entry of a company’s products, technology, human skills, management, or other resources into a foreign country”.

Numerous theories have been developed on entry mode. They are mainly concerned with the identification and selection of a proper method for serving a foreign market. Canabal and White

(2008, 270) made an extensive review of the most adopted theoretical constructs used to analyze the determinants of entry mode. According to the two authors, the most frequently used theories in this field of studies are: transaction cost analysis, OLI/location factors, culture/cultural and control. Whitelock (2002) suggests that in the case of transaction cost analysis companies choose the mode of entry on the base of a cost/benefit evaluation for each entry mode option. Thus, the main underlying assumption behind the transaction cost theory is that companies try to minimize the costs imputable to a market entry in a foreign country. For such a reason, the transaction cost model tends to support the choice of either export modes or direct investments in the targeted country. (Whitelock 2002.)

The OLI model or also known as the eclectic paradigm is based on the fact that entry mode decisions depend of the satisfaction of three main factors: ownership, location and internalization advantages (Canabal & White 2008, 269). Such model is often used to evaluate whether or not to adopt those modes of entry, which imply the establishment of a manufacturing unit in the targeted country (Whitelock 2002).

Culture/cultural distance are two other most generally applied theories in entry mode studies. In the opinion of Quer, Claver and Rienda (2007, 77) “cultural distance has to do with the possible differences existing in relation to the way individuals from different countries observe certain behaviours, which will influence the validity of the transfer of work practices and methods from one country to another”. According to these models, the mode of entry of a company in a foreign market is determined by the level of cultural differences between the home country of the company and the country that has been targeted. Accordingly, companies that have targeted countries with large cultural distance tend to use modes of entry that requires low levels of commitment (Quer et al. 2007, 83).

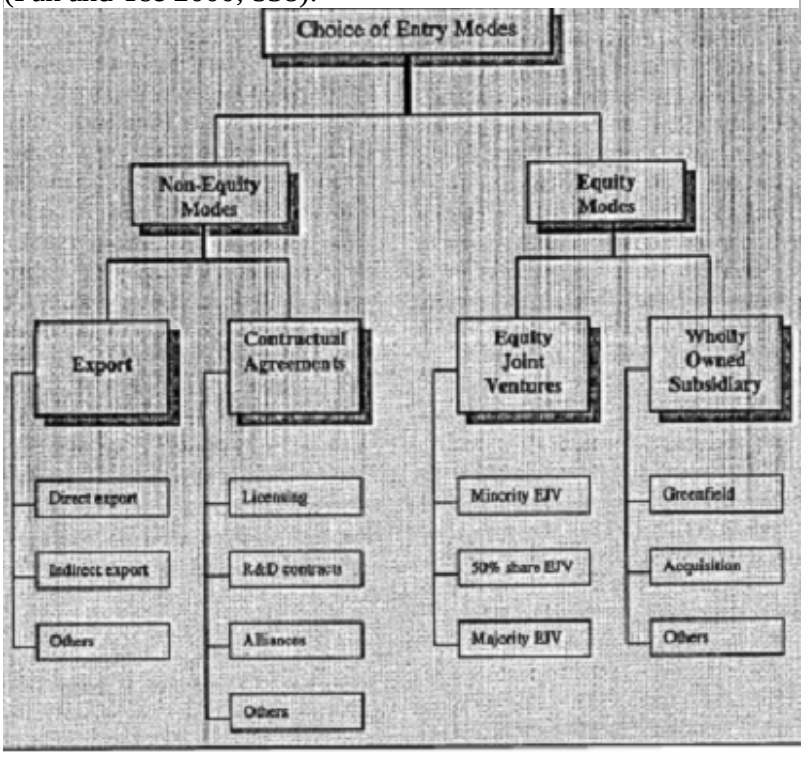
The Control models are based on the dichotomy between those modes of entry that offer greater control and those offering lesser controls. Anderson and Gatignon (1986, 3) describe the concept of control as “the ability to influence systems, methods, and decisions” that has got a fundamental relevance in the development of the business overseas. In the opinion of the two authors, higher control means higher profits but also higher risks and commitment. Therefore, entry modes with

high levels of control are recommendable only to those companies that expect to reach certain volumes of business able to support the operating cost in the long period. (Anderson & Gatignon 1986, 22.)

2.3.1 Categories and Types of Entry Mode

A company can adopt different modes of entry to penetrate an overseas market. For instance, Pan and Tse (2000, 538) divide entry modes into two main groups which are non-equity and equity modes. The first group consists of export and contractual modes while the second of equity joint ventures and wholly owned subsidiary (FIGURE 4). Pan and Tse (2000, 538) maintain that the two main categories of entry modes differ significantly in terms of investment requirements and market control share. Equity modes require the implementation of high levels of control from the side of the company's headquarter as these types of market entry involve a remarkable level of commitment towards the investment done. In contrast, non-equity methods require lower levels of control since these forms of entry, traditionally, imply less control over the market targeted. (Pan & Tse 2000, 537.)

FIGURE 4: Market Entry Modes Categories (Pan and Tse 2000, 538).



Acs, Morck and Yeung (2001, 242) adopt another type of classification, which identifies intermediated or indirect entry modes and direct entry modes. An intermediated or indirect entry mode takes place when the products are sold to another company that resells them in a new

market. On the contrary, a direct entry mode happens when the company establishes its own subsidiary or exports its goods directly to the foreign market. Direct modes of entry allow the company to perceive higher profits but, as they entail higher levels of control, they also generate higher risks and costs. On the other hand, the intermediated entry modes minimize costs and risks but do not give full access to the market. (Acs et al. 2001, 242.)

The categories of entry modes considered in this thesis are those defined by Pan and Tse (2000, 537) as equity modes. This is connected to the assumption of the Uppsala model that companies with high levels of market commitment have got, presumably, extensive market knowledge (Johanson & Vahlne 1977). Therefore, joint venture and foreign subsidiary entry modes are analyzed in the following paragraphs.

2.3.2 Joint Venture Entry Mode

Banai, Chanina and Teng (1999, 17) define an international joint venture as "a separate legal entity that is jointly owned by parent firms from different countries". Luostarinen and Welch (1997, 158) as Pan and Tse (2000, 537) prefer to use the term "joint equity venture" instead of joint venture and suggest that an equity venture always requires the sharing of both equity and risk. The percentage of ownership assigned to each part determines if the joint venture is a majority, minority or 50%-50% venture.

A joint venture entry mode has got both advantages and disadvantages. The main advantages are connected with the fact that the risks involved are less. In fact, having a local partner is an effective way to penetrate a foreign market when there is a deep cultural distance between the countries involved in the ownership. For instance, it may be much easier to find the way to the customers with a local partner as he knows the market better than the counterpart, or because he might already have a distribution network. Similarly, also the recruitment of the personnel may be easier through the support of a local partner. (Luostarinen & Welch 1997, 160.)

Joint ventures, however, entail some disadvantages as well. Actually, Luostarinen and Welch (1997, 160) point out that sometimes there are more disadvantages rather than advantages in

having a joint venture. In truth, if one of the partners is not fully cooperating with the other, performances may be weak and consequently lead to low profits. In the same way one of the partners may not be willing to reinvest the returns in the joint venture or have divergent interests that can undermine the stability of the venture. (Luostarinen & Welch 1997, 161.)

2.3.3 Foreign Subsidiary Entry Mode

A foreign country can be penetrated also with a fully owned operative unit. The mother company can establish its subsidiary in two main ways: greenfield strategy or acquisition strategy (Luostarinen & Welch 1997, 164). Larimo (2003, 793) suggests the following definitions of acquisition: "the purchase of ownership in an existing local firm in an amount sufficient to confer some control (the limit of at least 10% ownership is used by the OECD and in most empirical studies)" while greenfield investment he defines as: "a start-up investment involving new facilities".

Acquisition and greenfield entry modes differ in many ways but, undoubtedly, both strategies have many positive implications. For instance, acquisition modes allow a quicker access to the market than the building of new companies from scratch. This is particularly important in those industries where there is already a rather competitive market with many competitors (Larimo 2003, 793). Furthermore, as the acquisition of an already existing company entails the acquisition of its market share and distribution channels as well, the overall payback time of the investment is shorter than in greenfields modes (Luostarinen & Welch 1997, 164). However, since in acquisition modes the buyer company needs to pay the capitalized value of rents, in general they imply lower profits than greenfieled (Larimo 2003, 793).

Therefore, while acquisitions are more appropriate when the followers need to quickly gain market share over the market leaders, greenfield investments are the best solution when the local market requires adapted technologies and carefully tailor made products.

In addition, greenfield investments are also more appropriate when there are technology transfer issues or when there is a wide cultural distance between the home and the hosting country. In fact,

when there is long cultural distance acquisition modes often imply cultural conflicts, communication and coordination problems. (Luostarinen & Welch 1997, 165.)

Another type of subsidiary entry mode is the representative office that is also referred to as liaison office. A representative office is an extension of the parent company in a foreign country. Contrary to the previous modes of entry, the representative office mode entails a limited number of functions. Generally, such offices are set up for carrying out market studies and establishing contacts for the parent organization. Therefore, representative offices cannot be engaged in sales activities but only promotion activities. (Fisher & Fisher 1998, 162.)

The representative office is a light form of market entry, which is appropriate when a company is planning to enter a new market but does not have much information about it. Such mode of entry offers several advantages and disadvantages. For instance, the representative office is not subject to taxation and generally it is rather easy to be set up. On the other hand, the representative office cannot benefit from tax incentives or local financing as it is not a legal entity in the host country. Moreover, often approval for such offices is time limited or cannot be renewed. (Fisher & Fisher 1998, 167.)

2.4 Success Factors in Market Entry

The theme of the performance in international market entries has been largely discussed over the last few years. However, to the date, there is no unanimous agreement on which the most relevant factors that determine success or failure in a market entry are.

According to the traditional “resource-based”, approach the success of a company in a newly entered market depends either on controlling crucial resources or possessing certain capabilities that others do not have. The concept of resources is expressed in the paragraph below:

> Resources are those assets that are semi-permanently linked to the firm (e.g., brands, reputation, and patents). Firm capabilities, which in contrast to the more technology oriented core competencies represent a broader concept, comprise

> socially complex organizational routines that enable the firm to use and combine their resources to create valuable products/services. (Grunert & Hildebrandt 2004, 459.)

Although the resource-based approach gives interesting insights on the identification of the success factors in market entry, it proposes only a one-sided focus which does not consider structural and situational market characteristics.

The work of Elg, Ghauri and Tarnovskaya (2008, 679) expands the somehow limited approach of the resource-based model. According to the authors, in order to have a successful market entry in an emerging country the company needs not only to gather the necessary resources and skills but also, it needs to network with local actors and match their expectations. They also believe that networking is an essential activity for gathering market knowledge and contacts, which is particularly important in the early stages of a market entry. The study of the three authors also shows that different actors emerge in the different phases of a market entry. This implies, first, that companies need to understand how to manage such actors and, then, that companies need also to understand the interactions between them. (Elg et al. 2008, 679.) Ultimately, in the opinion of Elg et al. (2008, 694), the interaction and the support received from key market actors will increase the importance of the company towards the customers and, thus, favour its successful entry.

