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THE ROLE OF GOVERNMENT INTERMEDIARIES IN THE
INTERNATIONALIZATION OF LOW- AND MEDIUM-TECHNOLOGY SMEs
FROM DEVELOPING COUNTRIES: A CASE STUDY OF THE FOREIGN TRADE
COMMISSION OF MEXICO IN EUROPE

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ABSTRACT

This thesis assesses the role of the Government (in Mexico) and the Foreign Trade Council of Mexico (BANCOMEXT) in the internationalization of Mexican small and medium-sized enterprises (SMEs) in low- and medium-technology industries (LMT), which is the main group of firms serviced by BANCOMEXT-Europe. It also sheds light on the internal and external barriers this organization has identified as affecting the internationalization of these SMEs from developing countries (Mexico) in developed and distant markets (the European Union).

To achieve this, a case study was undertaken in the six offices of BANCOMEXT (now PROMEXICO) in Europe: Italy, the UK, Germany, Spain, the Netherlands and France. BANCOMEXT is the most specialized governmental organization dealing with the internationalization of SMEs. The story told by the BANCOMEXT officers is analysed from the international business (the Uppsala model and the role of government intermediaries in the internationalization of SMEs), innovation and policy perspectives (the national system of innovation (NSI) approach) and the economic perspective.

After the inductive analysis of the interviews undertaken with government officers from BANCOMEXT-Europe, 220 concepts that span the policy, macro, micro and meso levels were identified. The findings suggest that BANCOMEXT-Europe has mainly contributed to the internationalization of LMT-SMEs by the provision of information and by putting these firms in contact with potential clients abroad, but there are some unattended areas in which BANCOMEXT-Europe could expand its activities to contribute to the internationalization of LMT-SMEs.

This thesis also uncovered that the SMEs' performance and the scope of BANCOMEXT's activities have been negatively affected by problems of different origins. Some of them are internal to Mexican SMEs, and there are also external barriers of both domestic and foreign origin inhibiting the SMEs' internationalization and explaining their very limited participation in foreign markets. These problems are

enhanced by the environmental differences (differences in institutional set-ups) between Mexico and the EU and the geographical distance.

In addition, this research provides empirical evidence from a developing country (Mexico) about the pervasive consequences of the lack of governmental support and policies for the internationalization of LMT-SMEs. This research calls for more active participation from the Government and policy makers to contribute to long-term economic growth from the supply side by improving SMEs' competitiveness through interactive learning, knowledge access and knowledge creation, innovation (incremental innovation) and the provision of favourable conditions for the internationalization of LMT-SMEs. Accordingly, a series of suggestions aimed at improving the competitiveness and internationalization of Mexican LMT-SMEs in the EU is also presented.

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LIST OF ABBREVIATIONS

AC	Absorptive Capacity
APEC	Asian Pacific Economic Cooperation
BANCOMEXT	National Bank for External Trade, which acts as the Mexican Foreign Trade Council
BNDE	National Economic and Social Development Bank
CEMUE	The Mexican–European Union Business Centre
CONACYT	National Council of Science and Technology of Mexico
ECLAC	Economic Commission for Latin America
EU	European Union
FDI	Foreign Direct Investment
FTA	Free Trade Agreement
FTAA	Free Trade Area of the Americas
GDP	Gross Domestic Product
HPAE	High-Performance Asian Economies
ICT	Information and Communication Technology
IDB	Inter-American Development Bank
IMF	International Monetary Fund
INEGI	National Institute of Statistics and Geography – Mexico
ITF	International Trade Fair
ITO	International Trade Organization
ISI	Import Substitution Industrialization
LAIA	Latin American Integration Association

LDCs	Less Developed Countries
LMT	Low- and Medium-Technology Industries
LMT-SMEs	Small and Medium-Sized Enterprises in Low- and Medium-Technology Industries
MNE	Multinational Enterprise
NAFTA	North American Free Trade Agreement
NAMIER	National Association of Mexican Importers and Exporters (in Spanish ANIERM)
NIC	Newly Industrialized Country
NSI	National System of Innovation
OECD	Organisation for Economic Co-operation and Development
PE	Private Equity
PIAPYME	Programme of Entrepreneurial Support for SMEs between Mexico and the EU
PROCHILE	Chilean Export Promotion Agency
PROMEXICO	Mexican Foreign Trade Council
PTA	Preferential Trade Agreement
R&D	Research and Development
RBV	Resource-Based View
RoO	Rule of Origin
SECIFI	Secretariat of Commerce and Industrial Development – Mexico
SMEs	Small and Medium-Sized Enterprises
SMEPOL	SME Policy and the Regional Dimension of Innovation; this is a project under the Targeted Socio-Economic Research Programme of the European Union

SPRU	Science and Technology Policy Research Unit
TC	Technological Capabilities
UK	United Kingdom
UKTI	UK Trade and Investment Agency
US	United States of America
VC	Venture Capital
WB	World Bank
WTO	World Trade Organization

CHAPTER 1

INTRODUCTION

1.1 Background

Market integration and globalization today mean that more firms are either interested in participating or already participating in international markets. On one hand, most of the current firms in global arenas are large, wealthy, well-known firms, mainly from developed countries, which have taken advantage of the benefits of market integration, telecommunications, the Internet and the emergence of new cultures resulting from the mobility of people across borders. These firms have the resources, capabilities and branded products to position their products in foreign markets. There are many examples of these firms belonging to various sectors, among which are such firms as Apple, Samsung, Dell, Nike, Carrefour, Dolce & Gabbana, Armani, Zara, etc.

On the other hand, SMEs also participate in foreign markets. Although they differ from large firms in resources, capabilities and market power, there are a few that operate successfully in foreign markets. In this regard, the great majority of studies on the internationalization of SMEs examine the experience of SMEs from developed countries specializing in high technology, the products of specialization and characteristics of which may differ from those of developing countries. Therefore, little is known about the entrance and performance of LMT-SMEs from developing countries in foreign markets, in particular in distant and developed countries' markets. To contribute to this field of study, this research looks at the experience in Europe of the Foreign Trade Council of Mexico (BANCOMEXT), which is a governmental organization dealing with the internationalization of SMEs. The SMEs serviced by BANCOMEXT are mainly small to medium-sized firms employing on average between 15 and 100 employees in low- and medium-tech industries (LMT). It is worth analysing LMT-SMEs from developing countries (Mexico) since they may differ not only in their products of specialization, capabilities or resources, but also in their national system. This means that there are differences in the economic, innovation, industrial and development levels between developed and developing countries that need to be considered as they may have an influence on firms' internationalization.

To address the internationalization of Mexican LMT-SMEs in the EU, this thesis takes a *systemic approach (the NSI approach)*: it analyses problems of knowledge transfer due to the environmental differences and geographical distance between Mexico and the EU, the internal weaknesses of LMT-SMEs and the weaknesses in the environment (Mexico) that hinder the LMT-SMEs' competitiveness and affect their interactions and internationalization performance. For this reason, attention is given to issues of innovation and learning within LMT-SMEs. By considering innovation policies that aim to deal with system failures and prompt knowledge access, knowledge creation, learning and interactions, this thesis sheds some light on the role of the governments and public intermediaries from developing countries in the internationalization of LMT-SMEs.

Analysing the experience of Mexico is particularly interesting because it is one of the most open and liberalized emerging economies in the world. Nonetheless, due to the lack of academic studies looking at the internationalization of Mexican LMT-SMEs, little is known about the fate and performance of LMT-SMEs when internationalizing in distant and developed markets, such as the European Union. In addition, as there is no consensus in the current studies about the magnitude of the impact of external barriers on the internationalization of LMT-SMEs, this research aims to shed light on the impact of external barriers (of domestic and foreign origin) on the internationalization of LMT-SMEs from developing countries in developed and distant markets such as the EU and uncover the internal weaknesses as well.

With regard to the contribution of this research, Mexican scholars have paid little attention to the study of the internationalization of LMT-SMEs, the problems (internal and external barriers) resulting from the environmental differences among the trading countries, the problems of knowledge flows and the role of governments and public intermediaries in addressing the internationalization of these firms through focusing on innovation and the NSI approach. Moreover, the majority of studies addressing the internationalization of Mexican SMEs focus more on neighbouring countries, such as the US and Latin America, and devote scant effort to the fate of Mexican LMT-SMEs when targeting distant and developed markets such as the EU.

For this reason, the author of this thesis takes a system approach (the NSI approach), the Uppsala model, to the role of public intermediaries in dealing with the internationalization of SMEs and the role of the government to shed some light on the problems affecting the competitiveness and internationalization of LMT-SMEs from developing markets in developed markets resulting from the differences in institutional set-up (environmental differences) and geographical distance and the role of the government and public intermediaries in addressing the internationalization of LMT-SMEs.

1.2 Research Aims and Questions

This thesis draws on the following bodies of literature: the internationalization of SMEs, barriers to the internationalization of SMEs, the NSI approach, innovation in LMT-SMEs and the role of public intermediaries and governments in the internationalization of SMEs. These topics are analysed to address two main research questions:

- Which barriers (internal and external to firms) have developing countries' public intermediaries identified that affect the internationalization of LMT-SMEs in distant and developed countries' markets (the EU)?
 - What is the impact of these barriers on the internationalization of LMT-SMEs from developing countries (Mexico) in developed economies (the EU)?
- What is the role of public intermediaries from developing countries (Mexico) in addressing the internationalization of LMT-SMEs?
 - Have the governmental efforts in Mexico supported the internationalization of LMT-SMEs in distant and developed countries (the EU)?

The central argument in this thesis is that there are some issues, internal and external to LMT-SMEs, that constrain the competitiveness and participation of LMT-SMEs from developing countries (Mexico) in distant and developed markets (the EU). Such problems are enhanced not only because of the geographical distance and cultural differences but also due to the economic, innovation and industrial differences between the home and the targeted market. For this reason, it is worth attending to the differences in economic

development levels among the trading countries and the differences in institutional set-ups (formal and informal). Thus, it is argued that not only the capabilities and resources of LMT-SMEs but also the external environment of both domestic and foreign origin matter in explaining their entrance and performance in foreign markets. Therefore, to contribute to this field of study, the research problem needs to be addressed from a *systemic perspective* (the NSI perspective), which considers system failures affecting the competitiveness of SMEs (innovation performance) and thus their internationalization performance, as well as some policies to deal with the problems discovered. This means that various levels of analysis – micro, meso, macro and policy – are considered in this thesis in order to shed light on the relationship that exists among the barriers affecting SMEs' internationalization and the role of public intermediaries and the government in order to improve the competitiveness of LMT-SMEs and thus to improve their internationalization.

Given the nature of the problem addressed in this thesis, a case study based on BANCOMEXT (now PROMEXICO) in Europe was conducted. This is the foreign trade commission of Mexico, which acts as a facilitator of the internationalization of SMEs in foreign markets. It has various representations all over the world but, for the purposes of this research, the case study was only based on the six representations of BANCOMEXT in Europe: Milan, Paris, London, The Hague, Frankfurt and Madrid. The interviewees are government officers, consisting of a commercial counsellor and financial representatives, the commercial counsellor's assistant and commercial assistants.

1.3 The Structure of the Thesis

The thesis is divided into nine chapters. Following this introductory chapter, Chapter 2 presents the theoretical framework of this thesis. As the thesis takes a systemic perspective (the NSI approach), this chapter addresses the internationalization of SMEs from several perspectives. Accordingly, the chapter includes business, economic, innovation and policy literature to uncover the issues concerning the internationalization of LMT-SMEs at the micro, meso, macro and policy levels. The chapter begins by presenting the characteristics of and innovation in LMT-SMEs, SMEs' entry modes,

models addressing the internationalization of SMEs (the Uppsala model vs. the born globals), the internal and external barriers affecting the internationalization of SMEs, the role of public intermediaries and governments in the internationalization of SMEs and the role of the government and policies for SMEs from the innovation perspective (the NSI approach).

In order to identify some gaps in the literature about issues concerning the internationalization of LMT-SMEs from developing countries, Chapter 3 presents a review of the empirical studies, paying attention to the internationalization of SMEs either from developing or from developed countries. Among the topics that are presented in this chapter are SMEs in foreign markets, barriers to the internationalization of SMEs, key aspects of innovation in LMT-SMEs that could contribute to their internationalization and the ways in which governments and public intermediaries have addressed the internationalization of SMEs. Lastly, some government actions that were identified through the literature review to prompt the internationalization of SMEs are presented.

In order to unfold some issues explaining the current status of Mexican LMT-SMEs in the EU, Chapter 4 presents the status of the SME sector in Mexico and the issues to be considered regarding the domestic and foreign environments in which these firms operate. In particular, this analysis aims to unfold some micro, meso, macro and policy issues that could explain the participation of Mexican SMEs in the EU. In order to do so, the chapter starts by presenting the SME sector in Mexico. It includes the definition of SMEs in Mexico, their economic contribution, their profile, their participation in foreign markets, the micro and meso factors affecting their performance and a comparison of exporting firms from Latin America. Later, the macro and policy factors that may have an impact on the firms' internationalization are presented, including various issues of domestic and foreign origin. The issues of domestic origin concern the environment for SMEs in Mexico. The foreign environment indicates the EU and addresses the opportunities and challenges facing Mexican SMEs in the EU.

As any research and its findings are judged by the methodology followed, from the collection of data to the research findings, Chapter 5 explains the methodology and research design adopted for this research. The chapter begins by presenting the different methodologies available for this research in order to explain the reasons that drove the researcher to select the case study methodology for undertaking this research. It also presents the research design of the case study of BANCOMEXT-Europe. In order to do so, it presents the research questions, the interviewees, the interview design, the access to BANCOMEXT-Europe and the data collection. Then, the data analysis (inductive approach) that was followed to analyse the interviews is explained. The final section explains how the researcher increased the validity and reliability of the research findings.

In order to track the findings of this research, Chapter 6 presents the national system of innovation approach (NSI) in the data analysis. It starts by presenting the cluster analysis, which is an inductive technique that was undertaken in order to group the main concepts and categories from the data analysis into upper core categories. Then, the four clusters that resulted from the data analysis – the demand, supply, trade competitiveness and regulation clusters – and the various levels of analysis – micro, meso, macro, policy and regulation – are presented.

Chapters 7 and 8 are devoted to answering this thesis's research questions. The findings presented in these chapters resulted from linking the outcome of the data analysis presented in Chapter 6 to the theoretical and empirical frameworks presented in Chapters 2-5. In particular, Chapter 7 focuses on answering the research question about the internal and external barriers identified by public intermediaries from developing countries (Mexico) as affecting the internationalization of LMT-SMEs in distant and developed markets (the EU) and their impact on their internationalization. Therefore, Chapter 7 starts by describing how the internationalization of Mexican SMEs in the EU can be explained by the Uppsala model. Then, the barriers identified by public intermediaries from developing countries (Mexico) as affecting the entrance and performance of LMT-SMEs in the EU are presented. They are divided into two sections: external barriers (problems stemming from the domestic and foreign environments) and internal barriers

(poor resources and capabilities among the LMT-SMEs). These barriers are related to the system failures of the NSI approach to uncover their negative impact on interactions, learning knowledge flows, knowledge creation and innovation affecting the system in order to uncover possible government recommendations to overcome the problems affecting the internationalization of LMT-SMEs.

Having identified the weaknesses in the environment and the internal weaknesses of LMT-SMEs, Chapter 8 is devoted to answering the research question about the role of public intermediaries from developing countries (like Mexico) in addressing the internationalization of LMT-SMEs, as well as governmental efforts in LMT-SMEs' internationalization. In order to do so, the chapter starts by analysing the role of the Foreign Trade Commission of Mexico (BANCOMEXT-Europe, now PROMEXICO) in the internationalization of LMT-SMEs. Then, as BANCOMEXT is a government secretariat; the officers of which share the ideology of the Mexican Government regarding the internationalization of SMEs and execute the policies set up by the Government, the next section presents an analysis of the role of the Government in the internationalization of SMEs, which is analysed through the experience of BANCOMEXT-Europe. Finally, the areas that were identified by the interviewees for policy intervention and other recommendations that were identified by the literature review in this thesis, in particular the literature addressing the NSI approach, are presented.

Finally, Chapter 9 summarizes the main conclusions of this thesis. The summary is divided into various sections. Section 9.2 presents the response to the research questions, which includes the outcome of the data analysis, covering the clusters and various levels of analyses identified, the internal and external barriers identified in this thesis affecting the internationalization of LMT-SMEs in the EU and the role of the Government and public intermediaries (in Mexico) in the internationalization of LMT-SMEs. The role of the Government in the internationalization of Mexican LMT-SMEs is analysed from the NSI approach and taking into consideration system failures; thus, it pays attention to issues of learning, knowledge creation, knowledge access and innovation in LMT-SMEs. Section 9.3 presents the implications and evidence for theory. The next section (Section

9.4) presents the policy recommendations that result from this research to prompt the internationalization of LMT-SMEs from developing countries (Mexico) in distant markets and developed markets (the EU). Finally, Section 9.5 presents the limitations and lines for future research.

CHAPTER 2

THEORETICAL FRAMEWORK

2.1 Introduction

This chapter presents the theoretical framework for this research, which helped the researcher to develop and answer the research questions addressed in this thesis. As this thesis takes a *systemic perspective (the NSI perspective)*, it pays attention to improving the internationalization of LMT-SMEs by upgrading their innovation performance and acquiring knowledge from abroad. It also considers the internal and external barriers affecting the internationalization of SMEs, the differences in institutional set-up and the role of the government and public intermediaries in supporting the internationalization and competitiveness of LMT-SMEs. The topics addressed in this chapter include the internationalization of SMEs, the barriers affecting the internationalization of SMEs, issues of innovation, the role of governments from the NSI approach and the neoclassical economic theory and the role of public intermediaries from the business perspective.

Specifically, this chapter is divided into seven sections. As this thesis concerns the internationalization of LMT-SMEs, Section 2.2 presents their characteristics. Section 2.3 presents SMEs' entry mode into foreign markets. To understand why SMEs follow different entry modes, Section 2.4 presents the theoretical models that explain the internationalization of SMEs, such as the *born globals* and the *Uppsala* model. Section 2.5 presents the internal and external barriers hindering the internationalization of SMEs. As this thesis also considers the role of the government in improving the competitiveness and internationalization in developed countries of LMT-SMEs from developing countries, Section 2.6 addresses the role of the government in the internationalization of SMEs from three different perspectives – the neoclassical economic theory, the NSI approach and public agencies. The neoclassical economic theory is addressed because the interviewees are embedded in such ideology. The NSI approach, which emphasizes learning, knowledge and innovation to improve the internationalization of SMEs through upgrading innovation, is also addressed because it uncovers important areas for government intervention that are not considered by the neoclassical economic theory. The final section presents the conclusions of this chapter.

2.2 SMEs in Low- and Medium-Technology (LMT) Industries

As the majority of SMEs serviced by BANCOMEXT to internationalize in the EU belong to LMT industries, this chapter starts by presenting the important characteristics of these industries in order to uncover the issues that need to be considered when analysing the internationalization of LMT-SMEs.

Today, authors like von Tunzelmann and Acha (2005), who untangle the relationship between the technologies and the markets that comprise an industry, refer to LMT industries¹ instead of differentiating between low-tech and medium-tech industries as the OECD-type classifications do. The LMT industries include: food, oil and gas, paper, agricultural products and raw materials, textiles and clothing, glass in traditional manufacturing, vehicles and steel in scale-intensive and machinery industries. These industries are driven by similar factors that distinguish them from high-tech industries. These similarities include the following: *LMT industries are mainly made up of SMEs* (Mendoca, 2009; Robertson et al, 2009; von Tunzelmann and Acha, 2005), their markets and industries are generally mature and characterized by slow growth, their technologies change slowly and the firms face high levels of competition based on price (Robertson et al, 2009).

In addition, LMT firms mainly use rather than sell technology (Heidenreich, 2009; von Tunzelmann and Acha, 2005). They place more emphasis on product/marketing functions and less emphasis on technology functions than high-technology industries, i.e. innovation within firms in the LMT industry can and do take place with relatively low or even no R&D. Indeed, these firms are able to innovate by undertaking *non-R&D activities*, such as learning by doing, using, interacting, etc. (Santamaria et al, 2009).

In LMT firms, long-term prosperity and innovation are driven by demand as well as supply factors (von Tunzelmann and Acha, 2005). The *demand drivers* of innovation mean that firms in LMT industries can innovate by focusing on demanding customers (either domestic or foreign customers) who pressure firms to improve their quality, fulfil

¹ This classification permits a more constructive analysis of the key drivers of change at the industry/sector level than between demand and supply factors (von Tunzelmann and Acha, 2005).

standards and upgrade their technology (Ernst et al, 1998; Hervas-Oliver et al, 2011; Grimpe and Sofka, 2009; Kaufmann and Tödtling, 2003; Porter, 1990; Russo, 1999; Santamaria et al, 2009; von Tunzelmann and Acha, 2005). This allows firms to produce sophisticated products that achieve high prices (von Tunzelmann and Acha, 2005). In particular, marketing (specifically branding and product differentiation) enables these firms to innovate by undertaking incremental changes to their products and achieving economies of scope² (Smallbone et al, 2003; von Tunzelmann and Acha, 2005). This requires the development of close links with customers, qualified human resources and the development of capabilities and enhancement of capacities, in particular those that allow firms to identify and use knowledge in order to translate the needs of sophisticated customers into products, fulfil standards, etc. (Hervas-Oliver et al, 2011; Mendoca, 2009; Smallbone et al, 2003).

LMT firms can also innovate and improve their competitiveness by introducing *high technology* (supply drivers of innovation) from other industries or more developed countries into their existing products and production processes³ (Kaufmann and Tödtling, 2003; Mendoca, 2009; OECD, 1997b; Robertson et al, 2009; Santamaria et al, 2009; von Tunzelmann and Acha, 2005). However, the problem is that SMEs frequently lack the resources to invest in new technologies (Kaufmann and Tödtling, 2003).

This section has highlighted the relevant issues that need to be considered when analysing the internationalization of LMT-SMEs, such as the important role played by foreign customers, in particular demanding customers whose demands pressure firms to upgrade their performance and drive innovation and long-term growth. In other words, the internationalization of LMT-SMEs from developing countries (e.g. Mexico) in developed countries' markets (the EU) opens the opportunity to make contact with demanding customers, move to sophisticated products and introduce technology developed abroad. After presenting the key aspects of firms (including SMEs) in LMT industries, the next section moves on to the entry modes of SMEs in foreign markets to uncover how these firms internationalize.

² Economies of scope refer to the benefits gained from producing a wide variety of products by utilizing the same operations efficiently (Parkin and Loria, 2010).

³ These firms could introduce ICT, biotechnology and smart materials to produce sophisticated products (von Tunzelmann and Acha, 2005).

2.3 SMEs' Entry Mode into International Markets

This section presents the various entry modes into foreign markets available to SMEs. Though these entry modes do not refer to the industries to which the SMEs belong, they will contribute to the understanding of the internationalization of SMEs. Numerous authors (Audretsch, 2003; Dussel, 2001; Gelmetti, 2006; OECD, 2005) identify exporting, alliances, participation in clusters and networks and participation in production chains of foreign companies as means by which SMEs could internationalize. Nonetheless, *exporting* continues to be the most common and straightforward means of internationalization for SMEs due to the minimal business risk, lower commitment of resources and high degree of flexibility (Acs et al, 1997; Aulakh et al, 2000; Daniels et al, 2002; Gelmetti, 2006; Johnson and Arunthanes, 1995; Knight and Liesch, 2002; Stottinger and Schlegelmilch, 1998; Tayeb, 2003).

In particular, exporting is the dominant entry mode for firms from emerging economies participating in foreign markets since the majority of these firms are still in the earliest stages of the internationalization process (Aulakh et al, 2000). Among the exporting firms, a distinction between regular and sporadic exporters can be seen. Sporadic exporters represent the first stage of internationalization (Gelmetti, 2006). On the contrary, regular exporters are engaged in exporting operations on a regular basis and have developed more internal capabilities (Katsikeas, 1996). They innovate more, have modernized productive processes, provide more training and use export promotion instruments more intensely than sporadic exporters (Alvarez, 2004).

Nevertheless, exporting firms (either permanent or sporadic exporters) are at a disadvantage compared with larger, established multinational companies due to their lower bargaining power (Aulakh et al, 2000). Therefore, many authors recommend that SMEs internationalize through any kind of collaboration, such as alliances, participation in clusters and networks and indirect exporting, to increase their probability of succeeding in international markets, overcome their weaknesses and survive the high level of

competition. For instance, Acs et al (1997), Audretsch and Thurik (2001) and the OECD (2005) recommend that SMEs should internationalize by *indirect exporting* (i.e. supplying a foreign market via domestic or international companies) in order to overcome the barriers to their internationalization. In addition, Aulakh et al (2000), Gelmetti (2006), the OECD (2005), Khon (1997) and Soto and Dolan (2003) advocate internationalization through *alliances* to access new technologies, share experiences, achieve economies of scale, prompt innovations and improve competitiveness and productivity. Through alliances, SMEs could also establish close supplier–customer collaboration (Khon, 1997). Similarly, through *participating in networks*⁴ and *clusters*⁵, SMEs could not only accelerate their internationalization and ease their entrance into geographically distant markets⁶ (Chetty and Blankenburg-Holm, 2000), but also share information and knowledge, reduce competition, pool resources, undertake cooperative actions, develop technologies (i.e. increase competitiveness) and reduce costs⁷ (Fliess, 2007; Ghauri et al, 2003; Tayeb, 2003; Yamawaki, 2002). However, not all SMEs are able to internationalize in such kinds of collaborations; only the most prepared (those that have a set of capabilities such as managerial and organizational skills and offer competitive advantages) internationalize in collaboration with other firms (Peng, 2010).

As seen from this section, although there are numerous entry modes available for SMEs' internationalization, the most common entry mode is exporting. This is due to the low commitment of economic resources and capabilities required compared with the other entry modes. However, if SMEs had more internal resources (e.g. capabilities of various kinds), they could internationalize through collaborating with other firms. To continue to shed light on the factors that may explain why some firms internationalize through

⁴ Networks refer to cooperative relationships between suppliers, producers and buyers aiming to solve their marketing problems, improve their productivity and take advantage of market opportunities (Ghauri et al, 2003).

⁵ Clusters are geographic concentrations of interconnected companies, specialized suppliers and service providers, firms in related industries and associated institutions in particular fields that compete but also cooperate. Clusters also involve a number of institutions and governmental bodies that provide specialized training, education and information (Audretsch, 2003).

⁶ The research of Chetty and Blankenburg-Holm (2000) analyses the importance of networks in the internationalization of manufacturing SMEs from New Zealand. They found that SMEs have internationalized in distant markets such as Malaysia through networks.

⁷ In developing countries, the network instigators play an important role in the emergence of the network and the network development process (Ghauri et al, 2003).

exporting and others through collaboration with other firms, the next section presents the models explaining the internationalization path of SMEs.

2.4 SMEs' Models of Internationalization: The Born Globals vs. the Uppsala Model

In order to understand the connection between the entry modes into foreign markets followed by SMEs, the industry sector to which the SMEs belong and the importance of internal resources in the internationalization of SMEs, this section presents the two most frequently used theoretical models explaining the internationalization of SMEs: the **born globals** and **internationalization as a process of stages – the Uppsala Model**. Though both of them explain the internationalization of SMEs, they differ in the paths of internationalization. Before presenting each model, it is worth recalling that firms' internationalization occurs when a firm expands its selling, production or other business activities into international markets (Knight and Liesch, 2002). It represents one of the most important strategies and decisions that determine firms' scope, orientation and values (Melin, 1992).

2.4.1 The Born Globals

In recent decades, because of market integration and the use of new technologies and telecommunications, a new generation of SMEs operating in foreign markets has emerged. This generation is known as *the born globals*, *new ventures*, *instant internationals* or *global start-ups* and represents a new phenomenon that explains the insertion of SMEs into international markets after being established for only a short period or being born to be global (Chetty and Campbell-Hunt, 2004; Gabrielsson et al, 2004; Moen, 2002; Oviatt and McDougall, 1994).

Specifically, a *born global* can be defined as a business organization that from its inception seeks to derive significant competitive advantages from the use of resources and the sale of outputs in multiple countries (Oviatt and McDougall, 1994). The most representative characteristics of these firms are that they specialize in services or manufacture high-technology products for a particular niche in international markets,

perceive the world as one market, do not require a strong domestic market to support their firms and adapt quickly to innovations (Chetty and Campbell-Hunt, 2004). They internationalize quickly through their insertion into the production chains of large foreign firms or global networks, strategic alliances, partnerships and formation of international joint ventures⁸ (Freeman et al, 2006; Hutchinson et al, 2006).

The managers of the *born globals* are risk taking and curious to explore opportunities abroad (Chetty and Campbell-Hunt, 2004; Pedersen and Petersen, 2004). The participation of the *born globals* in international markets is currently increasing due to new market conditions and technological development (Chetty and Campbell-Hunt, 2004; Hutchinson et al, 2006; Moen, 2002; Nummela et al, 2004; Oviatt and McDougall, 1994).

As explained in this section, the born global approach explains the internationalization of SMEs specializing in high-technology products and services that have internationalized at high speed thanks to the establishment of collaboration with foreign firms. However, as not all SMEs have the characteristics of the *born globals*, it is worth recalling the Uppsala model, which may contribute to explaining the internationalization of LMT-SMEs.

2.4.2 Internationalization as a Sequence of Stages

Among the models that explain the internationalization of firms as a process of stages over a long period of time, the *Uppsala model* and the *product cycle model*⁹ should both

⁸ An international joint venture is a form of strategic alliance in which the parties agree to develop a new entity and new assets by contributing equity. It allows SMEs to overcome problems such as their lack of knowledge of foreign markets, resources and capabilities (Lu and Beamish, 2006).

⁹ The *product cycle model* identifies several stages in the life cycle of a product, such as the *introduction*, *growth*, *maturity* and *decline stages*. Each one has different implications for firms' internationalization. In

be mentioned (Melin, 1992). This section focuses on the Uppsala model, which was built on observations of Nordic multinationals, but which has been used to explain the internationalization of SMEs from various regions in distant and foreign markets (Axinn and Matthyssens, 2002; Buckley, 1989; Johanson and Vahlne, 1977). This model has also been utilized to explain the internationalization of low-tech small firms from developed countries (Atmer and Thagesson, 2005).¹⁰ Since well-known authors such as von Tunzelmann and Acha (2005) refer to LMT industries instead of just focusing on low-technology industries (this is because LMT industries share various similarities, as explained in Section 2.2), it could be said that the Uppsala model may explain not only the internationalization of small low-tech firms, but also the internationalization of LMT-SMEs, which are the firms analysed in this thesis.

According to the Uppsala model, a strong domestic market is required to support the internationalization of firms (Chetty and Campbell-Hunt, 2004). It also assumes that managers are risk averse in their decisions and their commitment to international markets (Johanson and Vahlne, 1977; Pedersen and Petersen, 2004). In the Uppsala model, internationalization is seen as a slow process of stages (exporting being the first stage)¹¹ due to small firms' financial and managerial constraints (Buckley, 1989; Johanson and Vahlne, 1977), and the learning process over time helps to overcome the *psychic distance* to foreign markets (Johanson and Vahlne, 1977; Johanson and Vahlne, 1990; Johanson and Wiedersheim-Paul, 1975).

the *introduction stage*, the firm is domestically oriented towards the country where the product was developed; in the *growth stage*, the firm increases its exporting and FDI activities; in the *maturity stage*, the manufacturing is relocated to countries with low labour costs because the major markets are saturated and the product standardized; lastly, in the *stage of decline*, the manufacturing firm leaves the industrial country that was the home of the original innovation (Vernon, 1966).

¹⁰ An empirical study that analyses the internationalization process of Swedish low-technology and high-technology small firms found that the low-technology small firms included in the study followed the internationalization process described by the Uppsala model as they entered one country at time, used mature products and did not collaborate with foreign companies in their internationalization process (Atmer and Thagesson, 2005).

¹¹ The first stage of internationalization is exporting directly, which is followed by exporting indirectly (through an agent abroad). In the next stage, the firm develops sales subsidiaries in foreign countries and in the last stage it establishes a production/manufacturing facility abroad (Johanson and Vahlne, 1977; Johanson and Wiedersheim-Paul, 1975).

The *psychic distance* highlights the role of knowledge and information in firms' internationalization and the difficulty in acquiring them from distant markets (this topic will be analysed in section 2.4.2.1). The *psychic distance* also refers to the environmental differences among countries as it highlights the differences between any two countries in terms of language, culture, education level, business practice, legislation and industrial development (Chetty and Campbell-Hunt, 2004; Johanson and Vahlne, 1977; Johanson and Vahlne, 1990).

A criticism that can be made against the Uppsala model is that it partially explains the internationalization of firms in foreign markets. It only assumes that firms perform in a given environment, and all the efforts to succeed in their international operations depend on their ability to accommodate themselves in that environment. That is, it analyses the problem from the business perspective but does not consider the *system* perspective, which includes all the micro, meso, macro and policy factors that influence firms' internationalization. As it may be the case that some SMEs internationalize at high speed because of the active role of governments in prompting innovation and the internationalization of SMEs, this research relies on the Uppsala model to explain the internationalization of LMT-SMEs but complements it with a system approach (this approach is presented in section 2.6.2) to analyse the internal resources of the SMEs, the environment and the role of the government and its influence in prompting innovation and the internationalization of SMEs. To continue to shed light on the internationalization of LMT-SMEs, the next section focuses on the roles of information and knowledge, which are issues considered by the Uppsala model.

2.4.2.1 Information and Knowledge in the Internationalization of SMEs

Information and knowledge are important factors explaining the internationalization of firms in the Uppsala model. According to the Uppsala model, the *psychic distance* refers to the difficulties in acquiring *knowledge and information* from distant markets and

managers' uncertainty about these markets (Johanson and Vahlne, 1990). Therefore, *psychic distance* can be defined as the distance that disturbs the flow of information and knowledge between the firms and the foreign market, which explains why firms usually start internationalizing in neighbouring countries that are more similar, easier to understand and perceived to be less uncertain (Johanson and Vahlne, 1977; Pedersen and Petersen, 2004; Stottinger and Schlegelmilch, 1998).

In particular, this model stresses the fact that accessing knowledge from abroad is difficult and costly; thus, it inhibits and slows down the internationalization of firms in distant countries (Calof and Beamish, 1995; Forsgren and Johanson, 1992; Johanson and Vahlne, 1977; Johanson and Vahlne, 1990; Pedersen and Petersen, 2004; Stottinger and Schlegelmilch, 1998). This model also highlights the fact that firms overcome the perceived gap of knowledge between the home country and the foreign country as they acquire knowledge (by learning by doing) through a slow process of stages (Calof and Beamish, 1995; Forsgren and Johanson, 1992; Johanson and Vahlne, 1990; Pedersen and Petersen, 2004).

As the Uppsala model refers to information and knowledge, it is worth recalling the differences between them. On one hand, *information* (codified knowledge) can be acquired faster and more easily than knowledge (tacit knowledge) because information is explicit (e.g. market statistics, import regulations, etc.). It can be transferred over long distances and across organizations due to advances in the ICT infrastructure (Ernst et al, 1998; Lundvall and Borrás, 1997; Nauwelaers and Wintjes, 2003; OECD, 1997b).

On the other hand, though knowledge from abroad enables firms to uncover new business opportunities and upgrade their innovative performance (Ernst et al, 1998; Fagerberg et al, 2005; Grimpe and Sofka, 2009; Hervás-Oliver et al, 2011; OECD, 1997b; Santamaria et al, 2009), the transmission of tacit knowledge (*skills, expertise and modes of interpretation*), which is the most fundamental resource required to innovate (Edquist, 2005; Lundvall, 1992), is difficult and costly. This difficulty arises because tacit knowledge has a subjective and intuitive nature, *it is transmitted through interactions among various actors and it remains embedded in individuals' actions and experience*, as well as in the ideas, values or emotions embraced by *individuals, organizations, regions and nations* (Dalum et al, 1992; Ernst et al, 1998; Lundvall, 1992; Lundvall and

Borrás, 1997; Lundvall et al, 2002; Metcalfe and Georghiou, 1997; Nauwelaers and Wintjes, 2003; Nonaka and Takeuchi, 1995; OECD, 1997b; Patel and Pavitt, 1994). Altogether, they make knowledge hard to formalize and communicate or share with others (Nonaka and Takeuchi, 1995) and explain why geographical distance is also a barrier to the transmission of knowledge (Nauwelaers and Wintjes, 2003).

In addition, knowledge is extremely sensitive to the environment; thus, differences among national economies in formal and informal institutional set-ups (e.g. differences in language and culture, laws, development levels, learning levels, knowledge base, etc.) make its transfer difficult (Lundvall and Borrás, 1997; Lundvall et al, 2002; Metcalfe and Georghiou, 1997; Nauwelaers and Wintjes, 2003). As a consequence, accessing knowledge from abroad is neither automatic nor easy, despite globalization (Lundvall and Borrás, 1997; OECD, 1997b; Patel and Pavitt, 1994).

As described in this section, the internationalization of LMT-SMEs can be explained by the Uppsala model, which considers the internationalization of SMEs as a slow process due to difficulties in accessing knowledge and information from abroad. Nonetheless, when addressing the literature on innovation, it was seen that the internationalization process described by the Uppsala model is particularly difficult not due to the difficulty in accessing information (codified knowledge) but due to the problems that foreign firms encounter in accessing knowledge (tacit knowledge) from abroad. This is because tacit knowledge is transferred through interactions; it is extremely sensitive to environmental differences and the great geographical distance also affects its transfer. To shed light on other problems that may affect the internationalization of SMEs, the next section presents the barriers hindering the internationalization of SMEs.

2.5 Barriers Hindering the Internationalization of SMEs

To contribute to the understanding of the problems that may hinder the participation and performance of LMT-SMEs from developing countries (Mexico) in distant and developed markets (the EU), and to uncover areas for government intervention, this section presents the theoretical framework of the internal and external barriers (or problems) affecting the

internationalization of SMEs. Though these barriers are not specific to LMT-SMEs, i.e. they apply to any kind of SMEs, these barriers can act as a framework of potential problems that may affect LMT-SMEs' internationalization.¹²

To begin with, it is worth noting that the barriers to exporting can be defined as all those constraints that hinder the ability of firms to initiate, develop or sustain business operations in overseas markets. They can be found at any stage of the export development process and their impacts may differ markedly from stage to stage (Leonidou, 2004). Their impacts strongly affect smaller firms because of their lower level of resources and capabilities (Acs et al, 1997; Leonidou, 2004). These barriers can be both internal and external to the firm (Fliess, 2007; Leonidou, 2004; OECD, 2005). The classification of internal and external barriers presented in the next sections is mainly based on the classification suggested by Leonidou (2004), who presents the most complete study of the barriers affecting the internationalization of SMEs.¹³ Other barriers were identified after addressing the literature on innovation.