Lyles and Steensma (1996) have a similar view to Elg et al. (2008, 694) about the elements that can determine the success or failure of a market entry. To begin with the authors acknowledge that there is no unique “recipe” for success that can be applied to all the countries but rather a specific solution for each market entry. Then they suggest that as the south Asian markets require very intense collaboration with the local stakeholders before even thinking of any business relationship, the success of an entry depends on the capacity of managing and establishing relationships. As building such relationships takes a long time, commitment and long term strategy are necessary factors for achieving success. Moreover, to promote such relationships it also requires the foreign companies to establish their physical presence in the country through a local office. (Lyles & Steensma 1996, 67.)

Lyles and Steensma (1996, 69) also propose that success in market entry depends strongly on the capacity of transferring knowledge. The authors introduce a new concept that is in contrast with the assumptions of many other scholars, according to whom, the sharing of critical skills would weaken the strategic position of a company. Lyles and Steensma (1996, 69) maintain that by transferring knowledge to the local market the company increases its success rather than weakening its position. Such knowledge is transferable into two fundamental dimensions, which are reputation and local networks. Furthermore, companies that transfer their know-how to an emerging market increase their reputation. This is connected to the fact that the local governments value those organizations that are willing to improve their national level of competencies. On the other hand, since the local governments have interest in boosting the economy of their countries, reputation also increases when the foreign companies use local suppliers rather than suppliers from the home country. (Lyles & Steensma 1996, 70.)

Lyles & Steensma (1996) also recognize as a factor of success the understanding of the local legal framework as a precondition for evaluating the exact level of risk investment in the country. In truth, according to them successful companies are those companies that evaluate the actual country risk without limiting themselves to what was reported in the market reports. (Lyles & Steensma 1996, 72.)

Johnson and Tellis (2008) investigated the drivers of success for market entry in China and India. The authors suggest that there are two main categories of factors that influence corporate performances when entering a foreign market. These two categories of factors are named “firm differentiation” and “country differentiation”. The first group mainly consists of company strategy and resources, which refers to entry mode, entry timing and firm size. The elements of the second group, instead, refer to the host country characteristics and include country openness, cultural distance and country risk. (Johnson & Tellis 2008, 2.)

Timing of entry has been recognized in numerous studies as a factor which can both favour and hinder the success of a market entry. It has been proposed in some studies that if, on one hand, first movers tend to have higher profits, on the other they are subjected to a higher risk. (Johnson & Tellis 2008, 4.) In this respect Lieberman and Montgomery (1998, 1122) indicate that the

potential benefits occurring to a company which delays its entry may be as much relevant as those occurring to the first movers. Consequently, in the opinion of Lieberman and Montgomery (1998, 1122), not always does a delayed entry constitutes a disadvantage.

Congruent with Minifie and West (1998, 453) also Johnson and Tellis (2008, 5) recognize that country openness can represent a possible driver of market success. In the authors' opinion, market openness represents the way that the host country favours or hampers the entry of foreign companies. Therefore, those countries with a favourable regulative framework that supports the market entry of foreign investors are open markets. However, the authors also point out that if, on one hand, market openness can favour the entry, on the other, it can also hinder it as the more a market is open the more competitors are able to enter. (Johnson & Tellis 2008, 5.)

The study of Johnson and Tellis (2008) provides an interesting classification of the several possible levels of a market entry which can range from successful entry to poor entry. For example, a successful market entry implies that the company has got certain characteristics such as making more margins than their global margin, well-functioning partnerships or exceeded investment criteria. At the opposite side of the spectrum, poor market entry means mainly the struggle in making headway, under performance, stiff competition and executives frustrated with the entry. (Johnson & Tellis 2008, 12.)

This study adopts the classification of entry levels proposed by Johnson and Tellis (2008, 12). Furthermore, this study develops a categorization of success factors, which looks at the above presented categories of Johnson and Tellis (2008, 2) but slightly modified. Since, “firm differentiation” factors can also be considered as factors that the company can influence with its own actions, here they are referred to as internal factors. By contrast, as “country differentiation” factors are elements that the company cannot influence, they are in this thesis named external factors. Thus, in thesis, those success elements that are directly imputable to the action of the company are referred as internal success factors while those that belong to the context where the company operates are called as external success factors.

2.5 Market Barriers

Market barriers can be defined as obstacles, which prevent companies from being fully established in a certain market (Porter 1980, 7). More specifically, Gable, Topol, Mathis and Fisher (1995, 211) refer to barriers as: “deterrents, or obstacles preventing new firms from engaging in production or sale of products or services”.

Traditionally market barriers are divided in two main groups: exogenous barriers and endogenous barriers (Gable et al. 1995, 211). Exogenous barriers are those barriers related to the market structure which cannot be controlled by the company. On the contrary, endogenous barriers consist of strategies created by established companies to prevent the access of new firms to the market (Gable et al.1995, 211; Pehrsson 2009, 66).

Pehrsson (2009, 67) reviewed a large number of studies that focus on the relevance of market barriers to corporate strategy. The author identifies the main exogenous and endogenous barriers that have been described in the current literature. According to Pehrsson (2009, 67), one of the most recurrent market barriers is cost advantage. Cost advantage refers to the cost economies that companies established in a certain market have over entrant firms. (Pehrsson 2009, 67; Gable et al.1995, 213). The incumbents have a relevant advantage over the entrant firms which is due to the fact that they can benefit from economies of scale and the learning curve. For this reason, the entrant company must take the risk to either serve the market with the same economies of scale or sell its products at a fairly higher price. Furthermore, incumbents have other cost advantages, which are connected with better supply conditions, brand image, product differentiation and information on customers needs. (Gable et al.1995, 213; Pehrsson 2009, 67.)

Another important barrier found in the work of Pehrsson (2009) is the need for capital for the establishment of the company in the new market. According to Karakaya (2002, 382) costs of entry mainly depend on the characteristics of the market and include, not only costs of facilities, but also cost of labour, training and hiring. In this respect, Gable et al.(1995, 214) point out that such expenses represent higher market barriers for the smaller companies rather than for large companies as the latter can much more easily borrow capital from banking institutions.

Porter (1980, 10) highlights the relevance of “switching costs” as a fundamental market barrier that occurs for entrant companies. Switching costs represent the costs that the customer needs to face when switching from one supplier to another. Some examples of switching costs are connected with the loss of time due to the setting of a new equipment, product re-design and introduction of new technical standards.

Access to distribution channels and government policies are another two market barriers that emerge from the work of Pehrsson (2009, 67). With regard to distribution, Porter (1980, 10) suggests that existing competitors in a market tend to secure the distribution channels in order to prevent the entry of new companies. This can occur when incumbents have established long-term or “exclusive” relationships in the distribution channels. In this case, entrants need to persuade the distributors with lower prices, better promotion and higher “sales efforts” (Porter 1980, 10).

Government policies can remarkably affect the entry of a new company in a certain market. Gable et al. (1995, 215) suggest that the local governments can determine the number of companies that can enter a certain market through licenses or permits. Thus, the entry of new firms can be hindered by the regulative framework set by the local laws. With this regard, Porter (1980, 13) indicates that when the government establishes tighter controls over the manufacturing process or fix higher standards for the commercialization of certain products, eventually, it will hamper the entry of new firms in the country. Besides government policies, the number of competitors and the sellers concentration in a certain market represent two other significant barriers for the entry of new firms (Pehrsson 2009, 67).

As stated above, endogenous barriers consist of behaviours taken by the established companies in a market to prevent the entry of new competitors. There are several actions that a company can take to discourage the entry of a new competitor in the market. For instance, incumbents can expand their production capacity, increase promotional activities or lower the price to such extend that the entry is no more profitable for the new entrant (Gable et al. 1995, 215).

Karakaya (2002, 384) refers to endogenous barriers as profit expectations of the entering firms. According to the author, companies evaluate the expected returns for their market entry on the

base of certain barriers such as the market share of the incumbents, the number of competitors in the market and the possible lower prices charged by the competitors. Yet, in the opinion of Karakaya (2002, 385), high profits in the market can be seen as both an encouraging and dissuading element. In fact, if the profits are high, new companies may be interested in entering the market for taking part of the surplus. On the other hand, high profits may also indicate that incumbents have solid financial resources to deter the entry of new competitors.

A more recent stream of studies is pointing out the importance of new elements that can constitute significant market constraints as well. For instance, the paper of Estrin and Campos (2007, 343) which deals with the barriers to entry in emerging markets, such as Brazil, China, India and Russia, suggests that complex regulative systems, inadequate institutional support and even corruption might affect the number of companies establishing themselves in an emerging economy. Similar conclusions are drawn also by Bitzenis, Tsitouras and Vlachos (2007) who investigated the factors about obstacles to foreign direct investment in Greece. The authors found out that the main factors which dissuade multinational companies from entering the Greek market through foreign direct investments are connected with the bureaucracy, corruption and unstable political system (Bitzenis et al. 2007, 695). Congruent with the previous researchers, also Lyles and Steensma (1996, 67) recognize corruption and lack of proper “legal systems for recourse” as two of the main constraints for American companies in doing business in south Asia.

Similarly to Porter (1980, 7), in this thesis I consider market barriers those hindrances, which can hamper the settlement of the firm in a certain market. This implies that the definition utilized here refers to a broad concept of market barriers intended as a range of different hindrance factors for market entry. Moreover, consistent with Gable et al. (1995, 211), I also adopt the differentiation between exogenous and endogenous barriers in this study.

2.6 Country of Origin and Competitive Advantage

Many studies have been carried out about the influence that the “made in” or country of origin of certain products have on the purchasing criteria of the consumers. The majority of these studies have concluded that the country of origin of a product influences the product evaluation.

However, how much country of origin determines the evaluation of a certain product, is not yet fully understood. (Al-Sulaiti & Baker 1998, 173.)

Various researches have discovered that consumers associate with every country certain specific characteristics, which also distinguish the products manufactured by them. For instance, Germany is often accepted as a country which manufactures robust and precise products, Japan is usually seen as a country for high technology products and England is generally considered as a reliable and solid manufacturer (Baker & Ballington 2002, 161). Thus, different countries have strong images in different product categories. For example, Japan is known for cameras and electronics, Germany for cars and machinery, France for wine, perfume and clothing, Italy for furniture and shoes, Colombia for coffee and Switzerland for chocolate and watches. (Lampert & Jaffe 1997, 75; Agrawal & Kamakura 1999, 256). Moreover, it is also widely believed that the effect of country of origin is product specific. Consequently, using the above example, France is worldly recognized as a leader in the production of wines, perfume and clothing but has got a less positive reputation for the production of cars, televisions and high technology products (Lampert & Jaffe 1997, 64).

Therefore, the image of the country where the products have been manufactured or designed affects the brand image that such products hold in the minds of consumers (Koubaa 2007, 151). Nagashima (1970, 68) affirms that the image consumers associate to a given country of origin corresponds to “the picture, the reputation, the stereotypes that businesses and consumers attach to products of a specific country.” Likewise, Roth and Romeo (1992, 480) define the country image as ‘‘the overall perception consumers form of products from a particular country, based on their prior perceptions of the country’s production and marketing strengths and weaknesses". Evidently, when reputation, stereotypes or perceptions are positive and the consumers attribute a positive value to the country of origin of certain products, this represents an advantage for the companies coming from that country.