2.5.1 Internal Barriers

In order to understand the impact of the internal barriers, this section pays attention to the resource-based view (RBV) theory and the internal barriers affecting the internationalization of SMEs. The RBV of a firm considers firms in terms of the resources that they own. According to this view, a firm is a collection of resources and those with superior resources will earn rents (Penrose, 1959; Teece, 1982). From the viewpoint of this theory, the firm's internal resources include: i) *physical capital resources*, ii) *human capital resources* and iii) *organizational capital resources* (Barney, 1991). Of all of them, human capital resources and their capabilities play a key role in determining the firm's competitive advantage¹⁴ and innovation strategies (Barney, 1991; Peteraf, 1993). This is

¹² Through the literature review, no specific theoretical framework of the internal and external barriers affecting particularly LMT-SMEs was found.

¹³ Leonidou (2004) identified these barriers by analysing the experience of exporting SMEs from North America and Europe; he did not consider SMEs from developing countries.

¹⁴ A firm has a competitive advantage when it implements a value-creating strategy not simultaneously being implemented by any current or potential competitor (Barney, 1991).

because the knowledge creation and capabilities (which depend on human resources) are accumulated through organizational learning, are difficult to imitate and are meaningful sources of innovation (Nelson, 1991; Penrose, 1959).

Regarding the relationship between the RBV of the firm and the internationalization of firms, the logic is that firms with broad internal resources and more capabilities tend to pursue diversification strategies, innovate and enter markets with resource requirements that match their resources (Montgomery and Hariharan, 1991). Altogether, they highlight the importance of human capital to develop capabilities that allow firms to internationalize and improve their competitiveness in foreign markets. Thus, as inferred from the RBV, a lack of internal resources, in particular human capital resources, which are the most important to innovate, may act as a barrier affecting firms' internationalization. To shed light on the internal barriers affecting the internationalization of SMEs, the next section presents the classification of internal barriers suggested by Leonidou (2004).

2.5.1.1 Classification of Internal Barriers

According to Leonidou (2004), the internal barriers hindering the internationalization of SMEs are associated with organizational resources/capabilities and company approaches to international business, and are also more controllable and easier to manage than the barriers stemming from the external environment. These barriers include:

- i) **Informational barriers:** They include problems of identifying, selecting and contacting relevant information for international operations;
- ii) **Functional barriers:** These are related to the inefficiencies of various internal functions with regard to exporting. They include limited managerial time to deal with exports, a lack of personnel or untrained personnel to deal with exports, a lack of production capacity to export and a lack of financial resources.
- iii) **Marketing barriers:** They are related to the company's product, pricing, distribution, logistics and promotional activities abroad. They may include

problems regarding the adaptation of products to the foreign market demand, meeting export product quality/standards or specifications, meeting export packaging and labelling requirements, after-sales services, offering satisfactory prices to customers, difficulty in matching competitors' prices, complex foreign distribution channels and adjusting promotional activities to each market.

Among them, *managerial constraints* are the most pervasive barriers affecting the decision to move abroad and the performance of SMEs in foreign markets (Buckley, 1989). In this regard, Bell et al (1992) and Etemad (1999) recognize that SMEs often lack the resources, experience, skills and knowledge necessary to operate in international markets, putting SMEs at a huge disadvantage compared with larger firms. This is because to participate successfully in international markets, SMEs need to know how to operate at a distance, e.g. use a variety of informal and formal contractual business relationships, be familiar with different business regulations, have the ability to handle different cultures (the global mindset),¹⁵ customs and languages and develop appropriate solutions for foreign markets (Nummela et al, 2004; OECD, 2007b; Westhead et al, 2001). SMEs also need experience in international markets since the empirical evidence shows that previous experience of selling goods or services abroad encourages firms to export (Westhead et al, 2001).

2.5.1.2 Knowledge Barriers

As explained in section 2.4.2.1, accessing knowledge from abroad is a problem affecting the internationalization of LMT-SMEs; therefore, knowledge represents a barrier to the internationalization of SMEs. *This barrier was not included in the classification of internal barriers suggested by Leonidou (2004), but it was identified when addressing the Uppsala model and the literature on innovation.* According to the literature on innovation, firms' problems in accessing knowledge from abroad are due to their lack of absorptive capacity (AC). The lack of AC is a severe internal barrier that inhibits the

¹⁵ Nummela et al (2004) found that the global mindset clearly has an impact on firms' internationalization per se. It affects the decision to commit more resources to foreign markets and to set up the internationalization objectives on a higher level.

transfer of knowledge and negatively affects firms' innovation performance and competitiveness (Bessant et al, 2005). Firms could overcome knowledge barriers by enhancing their AC, which would enable them to recognize the value of new knowledge,¹⁶ acquire it, transform or assimilate it and exploit it. AC is developed upon the prior knowledge base¹⁷ and is influenced by social integration mechanisms (e.g. networking), power relationships (relationships with customers, suppliers, etc.) and regimes of appropriability¹⁸ (e.g. intellectual property rights) (Todorova and Durisin, 2007). Firms can build AC by investing in knowledge and learning, e.g. employing new individuals with the required skills, providing training and education and setting up linkages¹⁹ with other firms,²⁰ customers and knowledge infrastructure (Bessant et al, 2005; Dalum et al, 1992; Edquist, 2005; Lundvall and Borrás, 1997; Patel and Pavitt, 1994; Rubalcaba et al, 2010; Tiler et al, 1993). The collaboration with external sources of knowledge can also be encouraged by employing qualified personnel and providing staff training (Rothwell and Dodgson, 1991).

Among the benefits for the internationalization of SMEs stemming from enhancing AC are that it enables firms to access and make sense of knowledge from abroad²¹ and to deal with differences in the institutional set-up (Metcalf and Georghiou, 1997). In addition, firms will be able to respond to market changes as AC enables firms to transform the external knowledge into new ideas, products or processes (Ernst et al, 1998; Grimpe and Sofka, 2009; Lefebvre et al, 1998; Tiler et al, 1993; Zahra and George, 2002). Moreover,

¹⁶ The recognition of the value of knowledge is the first component of AC as firms without prior knowledge or a scarce knowledge base are unable to evaluate the new information and thus fail to absorb valuable new external knowledge (Cohen and Levinthal, 1989; Todorova and Durisin, 2007).

¹⁷ The variables that capture AC within firms are college education and training (Grimpe and Sofka, 2009).

¹⁸ The efficiency of intellectual property rights stimulates or discourages the investment in absorptive capacity (Todorova and Durisin, 2007).

¹⁹ These linkages can take varied forms, including informal and formal relationships. Both of them are effective for knowledge creation (Eisenhardt and Martin, 2000).

²⁰ Through participating in networks, establishing alliances, subcontracting, manufacturing and marketing agreements (Rothwell and Dodgson, 1991), licensing, collaboration and informal knowledge exchange mechanisms (Tiler et al, 1993).

²¹ The flows of knowledge from abroad can take various forms, e.g. foreign customers, suppliers, purchase of foreign patents and licenses, networks, technical alliances between firms from different countries, technical consultancy from abroad, subcontracting arrangements, domestic and foreign partnerships, foreign direct investment, internationally co-authored publications and participation in international trade fairs (Ernst et al, 1998; Grimpe and Sofka, 2009; OECD, 1997b).

the enhancement of AC enables firms to develop important capabilities,²² such as technological capabilities (TCs)²³ and managerial, organizational, marketing and networking capabilities, in order to move to more sophisticated products and participate in foreign markets (Ernst et al, 1998; Fagerberg et al, 2005; Lundvall and Borrás, 1997; Lundvall and Borrás, 2005; OECD, 1997b; von Tunzelmann and Wang, 2007). The enhancement of AC and development of capabilities will allow firms not only to acquire knowledge from outside (or learn from others) but also to create knowledge,²⁴ which is the key to continuous innovation that leads to competitive advantage (Nonaka and Takeuchi, 1995). Nonetheless, accessing and creating knowledge is not easy; it is costly due to the investment required to enhance and develop AC and capabilities, which may represent a challenge for SMEs.

2.5.1.3 Poor Innovation Performance as an Internal Barrier

As the development of countries depends on their firms' ability to create income, increase productivity, compete and grow, which in turn depends on the firms' ability to learn and innovate (Viotti, 2002), poor innovation performance can also be seen as an internal barrier affecting the internationalization of LMT-SMEs. This barrier was not included in the classification of internal barriers hindering the internationalization of SMEs suggested by Leonidou (2004), but it is included in this thesis as the lack of innovation impedes firms from moving to markets that demand higher-quality and innovative products.

It is worth recalling that within SMEs, innovation depends on non-R&D activities and takes place in an informal way due to their limitations in resources and capabilities (Nauwelaers and Wintjes, 2003; Smallbone et al, 2003). Nonetheless, the limited resources and capabilities of SMEs make difficult and slow down their adaptation process

²² Capabilities and competences are built upon human capital resources. Thus, they depend on the preceding levels of learning, have a strong tacit dimension, are socially embedded and are difficult to imitate (Barney, 1991; Peteraf, 1993).

²³ TCs are defined as the abilities that enable firms to acquire, assimilate, use and adapt existing technologies as well as to create new technologies (Bell and Pavitt, 1993; Ernst et al, 1998; Kim, 1997).

²⁴ To create organizational knowledge, firms first need to acquire knowledge from outside, then they need to internalize it (i.e. share it widely within the organization and utilize it) in order to develop new products or technologies. Knowledge creation also requires intense interactions among the members of the organization (e.g. through dialogue, discussion, experience sharing and observation) (Nonaka and Takeuchi, 1995).

to new technologies, organizational concepts and markets (Rubalcaba et al, 2010; Smith, 2000).

Regarding the relationship between innovation and LMT-SMEs' internationalization, it is worth highlighting that LMT-SMEs could improve their performance in international markets by upgrading their innovation performance. This would enable them to discover opportunities in foreign markets and adapt their products to satisfy specific segments of markets abroad²⁵ (Ernst et al, 1998; Ribeiro, 2007; Robertson et al, 2009; Russo, 1999; von Tunzelmann and Acha, 2005). In addition, by innovating, SMEs could overcome the intense competition. This is because innovation enables firms to find new ways of working and cope with the rapid changes brought about by globalization (Porter, 1990). In contrast, if firms do not innovate, they are at risk of being marginalized from globalization and taken out of the market (Iammarino et al, 2009; Lundvall and Borrás, 1997; Porter, 1990; Santamaria et al, 2009). This highlights that as markets become increasingly internationalized, a lack of innovation means that non-innovative firms become increasingly vulnerable (Smallbone et al, 2003).

Regarding the problems (or barriers) affecting the innovation performance of SMEs, Kaufmann and Tödtling (2003) identify deficits in: i) finance/risk, ii) personnel/qualification, iii) technology/technical know-how, iv) strategy,²⁶ v) market access/information²⁷ and vi) organization and management deficits/time (the negative effects of a lack of time on organization and innovation)²⁸. In addition, Dodgson and Rothwell (1993) include other barriers, such as the lack of technological scales and government regulations. That is, the barriers hindering innovation among SMEs are

²⁵ The experience of SMEs in the NIEs of South Korea, Taiwan, China, Thailand, Indonesia and Vietnam shows that the performance of SMEs in foreign markets improves thanks to innovation; these firms undertook improvements in their manufacturing processes and product designs that allowed them to enter foreign markets (Ernst et al, 1998).

²⁶ This may include a lack of linkages with the knowledge infrastructure, customers, suppliers or other firms and little willingness and commitment to enter new markets (Kaufmann and Tödtling, 2003).

²⁷ This may include a lack of knowledge of markets, lack of cooperation with demanding customers and deficits in marketing (Kaufmann and Tödtling, 2003).

²⁸ Kaufmann and Tödtling (2003), based on a regional study of innovation for SMEPOL in various European countries, identified these problems (or barriers) as constraining innovation in SMEs.

related to the lack of internal resources (physical resources and capabilities) and the inappropriate government role.

As seen in this section, most of the barriers hindering the innovation performance of SMEs also inhibit their internationalization. It is worth recalling that Leonidou (2004) includes in his classification of internal barriers issues such as personnel/qualification, market information and time/organization, which are also problems affecting SMEs' innovation performance. From the RBV presented in this section, it is apparent that in order for SMEs to overcome the internal barriers hindering their innovative performance, it is necessary for them to upgrade their capabilities, which will allow them to improve their competitiveness in foreign markets.

Overall, the internal barriers hindering the internationalization of SMEs are associated with the lack of internal resources, such as *AC* to identify and make use of information and knowledge from abroad, the *lack of capabilities* (e.g. organizational, managerial and marketing capabilities) and the *lack of physical resources* (e.g. production capacity and financial resources). From the RBV viewpoint, these problems reveal a lack of internal resources that affect the firms' competitiveness and inhibit their innovation performance (Barney, 1991; Montgomery and Hariharan, 1991; Peteraf, 1993; Teece, 1982). Therefore, these barriers negatively affect the internationalization of SMEs. Despite the fact that most of the internal barriers could be overcome by upgrading the human capital resources on which the *AC* and capabilities rely, the difficulty of SMEs in overcoming these barriers rests on their lack of resources to make the large investment and efforts required in order to enhance their *AC* and develop their capabilities. To continue investigating the barriers that affect the internationalization of SMEs, the next section focuses on external barriers.

2.5.2 External Barriers

To shed light on the external barriers to the internationalization of SMEs, it is worth considering the external environment in which firms operate, as suggested by numerous

authors (Calof and Beamish, 1995; Collis, 1991; Melin, 1992; Zou and Stan, 1998). The external environment consists of factors outside a firm's direct control (Calof and Beamish, 1995; Porter, 1980). They include the export market characteristics, geographical distance, domestic market characteristics, trade barriers and industry characteristics (Zou and Stan, 1998). Specifically, Melin (1992) suggests paying attention to the social and cultural contexts; due to the very fact of firms' internationalization, they operate in a number of different social and cultural contexts. Other external impediments to the internationalization of SMEs originate at the level of the national economy. They can include poor institutions, policies, telecommunications and transport infrastructures (OECD, 2005). Deficiencies related to them in developing countries explain why firms from developing countries underperform in international markets (Collier and Dollar, 2002).

As there are many factors that determine the environment and some of them may have a greater impact on firms' environment than others, Porter (1980) recommends analysing the industry²⁹ structure, which determines the intensity of competition (the firms' environment) that the firms face. The structural analysis of the industry uncovers the most important constituents affecting firms' environment and enables firms to design strategies³⁰ based upon the analysis of their strengths and weaknesses in relation to the industry to which they belong. According to Porter (1980), the five forces that affect competition in an industry (the industry environment) and determine the industry structure in any country or international market are: i) *the threat of entry into an industry*,³¹ ii) *the threat of substitute products or services*, iii) *the bargaining power of*

²⁹ There is no generally accepted definition of an industry as any definition of an industry essentially involves a choice regarding where to draw the line between established competitors and substitute products, between existing firms and potential entrants, and between existing firms and suppliers and buyers (Porter, 1980).

³⁰ The strategies resulting from this analysis encompass a strategic combination of firms' resources and capabilities that will allow firms to deal with their environment (Porter, 1980).

³¹ It includes the barriers to entry and reactions from existing competitors that the entrant can expect, including economies of scale, product differentiation, capital requirements, switching costs, access to distribution channels, cost disadvantages independent of scale, government policy (standards, regulations) and expected retaliation (Porter, 1980).

*suppliers, iv) the bargaining power of buyers and iv) the intensity of rivalry among the current competitors.*³²

The paragraphs above show that there are many challenges or barriers stemming from the external environment that may affect the internationalization of SMEs. According to various authors (Acs et al, 1997; OECD, 2005; OECD, 2007b), these barriers are systematically higher for SMEs than for larger firms due to the lack of resources and the lesser ability of SMEs to shape their environment. They impose pressure on firms' performance and the firms must adapt to the environment to survive and prosper (Collis, 1991). In this regard, the analysis undertaken by Porter (1980) of firms' environment (the intensity of competition in an industry) stresses that firms can overcome the barriers and threats stemming from the environment by designing strategies that are developed upon their resources and capabilities. The latter highlights the importance of firms' internal resources and capabilities to deal with external barriers.

2.5.2.1 Classification of External Barriers to the Internationalization of SMEs

Regarding the classification of *external barriers hindering the internationalization of SMEs*, Fliess (2007), Leonidou (2004) and the OECD (2005; OECD, 2007b) consider as external barriers: i) the existing laws and regulations; ii) the product standards; iii) the lack of credit for SMEs; iv) the lack of support and/or advice; v) the cultural and language differences; and vi) the demand conditions.

Leonidou (2004) classifies the above external barriers into four categories:

- i) Procedural (unfamiliarity with exporting techniques/procedures and communication failures);
- ii) Task (different foreign customer habits or attitudes and intense competition);

³² This includes numerous competitors, slow industry growth, a high fixed or storage cost, a lack of differentiation or switching costs, high strategic stakes and high exit barriers.

- iii) Environmental barriers (e.g. strict foreign country rules and regulations, non-tariff barriers, unfamiliar business practices, different socio-cultural characteristics, verbal and non-verbal language differences);
- iv) Governmental (lack of home government assistance/incentives for exporting).

Other barriers to trade that are not mentioned as often but that still exist include:

- i) Anti-competitive behaviour on entry by other competing foreign firms (Acs et al, 1997; OECD, 2007b);
- ii) Costs of market entry³³ (Acs et al, 1997; OECD, 2005);
- iii) Distance. This increases the transport costs³⁴ and affects the flows of knowledge as knowledge is transferred through interaction (Nauwelaers and Wintjes, 2003).

It is worth highlighting that of all the external barriers mentioned in this section, *government and policy barriers* are considered to be the most pervasive barriers to SMEs' internationalization (Acs et al, 1997; Alexander and Warwick, 2007; Leonidou, 2004). A variety of authors and supranational organizations, such as Acs et al (1997), the IDB (Llisterri and Angelelli, 2002), Leonidou (2004) and the OECD (2007b), have recognized that firms may have to deal with the anti-competitive behaviours of domestic and foreign origin imposed by governments. The government barriers of domestic origin include infrastructure problems, taxes, corruption and bureaucratic practices (Acs et al, 1997). The actions or inaction of the home government in relation to its indigenous exporters are also government barriers that inhibit the internationalization of SMEs (Leonidou, 2004).

Regarding the government barriers of foreign origin, they can take different forms such as safety and environmental standards, inspection procedures and bureaucratic practices (Acs et al, 1997), taxes and tariffs (Llisterri and Angelelli, 2002) and strict foreign country rules and regulations that strongly affect SMEs' export performance (Leonidou, 2004;

³³ They include costs related to consultancy, product adaptation, travel expenses and higher business and financial risks (OECD, 2005).

³⁴ The World Bank. [Online] Available from: <http://www.doingbusiness.org/ExploreEconomies/?economyid=127> (Accessed: 30th March 2008).

Llisterri and Angelelli, 2002). In particular, governmental barriers from developed countries, which are more subtle and are becoming stricter and more demanding, strongly affect the internationalization of SMEs from developing countries (Acs et al, 1997; Cruz et al, 2004a). These requirements can be seen as a *threat of entry* into a specific industry undertaken by governments, which is one of the five forces determining the industry structure, aiming to influence the intensity of competition and profitability in a particular industry³⁵ (Porter, 1980).

This section has highlighted the importance of considering the environment (the industry environment, the national environment and the environment of the country in which the SMEs aim to enter). All of these environments need to be included when analysing the overall environment for the internationalization of SMEs. This is because when firms internationalize in other nations, in addition to the industry environment (the intensity of competition in an industry), there are other factors stemming from the environment that affect firms' internationalization (external barriers), such as differences in the institutional set-up between the home country and the targeted market in terms of language, culture, norms, habits, laws, economic, knowledge, financial and technological development levels, etc.

2.6 The Government Role in the Internationalization of SMEs

After presenting the internal and external barriers affecting the internationalization of SMEs, this section sheds light on the role of the government from three perspectives: the neoclassical economic theory, the NSI approach and the business perspective of the role of public intermediaries in the internationalization of SMEs. By addressing these three perspectives, it will be possible to uncover how governments could contribute to overcoming the internal and external barriers and improving the participation and performance of SMEs in foreign markets. Section 2.6.1 starts by presenting the neoclassical economic theory and the reasons for government intervention. This theory is presented in this thesis because the unit of analysis of this thesis (BANCOMEXT-Europe)

³⁵ For example, government regulations can set limits on the behaviour of firms as suppliers or buyers. Governments can also affect the position of an industry with substitutes through regulations, subsidies, etc.

is embedded in this ideology; thus, by reviewing this theory, it will be possible to understand the interviewees' viewpoint on the role of the government. Section 2.6.2 presents an alternative approach – the NSI approach – which addresses the governmental role, the reasons that justify the government intervention (system failures) and innovation policies to correct system failures and upgrade firms' competitiveness. To shed light on the role of public intermediaries in the internationalization of SMEs, Section 2.6.3 presents the role of public agencies in supporting the entrance and performance of SMEs in foreign markets from the business perspective.

2.6.1 The Neoclassical Economic Theory and Government Intervention

To start with, it is worth noticing that the neoclassical economic theory puts forward the idea that markets achieve optimum equilibrium through the interaction of supply, demand and price. It also states that any external intervention distorts the optimum equilibrium. This theory also justifies government intervention through policies (e.g. industrial policy) when market failures exist or the markets do not work efficiently (Parkin and Loria, 2010). This is because in such circumstances, the allocation of goods and services by a free market is not efficient (Krugman and Obstfeld, 2008; Krugman et al, 2007; Nicholson and Snyder, 2010; Parkin and Loria, 2010), which occurs when there are market failures (e.g. imperfect information and imperfect capital markets) and externalities (Krugman et al, 2007; Nicholson and Snyder, 2010; Parkin and Loria, 2010).

Regarding *imperfect information (market failure)*, an assumption about the efficiency of the private market is that all the actors involved have full information about the market opportunities, costs and benefits. However, this does not always happen because even a minor gap in information can lead to profitable business opportunities being ignored, which may block viable private investment, obscure projects with sizable social returns and inhibit firms' entrepreneurship (Stiglitz, 1989; Weiler, 2000). Another criticism of market failure is that it sees knowledge as synonymous with information that is easily accessed by all economic actors, which does not happen as information (codified knowledge) is not knowledge (tacit knowledge: skills, expertise, modes of interpretation, etc.) (Lundvall, 1992).

Imperfect capital markets (market failure) occur when capital markets do not function well, and are more prevalent in less developed countries (LDCs) and developing economies. Imperfect capital markets and weak financial systems result in credit rationing and uncompetitive interest rates that impact negatively on firms' productivity and inhibit the development of competitive industries (Besley, 1995; Krugman and Obstfeld, 2008; Stiglitz, 1989). In addition, *externalities* can be either positive or negative, i.e. benefits or costs not transmitted through prices that distort the efficient allocation of goods and services in a market (Krugman et al, 2007).

The negative consequences of market failures and externalities can be found in developed, developing or less developed countries. Therefore, some authors have called for government intervention to correct market failures, not only in LDCs and developing economies (Besley, 1995; Krugman and Obstfeld, 2008; Stiglitz, 1989), but also in developed economies (Bartik, 1990). Regarding market failures in developing countries, Besley (1995), Krugman and Obstfeld (2008) and Stiglitz (1989) found that, in LDCs and developing economies, the most cumbersome market failures are imperfect capital markets and imperfect information, which impact negatively on firms' performance and competitiveness. Therefore, they negatively affect the economic levels of growth and development of these countries. For these reasons, various authors (Bartik, 1990; Besley, 1995; Krugman and Obstfeld, 2008; Stiglitz, 1989) argue that government intervention in the form of industrial and economic policies is justified to ameliorate some of the adverse effects arising from such market failures. Bartik (1990) defines economic policies as those seeking to increase the wealth of an area by providing direct assistance to businesses, e.g. business assistance, entrepreneurial training programmes, export assistance programmes, subsidies and credit at competitive rates.

As seen in this section, the neoclassical theory pays attention to information gaps but tacit knowledge and innovation are not clearly addressed by the neoclassical economic theory. To shed more light on how governments could improve the business environment and upgrade firms' competitiveness through innovation policies, the next section focuses on the NSI approach, which devotes special attention to firms, flows of knowledge, learning, innovation and the environment in order to improve firms' competitiveness.

2.6.2 The National System of Innovation (NSI) Approach

When talking about firms, the business environment, knowledge, learning, innovation, interactions and the role of the government in upgrading firms' competitiveness, it is worth addressing the national system of innovation approach (NSI). This approach enables the analysis of innovation, learning and knowledge flows from a *holistic perspective (system perspective)*. It also uncovers new reasons for government intervention that are not dealt with by the neoclassical economic theory. The concept of NSI is also addressed in this thesis because it is related to both the existence of *barriers* that hinder the flows of knowledge between different nation states (Niosi et al, 1993) and learning. These issues are linked to the internationalization of LMT-SMEs from developing countries in distant and developed countries.

To explain the NSI approach, it is worth understanding what innovation is. According to the NSI approach, innovation is the most fundamental resource in the modern economy (Lundvall, 1992). *Niosi et al (1993) define innovations as new improved products and processes, new organizational forms, the application of existing technology to new fields, the discovery of new resources and the opening of new markets. Innovation can appear in an incremental form and depends upon the accumulation of small insights rather than on major breakthroughs. Innovation also includes R&D and non-R&D activities.* Though innovation implies uncertainty, as it is a process whereby all the alternative outcomes cannot be known in advance (Lundvall, 1998), innovation contributes to the long-term economic growth and development of countries (Lundvall, 1992; Lundvall et al, 2002; Nelson, 1993; Smith, 2000; Woolthuis et al, 2005).

When discussing innovation at the national level, it is necessary to consider the NSI. The NSI is determined by knowledge creation and flows, learning and interactions among heterogeneous actors and institutions (Freeman, 1987; Lundvall, 1992; Nelson, 1993). There are various definitions of the NSI; this thesis presents the one suggested by Lundvall (1992), who highlights the importance of interactive learning. According to Lundvall (1992:p.13):

“The NSI includes all parts and aspects of the economic structure, and the institutional set-up affecting learning as well as searching and exploiting – the production system, the marketing system and the system of finance present themselves as sub-systems in which learning takes place.”

As seen, *learning is the most important process in the NSI*; through this process, agents communicate and cooperate in the creation and utilization of new economically useful knowledge (Lundvall et al, 2002). Interactive learning is rooted in routine activities (Lundvall, 1998) and the capacity to learn of the system depends upon the interactions between firms and between firms and public organizations, as well as the existence of an appropriate environment in which different kinds of knowledge, skills, competence and experience can be combined to generate new knowledge (Lundvall, 1992). To enhance the system’s learning capacity, the creation of domestic AC in the system, access to new information and knowledge and their utilization are essential (Lundvall, 1998; Mowery and Oxley, 1995). The stage of development of an economy is another factor that affects technological change,³⁶ learning and absorption in the system (Mowery and Oxley, 1995). In this regard, Viotti (2002) stresses that *the process of technical change in late industrializing and developing economies is essentially a process of learning rather than of innovation (stricto sensu)*. This is because in these nations the process of technical change is usually limited to the *absorption*³⁷ and *improvement of innovations produced in the industrialized countries*. For this reason, Viotti (2002) recommends utilizing a broad definition of the NSI, which considers the *institutions and relationships* that influence the process of technical change directly and indirectly and pays attention to linkages, feedback and learning. *He defines learning as the process of technical change achieved by the diffusion (absorption) of already existing techniques or innovations engendered elsewhere and incremental innovation (generation of improvements)*.

It is also worth noticing that in industrializing and developing countries, *passive learning* is the initial and natural pattern of technological change, as the functioning of the market incentive mechanisms favour the passive learning strategy. In order for these nations to

³⁶ Technical change describes the process of invention, innovation and diffusion (absorption) of technology or processes and incremental innovations (Viotti, 2002).

³⁷ Viotti (2002) defines absorption as the process of diffusion perceived from the perspective of the recipient of the technique. A technique is diffused only when it is effectively assimilated and this depends on the ability and efforts developed by the recipient, firm, industry or country.

become *active learners* and innovators, a deep technological effort is necessary to build adequate institutions and create the type of environment that induces the active learning and interactions that are a necessary step towards the development of the improvement capabilities³⁸ necessary to innovate (an active incremental innovation). Thus, in these countries, policies must aim first to foster active learning and create the basis on which firms can become innovators. These policies must encompass both passive (e.g. technology imports, FDI, license agreements) and active absorption strategies. The forms of active technology absorption include hiring skilled personnel, learning from machinery suppliers and independent consultants and overseas training of engineers, managers and skilled workers.³⁹ They contribute to superior mastery of process or product technologies and therefore create a basis for further improvements (Viotti, 2002). It is also worth highlighting that differences in the resources devoted to learning or technological accumulation at the national level result in differences in the innovation performance among countries (Lundvall, 1998) and lead to international technological gaps, which in turn lead to international differences in economic performance (Patel and Pavitt, 1994).

Regarding knowledge and its relation with the NSI, Carlsson et al (2002) point out that the NSI involves the creation, diffusion and use of knowledge at the national level. Important parts of the knowledge base are tacit and emerge from routine basic learning by doing, using and interacting rather than from science and technology search activities (Lundvall, 1998). This knowledge can be transferred in various ways, e.g. the reproduction of documentation, interactions, movement of equipment and face-to-face training (Grant and Gregory, 1997).

With regard to the *function of the NSI*, Edquist (2005) stresses that the function of the NSI is to develop, diffuse and use innovations at the national level.⁴⁰ For this reason, R&D

³⁸ Improvement capability implies the knowledge, skills and other conditions required for the continuous and incremental upgrading of product design and performance features and of process technology (Viotti, 2002).

³⁹ Other forms of active technology absorption include imitation, copying and reverse engineering (Viotti, 2002).

⁴⁰ When talking about innovation by diffusion in late industrializing and developing countries, by diffusion is understood the absorption of innovations created in developed economies and by innovation is understood incremental innovations (Viotti, 2002).

activities and the role played by universities, research institutes, government agencies and government policies are viewed as constituents of the national system, and the linkages among these are viewed at the aggregate level (Carlsson et al, 2002). As is apparent, the NSI approach stresses that firms do not innovate in isolation: innovation is seen as a collective process, because in the innovative process, firms *interact* with other firms as well as with non-firm organizations (e.g. universities, government agencies and financial institutions) and such interactions are shaped by institutions (Edquist, 1997).

Interaction (feedback) is what makes systems dynamic; the greater the interaction among the components of a system, the more dynamic it is. This is because as a result of interaction (feedback) among the actors, the capabilities shift and grow over time and therefore the system configuration changes (Carlsson et al, 2002). The *interaction* between user sectors (which demand) and producer sectors (which supply) are determinants of innovation as well, influencing its rate and direction (Lundvall et al, 2002). From the viewpoint of the firm, the demand pull (the demand- side determinants of innovation) includes factors of the market demand for products, such as the market size, income distribution, taste, prices, etc. The supply pull (the supply-side determinants of innovation) includes the firm size, scale, scope and technological accumulation.⁴¹ The latter influences the costs of production (von Tunzelmann, 1995).

The differences in the innovation performance among countries also stem from the differences in terms of *institutional set-up* (made up of formal and informal institutions⁴²). The institutional set-up includes the cultural, social, economic, organizational, political and legal contexts (e.g. language, habits, government policies, infrastructure, the process with which to create and distribute scientific knowledge, the national education system, industrial relations, modes of production, etc.). The *institutional set-up* plays a major role: it contributes to or hinders the competitiveness of firms and nations as they determine

⁴¹ Technological accumulation is an endogenous supply determinant that lies within the firm's control. It depends on the firm's technological knowledge and represents the individual actions or responses to the demand and supply pressures. Technological accumulation is achieved through learning and includes formal R&D conducted by the firm and learning through informal means. It reduces the firm's production costs and thus the supply prices for its products in the market. In this sense, the costs of production are product supply determinants (von Tunzelmann, 1995).

⁴² *Formal institutions* refer to regulations and laws; *informal institutions* refer to culture, language, values, habits, trust, etc. (Fagerberg et al, 2005; Lundvall and Borrás, 2005; Smith, 2000; Woolthuis et al, 2005).

how the actors create and use knowledge and it shapes the networks of relationships necessary to innovate (Edquist, 2005; Fagerberg et al, 2005; Freeman, 1987; Freeman, 1995; Freeman, 2002; Lundvall, 1992; Lundvall and Borrás, 1997; Lundvall and Borrás, 2005; Metcalfe and Georghiou, 1997; Nelson, 1993). Differences in institutional set-ups among countries exist even in neighbouring countries that superficially appear very similar in many ways (Freeman, 1987).⁴³ Therefore, due to the differences in the resources devoted to learning, the differences in the institutional set-up among countries and the fact that competences and skills are unevenly distributed between individuals, organizations, regions and nations, innovation takes place quite differently in different countries (Lundvall, 1998).

From the review in this section, it is apparent that the constituents of the NSI include the following. i) *The actors or components*: the most important actors are firms and the government. Other actors include universities, banks, public policy agencies, venture capital organizations, etc. ii) *Institutions* (laws, regulations, habits, norms, etc.). iii) *Interactions among the actors and institutions* (Edquist, 2005; Lundvall, 1992). As the NSI approach encompasses organizational, social and political and economic factors, it adopts micro, meso, macro and policy perspectives (Edquist, 2005; Lundvall, 1992; Lundvall et al, 2002; OECD, 1997b).

The constituents of the NSI altogether determine the types of technologies and sectors that thrive in the national context (Freeman, 1995; Lundvall and Borrás, 1997). They differ across national economies as they reflect historical experience, language, culture, etc. For these reasons, the features of the constituents of the NSI explain the differences in innovation and competitiveness across national economies (Freeman, 1995; Lundvall, 1992). Despite globalization, such differences have become more evident and important as they determine the trade specialization pattern, the long-term economic growth and the development of countries (Lundvall, 1992; Lundvall et al, 2002; Nelson, 1993; Smith, 2000; Woolthuis et al, 2005). It is also worth highlighting that the NSI is path-dependent

⁴³ Companies interested in internationalizing in another country must consider these differences; if they do not, they could fail (Freeman, 1995). In this sense, the NSI can be seen as analogous to the psychic distance of the Uppsala model of internationalization.

because the past of an NSI (the socioeconomic structures and policies) tend to influence its present and future performance,⁴⁴ representing another reason why differences among nations will continue to exist (Lundvall, 1998; Niosi et al, 1993).

The review in this section has enabled the reader to understand the functioning of the NSI and its importance. As explained before, when discussing innovation at the national level in industrializing and developing economies (like Mexico), it is necessary to focus on learning, absorption and incremental innovation as the innovation process in these countries differs from that in developed countries. The review undertaken in this section has also helped the researcher to find a link between the NSI approach and the internal and external barriers to the internationalization of SMEs. The explanation is that the internal barriers, such as a lack of internal resources, e.g. a lack of capabilities and poor AC, which affect the internationalization of SMEs, also inhibit interactions among the actors and learning and knowledge flows, negatively affecting the whole innovation system. Similarly, the external barriers, such as a lack of investment in infrastructure and a lack of policies for SMEs, which inhibit the internationalization of SMEs, also affect learning, interactions among the actors and the national innovation system as a whole. They altogether affect the competitiveness and internationalization in developed countries (the EU) of LMT-SMEs from developing countries (Mexico). The review in this section also uncovered the importance of interactions (e.g. between Mexican LMT-SMEs and foreign customers, LMT-SMEs and other firms of domestic or foreign origin, and LMT-SMEs and the knowledge infrastructure) and policies to upgrade firms' learning capacity and innovation performance, which may be issues that need to be considered when analysing the internationalization of LMT-SMEs and the role of government public intermediaries (BANCOMEXT-Europe). Thus, the NSI approach, by taking a micro, meso, macro and policy perspective that considers learning, knowledge, interactions and innovation, is more helpful for analysing the internationalization of LMT-SMEs from developing countries (Mexico) in distant and developed countries (the EU) than the neoclassical economic theory. To continue with the analysis, the next section investigates the role of the government and its intervention in the NSI.

⁴⁴ This is known as path dependency (Niosi et al, 1993).

2.6.2.1 The Government's Role and its Intervention in the NSI

To continue to shed light on the NSI approach, this section presents the role of the government and its intervention from the NSI perspective. The role of the government is one of the most important elements of the NSI as governments and policy makers play a key role in building a nation's comparative advantage and competitiveness (Dalum et al, 1992; Lundvall, 1992; Nelson, 1993; Patel and Pavitt, 1994; Woolthuis et al, 2005). Governments and policy makers influence the rate and direction of innovation through direct support for science and development for a specific industry, regulations, standards, infrastructure, financing, investment in education, etc. (Freeman, 1987; Niosi et al, 1993).

Today, due to globalization, the importance of the role of nations and government policies for innovation are increasing as the basis of competition has shifted more and more to the creation and assimilation of knowledge (Dalum et al, 1992). Indeed, according to various authors (Freeman, 1987; Freeman, 1995; Lundvall, 1992; Patel and Pavitt, 1994; Smith, 2000), the technological gaps and the uneven development levels among countries reflect the differences in the resources devoted by each country to tangible and intangible investment in learning activities. This uncovers a reassessment of the role of governments in relation both to innovation and to the capacity to learn in nations (Dalum et al, 1992).

Regarding government intervention, the NSI approach justifies it when *system failures* occur because they block the interactive learning, the knowledge creation and the flows of knowledge and as a consequence they negatively affect the innovation system as a whole (Rubalcaba et al, 2010; Smith, 2000; Woolthuis et al, 2005). If governments do not correct the system failures and allow them to persist, they will lead to uneven rates of national technological and economic growth (Patel and Pavitt, 1994). According to Woolthuis et al (2005), the four system failures⁴⁵ that can contribute to poor innovative performance in a nation are:

⁴⁵ According to Lundvall and Borrás (1997), the classification of Woolthuis et al (2005) is very practical as it refers to the kind of public intervention.

i) Infrastructural failures. They stem from government underinvestment in the knowledge infrastructure,⁴⁶ physical infrastructure⁴⁷ and communication and energy infrastructure (Rubalcaba et al, 2010; Smith, 2000; Woolthuis et al, 2005).

ii) Institutional failures. They affect the environment in which actors are embedded and their interrelations (Rubalcaba et al, 2010; Smith, 2000; Woolthuis et al, 2005). These failures include: *formal institutional failures*, e.g. financial obstacles, technical standards, regulations, trade policies, etc., and *informal institution failures*, which arise from culture, the way business is conducted, the willingness to share resources with other actors, the entrepreneurial spirit, etc. (Rubalcaba et al, 2010; Woolthuis et al, 2005).

iii) Interaction failures. They occur when there is too much or too little interaction among the actors. Poor interaction between actors prevents innovation and learning as it inhibits the flow and creation of knowledge.

iv) Capability failures. They refer to a lack of competences, which deters firms from moving from old to new technologies, learning new capabilities, benefiting from interactions with other actors and adapting to new markets (Rubalcaba et al, 2010; Smith, 2000). The deficiency of AC and capabilities is a failure that contributes to poor innovative performance in a country (OECD, 1997b).