The role of the home country as an important promoter of competitive advantage in international markets has been very well explained in the classic work of Porter (1998, 19). According to the author, differences in economic systems, values, culture, institutions and history of the countries

contribute to form the competitive success of a company. Furthermore, contrary to what normally people would assume, in a globalizing world the role of the nation of origin becomes even more important because the home country represents the original source of the skills and abilities that stand behind the competitive advantage of a firm or an entire industry. The home country is the place where the main competitive advantages of a company are generated and maintained. It is the place where the main strategy of a firm is set and other relevant or core activities are developed. (Porter 1998, 19.)

According to Porter (1985, 3), a competitive advantage emerges when a company can create value for its customers that exceeds the costs for creating it. The concept of competitive advantage which is used in this thesis refers to the definition adopted in Dehning and Stratopoulos (2002, 166). Competitive advantage means:

> Performing business activities better than the competition. Differences in how companies perform strategic activities or differences in which strategic activities they choose to perform are the basis of competitive advantage. A company achieves a competitive advantage by implementing a value creating strategy that is not being implemented by competing firms. A firm will gain a sustained competitive advantage if it can implement a unique strategy. (Dehning & Stratopoulos 2002, 166.)

In the opinion of Porter (1998, 37) there are two main categories of competitive advantage which are lower cost and differentiation. Lower cost refers to the capacity of a company to produce, design and sell its products at a lower price and at a similar level of quality than the competitors. Differentiation is the ability of a firm to make available products with unique attributes, special performances or providing exclusive after sale services. With the previous two Porter's categories in mind it can be noticed that, if not in terms of lower price, country of origin can represent an important competitive advantage, at least, in terms of differentiation.

Therefore, marketers who are aware of the positive images of the countries to which they belong can promote country of origin information to strengthen product competitiveness abroad. In

contrast, when there is a poor perception of country image in a foreign country, policy makers can invest in promotional actions through the national trade associations to gain a competitive advantage. (Laroche & Mourali 2003, 110.)

How intense such competitive advantage can be, is another interesting point. Lampert and Jaffe (1997, 64) presented a life cycle model for evaluating the effects of country of origin. In their work, they assumed that there are three types of possible situations that can happen with the country image of a certain product sold abroad. In a first situation, the individual does not have any previous experience of the product but has a general image about the country of origin of the product. This general image of a country of origin in the mind of the consumers is called "halo effect" The consumer makes some projections of the country image he holds in his mind on the quality of the product. Such projection can be either too high or too low. The second situation happens when the consumer has tried one particular brand coming from a certain country and, based of such experience, he makes assumptions on the product quality of another brand coming from the same country. In this case country of origin effect is very low. The third situation occurs when a consumer has tried many different brands coming from the same country. In this last case, there is no more "halo effect" because the product image is closer to reality. (Lampert & Jaffe 1997, 65.)

According to Lampert and Jaffe (1997, 66), in the pre-introduction phase of a product in a foreign market the "halo effect" is prevailing. Thus, when a product is launched in a new market, the "halo effect" determines the ease or the difficulty of the market entry. If the "halo effect" is positive, the market entry is easier, and, if negative, the market entry will be more difficult.

However, the more the consumer becomes familiar with the product originating from a given country, the less is the "halo effect". Consequently, the more a consumer comes in contact with the products of a certain country, the more he can evaluate them on the base of their objective characteristics. Thus, when more brands from the same country penetrate a certain market the country image becomes more uniform and consistent in the minds of consumers. Such process is also called "crystallization". The higher the level of crystallization, the more successful the market entry becomes in a foreign country. (Lampert & Jaffe 1997, 71.)

Another interesting stream of studies has investigated the transferability of certain positive attributes connected to the country of origin from one product category to another one. As seen earlier in Lampert and Jaffe (1997, 64) the benefits of country of origin are product specific, and generally they extend to different brands in the same product category. In this respect, Agrawal and Kamakura (1999, 256) suggest that if a certain country enjoys a positive image for one family of products, this image could influence the evaluations of other products coming from that country. According to the authors, this seems to happen because of stereotypical bias. In the opinion of Agarwal and Sikri (1996, 35), the greater is the degree of similarity between two product categories the more possible is that the country image influences the evaluation of another category of products.

In addition, the authors also propose that country of origin works in a similar way to brand names. Hence, when a company brand name is positive all the products sold under that brand are expected to be at a similar level of quality and performance. However, to make possible the capitalization of the benefits originating from a positive country image, marketers should demonstrate that the new product is similar to the other well known products coming from that country. (Agarwal & Sikri 1996, 35.)

3 METHODOLOGY

3.1 Research Problems and Implications for the Research

As introduced in chapter 1, the main research problem that stands behind this study is connected with the factors that favoured or hindered the entry of the Finnish environmental companies in India. Favouring factors refer to all those elements that have made easier the entry of the Finnish organizations in the Indian market. By contrast, hindering factors represent all those elements that have slowed down or made hard the settlement of the Finnish environmental companies in India.

The most important constrain in finding an answer to the main research problem of this thesis originates from the fact that the research field is located in a geographically and culturally distant country. On the one hand, the research needs to consider the point of view of the Finnish companies, but, on the other, the Indian point of view is also important. Thus, finding a proper balance between the two different perspectives is one of the main challenges of this study.

From the main research problem two other sub-problems are derived. The first tries to determine what the key success factors in doing business with environmental technology are. The sub-problem refers not only to the factors that have led the Finnish providers of environmental technology to do successful business in India, but also to those supportive initiatives that the Finnish Trade Organization could take to promote it. Success factors are investigated separately from the previous favouring factors to better understand the correlations between two different phases of the internationalization process of the firm; entry and market consolidation. However, the identification of the success factors is not an easy task either. This is mainly because normally companies are reluctant on revealing the fundamental nature of their business logics. As a consequence, this implies a higher effort to determine such factors of success.

The second sub-problem is concerned with the importance of the Finnish origin in promoting and commercializing Finnish clean technology in India. Probably, among the three research problems

presented, the previous is the less complex as the possible advantages originating from the “made in Finland”, can be more straightforwardly determined.

3.2 Methodological Choices

In this thesis qualitative research is applied to analyze the market entry of the Finnish environmental companies in India. Such approach is preferred to a quantitative approach for two main reasons. First, the study aims at finding out detailed information about the phenomenon investigated. For such purpose qualitative research appears as the most suitable choice because it provides detailed information in relation to a small sample of cases. In contrast, quantitative research offers generalized information about a large population (Patton 1990, 14; Silverman 2005, 9). In fact, quantitative methods can effectively describe the “macro” level of a phenomenon but not its “micro” level (Barbour 2008, 11).

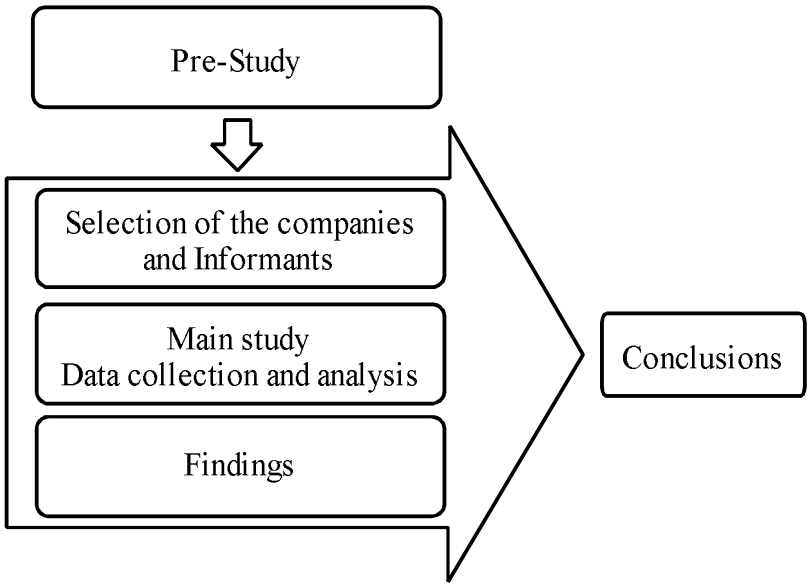
Secondly, quantitative methods are generally much more effective for measuring the characteristics of a large population (Patton 1990, 14). In the case of the Finnish environmental companies in India there are less than ten established companies in the country. Thus, as the population investigated is rather small, a quantitative approach seems to be less appropriate.

However, although qualitative research represents the most suitable choice for this research, it is also important to describe some of its main limits. Bryman and Bell (2007, 423) point out that sometimes qualitative research can be too subjective. In truth, often, some areas within the research are more emphasized than others due to the personal point of view of the author. Another critique against qualitative research is the fact that traditionally qualitative studies are difficult to replicate as they depend much on the subjective learning of the author. Lastly, the findings of qualitative research are normally not generalisable. This is because people that are usually selected for qualitative studies are not representative of the entire population (Bryman & Bell 2007, 424).

3.2.1 Research Outline

This study consisted of three main phases (FIGURE 5). In the first phase, a pre-study was conducted to determine preliminary understanding around the theme of the market entry of the Finnish environmental companies in India and to prepare the interview questionnaire for the main study. Two interviews were carried out with one expert from the FECC (Finnish Environmental Cluster for China) and one from SITRA (Finnish National Fund for Research and Development). The informant from FECC was selected on the assumption that his experience with Finnish environmental technology in China could give the right focus to this study. Similarly, the expert from SITRA was selected on the base of his experience as head of the Sitra's India program which aimed at creating knowledge about today's India. The second phase of the research started with the selection of the companies and their representatives for the study. During the third phase, the critical data was collected at the Finnish firms and the Italian Trade Commission (ICE) in India. Finally, all the data gathered was analyzed and reported.

FIGURE 5: Research Outline.



3.2.2 Selection of Companies and Informants for the Study

The sample of companies that participated to the research was selected according to a purposive sampling method, which allowed the choice of the cases on the base of the purpose of the study. According to Silverman (2005, 129), purposive sampling entails critical thinking about the choice of the characteristics of the sample investigated. Such choice should be theoretically grounded.

To determine the sample of companies for this research, the head of Finpro India was requested a list of the Finnish environmental companies that had entered the country with their own sales subsidiary and representative office or that had a joint venture with an Indian partner. Thus, only companies that were physically present with their offices in India were considered. This choice was justified by the theoretical assumption of the Uppsala model that companies with a physical presence in the market have a wider knowledge in comparison to those companies that only export their products or that sell their technologies through independent representatives (Johanson & Vahlne 1977).

The list of firms provided consisted of eight companies with headquarters in Finland and offices in India. Out of the initial eight companies, only six were selected on the base of the relevance of their activities in the Indian environmental sector. Two companies were excluded as their activities in India were only indirectly connected to the environmental sector.

When the list of the firms was formed, a second list of managers from the selected organizations was prepared together with Finpro. The managers of the Finnish environmental companies in India were chosen as informants on the base of the relevance of their position in the company. Typically, executive directors, managing directors and production directors were the profiles selected.

3.2.3 Data Collection

The data for this study was generated through what Patton (1990, 277), Mason (2002, 62) and Bryman and Bell (2007, 473) call “qualitative interviewing”. In the words of Patton (1990, 278), the purpose of qualitative interviewing is “to find out what is and on someone else’s mind”. Qualitative interviewing is remarkably different from interviewing in quantitative research. Some major differences are connected with the fact that in qualitative interviewing there is more space for the opinion of the interviewee and that such research method is less structured than quantitative methods. There are several types of qualitative interviewing methods such as in-depth, semi-structured or lightly structured interviewing (Mason 2002, 62). The method selected to gather data for this study was semi-structured interview.

Semi-structured interviewing refers to interviewing with an interview guide (Bernard 1988, 205). The interview is guided by a set of key questions or themes that the interviewer has prepared before. Consequently, contrary to unstructured interviewing where the conversation takes place freely, in semi-structured interviewing the interviewer wants to make questions around a list of specific topics. However, as the nature of semi-structured interviews is qualitative, the informants are not stopped when the interview moves beyond the pre-designed schedule (Bernard 1988, 205).

In this thesis, semi-structured interviews were used rather than in-depth interviews in order to guide and give more focus to the study. However, in the pre-study the interviews were less structured than in the main study. The interview schedule used in the pre-study phase is showed in APPENDIX 1.

The pre-study was conducted between February and March 2009. It included an in-depth interview with the executive director of FECC and one email interview with the head of the Indian Program at SITRA. The conversation at FECC was digitally recorded and analyzed together with the data from the email interview from SITRA.

After the preliminary study the main research was started. The informants were inquired about their willingness to participate to the study through a presentation letter (APPENDIX 2). Afterwards the meetings were arranged and the interview themes sent via email. The interview questionnaire was prepared by using the information emerging from the pre-study and the review of the main literature on the topic. Furthermore, some interview themes, such as “full solution or single technology” and “supportive action”, were suggested by Finpro. The interview questionnaire consisted of three main parts: sections A, B and C. Section A aimed at collecting background information about the companies, section B represented the actual core set of questions and interview themes for the research and, finally, section C was used to sum up and make conclusions (APPENDIX 3).

The critical data for the research was collected between March and April 2009 when the pre-selected managers were interviewed at their offices in India. Before the interviews took place, all the respondents had received the questionnaire. As suggested in Barbour (2008, 120) after the

first interview the questions from the schedule were re-ordered to better capture participants' responses. Furthermore, in order to have a light comparative analysis between Finnish environmental firms and other European companies, two additional semi-structured interviews were conducted at the Italian Trade Commission (ICE). APPENDIX 4 shows the interview schedule adopted. The comparative analysis aimed at enhancing the reliability of the research and finding new elements for the topics investigated.

The interviews with the executives of the Finnish firms were recorded both through a digital voice recorder and field notes while in the case of the ICE only with field notes. After, the collection of the main data in India, other missing information was collected via email.

3.2.4 Data Analysis

Subsequent to the collection of the data the recorded interviews were transcribed. The transcripts and the field notes generated were analyzed with a deductive qualitative content analysis method. Qualitative content analysis is a method traditionally used to interpret qualitatively the content of written documents such as books, newspaper articles or corporate magazines (Bryman & Bell 2007, 571). However, it is also commonly used to analyze the recorded transcripts from qualitative interviewing.

According to Patton (1990, 381) content analysis is "the process of identifying, coding and categorizing the primary patterns in the data. This means analyzing the content of interviews and observations". This method aims at reducing the amount of text analyzed through classifying the words within the text to form a set of smaller categories. The relevant concepts or categories identified in the text are those which are able to describe the phenomenon investigated (Elo & Kyngäs 2007, 108). Afterwards, the relevant text can be cited with brief quotations to illustrate the meaning of the data (Bryman & Bell 2007, 571).

Traditionally there are two approaches to qualitative content analysis: inductive and deductive. Inductive analysis is used when there is fragmented information or no information at all about the phenomenon studied. In the previous case the categories emerge from the data. On the contrary, a

deductive approach is preferred when there is already some existing theoretical knowledge. Consequently, a deductive approach is used when the aim of the research is to test previous knowledge in a different context (Elo & Kyngäs 2007, 108). In this thesis a deductive approach was used since some preliminary understanding and knowledge about the phenomenon investigated was found in the pre-study and during the review of the main literature on international marketing and internationalization models.

Before starting the actual analysis of the transcripts and field notes, the data was first organized in files and then a unit of analysis was established. The unit of analysis was any words or sentences that could describe the phenomenon studied. The analysis process considered only the manifest content of the data and not the latent one such as the meaning of pauses in the speech, laughs and silence.

Subsequently, consistent with the deductive content analysis method described in Elo and Kyngäs (2007, 111), a categorization matrix was established. As the method to collect data was the semi-structured interview, the categorization matrix was formed on the base of the interview themes. Thus, the interview schedule served as a descriptive analytical framework for the data analysis (Patton 1990, 376). Consequently, the answers were classified in correspondence to the interview themes.

The next step taken was coding. Coding is a process that allows the researcher to move from the raw text of the interview transcripts to the research problems through small steps. It requires the search of recurrent ideas which can be aggregated in recurrent themes. (Auerbach 2003, 35.) In this thesis recurrent ideas were considered similar ideas that were expressed with different words. Then recurrent ideas were further grouped in themes. Recurrent ideas and themes were formed not only in correspondence with the same question but also in a more transversal way when emerging from other different questions on the schedule. Therefore, as suggested in Patton (1990, 376), the relevant data was not always found in the same place for each interview transcript, but it emerged from other parts of the transcripts and field notes as well.

3.3 Data Validity and Reliability

According to Silverman (1993, 149), Hammersley (1990, 57) has defined validity of data as: “truth; interpreted as the extent to which an account accurately represents the social phenomena to which it refers". From the given definition of validity we understand that it refers to the level of accuracy and assessment of the phenomenon measured by the researcher. There are two different levels of validity: internal and external. The first one refers to the approximate validity with which we can conclude that there is a causal relationship between two variables. An example of causal relationship can be the fact that there is insufficiency of goods, thus prices are higher. On the other hand external validity refers to the approximate validity with which we can generalize and transfer the results of the study. (Onwuegbuzie & Leech 2007, 234.)

In this thesis internal validity was, firstly, brought about by the explanation and the clarification of the questions during the interviews. Secondly, internal validity was enhanced with the setting of a light comparative analysis between the information gathered at the Finnish companies and the data from the Italian environmental firms. External validity, instead, is supported by the fact that the majority of the Finnish environmental firms in India were investigated in the study.

Hammersley (1992, 67, in Silverman 1993, 145) has stated that reliability “refers to the degree of consistency with which instances are assigned to the same category by different observations or by the same observer on different occasions “. In other words, reliability indicates how similar the results are if the study is repeated several times or carried out by a different person. According to Creswell (2007, 209) the reliability of qualitative interviewing can be improved if the interviews are tape recorded and transcribed. In this research the interviews were both tape recorded and transcribed.

4 RESULTS

4.1 Presentation of Results

Five companies out of the six which were originally contacted participated in the study. Five semi-structured interviews were carried out with the executives of those companies in India. Furthermore, two other semi-structured interviews were conducted with two specialists from the Italian Trade Commission, ICE. Apart from the case of the Italian Trade Commission, where the recording was not allowed, all the interviews were digitally recorded. The interviews lasted on average 40-50 minutes each and were carried out in English. The manager from company C was Finnish while all the rest were Indian.

4.1.1 Profile of the Companies

Company A is a large Finnish multinational that has operated in India for many years in the field of power generation. It entered the Indian market in 1983 with a joint venture. Since 2006 company A is set up as a network company of the main parent corporation whose headquarters are based in Finland. Before entering the Indian market company A was present in many other markets.

Company B is a large Finnish international company which entered the Indian market in 2004. It operates as a service engineering company and its presence in the Indian market is in the form of a sales subsidiary. However, the main target market of the company is the Middle East. Consequently, its range of operations in India is rather limited. In addition, the company does not provide much environmental engineering services as its core business is currently civil engineering.

Company C is another large Finnish corporation with operations in numerous countries around the world. It provides the Indian market with pollution measurement apparels and other measurement devices. Company C entered the Indian market with a liaison office in 2008. The company has been since its inception an international corporation, and it entered a number of countries before India.

Company D is an emerging Finnish company in the sector of wind technology. It has been operating in some other European countries before entering the Indian market. The company entered the Indian market in 2007 with a sales subsidiary.

Company E is a manufacturer of electronic devices that optimize the performances of industrial motors. Such devices contribute to the enhancement of energy efficiency. The company was established in India in 2006 with a sales subsidiary.

4.1.2 Background Information

TABLE 3 and 4 illustrate the background information. Most of the Finnish companies have established their physical presence in the Indian market during the last five years. Company A represents an exception as its presence in India was established already in 1983. Almost all the companies used sales subsidiary as a mode of entry. Company C was the only firm which adopted the representative office, liaison office, entry mode.

The majority of the managers interviewed declared a level of market entry, which was good. An exception was company B that had still a rather poor level of entry in the Indian market. The manager of Company C, instead, was not able to give an estimation of the level of market entry achieved. All the companies had previous international experiences before entering the Indian market.

TABLE 3: Overview of the Basic Information from the Companies Interviewed.

Company	Date of Entry	Mode of Entry	Perceived level of Market Entry	Entry in other countries before India
Company A	1983	Joint Venture[3]	Good/successful	Yes
Company B	2004	Sales subsidiary	Poor	Yes
Company C	2008	Liaison office	No estimation	Yes
Company D	2007	Sales subsidiary	Good	Yes
Company E	2006	Sales subsidiary	Good	Yes

TABLE 4: Implementation of the Market Entry Strategy.

Company	Entry Strategy Implementation	
	Human resources	Finances
Company A	Mainly from India	Institutional financing
Company B	Mainly from India	Corporate resources
Company C	Mainly from Finland	Corporate resources
Company D	Mainly from India	Banking
Company E	Mainly from India	Corporate resources

As shown in TABLE 4, the implementation of the entry strategy was, in the greater part of the cases, supported by corporate resources. Only company A and company D used institutional financing and banking. For company A, this was due to the fact that it entered the market very early when the banking system of India was not yet much developed while in the case of company D the Indian promoter provided the necessary bank guarantees to obtain the venture capital. As for human resources, most of the Finnish firms consisted of mainly Indian personnel.

In TABLE 5 it can be seen that the majority of the interviewed Finnish environmental companies were having deals both with private and public customers. However, the importance of public customers was seen by the informants as being on the rise. The level of competition in the respective sectors, where the Finnish environmental companies operated, was, in general, considered intense. Exceptions were company A and E.

Apart from the customers the companies also declared to have a number of other important relationships, which ranged from the cooperation with their suppliers, sub-contractors, project

[3] Company A since 2006 is present in India as a network company of its parent company in Finland.

executors and governmental organizations to the participation in category associations such as the local chambers of commerce.

TABLE 5: Customers, Partnerships and Competition.

Company	Typology of customer	Main partners other than customers	Level of competition in the sector
Company A	Mainly public	Suppliers, Governmental organizations, Category associations	Moderate competition
Company B	Private	Sub-contractors	Intense competition
Company C	Public	Governmental agencies, Specification makers	Intense competition
Company D	Mainly private	Project executors	Intense competition
Company E	Private	Not found	Moderate competition

4.2 Factors Favouring Market Entry

According to the responses collected, most of the firms were already operating in the Indian market before the definitive establishment of their offices and subsidiaries there. In fact, apart from company B, the rest of the Finnish firms had a previous indirect presence in the Indian market either through a local sales agent or through collaboration with an Indian business partner.