Evidently, the system failures address *environmental weaknesses* (e.g. infrastructural and formal institutional failures) and weaknesses that affect interactions, learning and knowledge access and knowledge creation (e.g. capability failures: deficiency in AC and capabilities within firms). Thus, it could be said that system failures are related to the barriers hindering the internationalization of SMEs. If any system failures occur, government intervention is recommended and justified in the form of *long-term innovation policies*. These policies support firms (either large or SMEs) and take into account the facts that competences are unequally distributed among firms and new technologies and knowledge are not diffused immediately. These policies also highlight the importance of knowledge and learning to innovation (Freeman, 1995; Lundvall, 1992; Lundvall and Borrás, 1997). Therefore, innovation policies aim to shape the structure of

⁴⁶ For example: universities, research institutions, technological institutes and R&D laboratories.

⁴⁷ For example, science parks and transport facilities such as roads, railways and airport facilities.

production and the institutional set-up, stimulate the production and diffusion of knowledge and the interactive learning, link the actors of the system and build and upgrade capabilities (Dalum et al, 1992; Edquist, 2005; Freeman, 1995; Lundvall and Borrás, 1997; Lundvall and Borrás, 2005; Lundvall et al, 2002; Patel and Pavitt, 1994; Rubalcaba et al, 2010; Smith, 2000; Woolthuis et al, 2005). As a consequence, these policies enable countries to achieve growth from the supply side (Lundvall and Borrás, 2005).

As seen from this section, the role of the government and policy makers is vital to prompt innovation and interactive learning in the system. In the presence of system failures, which block the flows of knowledge, affect interactive learning and thus damage the system's innovation performance, government intervention is justified in the form of policies. To continue to clarify the role of the government, the next section presents the role of public agencies in the internationalization of SMEs.

2.6.3 Public Agencies in the Internationalization of SMEs

This section addresses the role of public agencies in the internationalization of SMEs from the business perspective. It pays attention to the provision of information and events organized by these agencies in order for SMEs to internationalize in distant markets.

The literature on this topic shows that public agencies contribute to reducing the information gap between home and distant markets through both the identification and the provision of relevant information about foreign markets and help to establish contacts (Pollard and Jemicz, 2006; Welch and Luostarinen, 1988). In particular, the provision of

information is vital for SMEs in the first stages of internationalization, when they usually lack overseas contacts (Chetty and Blankenburg-Holm, 2000). It also reduces both the uncertainty and the costs of expanding abroad (Bernard and Jensen, 2004).

In addition, it could be said that public agencies play the role of *trusted intermediaries*, i.e. they are intermediaries between the firms in the home market and the firms in foreign markets,⁴⁸ which create reliability and credibility in relation to the firms they represent; this role is very helpful when limited information about foreign markets is available (Alexander and Warwick, 2007). These agencies also act as *trading organizations* because of the provision of information and other services aimed at the internationalization of firms. Among the most useful services from an *export trading organization*, small business exporters consider: i) the ability to discover or open new foreign markets, ii) the establishment of personal contact with potential foreign buyers and iii) information about the competitive conditions in foreign markets (Noble et al, 1989).

Furthermore, public intermediaries acting as facilitators for the internationalization of SMEs have a positive impact on the internationalization of these firms. The use of promotional services and international events coordinated by public agencies increases both the probability of becoming permanent exporters and the performance of SMEs in foreign markets. This is because the export promotion services are highly effective in building productive export chains and incorporating SMEs into international markets (Alvarez, 2004). Indeed, SMEs that access and use the export promotion services provided by public organizations achieve superior levels of performance to those that do not (Alvarez, 2004; Aulakh et al, 2000; Hutchinson et al, 2006; Wilkinson and Brouthers, 2006).

⁴⁸ The intermediation service is one of the main roles currently undertaken by the UK Trade and Investment agency (UKTI).

As seen in this section, due to the great distance between the home country and the destination market, public agencies play a vital role in the internationalization of SMEs. This is because their activities deal with the information gap arising from the distance to and unfamiliarity with distant markets. Indeed, according to Rose (2005), having these agencies and/or embassies/consulates performing commercial activities abroad contributes not only to SMEs' internationalization but also to the export performance of the whole country. Nonetheless, in the theoretical framework presented in this section, nothing is said about the role of public intermediaries in helping SMEs to overcome knowledge barriers and improve their competitiveness, which may be areas overlooked by public intermediaries that deserve attention.

2.7 Conclusion

This chapter has presented the theoretical framework (definitions and theories) that will be used in this research to understand and explain the current status of SMEs from developing countries (Mexico) in distant and developed markets (the EU), the problems affecting SMEs' internationalization and the role of public intermediaries and governments in such internationalization. Accordingly, this chapter first presented literature about LMT-SMEs to understand the specific characteristics of these firms, the models that explain the internationalization of SMEs (the born globals vs. the Uppsala model), the internal and external barriers to the firms affecting their performance in foreign markets, the role of governments in addressing the barriers affecting the firms and the role of public intermediaries in the internationalization of SMEs. This theoretical framework did not aim to present a review of the entire literature on the internationalization of SMEs. On the contrary, it presented the theoretical framework that helps to explain the internationalization of SMEs from Mexico in the EU.

Firstly, when comparing the Uppsala model of internationalization with the born globals, it is evident that the internal capacities and resources (e.g. the managerial abilities, the global mindset, the ability to work in alliances and the technological advances) of the SMEs that follow the born global model of internationalization are factors that speed the participation of these firms in foreign markets. As explained in this chapter, the profile of born globals is characterized as SMEs in high-technology industries with internal capabilities that allow them to internationalize in a short time. In contrast, LMT-SMEs, the profile of which is different from the born globals (e.g. these firms belong to traditional industries in which the technologies change slowly and the markets and industries are mature), internationalize slowly, as explained by the Uppsala model. Thus, the internationalization of LMT-SMEs, which are the type of SMEs serviced by BANCOMEXT-Europe, can be explained by the Uppsala model. Despite the Uppsala model viewing internationalization as a slow and difficult process of stages, the internationalization of LMT-SMEs brings the opportunity to upgrade their innovation performance by being in contact with demanding customers (demand drivers of innovation) and to introduce technologies from abroad (supply drivers of innovation).

They could help LMT-SMEs from developing countries to move to the production of high-quality products that achieve high prices.

The analysis of the Uppsala model of internationalization and the NSI approach has also highlighted the need to analyse the environment (the industry environment, the domestic context (Mexico) and the foreign context (the EU)) to explain the entrance and performance of these SMEs in foreign markets. This is due to environmental differences (differences in institutional set-ups) between the countries in terms of language, learning, knowledge base, legislation, economic and industrial development levels, etc. As seen in this chapter, the environmental differences between developed and developing countries (e.g. between the EU and Mexico) matters for the internationalization of SMEs in terms of the kind of products demanded, the legislation required to follow, the flow and acquisition of knowledge, etc. In addition, the great geographical distance between the trading countries (e.g. between Mexico and the EU) makes the internationalization of SMEs and the access to knowledge from abroad difficult. The latter was in particular uncovered when reviewing the literature on innovation.

To discover other barriers (or problems) affecting the internationalization of SMEs, this chapter reviewed the RBV, which highlights the role of internal resources in determining firms' competitiveness. This background was related to the internal barriers hindering the internationalization of SMEs, which helped to identify the pervasive consequences of the internal barriers. This chapter also reviewed the external barriers affecting the internationalization of SMEs, among which the government barriers were found to be highly pervasive.

In order to determine possible areas of government intervention to deal with the internal and external barriers that may hinder the internationalization of LMT-SMEs, the role of the government was analysed from three perspectives: the neoclassical economic theory, the NSI approach and the role of public intermediaries in the internationalization of SMEs. When reviewing the neoclassical economic theory, which supports free markets

and sees government intervention as overprotective and distorting, it was noticed that it mainly justifies government intervention in the presence of market failures (imperfect information and imperfect capital markets). The neoclassical economic theory does not deal with the internal problems of firms, nor does it pay attention to problems of learning, knowledge or innovation or building and strengthening the national competitive advantage. In other words, the neoclassical economic theory does sufficiently consider intensifying the country's competitiveness by strengthening the national supply side.

Therefore, to reveal the reasons for government intervention that helps LMT-SMEs to overcome the internal and external barriers to their internationalization, the NSI approach was addressed. As seen from the NSI approach, government intervention is needed and justified through policies and investment in order to upgrade the national innovation performance and overcome the problems affecting knowledge acquisition and knowledge creation, learning and interactions. From the NSI perspective, these problems could be seen as system failures as they inhibit the interactions among the actors and negatively affect learning and the knowledge flow and knowledge creation in the NSI. By relating the barriers affecting the internationalization of LMT-SMEs to the system failures, it is possible to uncover the role of the government in the internationalization of SMEs. Particularly in developing countries, these policies must aim to enhance the learning and absorptive capacity of the system and interactions and upgrade firms' knowledge base. Thus, by addressing the NSI approach, it was also possible to ascertain that to support the internationalization of LMT-SMEs, public intermediaries and policy makers from developing countries must not focus only on the provision of information, as the business literature on the role of public intermediaries in the internationalization of SMEs suggests.

Thus, it was concluded that, to contribute to the study of the internationalization of LTM-SMEs from developing countries in developed countries' markets, a systemic perspective (NSI approach) that includes an analysis at the micro, meso, macro and policy levels would be undertaken for this research. This could contribute to overcoming the weaknesses of the Uppsala model, which does not include the role of the government in the analysis of the internationalization of SMEs, as well as the weaknesses in the role of

public intermediaries in the internationalization of SMEs, the activities of which mainly focus on the provision of information and contacting customers from abroad but impart nothing about activities aiming to achieve knowledge flows, knowledge creation and the improvement of the competitiveness of SMEs in foreign markets.

CHAPTER 3

REVIEW OF THE EMPIRICAL STUDIES

3.1 Introduction

In order to identify some gaps in the field of the internationalization of SMEs that have not been addressed in previous studies on developing countries, this chapter presents a review of the *empirical studies* about the internationalization of SMEs, barriers to the internationalization of SMEs, key aspects of innovation in LMT-SMEs that could contribute to their internationalization and the role of governments and public agencies (either from developed or from developing countries) in addressing the internationalization of SMEs.

To achieve this aim, this chapter is divided into various sections. Section 3.2 begins by reviewing SMEs in foreign markets. Section 3.3 presents the empirical evidence on the barriers affecting the internationalization of SMEs. Section 3.4 presents the business perspective of the impact of knowledge and distance on firms' internationalization. Section 3.5 presents the key aspects of innovation in LMT-SMEs that could contribute to the internationalization of LMT-SMEs from developing countries in distant and developed markets such as the EU. Section 3.6 considers how governments from various countries have addressed the internationalization of SMEs. It also presents the empirical evidence about the role of public intermediaries in the internationalization of SMEs. Section 3.7 presents actions that could contribute to prompting the internationalization of LMT-SMEs by attending to the internal problems of SMEs and the external weaknesses in the environment. The final section draws conclusions from the chapter.

3.2 SMEs in Foreign Markets

As the business environment is characterized by globalization and market integration, it is worth analysing on one hand the opportunities and benefits of integrating SMEs into foreign markets and on the other hand the challenges for the internationalization of SMEs. Regarding the opportunities that globalization and market integration have provided for

the internationalization of SMEs, numerous authors⁴⁹ and transnational institutions, such as the OECD (2005; OECD, 2007b), have pointed out new niche markets, economies of scale, the acquisition of new technologies, rapid growth and the opportunity to penetrate different foreign markets much more quickly than before (Korine and Yves Gomez, 2002; Nummela et al, 2004).

Among the benefits of integrating SMEs into international operations it is possible to mention that smaller firms expanding abroad are more profitable than those operating domestically. The former attain a large size more speedily and achieve economies of scale (Acs and Preston, 1997; Acs et al, 1997; Bromley, 1985). In addition, exporting SMEs have higher productivity levels than non-exporters (Wagner, 2007). Exporting firms also employ more workers and pay higher salaries than non-exporting SMEs (Alexander and Warwick, 2007; Audretsch and Thurik, 2001; Bernard and Jensen, 2004). Moreover, the internationalization of innovative SMEs contributes to economic growth as they are engines of innovation (Acs et al, 1997; Alexander and Warwick, 2007; Audretsch, 2003). Furthermore, due to globalization, *small* SMEs do not need to be large to be dominant players as they can become active players in international arenas by combining technological advances and managerial skills (Acs and Preston, 1997; Khon, 1997; Reynolds, 1997). However, it is worth noting that the opportunities and benefits identified in this section for the internationalization of SMEs are based on the experience of relatively large SMEs from developed countries specializing in high technology. Thus, as no empirical studies were found about the internationalization of SMEs from developing countries specializing in LMT industries, it is not known whether globalization and market integration have generated the same opportunities for the internationalization of LMT-SMEs from developing countries.

Among the challenges that globalization has brought to the internationalization of SMEs can be mentioned the intense competition from larger enterprises (mainly transnational corporations) (Aulakh et al, 2000; Beck, 2000; Guillen, 2005; Julien et al, 1994; Kumar,

⁴⁹ Such as Acs and Preston (1997), Acs et al, (1997), Audretsch (2003), Buckley (1997), Gelmetti (2006), Khon (1997), Korine and Yves Gomez (2002), Lindmark (1995), Nummela et al (2004), Punnett and Shenkar (2004), Reynolds (1997) and Soto and Dolan (2003).

1982; Roberts and Hite, 2007; Scholte, 2005). It highlights some disadvantages of SMEs compared with large firms due to their size and lack of resources, which may cause some problems for their internationalization. Regarding the small size of SMEs, the OECD (2005; OECD, 2007b) and evidence from Latin American exporting SMEs suggest that their small size has brought limitations to SMEs' internationalization (Alvarez, 2004; Gelmetti, 2006; Milesi et al, 2007). For example, Gelmetti (2006) points out:

“The internationalization represents a difficult task for an individual SME due to its size and other restrictions associated with it.”

The above is due to the fact that the internationalization process is risky and international expansion by smaller firms is more likely to fail because the entry barriers limiting international expansion are systematically higher for small firms, which have fewer resources and capacities than large firms (Acs et al, 1997; Bernard and Jensen, 1999; Bromley, 1985; Eden et al, 1997; Khon, 1997; Roberts and Tybout, 1997). However, as the size of the SMEs increases, the possibilities and/or choice to internationalize improve (Aitken and Hanson, 1997; Bernard and Jensen, 2004; OECD, 2005; Roberts and Tybout, 1997; Wagner, 1995; Wagner, 2001). For example, the OECD (2005) stresses that internationally active SMEs tend to be larger than average-sized SMEs.

To continue to illuminate the challenges for the internationalization of SMEs, the next section pays attention to the barriers identified by empirical studies as affecting the entrance into and performance in foreign markets.

3.3 Empirical Evidence on the Barriers to the Internationalization of SMEs

This section presents the barriers to the internationalization of SMEs identified in empirical studies. In a study undertaken by the OECD (Fliess, 2007) about the impediments to the internationalization of SMEs, in which firms from 47 economies and policy makers from 38 countries participated, the ten top barriers or impediments identified were:

- 1) Lack of capital to finance exports (lack of internal resources and market failure);

- 2) Identifying foreign business opportunities (information barrier);
- 3) Limited information to locate/analyse markets (information barrier);
- 4) Inability to contact potential overseas customers (information barrier);
- 5) Lack of managerial time to deal with internationalization (internal barrier);
- 6) Inadequate quantity of and/or untrained personnel for internationalization (internal barrier);
- 7) Difficulty in matching competitors' prices (internal barrier);
- 8) Lack of home government assistance/incentives (external barrier);
- 9) Excessive transportation/insurance costs (external barrier).

Of the barriers above, **financial problems** (Acs et al, 1997; Fliess, 2007; Leonidou, 2004), **imperfect information**⁵⁰ (Acs et al, 1997; Alexander and Warwick, 2007; Fliess, 2007; Leonidou, 2004) and **price competitiveness** (Fliess, 2007; Leonidou, 2004) are the barriers to trade that are more frequently highlighted in the empirical studies about the internationalization of SMEs. These represent deficiencies of resources and pave the way for more straightforward government intervention.

The empirical evidence also shows that the problems affecting the internationalization of firms from developed countries differ from the problems affecting firms from developing countries (Nakata and Sivakumar, 1997; Neupert et al, 2006). For example, when Neupert et al (2006) compared the export challenges faced by SMEs from developed countries and SMEs from transitional and developing economies, they found that the challenges/problems faced by the former were of external origin and were related to country differences such as rules and regulations, socio-cultural and procedural differences and logistics. On the contrary, *the problems related to exporting SMEs from developing and transitional economies were of internal origin*, related to their poor product quality and their products' failure to satisfy the specifications required in the targeted market. This amounts to a lack of interactive capabilities abroad.

⁵⁰ Imperfect information refers to entrant firms' disadvantages due to poor information about labour, raw materials or output market conditions, lack of contacts, etc. (Acs et al, 1997).

The OECD (2007a) recognizes other microeconomic factors (internal barriers) hindering the internationalization of SMEs from *developing countries*, including low productivity, low levels of investment, obsolete technologies, low levels of labour and managerial capabilities, and financial problems. In addition, the Economic Commission for Latin America (ECLAC) highlights that among the most pervasive problems faced by Latin American SMEs are their size and their lack of knowledge about operating in foreign markets (Cruz et al, 2004b). Furthermore, Nakata and Sivakumar (1997) point out that many firms from emerging markets utilize few process and/or organizational innovations; they tend to use rudimentary and inexpensive equipment and rely on a large amount of labour to manufacture goods due to their limited capital. Altogether they see firms (specifically SMEs) from emerging countries as less competitive, as a result of not possessing organizational innovations or trained staff, and suffering from low-grade inputs, antiquated production methods and equipment, and poor managerial and human capital skills. Moreover, Aulakh et al (2000) agree that most firms from emerging economies in Latin America (Brazil, Chile and Mexico) lack branding (or at least global branding) and experience regarding foreign markets.

It is worth noting that from Milesi et al (2007) it can be inferred that *internal factors* (*micro factors* such as organizational, managerial and commercial capabilities, technological competencies, technological training, firm size and participation in promotional activities in foreign markets) have a stronger impact than external factors (macro factors such as the exchange rate, tax regime, economic and political instability and access to credit⁵¹) on the internationalization of SMEs from developing countries in Latin America (Argentina, Colombia and Chile). In contrast, Ruiz-Garcia (2009) found that external factors, such as non-tariff barriers, financial market imperfections, differences among the countries and fierce competition, have a pervasive impact on the internationalization of SMEs from developing countries (Mexico) in developed markets (the EU). As can be seen, there is no agreement about the magnitude of the impact of

⁵¹ Although the firms included in that study frequently mention domestic macroeconomic factors, such as the exchange rate, tax regime, economic and political instability and access to credit, as obstacles to the SMEs' internationalization, those factors are statistically insignificant.

external barriers on the internationalization of SMEs from developing countries from Latin America.

In relation to the impact of *government barriers* on the internationalization of SMEs, there are two points of view. On one hand, there are some authors (Acs et al, 1997; Alexander and Warwick, 2007; Leonidou, 2004) who consider governmental barriers to be the highest and most economically damaging entry barriers for SMEs. This is because they increase the costs of operating abroad, and as SMEs lack resources, they experience many difficulties in overcoming those barriers (Acs et al, 1997; Leonidou, 2004). On the other hand, the OECD considers *government barriers* as doing little to restrict SMEs' access to international markets (Fliess, 2007). Such governmental barriers as i) tariff and non-tariff barriers or ii) regulations (standards, regulatory requirements and procedures) were thereby considered as having a low impact on the internationalization of SMEs from developing countries even though they were scored higher by the more experienced firms with international operations included in the study.

As shown, a consensus exists among various authors (Acs et al, 1997; Alexander and Warwick, 2007; Fliess, 2007; Leonidou, 2004; Llisterri and Angelelli, 2002; OECD, 2007b) about the existence of government and policy barriers in domestic and foreign markets, which may affect the internationalization of SMEs. Nonetheless, there is no consensus on the magnitude of their impact. Through the literature review, no clear consensus was found about which barriers (internal or external) have the strongest impact on the internationalization of LMT-SMEs from developing countries *in geographically distant developed countries*. Thus, this research aims to shed light on the internal and external barriers affecting the entrance and performance of the Mexican LMT-SMEs serviced by BANCOMEXT in the EU and their impact.

To identify other issues that may affect the internationalization of LMT-SMEs in distant and developed countries, the next section presents empirical evidence from the business perspective of the effect of the lack of knowledge and the distance on SMEs' internationalization.

3.4 The Business Perspective of the Impact of Knowledge and Distance on Firms' Internationalization

The review of the empirical studies about the internationalization of SMEs in this section has shed light on the problems arising from the lack of knowledge and differences among the countries affecting the entrance and performance of SMEs in foreign markets. These issues can be explained by the psychic distance of the Uppsala model discussed in Chapter 2. In this regard, four aspects have been identified: issues of adaptation, the perception of foreign products, commercial ties and the experience acquired in foreign markets. They are presented below to uncover other problems that SMEs from developing countries may face when targeting distant and developed markets such as the EU.

3.4.1 Issues of Adaptation

Firstly, when discussing the internationalization of SMEs, it is highly important to consider the characteristics of the targeted market. This is because if a firm internationalizes in a country that is socially, economically, linguistically and culturally different, many adaptations are required (Aulakh et al, 2000; Cateora, 1993; Cavusgil and Zou, 1994; Douglas and Wind, 1987; Julien et al, 1994; Leonidou, 2004; Nakata and Sivakumar, 1997; Rosenbloom et al, 1997; Ruiz-Garcia, 2009). In this regard, Cavusgil and Zou (1994) stress that exporting firms are more likely to achieve superior performance in foreign countries by adapting to the individual markets' needs. In contrast, firms, in particular SMEs, which delay adaption or refuse to adapt are less likely to succeed (Julien et al, 1994). Especially, the adaptation strategy is strongly recommended for firms from developing countries targeting developed markets due to the cultural and economic differences (Aulakh et al, 2000). The latter are particularly important for products of final consumption (Johnson and Arunthanes, 1995).

Although the adaptation strategy is recommended and has a positive impact on firms' performance, it is not easy for SMEs to undertake the adaptations demanded in developed markets. This is due to the great deal of information, knowledge, internal resources and

managerial capabilities needed. Nonetheless, SMEs from developing countries frequently suffer from financial, managerial and capability constraints that may represent problems in adapting their products to the targeted market. Therefore, the inability of SMEs from developing countries to undertake adaptations may represent obstacles to their internationalization (Ruiz-Garcia, 2009).

3.4.2 The Perception of Foreign Products in Developed Countries

Another aspect that needs to be considered when firms from developing countries target markets in developed countries is the products' perception and firms' reliability. The empirical evidence shows that products and brands from LDCs and developing countries command lower prices from customers in industrial countries (Cordell, 1993) due to their lack of reliability. Among the numerous factors that may explain this lack of confidence are the fact that little is known about the products' country of origin, stereotypes, differences in the levels of economic development, preferences and expectations of price and quality.⁵²

In particular, the lack of knowledge about the country of production damages the product perception, evaluation and willingness to purchase a product (Al-Sulaiti and Baker, 1998; Johansson et al, 1985; Kaynak and Cavusgil, 1983; Lim et al, 1994). This is because the willingness to purchase a product is related to familiarity with and knowledge of the economic, political and cultural characteristics of the country of production (Han, 1990). Moreover, the stereotypes that consumers have about different countries' products affect their perception, evaluation and willingness to buy such products (Bannister and Saunders, 1978; Kotler and Gertner, 2002; Papadopoulos et al, 1987). For instance, products made in less developed, less industrialized, newly industrializing and developing countries are perceived as being of lower quality; therefore, they are evaluated lower than products from industrialized countries (Ahmed and D'Astous, 1995; Cordell, 1993;

⁵² These issues refer to the *country of origin effects*, i.e. the negative consumer bias toward imported products, and explain why consumers, importers and managers value products from some countries and derogate products from other countries (Al-Sulaiti and Baker, 1998; Cordell, 1993; Wang and Lamb, 1983).

Ghadir, 1990; Khachaturian and Morganosky, 1990; Kotler and Gertner, 2002; Wang and Lamb, 1983; Yaprak, 1978).

Specifically, consumers from developed markets, particularly from Europe, tend to prefer *national* and *made-in-Europe* products to imported products (Baker and Michie, 1995; Baumgartner and Jolibert, 1978; Kotler and Gertner, 2002; Peris et al, 1993; Sharma et al, 1995). These preferences may be explained by the fact that products from similar countries are preferred to products from dissimilar countries (Heslop et al, 1998; Kotler and Gertner, 2002; Zhang, 1996).

Regarding the empirical evidence on Latin American firms, Aulakh et al (2000), whose study focuses on exporting firms from Brazil, Chile and Mexico, found that consumers from developed countries expect low prices for products from these countries as they are considered to be low-quality and traditional products. In addition, Ruiz-Garcia (2009) found that in distant markets such as the EU, there is a lack of knowledge of the industrial side of firms from developing countries (Mexico). This negatively affects the establishment of negotiations with European counterparts because they do not know about the reliability of Mexican firms.

To overcome these problems, strong promotional efforts are required since as buyers become more familiar with foreign countries and their products, the negative perceptions and stereotypes lessen (Johansson et al, 1994; Khanna, 1986; Nagashima, 1977). In addition, Aulakh et al (2000) recommend that SMEs from developing countries establish strategic alliances with firms from developed countries to position and market their products through the developed country partners' brands.

3.4.3 Commercial Ties

Empirical studies about the internationalization of SMEs show that the psychic distance of the Uppsala model explains the strong commercial ties among both colonial and ex-

colonial countries and countries sharing linguistic and cultural similarities.⁵³ For example, the commercial relations among colonial and ex-colonial countries are three times stronger than those that do not share the same language or have historical ties (Peng, 2010). Other examples of how cultural and linguistic similarities have reduced the psychic distance and favoured commercial relations are the examples of Mexico and the US, and Mexico and Spain.⁵⁴ Mexico and the US do not share the same language or have ex-colonial ties, but they have strong commercial relations because of the large Hispanic population in the US, the short geographic distance and the deep economic integration (Agtamel, 2008; Ruiz-Garcia, 2009). These examples highlight that commercial relations among countries are favoured by familiarity among the countries and similarities in the language that are explained by the psychic distance of the Uppsala model presented in Chapter 2.

3.4.4 The Experience Acquired in Foreign Markets

Another aspect that is also related to the psychic distance is the experience and knowledge acquired in the targeted market, which has a positive effect on the internationalization of SMEs. Recent empirical studies consider the knowledge and experience acquired in the targeted market as factors that contribute to the export success. For instance, Westhead et al (2001) found that the experience acquired in a specific foreign market is a factor that encourages companies to enter that market. Similarly, Milesi et al (2007), who identified the factors for export success of Latin American SMEs, found that the knowledge and experience acquired in the destination market contribute to the export success of SMEs. They represent an advantage for firms that have previous experience in foreign markets, but firms that do not have such experience may lag behind.

Overall, the analysis presented in this section highlighted empirical examples showing that *knowledge* and *differences among the countries* are important factors that affect firms' entrance into and performance in foreign markets. For these reasons, the *psychic*

⁵³ For example, Spain has current commercial relations with some Latin American countries that share the language and have ex-colonial ties (Ruiz-Garcia, 2009).

⁵⁴ Mexico and Spain share the same language and a similar culture, and they have ex-colonial ties.

distance of the Uppsala model and the differences in institutional set-up (referring to problems of knowledge flows and differences among countries) will be recalled in this research to explain the internationalization of LMT-SMEs from developing countries (Mexico) in distant foreign markets (the EU).

3.5 Key Aspects of Innovation in LMT-SMEs that Could Contribute to their Internationalization

As this thesis focuses on LMT-SMEs, this section presents empirical evidence on various issues influencing positively the innovation performance of LMT-SMEs that could be applied to improve their competitiveness and performance in foreign markets. In this regard, the empirical evidence shows that LMT-SMEs with more *internal resources* can easily access and absorb external flows of knowledge and engage in cooperation agreements. This highlights the importance of human resources and AC in LMT-SMEs to make use of external knowledge and innovate (Hervas-Oliver et al, 2011; Santamaria et al, 2009).

The empirical evidence also shows that demanding customers are important drivers of innovation. The evidence of SMEPOL in Spain shows that traditional industries, like textiles and footwear, frequently innovate to satisfy their customers' needs, even if these firms are not technologically advanced. Their innovations included modifications, redesign of products and new products (Kaufmann and Tödtling, 2003). Grimpe and Sofka (2009) also found that firms in low-technology sectors achieve the highest returns from innovation if they direct their search patterns on market knowledge towards specific customers. In addition, the empirical evidence from SMEs in traditional sectors in India shows that their exposure to customers from abroad helps SMEs to improve the quality and variety of products to target foreign customers (Russo, 1999).

Furthermore, the empirical evidence shows that firms in LMT industries that use new technologies are more innovative (Kaufmann and Tödtling, 2003; Mendoca, 2009; Santamaria et al, 2009). However, a small number of LMT-SMEs invest enough in

adopting new technologies (e.g. machinery) and scarcely use ICT. ICT has the potential to be utilized as a means of strengthening product innovativeness among such firms (Kaufmann and Tödtling, 2003).

In addition, the empirical evidence shows that *non-R&D variables*⁵⁵ (non-technological innovation), including investment in marketing, design⁵⁶ and learning (hiring tertiary degree employees and training) (Hervas-Oliver et al, 2011; Santamaria et al, 2009), can explain innovation within these firms. Santamaria et al (2009) identified other non-R&D variables, such as external consultants⁵⁷ and collaboration agreements, through which firms access external knowledge.

Regarding *the sources of external knowledge*, the empirical findings from authors such as Chen (2009), Grimpe and Sofka (2009), Hervas-Oliver et al (2011) and Tsai and Wang (2009) show that the most important sources of knowledge within LMT-SMEs are suppliers, competitors, customers, external consulting staff, universities and dealers, who contribute positively to the innovation performance. For instance, Hervas-Oliver et al. (2011) found that suppliers are the main source of external knowledge. Grimpe and Sofka (2009) found that firms in LMT industries look to customers and competitors for new knowledge. Tsai and Wang (2009) found that firms in LMT industries acquire external knowledge from collaboration with suppliers, clients, competitors and research organizations. Chen (2009) found that firms acquire technological knowledge from dealers and competitors exhibiting at international trade fairs.

⁵⁵ Hervas-Oliver et al (2011) identified these variables based on the experience of a technology-follower country (Spain). They utilized a sample of SMEs with low R&D expenditure in LMT industries.

⁵⁶ This covers many activities ranging from ergonomics, ease of manufacture, efficient use of material, user-friendliness and incorporation of innovative technologies, components or materials (Santamaria et al, 2009).

⁵⁷ As consultants often interact with numerous firms across a variety of industries, they are able to transfer tacit knowledge that has been developed through their experience of learning and interaction with other firms (Santamaria et al, 2009:p.509).

With regard to *the informal learning mechanisms*, the empirical evidence shows that attending international trade fairs⁵⁸ and relationships with foreign dealers (agents or distributors)⁵⁹ play a key role in upgrading products among LMT-SMEs as they allow SMEs to acquire market and technological know-how from competitors. In addition, dealers can offer post-sales services in foreign markets on behalf of SMEs (Chen, 2009).

This section has investigated the important issues regarding how SMEs could improve their competitiveness through innovation. The issues presented in this section need to be considered when designing policies to improve the participation and performance of LMT-SMEs in foreign markets. To continue with the analysis, the next section presents policies for SMEs that were identified through the literature review and could contribute to improving the internationalization of LMT-SMEs.

3.6 How Have Governments Addressed the Internationalization of SMEs?

This section reviews the empirical studies about the role of governments, from either developing or developed countries, in the internationalization of SMEs. Nowadays, there is an idea shared by both scholars and governments around the world that a more dynamic governmental role is needed to facilitate the participation of SMEs in foreign markets (Acs et al, 1997; Alexander and Warwick, 2007; Cruz et al, 2004b; Leonidou, 2004; Nugent and Yhee, 2002; Prieto-Carreón et al, 2006; Ruiz-Garcia, 2009; and supra-national institutions such as the OECD (2005; OECD, 2007a; OECD, 2007b) and the World Bank (WB)⁶⁰). For instance, during the conference *The Athens Action Plan for Removing Barriers to SME Access to International Markets*, various countries all over

⁵⁸ It is very helpful if highly skilled personnel of the SMEs, such as engineers, attend exhibitions as they are able to acquire knowledge and information in short periods (Chen, 2009).

⁵⁹ The empirical evidence from Taiwanese SMEs in LMT sectors shows that the opinion of foreign dealers greatly influences the decisions of the Taiwanese SMEs regarding the direction of upgrading as many of these dealers sell a variety of products from other makers around the world and have marketing information, technological knowledge and expertise in a specific industry. Moreover, by performing on-site technical services on behalf of SMEs, foreign dealers help SMEs to reduce the costs of post-sales services requested by foreign customers (Chen, 2009).

⁶⁰ The World Bank. [Online] Available from: <http://www.ifc.org/ifcext/sme.nsf/Content/Home> (Accessed: 23rd October 2008).

the world agreed that a more dynamic governmental role is needed in order for SMEs to take advantage of globalization (OECD, 2007a).

In particular, several authors, such as Collier and Dollar (2002), Hoekman and Martin (2001), Michalopoulos (2001), Pettigrew (2000), Rodrik (2000), Rugman and Boyd (2001), Ruiz-Garcia (2009) and Sampson (2001), consider that in order *for firms from developing economies* to achieve good performance in the globalizing economic system, an active government role is required. For example, Ruiz-Garcia (2009) highlighted the need for an active government role in the internationalization of SMEs from developing countries (Mexico). This is because, due to both its passive role in the internationalization of SMEs and the economic development differences among developing and developed countries, the participation of SMEs from developing countries in foreign markets has been constrained. An even greater criticism of developing countries' support is its inefficiency. Indeed, the OECD (2007b) found that SMEs from developing countries see government support as a very complex process, which is time-consuming and burdensome; thus, SMEs often choose not to use it.

For these reasons, authors such as Kaul et al (1999), Ruiz-Garcia (2009), Stiglitz (1989) and Stiglitz and Charlton (2005) recommend that developing countries should accompany trade policies with efficient government policies aimed at strengthening the country's competitive level and the domestic productive system to facilitate the participation of firms from developing economies in foreign markets. These actions are needed due to the large differences in the levels of income and development between developing and industrial countries, which create challenges for the integration of developing countries and their firms into the global economy.

Among the actions that various governments have taken to address the internationalization of SMEs, it is worth noting the example of the success of South Korean and Taiwanese SMEs in international markets. Their success was a consequence of public policies and efforts in various areas: credit and financing provision, access to technology, knowledge and information, and export-led policies for SMEs to improve

their dynamism in international markets (Krugman and Obstfeld, 2008; Nugent and Yhee, 2002; Stiglitz and Charlton, 2005). Indeed, Krugman and Obstfeld (2008) state:

“A shared characteristic that explains part of the Asian miracle of the high performance Asian economies (HPAE)⁶¹ is the export leading strategy which was accompanied by a strategic and sophisticated government role or intervention in the form of industrial policies, credit at low interest rates and support for R&D.”

Nowadays, governments from countries such as Egypt and Taiwan are also taking action to upgrade the standards for export promotion because their exporters are predominantly small firms (Evans et al, 2006a). Similarly, developed countries such as the EU, the UK and the US have taken a key role in integrating SMEs into foreign markets (Alexander and Warwick, 2007; Dussel, 2001; OECD, 2005). For example, the EU has set up various programmes and policies at the local, national and regional levels that offer training, access to technologies, information and financial instruments to improve the performance of SMEs. For instance, the Commission of the European Communities in 2007 launched the *Small Business Act (SBA)*, which is a new policy framework that promotes SMEs' growth by helping them to tackle the problems that hamper their environment.⁶² In addition, the *seventh framework programme* for research and technological development (2007-2013) is a programme for SMEs with funds amounting to €43.8 billion aiming to encourage the participation of SMEs in research actions, strengthen the linkage between SMEs and the knowledge infrastructure, upgrade SMEs' capacities and improve the innovative capacity of SMEs.

The *Joint European Resources for Micro and Medium Enterprises (JEREMIE)* is another programme that aims to improve access to finance for micro to medium enterprises. Specifically, it supports start-ups and technology transfer, and it provides innovation funds and microcredit. The *European Regional Development Fund (ERDF)* is the largest community financial instrument benefiting SMEs. It co-finances activities in areas such as: entrepreneurship, innovation and competitiveness of SMEs; interregional and cross-border cooperation of SMEs; investment in human resources; and actions to improve the

⁶¹ According to the World Bank, among the HPAEs are Japan, Hong Kong, Taiwan, South Korea, Singapore, Malaysia, Thailand, Indonesia and, more recently, China. They are characterized by high rates of economic growth, export leading strategies, strategic industrial policies and high rates of saving and investment (Krugman and Obstfeld, 2008).

⁶² “Think Small First”, a “Small Business Act” for Europe, Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions. [Online] Available from: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0394:FIN:EN:PDF> (Accessed: 4th June 2013).

regional and local environment for SMEs (access to capital, infrastructure and support services, innovation capacities, etc.).⁶³ The US government has also widely financed the operations of SMEs in international markets (Dussel, 2001), and the UK has provided training and support in order to enable its firms to deal with market failure (Alexander and Warwick, 2007).

As seen above, governments from various countries and regions have taken actions to improve the participation and performance of their SMEs in foreign markets. However, there are no empirical studies about how very liberalized economies such as Mexico are supporting the internationalization of SMEs. For this reason, this research aims to explore and shed light on this topic.

3.6.1 Public Intermediaries

As this research considers the role of government in the internationalization of SMEs from developing countries, it is worth reviewing the empirical evidence on the role of public intermediaries in the internationalization of SMEs and their programmes and activities that are supported and regulated at the government level.

The empirical evidence shows that the activities and programmes administered by public intermediaries have had a positive impact on the internationalization of SMEs, in particular when targeting distant markets (Alvarez, 2004; Chetty and Blankenburg-Holm, 2000; ITO, 1997). For example, Alvarez (2004), who studied the impact of public programmes on the internationalization of Chilean SMEs, found that successful permanent exporters used the export promotion instruments administered by the National Export Promotion Agency (ProChile) extensively.

⁶³ This support is available either directly or through programmes managed at the national or regional level. Source: European Union Support Programmes for SMEs (2009), the European Commission, Enterprise and Industry Directorate General. [Online] Available from: http://ec.europa.eu/enterprise/newsroom/cf/_getdocument.cfm?doc_id=4619 (Accessed: 4th June 2013).

The international events and trade fairs (ITFs) coordinated by these agencies have had a positive impact on firms' internationalization as they have helped SMEs to establish contacts and position their products in foreign markets (ITO, 1997). Indeed, the empirical evidence on successful exporting SMEs from Latin America (Milesi et al, 2007) shows that they are characterized by meeting potential clients more frequently, attending trade fairs, participating in exporting missions and establishing constant communication with foreign clients; such activities are organized by public intermediaries. Thus, Gelmetti (2006) recommends that exporting SMEs should participate in international fairs (ITFs),⁶⁴ missions or other international activities to find potential customers or clients and position their products.