> "..we have been in India already 30 years but not with own presence only through agents and representatives so we had a ruff idea or, let's say, some kind of idea of the market." (C, p.2)

> "What really favoured us to come in Indian market in a big way is the fact that this company was promoted by an Indian company, has an Indian owner, so lot of the market entry risks are lower and you get a large pad or a landing pad.." (D, p.3)

Other factors that favoured the early stages of market entry were the good reputation of the Finnish corporations in India and the technical competence and skills that traditionally Finnish enterprises were carrying with them.

> "..when you look at a joint venture mostly this is perceived a successful venture if you have a good local partner and a good name coming from a respectable country… the skills available within Finland and the values which Finnish companies normally carry for them-self they really helped out". (A, p.3)

For company C also the previous experience and knowledge gained in other international markets before the entry in the Indian economy played a positive role as well.

> "..we are in north America, we are in Africa, we are… we are every where, so India is one of our, let's say, latest countries, with own office.."(C, p.1)

The Indian regulative system, especially with regard to wind industry, also favoured the market entry of the Finnish enterprises. Furthermore, the fast boom in the Indian economy, the lowering of the country risk and the improved financial infrastructures of the country were recognized as important elements, which made the entry easier.

> "..last few years India had the economic framework which is quite favourable to have the industry, to enter the Indian market.."(A, p.7)

> "..financial institutions today in India are much more open, much more than what we have had earlier.." (A, p.5)

> "..Indian regulative scenario is one of the best in the world and that is way the situation… we are one among the top 5 wind turbine market in the world.." (D, p.5)

TABLE 6, shows a schematic presentation of the main favouring factors found for the entry of the Finnish environmental companies in India.

TABLE 6: Favouring and Hindering Factors.

Factors	Company A	Company B	Company C	Company D	Company E
Factors that favoured market entry					
Previous indirect presence in India	✓		✓	✓	✓
Reputation, Technical competence and Skills	✓	✓		✓	✓
Previous experience in other markets			✓		
Economic framework	✓		✓	✓	✓
Institutional and Legislative framework		✓		✓	
Factors that hindered market entry					
Lack of price competitiveness		✓	✓	✓	
Mismatch between offer and the demand		✓	✓	✓	
Excessive level of quality		✓	✓		
Technology gap and transfer	✓	✓			
Bureaucracy	✓	✓	✓		✓
Corruption	✓	✓		✓	✓
Legislation	✓			✓	✓
Importation duty			✓		
Competition		✓	✓		✓
Cultural distance		✓	✓		

4.3 Hindrance Factors for Market Entry

As it can be seen in TABLE 6, some hindrances for the entry of the Finnish companies in India were: lack of price competitiveness, lack of compatibility between product offered and local demand as well as excessive level of quality offered.

> "..we have been very successful in those countries and with those customers whose main criterion is performance with reasonable price or affordable price, but here in India the situation is totally opposite.." (C, p.11)

> "..our, let's say, market message has been premium quality, premium price, it doesn't fly here, it doesn't fly here, it is a total wrong message, total wrong strategy so we need to change that completely.." (C, p.6)

> "..this is very price sensitive market.." (C, p.2)

In addition, for company B and A, the technological gap and the correlated difficulties in transferring technology from Finland to India were other issues that delayed their settlement in India. This was particularly true for company B which had difficulties in rapidly absorbing the enormous amount of technical information and know-how that was transferred from its parent company in Finland.

Besides the factors mentioned above, related to the intra-organizational level of operations of the company, a few external factors that hindered the entry were found as well. Mainly, they were bureaucracy in the public sector and corruption that were acknowledged by the majority of the respondents as common factors of hindrance to their operations in India. While bureaucracy and inefficiency in the public sector were perceived on the decrease, the level of corruption in certain areas of the public administration was estimated high if not even increased. However, it is worthy to mention that, despite the fact that bureaucracy and corruption were seen as some of the main problems of the public sector, some positive examples also emerged. In particular, from the area of the public administration that was efficiently supporting the Indian wind industry.

> "..corruption and bureaucracy are issues… in several places were you want business to do with government these kind of things are coming much more.." (A, p.2)

> "I don't know anything about corruption but they are very bureaucratic. I mean they are very slow… for simple thing to decide it might easily take 1, 2 years… the same thing could have done in Finland within two days.." (C, p.10)

> "..the officials in our country they are trying to find something so that they can have corruption. Bureaucracy has decreased but corruption has not decreased." (D, p.4)

For company A, E and D the major hindrance elements for market entry were the Indian legislation and the demanding technical standards set as a prerequisite to commercialize certain products in India.

> "Is basically the legislation…when we have the legislative source Indian so straight to comply the technological product becomes more costly or the solution becomes more costly.." (A, p.9)

In the case of company C the main hindrance factor was the heavy taxation set by the Indian authorities on the importations.

> "..the major barrier so far has been the heavy taxation that's clearly number one.." (C, p.10)

Actually, company C was the only organization which was still selling its products from Finland. Therefore, the goods that were exported to India were subjected to the importation duty. Company E mentioned among the hindrance factors the difficulty to overcome the strength of other competitors that were in the Indian market. Before its entry in India the market was already served by other international companies with very well-known brands. Company B and C were facing similar problems caused by the competition with other firms.

The relevance of cultural distance between Finland and India was also discussed as a possible factor of hindrance. All the respondents recognized the cultural differences between Finland and India but only for companies B and C it was felt as a factor that could create setbacks or hinder the market entry. Nevertheless, it also emerged that the cultural distances between India and Finland were felt less wide than in the past. This shortening of the cultural distances was attributed to the growing number of Finnish corporations that were investing in India.

> "..cultural distance has not been a factor… company A operates, as I said, in about more than 60 countries… cultural differences they do not show up or they do not matter at all." (A, p.8)

> "..there are some cultural changes between us and Finland, the way Finland works, you know, there is, there is a certain way of life style and cultural difference, we are trying to learn that in 5 years of our existence, I think I have begin to understand better but still there is some, you know, to be learned on that.." (B, p.2)

> "..sure it can create problems, I mean, the Indian culture is completely different from what we have in Europe and in Finland.." (C, p.9)

> "..cultural differences will always be there and what is important is awareness and since there is been a long history of Finnish companies operating in India there is a strong cultural awareness and people… professionals are professionals.." (D, p.6)

4.4 Success Factors for Doing Business in India

The participants were asked several questions to identify what the success factors in doing business with environmental technology in India were. The findings are presented in TABLE 7.

Five factors emerged as the most recurrent ones. The first element was the necessity to have a technological offer that could suit the local environmental standards and customers' needs. The adaptation of the technological solution provided was found in four of the five companies analyzed.

> "..it is crucial to succeed in doing this so adapt the product offering for this market, that is important, very important but we have not done yet.." (C, p.13)

> "..the product had to have some certain corrections for local environmental conditions so that's the other thing that we did." (D, p.2)

Price was also recognized as a factor for being competitive in the Indian market. Actually, apart from company A, all the studied corporations identified price competitiveness as a prerequisite to succeed in the Indian market. In particular, it was found that while in the private sector price was

not considered as the only decisive factor, in the case of public tenders price represented the only decision factor for getting the deal. Therefore, while in the case of company D and E competitive price was found in combination with quality, performance and other product attributes, for company B and C price was the only relevant factor for succeeding.

TABLE 7: Success Factors for Doing Business in the Field of Environmental Technology in India.

Success factors	Company A	Company B	Company C	Company D	Company E
Technology adaptation	✓		✓	✓	✓
Competitive price		✓	✓	✓	✓
Providing "turn-key" solutions	✓		✓	✓	
Influencing the legislative arena	✓		✓		
Supply of non core components from India	✓	✓		✓	✓
Educating the customer		✓	✓		✓
Qualified personnel	✓		✓	✓	
Quality product	✓			✓	✓
Close cooperation with headquarter		✓	✓		✓
After sales service	✓		✓	✓	✓
Networking	✓		✓		
Perseverance and commitment to the market	✓		✓	✓	✓
Responsible business	✓			✓	
Right timing to the market	✓			✓	

> "..people talk to you or consider you if you have a good product, if you have good service and if you have good contractual obligations on your side… but to get the business you need to be very attractive in terms of price.." (D, p.5)

> "..price is an element but there are 60 competitors in the market, we try to keep price in the third priority but first we have to sell… close all the doors and then …then we have to match the price.." (E, p.3)

> "..the only thing what counts here is the price.." (C, p.5)

Two other factors identified to succeed in India were perseverance and commitment to the market. Most of the respondents, in fact, recognized that the Indian market is a market which requires long term projects. Consequently, commitment and perseverance were considered necessary elements. Furthermore, the respondents also pointed out that commitment to the market was necessary because Indian customers preferred stability and continuity in business rather than change.

> "..the positive thing that one can say here is the lessons learned are the perseverance if you keep looking at it very closely in the end you are going to succeed in selling your product.." (A, p.15)

> "..giving indication to the customer that yes we are here and that we are going to stay here, of course, that is important.." (C, p.6)

> "..it takes years to redesign our product and being competitive here but that's commitment we have taken.." (C, p.16)

> "Indian customers they look for stability.." (E, p.1)

Moreover, after sale service emerged as one of the most cited success factors. According to the manager interviewed, Indian customers preferred suppliers that could offer good service and life time assistance. This was particularly true in the case of company A which recognized that after sale service was its core competitive advantage over the competitors.

> "..we are being sitting very close to the customer and I would say that no other American company, German company or any other company have that much developed services network as we have.." (A, p.10)

When some questions about the manufacturing strategy were asked it came up that in four cases the Finnish corporations were manufacturing or supplying their non core components from India.

Therefore, while the production of the core elements was located in Finland, all the auxiliary and non relevant parts were supplied through the Indian market.

> "..main components come from Company A Finland and the auxiliary and other components which can be purchased from India.." (A, p.2)

> "..the main components are made in Finland while the secondary components are made here in India." (field note E, p.1)

All the interviewed executives, apart from the managers of company B and E, confirmed that Indian customers preferred to buy an integrated solution rather than a single technology. Therefore, providing a "turn-key" solution to the customer was seen as a further success factor. The preference for "turn-key" solutions was mainly imputed to the fact that the Indian market still had a low integrating capacity.

> "The Indian customers prefer to buy full solutions." (A, p.6)

> "They buy only full solution they don't have any integration capability by them self so they just buy a turn- key solution." (C, p.7)

> "..the market in India has been defined in such a way that the solution is only the full toolkit solution.." (D, p.4)

Other success factors founded included qualified personnel and product quality. Three of the studied companies acknowledged the importance of employing qualified and talented personnel for achieving market success. Furthermore, it was also found out that the Indian market could provide a more than sufficient number of skilled engineers and managers.

> "..you need to have competent people here for establishing good relationships with the decision makers in the organization.." (C, p.5)

> "..people are available it is a country where you have the largest number of engineering talents and skills set available.." (D, p.4)

Company B, C and E also recognized the importance of establishing a good and open cooperation with their parent companies in Finland. In fact, the managers interviewed acknowledged that since the manufacturing of core components or the supply of key competences often came from Finland, it was indispensable for them to maintain a continuous flow of communication with their colleagues in Finland.

> "..we have to have a very good cooperation with our headquarter because most of the work is done, you know, from there side.." (B, p.2-3)

In the experience of company B and C, another way to succeed in the Indian market was through the education of customers. The two companies were trying to educate their customers on the advantages of buying products with superior quality. This was done by demonstrating the customer that quality products could generate lower costs in the long period.