It is worth highlighting that the importance of public agencies is enhanced when SMEs aim to target distant markets. In this regard, Chetty and Blankenburg-Holm (2000) found that the public agency from New Zealand dealing with the promotion of SMEs' exports helped SMEs to reach very distant markets such as Malaysia by providing information and linking SMEs with new markets.

Public intermediaries from developed economies, namely the US and the EU, have played a key role in the internationalization of SMEs. For instance, the US government, through the Small Business Administration, has widely financed the operations of SMEs in international markets (Dussel, 2001). Moreover, the trade agency of the UK (UKI) has left its traditional role as an export promoter to undertake market intervention in the form of providing information and training for firms in order to address the market failures that hinder the participation of British firms in international markets (Alexander and Warwick, 2007).

⁶⁴ Among the benefits of participating in ITFs to exhibit on a government stand are organizational, logistical and financial support, the opportunity to participate in a unified image of the integrated stand, the expertise and the opportunity to exhibit through a government programme (Seringhaus and Rosson, 1998).

As indicated in this section, public agencies play a vital role in the internationalization of SMEs; their activities mainly contribute to closing the information gap between home and foreign markets, in particular when targeting distant markets. Nonetheless, they do not pay much attention to SMEs' access to knowledge from abroad. As there are few empirical studies about the role of the Government and public intermediaries in Mexico in the internationalization of SMEs, this research aims to explore this topic.

3.7 Prompting the Internationalization of LMT-SMEs

This section presents policies that have been identified through empirical studies that could contribute to the internationalization of SMEs. They include innovation policies, which may help LMT-SMEs to deal with the differences in national systems among the trading countries (e.g. between Mexico and the EU) and improve their innovation and internationalization performance.

Through the literature review, it was noticed that little attention has been paid to policies for the internationalization and innovation of LMT-SMEs from Latin American and other developing countries. For these reasons, the policies presented in this section were built upon the analysis of the literature review about the internationalization of SMEs, innovation in SMEs and innovation policies for LMT-SMEs from developed countries. In developed countries like Europe, the importance of these firms is well recognized due to their contribution to the GDP and employment generation. They are seen as vehicles for the renewal of less favoured regions and sectors because of their potential to innovate (Dodgson and Rothwell, 1993; Heidenreich, 2009; Kaufmann and Tödtling, 2003; Nauwelaers and Wintjes, 2003; Smallbone et al., 2003; von Tunzelmann and Acha, 2005). Regarding the lack of policies for SMEs in LDCs and developing countries, von Tunzelmann and Acha (2005) stress that the scant consideration by policy makers of these SMEs could lead to their stagnation, which represents a terrible mistake as these countries have the highest concentration of LMT-SMEs.

The policies for the internationalization of LMT-SMEs presented in this section can be classified into two areas: i) policies to overcome the weaknesses of the LMT-SMEs, focusing on learning and changing behavioural aspects, and ii) policies to overcome the weaknesses of the system, as recommended by Kaufmann and Tödtling (2003) and Nauwelaers and Wintjes (2003). It is particularly necessary for policies to consider the weaknesses in the system (environment) because, as a consequence of the SMEs' limited internal resources, SMEs are highly reliant on external inputs to support their innovation activities. In addition, SMEs have a low ability to shape their external environment (Kaufmann and Tödtling, 2003; Nauwelaers and Wintjes, 2003; Smallbone et al, 2003).

3.7.1 Policies to Overcome the Weaknesses of LMT-SMEs in Foreign Markets

These policies can be classified into five areas: i) upgrading innovation, ii) enhancing the SMEs' knowledge base, iii) strengthening the linkages with other actors; iv) developing the capabilities to internationalize and v) accessing finance. These policies aim to overcome the SMEs' internal weaknesses, increase their resources (financial resources, knowledge base and capabilities), improve their capabilities to innovate and conduct foreign operations and prompt interactive learning. In combination they could contribute to improving the performance of LMT-SMEs from developing countries (Mexico) in developed countries' markets (such as the EU).

i) Policies to Upgrade Innovation

As the theoretical and empirical frameworks in this thesis identified deficits in innovation within LMT-SMEs, which affect their competitiveness in foreign markets, innovation policies are required to help SMEs to absorb knowledge from abroad and ease their adaptation. Kaufmann and Tödtling (2003) and Nauwelaers and Wintjes (2003) recommend that these policies pay attention to less innovative or non-innovative SMEs

in order to induce innovation among these firms. The innovation policies identified through the literature review can be clustered into two groups:

a) Policies to Induce Behavioural Change

Policy instruments could include the intervention of coaches in LMT-SMEs to influence their beliefs and behaviour. This could contribute to changing the SMEs' attitudes and willingness to be open, networking (interaction with other actors) and innovation. As these policies induce behavioural change, they could induce changes in the organizational culture and the internationalization culture within LMT-SMEs. Behavioural change could also be induced by enhancing AC and developing capabilities that enable SMEs to raise the level of awareness of, identify and use resources within the system and interact with the resource owners (Daghfous, 2004; Jansen, 2000; Kaufmann and Tödtling, 2003; Nauwelaers and Wintjes, 2003).

b) Enhancing AC and Developing the Capabilities to Conduct Non-R&D Activities

Innovation in LMT-SMEs is a strategic and market-driven perspective; thus, innovation policies should be built around markets and customers. They must also include non-R&D policy support (Grimpe and Sofka, 2009; Hervás-Oliver et al, 2011; Santamaria et al, 2009; von Tunzelmann and Acha, 2005). These policy instruments could include: linking firms with technological universities, co-funding qualified personnel and subsidies for hiring innovation managers, accessing consultancy and subsidies for training in the areas of designs, quality control, marketing, innovation management and organization (Bell and Pavitt, 1993; Kaufmann and Tödtling, 2003; Nauwelaers and Wintjes, 2003). These policies could help SMEs to enhance their AC and develop the capabilities required to adapt to new markets and contribute to interactive learning.

ii) Policies to Enhance SMEs' Knowledge Base

Some policies that were identified in the literature review that could contribute to improving the knowledge base of LMT-SMEs aim to enhance AC in order for SMEs to recognize the value of new knowledge and acquire, transform or assimilate, and exploit it (Todorova and Durisin, 2007). Firms can build AC by investing in knowledge and learning, e.g. employing new individuals with the required skills, providing training and education, and setting up linkages with other firms, customers and the knowledge infrastructure (Bessant et al, 2005; Dalum et al, 1992; Edquist, 2005; Lundvall and Borrás, 1997; Patel and Pavitt, 1994; Rubalcaba et al, 2010; Tiler et al, 1993).

a) Linking SMEs with the Knowledge Infrastructure

By connecting SMEs with the knowledge infrastructure, it becomes possible for them to move to sophisticated products, adopt technological advances and access and create knowledge (Hargadon, 1998; Hervas-Oliver et al, 2011; Kaufmann and Tödtling, 2003). Some policy instruments to achieve this outcome could include setting up innovation incubators (Tsai and Wang, 2009), co-funding of innovation assistants and consultants, financial support to hire experts, mobility schemes between universities and firms (Kaufmann and Tödtling, 2003; Nauwelaers and Wintjes, 2003) and providing staff training (Rothwell and Dodgson, 1991).

b) Government Consultancy

Consultancy by government intermediaries (such as BANCOMEXT) could help to enhance the knowledge base of SMEs. It could also raise awareness of the weaknesses not recognized by exporting SMEs that affect their competitiveness and help SMEs to set up strategies to overcome the barriers to their internationalization (Fliess, 2007; OECD, 2005; OECD, 2007b). In particular, small firms made up of 10 to 49 employees constitute the group of SMEs that have the greatest need to access consultancy (Kaufmann and Tödtling, 2003).

c) Access to Information (Codified Knowledge)

To deal with the information gap, the policies that were identified through the literature review include collecting and actively distributing up-to-date information of domestic and foreign origin. This information needs to be presented in an interesting and understandable way at an accessible cost (Kaufmann and Tödtling, 2003; Robertson et al, 2009). The dissemination of information about foreign markets that is relevant to the internationalization of SMEs include demand patterns and opportunities in foreign markets (Fliess, 2007; Knight and Liesch, 2002), information about trade fairs and missions (Fliess, 2007) and information about technical standards, legislation and customer lists in foreign markets (Leonidou, 2004). The access to this kind of information facilitates the internationalization of SMEs in distant markets (Cruz et al, 2004a; Czinkota and Johnston, 1981; Haar et al, 2004; Knight and Liesch, 2002; OECD, 2005).

To deal with the problems of information, the policies must also aim to improve the ICT and knowledge infrastructures in order for SMEs to access relevant databases of information (Dalum et al, 1992). In addition, disseminating information about support and programmes offered within and outside the region could contribute to improving the performance of SMEs (Bartik, 1990; Bessant et al, 2005; Kaufmann and Tödtling, 2003; Weiler, 2000). Particularly in Mexico, policies aimed at enabling SMEs to access information easily and at accessible prices are required (OECD, 2007b). Moreover, as it will be explained below, the information gap could be overcome by strengthening the linkages among the actors to contribute to knowledge sharing.

iii) Strengthening the Linkages with Other Actors

Since too little interaction among the actors is a system failure that hinders innovation and learning and inhibits the flows and creation of knowledge (Rubalcaba et al, 2010; Smith, 2000; Woolthuis et al, 2005), policies for LMT-SMEs must aim to upgrade their networking capabilities and link SMEs with other actors. These policies require a pro-

active⁶⁵ role of the government because these kinds of cooperation do not occur spontaneously (Alexander and Warwick, 2007; Nauwelaers and Wintjes, 2003; OECD, 2005). The policy intervention identified through the literature review includes:

a) The Linkages between SMEs and Large Firms

In order for SMEs to upgrade their competitiveness and internationalize, the literature review suggests establishing *incentives* for large firms (of domestic or foreign origin) to incorporate SMEs into their production chain (Cruz et al, 2004b; Dodgson and Rothwell, 1993; Fliess, 2007; OECD, 2005; OECD, 2007b). In addition, a pro-active *matchmaker* is required to bring together actors that would not have cooperated spontaneously, as MITI has achieved in Japan (Dalum et al, 1992; Lundvall and Borrás, 2005; Lundvall et al, 2002; OECD, 2005).

b) Cluster Formation for the Internationalization of SMEs

The empirical evidence from New Zealand and India shows that the participation of SMEs in networks and clusters encourages their internationalization (Chetty and Blankenburg-Holm, 2000; Russo, 1999). However, to improve the willingness of SMEs to participate in networks, it is first necessary to develop and upgrade their AC (Daghfous, 2004; Nauwelaers and Wintjes, 2003; Russo, 1999). *Study tours* to visit successful clusters could also increase the willingness of SMEs to participate in clusters. In addition, a local institution⁶⁶ that acts as a facilitator of the clustering/networking process is necessary for cluster formation, particularly in developing countries (Russo, 1999). Another government action that could facilitate the internationalization of SMEs and their participation in clusters is the promotion of the participation of SMEs in chambers of commerce and industry (Cruz et al, 2004b; Fliess, 2007; OECD, 2005; OECD, 2007b).

⁶⁵ The pro-active mode of policy means that policies should be both designed and delivered in cooperation with the beneficiaries. The policy implementers can be partners in the supported action so that learning can take place between policy implementers and firms (Nauwelaers and Wintjes, 2003:p.199).

⁶⁶ It is also known as an external agent. At the beginning of the cluster formation, the external agent plays the role of the leader, but as networks/associations develop, the function of the external agent must shift towards softer coordination and a progressive transfer of responsibilities from them to the entrepreneurs (Russo, 1999).

iv) Developing Capabilities to Internationalize

Some policy instruments that could contribute to developing capabilities to internationalize include training, consultancy and co-funding of qualified personnel in the area of marketing, design, international business operations, certification and standards. In particular, these policies must pay attention to obtaining certification and fulfilling the requirements demanded in foreign markets, which represent challenges for the internationalization of SMEs. For this reason, the OECD recommends that governments support SMEs in the certification process (Fliess, 2007). In addition, Chen (2009) recommends setting up programmes to improve SMEs' foreign languages and capabilities, which could ease SMEs' building of connections with foreign dealers, suppliers and users when participating in international trade fairs.

v) Access to Finance

Since the lack of credit at competitive interest rates for SMEs to support their internationalization and innovation activities could be seen as a *formal institutional failure* that blocks the innovation system (Rubalcaba et al, 2010; Woolthuis et al, 2005) or a *market failure resulting from imperfect financial markets* that inhibit the development of competitive industries (Besley, 1995; Krugman and Obstfeld, 2008; Stiglitz, 1989), and LMT-SMEs are often constrained because of their limited financial resources, the policies for LMT-SMEs must aim to enable firms to access long-term financial resources to invest in productive capacity, develop capabilities, engage in research and development of products and finance important activities for their internationalization.

Some policy instruments could include long-term funding for the development and commercialization of innovative products (Kaufmann and Tödtling, 2003; Nauwelaers and Wintjes, 2003), access to seed capital and VC funds for the internationalization of SMEs (Ribeiro, 2007) and the provision of financial training to win commercial funding

(Bessant et al, 2005). In addition, *business angel networks*⁶⁷ (OECD, 2007a), *non-market institutions*⁶⁸ (e.g. credit cooperatives, informal credit and insurance arrangements and rotating savings) (Besley, 1995) and the *PE/VC industry*⁶⁹ represent important sources of funding for SMEs. For instance, in Brazil, the Government has developed the *PE/VC industry*, which has allowed SMEs to access VC, exerting a positive impact on the innovation performance and internationalization of SMEs (Ribeiro, 2007). In addition, governments can extend long-term credit to SMEs through a government bank and indirectly through special lines of credit to private financial institutions, as undertaken by the National Economic and Social Development Bank (BNDES)⁷⁰ in Brazil (Kumar, 2005).

Regarding the firms that the policies' instruments must target, a number of authors (Czinkota and Johnston, 1981; Westhead et al, 2001) recommend that policy makers target their resources and assistance to the relatively small proportion of firms that are already servicing customers abroad and are more able to become permanent exporters. In this regard, Katsikeas (1996) advocates policies that aim to involve sporadic exporters in regular exporting activities. In addition, the European Commission and the WB recommend supporting the SMEs known as *gazelles* as they have the potential to succeed in international markets. They are young (mainly new start-ups) and fast-growing SMEs (either in the number of employees or in revenues). They are also more innovative, take more risks and can be found in all kinds of industries.⁷¹

⁶⁷ That is, linking the SMEs that lack finance with potential investors.

⁶⁸ They refer to institutions or different arrangements that make relatively little use of formal contractual obligations enforced through a codified legal system. There can, however, be well-defined rules of operation among the members of the institution (Besley, 1995).

⁶⁹ PE and VC are financial intermediaries specializing in investing in high-growth innovative SMEs. They provide VC and require a seat on the board of directors of the company in which they invest. This brings a strong corporate governance culture, strategic advice and access to a valuable business network (clients, suppliers and providers), mitigating the innovation risks (Jensen, 1991).

⁷⁰ The BNDES is a bank entirely owned by the Brazilian Government that focuses on growth. Its role is to deal with market failures and enable positive externalities. Thus, it allocates long-term funds appropriately and invests in projects that have significant positive external effects. [Online] Available from: <http://www.dandc.eu/en/article/brazils-state-owned-development-bank-bndes-probably-more-powerful-many-countrys-federal> (Accessed: 9th June 2013).

⁷¹ Source: Gazelles – High-Growth Companies, Europe Innova, Sectoral Innovation Watch, 2011. [Online] Available from: http://ec.europa.eu/enterprise/policies/innovation/files/proinno/gazelles-final-report_en.pdf (Accessed: 6th June 2013); the World Bank. [Online] Available from: <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/MENAEXT/0,,menuPK:247603~pagePK:158889~piPK:146815~theSitePK:256299,00.html> (Accessed: 5th June 2013).

As seen above, to favour the internationalization of LMT-SMEs in distant and developed countries' markets, such as the EU, policies must attend to the international operations of LMT-SMEs and innovation (mainly AC and non-R&D activities). These policies must aim to make the necessary resources available for firms to increase their performance and have a long-term horizon, as recommended by Dussel (2001), Freeman (1995), Lundvall (1992), Lundvall and Borrás (1997) and the OECD (2007b). These policies must also be customized to the firms' needs⁷² (Czinkota and Johnston, 1981) and work closely with the firms (hand in hand) during the whole process of internationalization (Cruz et al, 2004a; Cruz et al, 2004b; OECD, 2005).

3.7.2 Policies to Improve the Environment for SMEs

There is a consensus among various authors, such as Alexander and Warwick (2007), Collier and Dollar (2002), Dodgson and Rothwell (1993), Haar et al (2004), Nauwelaers and Wintjes (2003), the OECD (2005; OECD, 2007a; OECD, 2007b) and Smallbone et al (2003), that governments should set up a proper business environment for firms, especially for SMEs. A proper business environment could favour the competitiveness and internationalization of SMEs (Acs et al, 1997; Carrillo-Rivera, 2007; OECD, 2005; OECD, 2007a; OECD, 2007b). Some suggestions that were identified through the literature review to improve the business environment for the internationalization of SMEs include:

- i) Improve the transport infrastructure and reduce the production costs in the country in order to expand trade into new markets, diversify the variety of traded goods and improve the firms' competitiveness (Djankov et al, 2006; ITO, 1997; Mesquita et al, 2008; Nakata and Sivakumar, 1997; OECD, 2005);
- ii) Improve the ICT infrastructure and reduce the costs of energy and telecommunications (ITO, 1997);

⁷² For example, more experienced exporters need financial, customer service and warehousing support (Czinkota and Johnston, 1981).

iii) Upgrade the training and education system to produce sufficient skilled people and enhance the AC and learning in the system (Freeman, 1987; Kaufmann and Tödtling, 2003; Lundvall and Borrás, 2005);

iv) Reduce the trade barriers (including non-tariff barriers);

v) Set up innovation and technological policies at the national level. In order to do so, the participation of the business community, in particular SMEs and trade unions, in the trade and innovation policy is necessary. In addition, invest in technological, knowledge and innovation infrastructures (e.g. setting up innovation and research centres) (Lundvall and Borrás, 2005; Nauwelaers and Wintjes, 2003).

The suggestions above aim to deal with *infrastructural failures* (underinvestment in infrastructure, including knowledge and physical infrastructure) and *institutional failures* (mainly formal institutional failures), and to enhance the learning capacity in the system.

This section shows that policies exist aiming to deal with both the firms' weaknesses and the environmental weaknesses, which could be implemented to improve the competitiveness of LMT-SMEs in foreign markets.

3.8 Conclusion

This chapter has presented a review of the empirical studies relating to SMEs in foreign markets, the barriers affecting the internationalization of SMEs, the issues of innovation in LMT-SMEs (which could be applied to improve the internationalization of LMT-SMEs from developing countries in developed countries' markets), the role of public intermediaries and policies for innovation to aid the internationalization of LMT-SMEs. This chapter started by showing that there are opportunities and positive economic implications for the internationalization of SMEs. However, challenges also exist due to the SMEs' small size and the internal and external barriers affecting their internationalization.

The analysis presented in this chapter has shown that the internal capacities of SMEs and the industry of specialization have a great influence on the entrance and performance of SMEs in foreign markets. This chapter also indicated that the likelihood of succeeding in foreign markets is determined by the characteristics of the targeted market. When presenting the implications of knowledge and distance for the internationalization of SMEs, it was revealed that *developed and distant markets* are not easy markets because of the lack of knowledge and experience among SMEs to operate in these markets, the negative bias and stereotypes against products and firms from developing countries in the developed countries' markets, the marked environmental differences among countries and the multiple adaptations needed. Differences in the institutional set-up (or environmental differences) between developed and developing countries make the internationalization of SMEs from developing countries in distant developed countries' markets more difficult and expensive (the entry and operation costs, transport costs, etc. are higher) than internationalization in close and similar markets.