Along with the success factors described above, also some other less often mentioned factors emerged. For example, company A and C were trying to apply their influence in the regulative arenas to promote tighter environmental standards so that their products could gain a competitive advantage over the competitors who were still operating with looser specifications.

> "..we have, basically, made sure that our representation in the legislation is made whenever there is a possibility… we tried and forced competitors to basically change their products to suit the Indian environmental conditions." (A, p.9)

> "..we are making friendships with people who are making the technical specifications for the tenders.." (C, p.3-4)

With regard to networking, company A and C confirmed that it was a factor of success in India. On the other hand, however, company B and D gave less importance to the role of networking as

a factor to succeed in India. In fact, the managers of company B and D gave higher priority to other factors, such as product quality and service.

> "..networking is a crucial issue here in doing business so, so far business has been done by the help of our representative they have been creating the relationship with customer, with decision maker.." (C, p.12)

> "..networking in India is important I feel but it is somewhere in between, I think, every country requires networking… and, yes, you know somebody so he will give you the work, that kind of things doesn't work, you have to have merit.." (B, p.2)

> "..at the end of the day it is very important to have a good product and a good value proposition to be successful in the market and nothing else can substitute for that, but, if you have people who can bring networking capacity and personal contacts that's the path to the success… is not an alternative or replacement for having good product and good service offer.."(D, p.9)

The last two success factors identified were the right timing to the market and responsible business. The Indian market was seen as a very dynamic environment where there were several competitors competing for the same opportunity. Consequently, a careful evaluation of when enter the market was seen as a success factor in the case of company A and D. In the words of one of the respondents:

> "..it is very important to have a quick time to market… the people for square kilometre is very high and for the same opportunity there are a lot of people running so the level of competition is extremely high.." (D, p.10)

Company A and B also highlighted the importance of doing not only environmentally responsible but also socially responsible business to succeed in India.

> "..we are also ensuring that when we do all this the people where we do the project, the particular owner of the land, they also benefit of that so that they also are happy

if the project is coming up in their vicinities. So we are doing it with a lot of social responsibility." (D, p.8-9)

"..the focus should be on cleaner life, better life for the, the countryman and business.." (A, p.15)

4.4.1 Supportive Actions for Promoting Success in India

Together with the above success factors further elements that could indirectly promote the achievement of successful business with Finnish environmental technology in India, were identified. These elements were seen as co-success factors and associated to the external support that the Finnish Trade Organization could provide for promoting Finnish environmental companies in India. The findings are showed in TABLE 8.

TABLE 8: Supportive Actions from the Side of the Finish Trade Organization for Promoting Successful Business in the Field of Environmental Technology in India.

Actions for favouring market success	Company A	Company B	Company C	Company D	Company E
Cooperation with government consultants	✓				
Increasing visibility Finnish environmental firms	✓		✓		✓
Environmental communication	✓	✓			
Providing contacts with potential customers in India		✓	✓		
Differentiation of Finnish environmental cleantech	✓	✓			
Providing access to cheaper venture capital				✓	
Establishing Finnish country image in India as country leader for environmental protection	✓	✓			

Two actions that were identified for promoting the success of Finnish environmental firms in India included cooperation with government consultants and visibility. Cooperation with the consulting agencies of the government was seen as an important initiative that the Finnish Trade

Organization could encourage in order to influence the development of environmental standards and regulations in India.

> "..the Trade Organization should be in touch with the normal government organizations specially on to the consultant of government who are operating in India… that would be the best part to do the business in India because then you can formulate the regulations that you have the control of regulations and do the business in India." (A, p.13)

Increasing visibility refers to the fact that Finnish environmental companies were not very visible in the Indian market. Taking actions to enhance visibility of Finnish clean technology was a recurrent idea shared by three of the companies interviewed. Some specific actions were suggested to enhance the market visibility of Finnish firms: participation in trade-shows and seminars were the most often cited actions.

> "..they need to make their presence felt more in India, they should be visibly showing their names and faces here.." (A, p.13)

Moreover, two other actions to favour success in India were environmental communication and product differentiation. The success of the Finnish environmental technology in India was seen not only dependent on the capacity to make it visible, but also, on the capacity to communicate how it differentiates from the rest of the competitors. The main competitors of Finnish environmental firms were companies from the US.

> "..what is that Finnish companies can offer better than some of the other competition countries companies. I think that will need to be highlighted today, you know, our major trading partners are people like USA and all those so which clearly will not change.." (B, p.3-4)

In addition, it emerged that a successful marketing plan should be able to communicate how Finnish technology could contribute to the environmental sustainability of India. It was also

found that before approaching the Indian market, Finnish companies should have been supported by a communication campaign to inform about the positive results that were achieved in Finland with respect to environmental issues.

> "..industry should be aware of what efforts or what development are taking place in Finland through Cleantech Finland which can help Indian scenario, Indian environmental conditions.." (A, p.13)

Ultimately, an environmental communication campaign was seen as a relevant way to also establish the image of Finland as a green country in India.

The last two supportive actions found were related to contacts making and venture capital raising. Some of the executives interviewed stated that although they had never used any service from the national Trade Organization of Finland, Finpro, they could have needed some support to find more customers in India.

> "..there is a big number of the customers which we are not yet addressing properly who doesn't know company C well and we need to do a lot of work there and maybe Finpro could help us there.."(C, p.14)

Similarly, it also emerged that the cost of venture capital in India was higher than in Europe. Consequently, Finnish environmental companies that operated in India would have reduced their costs if they could have accessed venture capitals from Finnish or European sources.

> "..if the Finnish agencies, associations can work in a way where they can attract this by supporting capital with, supplier of capital in better terms which, anyhow is low in Finland, it would be a very, very big impact to the development of the cleantech companies that are arising out of Finland." (D, p.9)

4.5 Competitive Advantage of the Finnish Origin

The managers of the selected companies were also asked a few questions on their experiences with the “Finnish origin” in India. The responses show that, in general, Finnish technology had got a good reputation thanks to the good esteem towards certain Finnish brands, such as Nokia, and the increasing popularity of Finnish enterprises in India.

The respondents declared that those companies who were working with Finnish firms were aware of the good quality of Finnish technology and service. However, apart from this, normal people and also a good number of businessmen did not know much about Finland and Finnish products. In the words of one of the respondents:

> “..most of the people they don't know even from which country Nokia is coming.” (C, p.15)

Furthermore, the brand image of Finnish environmental technology was considered less well known than other environmental technology brands coming from other European countries such the UK, Denmark and Germany.

> “Finland, in my personal opinion, doesn’t have any specific brand reputation for cleantech energies because the moment you talk about cleanteck energy especially wind the people go back to Denmark or Germany but having said that thanks to a telecom companies and especially Nokia people recognize that a Finnish technology comes with a very good, robust quality and proper service.” (D, p.10.)

> “I think that still compare to other countries operating in India Finland awareness is little less.. everybody goes to some European countries like UK or something, is straight in the register but Finland is little less.” (B, p.3)

Moreover, it also emerged that Indian customers were not able to assign any distinctive attribute to Finnish green technology as for Indian customers all environmental technology made in Europe were synonymous with quality and performance.

> "..though directly Finland has not known for any great work in cleantech but Finnish companies are known for good quality engineering, so clearly it is a competitive advantage. But it is not a big differentiator because all other companies are from Europe and all the European companies have the reputation of doing engineering work." (D, p.10.)

4.6 Findings from the Italian Trade Commission

Two semi-structured interview were conducted at ICE, Italian Trade Commission, in order to check if similar or even new elements for the topics studied could emerge from the experience of the Italian environmental companies. For this purpose, a trade analyst for Italian environmental technology and a senior advisor for intellectual property were interviewed.

The data emerging from the interviews show that also in the case of Italian companies the high price level of the offering constituted a hindrance in the entry phase. It was also confirmed that, in general, Indian customers preferred integrated environmental solutions rather than single technologies, though in some industries it could happen that companies purchased single solutions.

Furthermore, the respondents also confirmed that in the case of Italian environmental companies cultural distance per se was not a relevant factor of hindrance while language differences appeared more important. Instead, networking and collaboration with local chambers of commerce were seen as an important factor of success for the Italian environmental companies. The interviewees also confirmed that corruption and bureaucracy represented two major hampering factors for the companies that work in the public sector. In addition, the interviewees considered the Indian economic framework rather favourable to having a market entry or a technological collaboration with Indian partners.

One key element that emerged from the interviews at ICE, which was not identified during the previous data collection with the Finnish firms, was the question of the intellectual property (IPR) that seemed to affect the competitiveness of foreign companies in India. The IPR specialist from ICE confirmed that there were efficient ways to protect brands, inventions and designs through registration in India. However, the Indian Intellectual Property Law could stop others from selling similar products only if the foreign companies registered their products in the Indian Trade Marks Registry. Therefore, even if the foreign companies registered their brands in other countries, this was not sufficient to stop the counterfeiting. The informants reported that, as a result, before launching their products and technologies on the Indian market, the Italian environmental companies registered their brands, patents or trademarks in India. The costs of the registration were considered rather accessible, especially in consideration of the favourable exchange rate between Euro and Indian rupee.

5 CONCLUSIONS

5.1 Summary of the Study

This study aimed at understanding the factors that favoured or hindered the entry of the first Finnish environmental firms in the Indian market and the key success factors that allowed them to succeed in that country. At the same time, the research also tried to determine if the Finnish origin represented a competitive advantage in India. For this purpose, two preliminary interviews with two Finnish experts were conducted to gather general information on the topic. Subsequently, a qualitative research was carried out. The data was collected through semi-structured interviews. Five managers of five Finnish environmental companies plus two market annalists from the Italian Trade Commission were interviewed in India. All together, a total of seven managers participated in the study.

The gathered responses were analyzed with a qualitative content analysis method based on a deductive approach. The results from the interviews show that several factors contributed to the entry of Finnish firms in India and to their success. First of all, reputation and good skills of Finnish companies were identified as favouring elements. Secondly, the positive economic, institutional and, in a few cases, legislative framework of India were other favouring elements. On the other hand, key hindering factors were lack of price competitiveness, mismatch between demand and offer, bureaucracy and corruption, legislation and competition. Furthermore, it also emerged that most of the Finnish companies had previous contacts with Indian partners before their definitive entry in India.

The success factors found most frequently in the interviews were technology adaptation, competitive price, perseverance and commitment to the market, after sale service, “turn-key” solutions and supply of non core components from India. The findings from the Italian Trade Commission confirmed that high price, integrated solutions, cultural distance, corruption and bureaucracy and the positive economic/institutional framework had similar relevance also in the case of Italian environmental companies. In addition, the interviews at the ICE also brought up a

new hindrance element which was the IPRs issue. As for the relevance of the Finnish origin in India, it was found that Finnish companies had got a good reputation but Finnish environmental firms were still fairly unknown in comparison to other European providers.

5.2 Answers to Research Problems

After reviewing what has been done in this study and summarizing the main results found, this section tries to make some interpretations about the meaning of the data that emerged from the research and draw some conclusions. The following discussion on favouring and hindering factors, key success factors and Finnish origin, thus, aims at answering the research problems presented in the first chapter.

5.2.1 Favouring and Hindering Factors

As the results show, most of the companies investigated were already operating in India prior to their definitive settlement there. Finnish companies had Indian collaborators either in the form of representatives or venture partners. On the base of this, we can infer that such circumstance has probably been a relevant element for the development of the operations in India. In other words, one of the key drivers for the establishment of the Finnish firms' presence in India was the fact that these companies had already "one foot" or "half a foot" in that country. The fact that Finnish firms entered the market thanks to a collaboration with an Indian partner, confirms the current trends on entry modes in India identified in the report of the UK Trade & Investment (2008, 15) which are presented in TABLE 2 of chapter 1.

Furthermore, the results also show that during their presence in India, the companies have shifted from a mode of entry with a lower level of commitment to the market to another with a higher level. Firms first entered the market with sales agents or joint ventures and, afterward, they set up their subsidiaries or became network companies. This element, if not confirming, at least gives some positive evidence that the entry in India followed the stepwise model illustrated by Johanson and Vahlne (1977). From this we can deduce that, probably, the market entry of Finnish

environmental firms has also been favoured by the progressive growth of their market knowledge and expertise in India.

Another indication from the results is that Finnish firms have got a positive reputation in India due to their technological competences and skills. We can infer that such condition has been another favouring factor, especially in the initial phases of their entry. Furthermore, the findings on reputation, skills and competences are consistent with the “resource based” approach and confirm the results of the pre-study.

The economic, institutional and, partially, legislative frameworks of India have been positive factors for the entry of the Finnish firms. This outcome of the research was confirmed also by the experience of the Italian environmental companies and is in agreement with Minifie and West (1998, 452). However, if, on one hand, the Indian legislative framework favoured the entry of some Finnish firms, especially in the wind industry, on the other, legislation remains still one of the most relevant factors of hindrance for the entry in the Indian environmental market.

As seen in Gable et al. (1995, 213) and Pehrsson (2009, 67), when new entrant companies cannot compete in terms of scale economies with local firms, they have to take the risk to sell their products at a higher price and, thus, of being priced out. Evidence from the results shows that this has occurred to some of the Finnish environmental companies and, also, to the Italian firms. Therefore, lack of price competitiveness, especially in the sector of public tenders, is one fundamental element that has hindered the entry of the Finnish environmental providers in the south Asian market.

When some of the Finnish firms entered the Indian market, they probably did not accurately know the local level of demand for green technology. This supposition could explain why there was a mismatch between what some companies offered and what the market demanded. Such conjecture is supported by the related problem of excessive quality offered. In fact, the companies that tried to apply in India the same principle used in Europe “higher quality higher price” failed as customers in that country are more price oriented than else where.

The tendency to serve emerging markets with the same high quality standards used for the European markets was a further factor of hindrance for the entry. The same element emerged also in the pre-study where a similar issue occurred to some Finnish environmental firms in China. The words of one the experts interviewed explain this point:

> "..we Europeans easily try to sell at an expense or whatever and maybe they would like to buy the Russian Lada.." (FECC, p.3)

As for the mismatch between offer and demand and the excessive level of quality offered, these are two hindrance elements that can be imputable only to the companies. On the other hand, the demand for cheap products that determines lack of price competitiveness in India appears to be an exogenous barrier which firms cannot change in the short period. Similarly, the high level of competition in the market appears as an endogenous barrier that prevents the entry of new firms in the Indian environmental market.

Different from Bitzenis et al. (2007, 695) bureaucracy and corruption in India have emerged not much as discouraging elements for market entry but, rather, as elements that hinder the operations in that country. The presence of these two hindrance factors was confirmed both in the preliminary study and in the experience of the Italian companies as well. Furthermore, bureaucracy was identified as a market barrier also in the report of the Swedish Trade Council (2008, 34).

Cultural distance was expected to be an important factor of hindrance in the pre-study phase. However, the results apparently show the contrary. Such circumstance can be interpreted in two ways. On the one hand, as the current general trends confirm, there is a shortening of the distances between the countries due to the globalization. On the other hand, cultural distance could not matter too much when there is a homogeneous business culture between the subsidiary and its parent company. The first statement finds confirmation in the fact that Finnish firms had a shift from a lower level of market commitment to higher levels which, according to the culture/cultural distance models, occurs only when cultural distances become shorter. In the

second case, we can infer that business culture could serve as a corporate catalyst for overcoming cultural differences across foreign countries.

However, it should be considered that the companies studied had already some previous contacts with the Indian market. Consequently, it could be assumed that cultural distance in their case was shorter whereas in the case of a new company approaching India for the first time, cultural distance could play a greater role.

5.2.2 Success Factors

The results indicate that the factors that have favoured the entry of the Finnish companies in India do not coincide with the key factors for doing successful business there. The case of company C shows, in fact, that although the company had a favourable reputation in India still this element alone did not allow the firm to do successful business in that country. Another confirmation can be found in the case of company D that initially went to India with a technology tailored for a Nordic climate which then had to be adjusted to the local requirements. Thus, we can conclude that the favouring factors for the initial market entry are not always the same that promote the success of the firm in the longer period.

The supply of non core components from India is an important factor for achieving success in that country. This element appears strongly interconnected with the fact that price competitiveness is a fundamental decision criterion in India. Based on these two elements, we can infer that the choice of supplying non core components through Indian suppliers is a crucial move to keep costs low and price of technology competitive. However, price competitiveness alone is not sufficient to succeed in the Indian market. In fact, as environmental technologies have a high technological content they also require an effective after sale service and life time assistance. To provide such service firms need to employ technically qualified personnel and, in addition, need to establish a close cooperation with their parent companies in Finland.

Given that most of the Finnish firms had an Indian partner before their definitive entry and considering the information found on human resources strategy, supply of non core components

and after sale service, we can conclude that to succeed in the Indian market companies need to have a solid Indian platform.

On the basis of the results, it seems that providing turn-key solutions to the market is another critical element to succeed in India. This finding, together with the necessity to have a competitive price and an effective after sale service, are consistent with the results of the study carried out by the Swedish Trade Council (2008, 35) in 2008.

The findings of this study show interesting suggestions with regard to those firms that lacked in price competitiveness. Such companies have developed two alternative strategies to succeed in the Indian environmental market. In truth, since the South Asian market is characterized by a local demand for cheap products and services, some Finnish firms are trying to educate the customers on the fact that product quality is an important component of the offer that contributes to the longer durability of products. As longer durability means fewer overall costs in the long period, it is much better to purchase quality products rather than low quality products. On the other hand, Finnish companies are also trying to influence the Indian environmental standards so that environmental regulations can improve in that country. Evidently, when the environmental standards become tighter, Finnish firms have more advantages as European providers own more advanced environmental technologies due to the strict EU regulations. However, both the above strategies are long term strategies, which will, probably, give their fruits only after several years.

Contrary to Lyles and Steensma (1996) and Elg et al. (2008), networking with local partners, such as suppliers, governmental organizations or law makers, emerged as a moderately important success factor in India. Actually, the data shows that, probably, networking serves only as a co-success factor. It can favour successful business in India, but does not determine it alone, since other important factors such as competitive products and services are also required to succeed. This is in agreement with the results of the Swedish Trade Council (2008, 35).

The data on success factors confirmed that doing responsible business in India is another important factor. Therefore, successful companies should base their business models on a wider concept of growth which includes both environmental and social sustainability.

Finally, since the Indian market is growing very quickly, many opportunities are made available in the environmental sector. However, this implies also that many competitors are interested in accessing the new business opportunities that are unfolding. Thus, the right timing to the market is a prerequisite to succeed. At the same time, as concurrence increases and the market conditions become more difficult, perseverance in doing business and commitment towards the customers are fundamental factors as well.

5.2.3 Finnish Origin

Thanks to a few renowned Finnish brands, Finnish origin is becoming more familiar to Indian people. However, with regard to environmental technology, Finnish companies are not among the most known firms in India. Actually, British, German and Danish brands are much more recognized. As a result, Indian customers do not attribute any superior quality to the Finnish origin as for them all the European providers of environmental technology have got a good level of performance and engineering. Based on these considerations, we can conclude that since the "made in Finland" does not have any superior attribute but only a moderately positive image in India, it does not represent a fundamental advantage. Thus, more than a real competitive advantage, the Finnish origin is a small advantage based on the good reputation.

However, as Finnish origin has got a positive reputation in India, this forms a positive "halo effect" which could be extendable also to the environmental sector. As explained by Lampert and Jaffe (1997, 66), when the "halo effect" is positive, the market entry is easier. Consequently, the Finnish country image can favour Finnish firms in the introduction phase of their technologies in India but in order to become an actual differentiation factor in the long period, it should become more consistent, "crystallized", in the minds of the Indian customers.

5.2.4 Managerial Implications

This study could give some interesting elements of reflection for those Finnish managers that are planning an entry in the Indian environmental market. As we have seen above, the favouring factors for market entry do not correspond to the success factors. This implies that Finnish firms,

after entering the Indian market, need to develop a long period strategy in order to achieve sustainable business in that country.

The Indian market is a very price sensitive market where there is, generally, a strong demand for cheap products and services. As this appears to be an exogenous barrier which firms cannot change in the short period, an alternative strategy should be developed to avoid lack of price competitiveness. Such a strategy could be based either on cost minimization or on product differentiation. The first one implies the ample involvement of local companies in the supply chain while the second requires work on the brand image of the Finnish environmental technology in India.

Furthermore, considering that some of the success factors are after sales service and supply of non core components from India and taking into account the high importation duty on environmental products and the fact that traditionally Indian people look for stability, these elements imply that Finnish companies should have their physical presence in India.

As the results of this study indicate, Finnish origin represents a small advantage in India and Finnish firms lack in visibility. These two elements suggest that more information should be given on Finnish clean technology and on the performances of Finland in environmental matters. Such effort could be addressed both in the governmental and business arena. Promoting Finnish green technology in the Indian governmental arena means cooperation with the government consultants. Approaching these actors is fundamental as they are those who directly discuss with the Indian government on environmental matters. On the other hand, the promotion of Finnish environmental technology in the business arena requires the arrangement of tradeshows or seminars where Finnish environmental firms can present their products to new potential customers in India.

The experience of the Italian environmental firms brings up the importance of the intellectual property rights (IPRs) in India. IPR issues could be another hindrance element which did not fully emerge from this study. Consequently, Finnish managers should consider this aspect

because, through a simple registration in the Indian Trade Marks Registry, patents, trademarks, copyright or industrial designs are efficiently protected against counterfeiting in India.

In conclusion, given that providing environmental solutions to an emerging country is never just a commercial matter, the way to the success in India should not only include the exportation of good environmental products and technologies, but also, values, country image and social responsibility.

5.3 Evaluation of the Research

All in all, we can assert that the study has reached the goal of providing more understanding on the key factors that favoured or hindered the entry of the first Finnish environmental firms in the Indian market. Its main challenge was to provide a balanced point of view that could encompass both the Indian and Finnish perspectives. This was only partially achieved as most of the executives interviewed were Indians. Actually, a more objective approach should have included the participation of also some of the Finnish managers from the headquarters in Finland. Unfortunately, for the lack of time and resources this was not doable.

The fact that mostly only Indian managers participated to the study generated a very good contribution on the key success factors in doing business in India, as the executives interviewed had an extensive knowledge of the Indian market. On the other hand, however, they sometimes lacked in describing hindering factors.

As for the other challenge of overcoming the reluctance of the executives on revealing the success factors for doing business in India, the research seems to have succeeded. This could be confirmed by the fact that many of the key success factors identified in this study corresponded to those found in the studies of the UK Trade & Investment (2008, 15) and Swedish Trade Council (2008, 35).

Another limit of this study is the fact that the results might have possible differences according to different sectors of environmental technology in India which were not considered in this research.

As consequence, some of the factors that are, here, identified as less relevant could be more relevant in certain other specific industries. Vice-versa, the factors that, here, are identified as more important could be less important to other industries. However, this appears to be congruent with the aim of the study that was connected to the search of general answers rather that sector based answers.

Moreover, the study provides some interesting findings about the entry of large Finnish companies in the Indian environmental market, but they appear not necessary applicable also to the SMEs. Thereby, the factors that might favour the entry of Finnish environmental SMEs in the Indian market could be different from those that have favoured the larger companies.

Concerning the theoretical part of this thesis, the adoption of a single internationalization model to interpret the entry of the Finnish environmental firms in India simplified the analytical process. However, the integration of other models could have given a wider approach to the interpretations of the findings. A similar point can be made also for the research methodology. In fact, although the methods used to gathering and analyzing the data seemed fruitful, probably, a less structured interview schedule could have favoured the identification of other elements which did not emerge with the more rigid set of questions that was used.

Lastly, the interviews at ICE, revealed some new interesting elements, but, not all the elements that emerged from the interviews with the five Finnish environmental firms were found in the comparative analysis. In this respect a wider investigation including more environmental firms in India would have given more reliability to the study.

5.4 Ideas for Further Research

Since this thesis has focused on large environmental companies, a new market study could try to shed light on the elements that can favour the entry of Finnish environmental SMEs in India. This would give an important contribution to the field because most of the Finnish cleantech sector consists of small, medium sized enterprises.

In addition, some research could be carried out to benchmark Finnish business practices in environmental technology with those of other leading countries in the field. This could give important understanding for the definition of a solid roadmap to internationalize Finnish know-how towards India.

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APPENDIX 1: Interview schedule used in the pre-study

Collection of preliminary information about the market entry of the Finnish environmental firms in India.

Email Interview with SITRA

1. Please specify what your role was and for how long have you worked on the India programme. Please state also what is your area of competence at the moment.

2. In your opinion what are the main factors that can favour or hinder the market entry of a Finnish firm in the Indian market. In particular, what would you say about the factors that could hamper and favour the market entry of the Finnish providers of environmental technology? Please feel free to give some examples.

3. If you should interview the managers of the main Finnish environmental companies in India what would you ask to understand which are the elements that favoured or hindered their market entry? Could you also motivate why would you use certain interviews' themes rather then others?

4. If you have something to comment on this topic or something you would advice for this study, please feel free to leave your comments here.

Thank you

In-depth interview with FECC

5. Please specify what your position in FECC is and for how long have you been working with it.

6. Could you tell me how did you enter the Chinese market of the environmental technologies? (main strategy, partners, mode of entry, etc)

7. In your opinion what are the main factors that have favoured or hindered the market entry of the Finnish firms in the Chinese market? What would you say about the factors that could hamper and favour the market entry of the Finnish providers of environmental technology in India? Please feel free to make some comparisons.

8. How did you support the Finnish companies in China in terms of Marketing? Has the brand cleantech Finland supported you in China? How?

9. If tomorrow you should interview the managers of the main Finnish environmental companies that are currently operating in India what would you ask them to understand which elements have favoured or hindered their market entry? Could you also motivate why would make certain questions rather than others?

10. If you have something to comment on this topic or something you would advice for this study, please feel free to make your comments.

Thank you

APPENDIX 2: Research presentation letter

Dear Manager,

I am a master's degree student in Corporate Environmental Management at the University of Jyväskylä, Finland. I am starting a research for the Finnish Foreign Trade Organization (Finpro) and the Finnish Association of the Environmental Enterprises on the Finnish environmental companies in India.

I would like to interview you on your experience with environmental technology in India to find out the factors that favoured and hindered the market entry of your company in the Indian market.

The interview will take about one hour and if you agree I would like to tape record the session because I don't want to miss any of your comments. Although, I can take some notes during the interview, I can't possibly write fast enough to get it all down.

All your responses will be kept confidential. This means that your interview responses will only be shared between me and some Finpro members. In addition, I can ensure that any information that will be included in the final report will not identify you as the respondent nor the name of your company.

Together with this letter you find a list of topics that I would like to discuss with you. For each of these topics you also find some questions that I could make. The interview is scheduled in three sections: in section A we will discuss in general about your market entry in India, in section B we will talk more specifically about the factors that hampered or favoured your entry in India and, last, in section C we will sum up.

I want to conclude by saying that your contribute to this study is really important as it provides primary data on the ways how the Indian market has been approached so far and allows Finpro to better serve you in the near future.

I look forward to meeting you soon,

Best regards
Salvatore Ruggiero

APPENDIX 3: Interview schedule used in the main study

Section A

Background information

1. What is your position in the organization and how long have you been working with it?
2. When was your company established in India?
3. Did your company enter other countries before India? Which countries?
4. What are the key motivations that have lead your company to enter the Indian market?
5. Can you describe what your strategy/vision for the Indian market is and what your main goals (market share, volume of your business, profit)?
6. Which mode of entry have you chosen to enter the Indian market and why it? (Joint Venture, Representative office, Sales subsidiary, Branch office)
7. Could you briefly describe how did you implement your market entry strategy with regard to human resources (ex. the personnel is mainly from India or Finland, if it difficult to find talented personnel here) and finance in particular (ex. if you have benefited of subsidies or international financings)?
8. If any, which are the main corrective adjustments that your organization has undertaken as regards entry strategy, sales targets and business performance since you are in India?
9. At the moment how would you define the level of your market entry in India if you should choose among the options 1, 2,3.4?

1) **Successful Entry:**

- Making more margins than their global margins
- Market Share leader
- Well functioning partnership
- Above average industry leadership
- Top three in industry profitability
- Top three in market share
- Exceeded investment criteria

2) Good Entry

- Successfully selling
- Met investment criteria
- Increasing investments
- Growing shipments
- Rapidly evolved into a major force in the Industry

3) Acceptable Entry

- Hope to recover investment in time
- Entry awaiting removal of market restrictions
- Establish a beachhead
- Continuing operations

4) Poor Entry

- No initial lead buyers
- Conflicting expectations
- Fail in system integration and optimization
- Struggled to make headway
- Underperformance
- Priced out
- Stiff competition
- Market restrictions
- Executives frustrated with entry

Section B

Problem 1 and 1.1: Factors that have favoured and hampered the market entry. Success factors. (Internal and external factors)

Internal factors

Pre-existing capabilities and skills

1. In your opinion, which were those pre-existing characteristics of your organization that have favoured or hindered the entry in the Indian market?
2. What are the main skills and characteristics (ex. corporate values, qualified personnel, perseverance in doing business) that an environmental/clean-tech company should have for doing successful business in India?

Financial resources and cost efficiency

3. A market entry in a new market requires remarkable financial resources and in the beginning there are not yet profits, so how did you manage your resources in the market entry phase of your company in order to have success?

Risk propensity

4. What is the attitude towards "risk" (risk of investment, risk of operating with new local partners) in your company?

Satisfaction of customer's needs and marketing mix

1. With regard to your customers' needs, do your Indian customers prefer to buy a full "solution" or a "single product/technology" from you?
5. What is the most important thing in marketing environmental technology/cleantech in India? (product/service, promotion, distribution, price, people, customer satisfaction or after sales)?

Competitiveness

6. How do you try to beat your competitors?
7. How the technology and services that you provide in India differentiates from the other technologies and services provided by Indian or other foreign companies? (ex. American, German, British and Italian providers)
8. According to you, why your Indian customers prefer you instead of other foreign companies? (ex. American, German, British and Italian companies)

Technology transfer and adaptation

9. How was possible to transfer your know-how and technology from Finland to India? Which obstacles were there?
10. How important was to adapt and customize your technology and know-how to the local needs?

External factors

Economic and legislative framework

11. Could you say if the current legislative and economic framework of India have favoured or hindered your market entry? Can you specify in which ways?
12. In your opinion, the environmental/cleantech market in India is a market for quick returns or for slow returns?

Cultural distance

13. What is the relevance of cultural distance between India and Finland when comes to doing business with environmental technologies/cleantech?
14. According to you do corruption and bureaucracy represent relevant obstacles for doing business in this country?

Market barriers and competition

15. Which are the main market barriers for an environmental/clean tech company that aims at entering the Indian market? How did you overcome these barriers?
16. How intense is the competition in the clean-tech/environmental sector in India?

Current and future market targets

17. Who are your main customers at the moment (ex. Indian state, local municipalities, industries, etc) and who have you targeted for the future?

Relationships, networking and cooperation

18. Who are your main partners (business partners and others) in India and how do you cooperate with them?
19. How important are in India networking capacity and personal contacts for market success?
20. How important are for you in India cooperation and good relationships with your headquarter in Finland?

Supportive action from category associations and trade organizations

21. In your opinion how the market entry of a Finnish environmental firm in India could be better supported by Finnish and non Finnish category associations and trade organizations?
22. Your company represents part of the "*Cleantech Finland*®" which aims at becoming one of the best well known brands in clean technology. From this prospective, what kind of support you might have needed from "*Cleantech Finland*®" to better market your technology in India?

Problem 1.2: Importance Finnish origin of environmental technology

Brand image and competitive advantage of Finnish technology

1. Do your Indian partners recognize the Finnish origin of the clean technology that you provide as a distinctive attribute?
2. How is seen the "made in Finland" of the environmental/clean technology that you supply in the Indian market? Does it represent a competitive advantage for your company or not?

Section C

Conclusions

Some lessons learned and suggestions

1. To sum up, what are the three most relevant factors for achieving success in India in the field of environmental/clean technology and what the three main obstacles?
1. According to you what are the main lessons that can be learned from your experience in the Indian market and what recommendations would you give to a Finnish environmental/cleantech company which is planning to invest in India?
2. Is there something else you want still to add or comment?

Thank you

APPENDIX 4: Interview schedule used at the Italian Trade Commission (ICE) in India.

Italian environmental firms in India.

11. Please specify what your position in ICE-India is and for how long have you been working with it.

12. In your opinion what are the main factors that have favoured or hindered the market entry of the Italian environmental/cleantech firms in the Indian market?

13. According to you, what is the most important thing in marketing environmental technology/cleantech in India? (Product/service, promotion, distribution, price, people, customer satisfaction or after sales)?

14. In environmental/clean technology are Indian customers willing to buy "a solution" or a "single technology"?

15. What is the relevance of cultural distance when comes to doing business with environmental technologies/cleantech in India?

16. According to you do corruption and bureaucracy represent relevant obstacles for doing business in this country?

17. How important are in India networking capacity and personal contacts for market success?

18. How intense is the competition in the clean-tech/environmental sector in India? Who are the main competitors?

19. Could you say if the current legislative and economic framework of India have favoured or hindered the market entry of the Italian firms? Can you specify in which ways?

20. Could you tell me how do you try to promote the market entry of the Italian companies that provide environmental/clean technology in India? Please feel free to make some examples.

21. In particular, how do you support the Italian companies in India in terms of marketing? For example, how do you promote the brand "made in Italy"?

22. If you have something to comment on this topic or something you would advice for this study, please feel free to make your comments.

Thank you