In addition, the review of the empirical studies about innovation in LMT-SMEs in this chapter allowed the identification of some issues that could contribute to improving the performance and competitiveness of these firms in foreign markets, such as: the importance of focusing on foreign customers (the demand drivers of innovation), the positive impact of introducing new technologies (the supply drivers of innovation),

enhancing AC, developing capabilities, improving the firms' knowledge base and developing non-R&D activities to lessen the problems affecting the internationalization of LMT-SMEs from developing countries (Mexico) in developed and far-off countries (like the EU).

The empirical studies discussed in this chapter also showed that the activities of public intermediaries mainly focus on dealing with the information gap and establishing contact with foreign customers. Nonetheless, the review of recent programmes to improve the internationalization and competitiveness of SMEs from developed countries (like the EU and the US) revealed that these governments are taking actions to improve the SMEs' knowledge base, innovation performance and competitiveness in foreign markets.

As a small number of empirical studies exists analysing policies for the internationalization of SMEs from developing countries, the empirical studies of policies for SMEs (mainly from the EU) and innovation in LMT-SMEs were reviewed to identify some policies that could contribute to improving the innovation and internationalization performance of LMT-SMEs from developing countries. The policies that were identified were clustered into two categories: the first set of policies aims to overcome the internal weaknesses affecting the internationalization and innovation performance of LMT-SMEs, and the second set of policies aims to improve the business environment (or overcome the external environment) because SMEs are highly reliant on external inputs to support their innovation activities. These policies uncovered the important role played by governments in supporting the competitiveness (innovation performance) of SMEs.

This chapter also indicated that there is a small number of studies that pay simultaneous attention to both the internationalization of LMT-SMEs from developing countries and the government role in addressing this internationalization in distant and developed markets; thus, this thesis aims to fill this gap in the literature by considering the system perspective of the role of public intermediaries and the government in improving the internationalization of LMT-SMEs from developing countries (Mexico) in far-away and

developed countries' markets (such as the EU) through improving their innovation performance.

Another gap in the literature that was identified in this section is that there is no clear consensus about the magnitude of the impact of external barriers, in particular the government and policy barriers, to the internationalization of SMEs. Some authors consider these barriers as highly pervasive and other authors view them as having a mild impact. Another gap is that the empirical studies about the *barriers hindering the internationalization of SMEs* do not refer to the industry to which the SMEs belong and they do specify the characteristics of the market that they target (i.e. they do not refer to the countries' market development level, geographical distance, etc.). For this reason, this research pays attention to the internal and external barriers affecting the internationalization of LMT-SMEs from developing countries (Mexico) in developed and distant markets (the EU). Overall, this thesis will contribute to filling the gap in the empirical studies about the internationalization of LMT-SMEs from developing countries (in particular from a highly open economy like Mexico) as the empirical literature on the internationalization of SMEs is dominated by studies based on the experience of SMEs from developed countries specializing in high-technology sectors.

CHAPTER 4

MICRO, MESO, MACRO AND POLICY FACTORS THAT MAY IMPACT ON THE INTERNATIONALIZATION OF MEXICAN LMT-SMEs IN THE EU

4.1 Introduction

In order to unfold some micro, meso, macro and policy issues that explain the current status of the Mexican LMT-SMEs serviced by BANCOMEXT in the EU, this chapter analyses the SME sector in Mexico and the environments (the domestic and foreign environments) in which Mexican SMEs operate. Accordingly, this chapter is divided into six sections. Section 4.2 starts by presenting the SME sector in Mexico, including issues such as the definition of SMEs in Mexico, their economic contribution, their profile and their participation in foreign markets. Section 4.3 addresses the micro and meso factors affecting the performance of Mexican SMEs. To highlight the problems affecting the internationalization of Mexican SMEs, a comparison of exporting firms from Latin America is presented in Section 4.4. To shed light on the macro and policy factors that may affect the internationalization of the LMT-SMEs serviced by BANCOMEXT, Section 4.5 presents some macro and policy factors in the domestic (Mexico) and foreign environment (the EU). The latter include both opportunities for the internationalization of SMEs and challenges stemming from the EU–Mexico Free Trade Agreement. It also examines the non-tariff barriers in the EU. Finally, Section 4.6 presents the conclusion of this chapter.

4.2 The SME Sector in Mexico

As this thesis concerns the LMT-SMEs serviced by BANCOMEXT-Europe, this section presents an analysis of the SME exporting sector in Mexico in order to understand better their current status in foreign markets and the opportunities and limitations they may face regarding their internationalization. Though the SME sector is one of the most important sectors in Mexico, little research has been conducted on their participation, their performance and their problems in foreign markets, in particular distant markets. To shed some light on these topics, the definition and importance of SMEs, their profile and economic contribution and their current participation in foreign markets will be presented.

4.2.1 Definition of SMEs in Mexico

SMEs are mainly defined in terms of the number of employees, which varies for different countries (ITO, 1997; OECD, 2005). In Mexico, the definition of an SME includes both the number of employees and the value of their operations. This is because although the definition of Mexican SMEs may be similar to the definition of those of other countries in terms of the number of employees, differences may exist in the value of their operations and internal infrastructure; these may result in marked differences between Mexican and other countries' SMEs.

To highlight the differences that may exist between Mexican and other countries' SMEs, Table 4.1 presents the definition of Mexican SMEs by the number of employees. As can be seen from this table, the definition of Mexican SMEs is similar to that of European SMEs. However, some differences exist in the value of the operations; European SMEs have annual turnovers between \$13.4 million and \$67.28 million.⁷³ In contrast, Mexican SMEs have annual sales between \$0.5 million and \$48 million.⁷⁴ In addition, when the definition of Mexican SMEs by the number of employees is compared with the Chinese measure, a marked difference exists, specifically in medium-sized firms. Chinese medium-sized firms employ an average of 893⁷⁵ employees. In contrast, Mexican medium-sized firms employ between 51 and 250 staff members (see the table below).

Altogether, these statistics suggest that, although some similarities exist in the definition according to the number of employees between European SMEs and Mexican SMEs, marked differences exist when considering the value of their operations. Moreover, the difference is particularly obvious when comparing Mexican SMEs with Chinese SMEs

⁷³ Commission of the European Communities. [Online] Available from: http://ec.europa.eu/enterprise/enterprise_policy/sme_definition/decision_sme_en.pdf (Accessed: 7th February 2007).

⁷⁴ This comprises Mexican SMEs from the manufacturing and commercial sectors. Ministry of the Economy, Mexico. [Online] Available from: <http://www.economia.gob.mx/pics/p/p2760/ESTUDIOPYMESCIPI.pdf> (28th June 2007).

⁷⁵ Development Bank of Japan. [Online] Available from: <http://www.dbj.go.jp/english/IC/service/seminar/datafile/china.pdf> (31st May 2007).

since the latter are relatively larger than Mexican SMEs. It is worth being aware of such differences since they may explain the performance and scope of SMEs' operations in foreign markets.

Table 4.1: The Definition of Micro-Enterprises and SMEs by the Number of Employees

The European Community	Number of Employees
Micro-Enterprise	Fewer than 10
Small	10-49
Medium	50-249
Mexico	Number of Employees
Micro-Enterprise	Between 0 and 10 employees in manufacturing, retail and services
Small	Between 11 and 30 employees in retail and up to 50 employees in manufacturing and services
Medium	Between 51 and 250 employees in manufacturing, between 31 and 100 employees in retail and between 51 and 100 employees in services

Source: The information in this table was collated by the author with information published by the OECD (2007b), the Mexican Ministry of Economy [Online] Available from: <http://www.consultoriapymejica.org.mx/> (Accessed: September 2009) and the Commission of the European Communities [Online] Available from: http://ec.europa.eu/enterprise/enterprise_policy/sme_definition/decision_sme_en.pdf (Accessed: 19th August 2008).

4.2.2 The Economic Contribution of SMEs in Mexico

With regard to the economic importance of SMEs, Table 4.2 shows that, in Mexico, SMEs contribute up to 63% of the GDP. Specifically, micro-enterprises contribute up to 20% and SMEs up to 43% of GDP generation. These statistics are relatively similar to those of other countries' SMEs; for instance, according to the OECD (2007b), SMEs from both developed and developing countries account for on average 50% of the local and national GDP in the global economy.

In the same table, it can also be seen that Mexican SMEs contribute up to 79% of employment generation. In addition, they constitute nearly all of the firms in the country since they represent 99.7% of the total firms. Therefore, these statistics suggest that SMEs

contribute highly to the economic life of Mexico because of the generation of employment, contribution to GDP and representation of the gross of Mexican firms.

Table 4.2: The Economic Contribution of Mexican SMEs

Firm Size	Proportion of the Firms	Employment Creation	Contribution to GDP
Micro Firms	95.7%	49%	20%
Small Firms	3.1%	15%	22%
Medium Firms	0.9%	15%	21%
Large Firms	0.3%	21%	38%

Source: The information in this table was collated by the author with information published online. Available from: www.secofi-siem.gob.mx/portalsiem/ (Accessed: 8th February 2007). These data agree with the OECD's (2007b) findings that suggest that SMEs account for half of the overall output, while employing three-quarters of the workers in the formal economy.

This section has highlighted the important economic and social contribution of SMEs to the economic life of Mexico. It has also indicated that small firms represent a low proportion of the universe of firms (small firms represent 4% of the total firms). Nonetheless, because of the important economic and social contribution of SMEs, the author of this research pays attention to these SMEs, in particular to those in foreign markets.

4.2.3 Profile of LMT-SMEs in Mexico

When discussing the profile of Mexican SMEs, it is worth noting that though there are differences between small and medium-sized firms in terms of the number of employees and the level of production, similarities exist among them; for this reason, they can be analysed together (Haar et al, 2004). For example, in Mexico, small and medium-sized firms are concentrated in traditional manufacturing sectors. They are specialized in manufacturing, food, drinks, furniture, wooden products, handicrafts, detergents and soaps. That is, Mexican SMEs are concentrated in LMT industries. They use old-fashioned technologies and often produce low-quality products for local markets. These firms also lack adequate technology and marketing and do not participate in associative networks (Cruz et al, 2004a; Haar et al, 2004; OECD, 2007b). In addition, they suffer from centralized authority in a small number of people and inefficient control of quality due to their family structure (Haar et al, 2004; OECD, 2007b). It is also worth noting that

the average lifetime of Mexican SMEs is short, with at least 50% of newly created enterprises going out of business after two years (OECD, 2007b).

It is also worth pointing out that the SMEs in Mexico are relatively small compared with other SMEs. Indeed, according to the OECD (2007b), Mexico has the largest number of micro-enterprises (95% of the Mexican firms are micro-enterprises and employ on average few more than two people) compared with the rest of the OECD countries. Just 4% of Mexican firms are SMEs, employing on average seven or eight people.⁷⁶ The small size of Mexican SMEs and their small production capacity represent a serious problem for their internationalization (Cruz et al, 2004b; Ruiz-Garcia, 2009⁷⁷). Thus, when discussing the internationalization of LMT-SMEs in Mexico, it is worth keeping in mind the characteristics uncovered in this section as they may contribute to explaining their participation and performance in foreign markets.

4.2.4 Participation of Mexican SMEs in Foreign Markets

Discussing the participation and performance of Mexican SMEs in foreign markets is difficult since it has not been possible to quantify the number of Mexican SMEs involved in international markets. According to the Mexican Government, due to the small contribution of SMEs to the exporting activity, it has not been possible to quantify this contribution. Today, statistics about the total exports include the exports made by both SMEs and large firms, but they do not distinguish the specific participation of SMEs in this activity.⁷⁸ The author of this research also searched for statistics about the

⁷⁶ Note that the employment generation of Mexican SMEs is similar to the employment generation of European SMEs. According to the European Commission, European medium-sized firms generate employment for, on average, at least six people. [Online] Available from: [http://www.economia.gob.mx/pics/p/p2760/cipi_1IReporte_PoliEmpresa_Europa\(2004\).pdf](http://www.economia.gob.mx/pics/p/p2760/cipi_1IReporte_PoliEmpresa_Europa(2004).pdf) (Accessed: 20th August 2008).

⁷⁷ IDB. Enterprise Development Strategy: Small and Medium Sized Enterprises. [Online] Available from: <http://www.iadb.org/Publications/search.cfm?language=English&searchLang=E&keywords=smes+and+international+markets&title=&author=&topics=&countries=&resCategory=&fromYear=&toYear=&x=0&y=0> (Accessed: 21st August 2008).

⁷⁸ Information from the Ministry of Economy – Mexico. [Online] Available from: <http://www.economia.gob.mx> (Accessed: August 2007).

participation of Mexican SMEs in foreign markets in specialized databases of the INEGI, the IMF, the World Bank, the IDB and the ECLAC, but relevant data were not found.

Although the main destination for Mexican SMEs is the American market (Ruiz-Garcia, 2009), it is well known that Mexican firms (including SMEs) are domestically oriented and insignificantly engaged in exporting operations (Cruz et al, 2004a; Dussel, 2001; Haar et al, 2004; Peres and Stumpo, 2002). Indeed, fewer than 2% of the total Mexican SMEs are involved in exporting activities; these mainly belong to the manufacturing sector (Cruz et al, 2004a; Haar et al, 2004). Specifically, SMEs' operations account for only 11% of the total Mexican exports (OECD, 2007b). According to the OECD (2003), these numbers are low by international comparison. It is worth noting, however, that the participation of Mexican SMEs in distant markets such as the EU is even lower (Ruiz-Garcia, 2008; Ruiz-Garcia, 2009). Furthermore, it is sporadic and only lasts for short periods of time (Ruiz-Garcia, 2009).

The lack of participation of Mexican firms in foreign markets, in particular of SMEs, is alarming. For example, when comparing the proportion of exporting firms from Mexico with the proportion of exporting firms from other Latin American economies, it is apparent that Mexico has the lowest proportion of exporting firms for both SMEs and large firms (only 2.9% of Mexican firms have exporting operations) compared with Brazil, Argentina and Chile (see Table 4.3). This comparison shows that the participation of Mexican SMEs in foreign markets is the lowest of the region.

Table 4.3: Proportion of Exporting Firms in the Latin American Region

Country	% of Exporter Firms
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Argentina	43.66%
Chile	13.92%
Brazil	30.81%
Mexico	2.99%
Latin American Region	20.83%
All Countries	25.95%

Source: The information in this table was collated by the author with information published online. Available from: <http://www.enterprisesurveys.org> (Accessed: May 2008).

Overall, the analysis presented in this section shows that Mexican firms, including SMEs, have little engagement in foreign operations. It agrees with the empirical evidence from various authors researching the internationalization of SMEs from developing countries (Alvarez, 2004; Aulakh et al, 2000; Basave and Ochoa, 2001; Ghauri et al, 2003; Ruiz-Garcia, 2008; Ruiz-Garcia, 2009), who found that the participation of SMEs from developing countries remains scarce in international arenas. In contrast, SMEs from developed countries are highly dynamic in foreign markets; they contribute 25-60% or even more of the total exports (OECD, 1997a; United Nations, 1993). For example, the American and European SMEs contribute up to 30% of the exports, Japanese SMEs up to 50% (OECD, 2005) and Italian SMEs up to 72% of the total exports (Gelmetti, 2006).

With regard to the entry mode of Mexican SMEs into foreign markets, the empirical studies show that exporting through intermediaries is the dominant entry mode by which the majority of Mexican SMEs internationalize (Dussel, 2001; Ruiz-Garcia, 2009). Other Mexican firms have internationalized by serving as local suppliers of large firms without leaving home (Dussel, 2000; Dussel, 2001; Gomez, 1997; Mattar et al, 2003).

Summing up, when analysing the entry mode and slight participation of Mexican SMEs in foreign markets, questions addressing the reasons behind their low participation and performance levels in foreign markets, and why SMEs have not reached more sophisticated entry modes when targeting distant markets, arise. To seek answers to such questions, the next section focuses on the barriers hindering the internationalization of LMT-SMEs in Mexico.

4.3 Micro and Meso Factors Affecting the Performance of LMT-SMEs in Mexico

Regarding the barriers affecting the internationalization of Mexican SMEs, it is worth remembering that SMEs are passive players in foreign markets that have faced many difficulties and challenges, in particular in the EU (Ruiz-Garcia, 2009). To seek explanations for such challenges and the impact on the internationalization of SMEs, this section pays attention to the micro and meso factors that might affect the internationalization of SMEs from Mexico. Finally, a comparison of the exporting firms from Latin America is presented to draw some conclusions about Mexican SMEs.

4.3.1 Financial Constraints

When discussing the micro factors affecting the internationalization of SMEs, it is worth pointing out the financial constraints of SMEs. They inhibit the internationalization of SMEs from Latin America and Mexico (Cruz et al, 2004a; Llisterri and Angelelli, 2002; OECD, 2007b; Ruiz-Garcia, 2009; Soto and Dolan, 2003). For example, according to Ruiz-Garcia (2009), the lack of financial resources has impeded SMEs from increasing their production capacity, adapting their products to the targeted market and advancing to other kinds of entry modes, such as alliances, to internationalize in the EU. The latter is because the formation of alliances demands more economic resources and long-term negotiations: due to their lack of resources, SMEs prefer to internationalize through exporting.

4.3.2 Low Productivity

Another problem that may affect the internationalization of SMEs is their low level of productivity. Looking at Mexican SMEs, various authors (Dussel, 2001; Moreno-Brid et al, 2005; OECD, 2007b; Ruiz-Garcia, 2009; Soto and Dolan, 2003) agree that a problem affecting SMEs is their low productivity level.⁷⁹ According to the OECD (2007b) and Soto and Dolan (2003), this problem is enhanced among Mexican SMEs due to their low

⁷⁹ According to the OECD (2007b), the productivity in Mexico is generally low, except in the manufacturing sector.

human capital, lack of organizational know-how and low level of capital equipment. Indeed, Mexican SMEs have recognized that low levels of productivity and competitiveness have affected their performance and participation in the market. For example, in the study undertaken by Haar et al (2004), Mexican SMEs recognized the need to improve their competitiveness to keep their share in the market; otherwise, they are at risk of exiting the market.

These problems of low productivity and competitiveness among SMEs are linked to their lack of financial resources (Llisterri and Angelelli, 2002; Ruiz-Garcia, 2009). For example, according to Ruiz-Garcia (2009), financial constraints limit the production capacity of exporting Mexican SMEs in the EU. In this regard, the IDB considers that Latin American and Mexican SMEs suffer from low-quality products, low productivity and low rates of innovation and that they lag behind in technological advances, which negatively affects their productivity levels as a consequence of the lack of financial resources (Llisterri and Angelelli, 2002).

4.3.3 Scarce Organizational and Managerial Capabilities

In addition, Mexican SMEs, together with SMEs from other economies, suffer from managerial problems and limited experience of operating abroad (George et al, 2005; Soto and Dolan, 2003). In this regard, the ECLAC (Cruz et al, 2004b) and the IDB⁸⁰ highlight that among the biggest problems affecting the internationalization of Latin American SMEs are the scant knowledge and experience to operate abroad, the lack of organizational structure and the low capacity to market their products internationally.⁸¹ According to Dominguez and Brenes (1997), few Latin American exporters have completed branded products; the majority of Latin American and Mexican SMEs commonly commercialize their products abroad without brands. Furthermore, they do not follow a strategic plan to internationalize and do not have the human capital needed to deal with international operations (Cruz et al, 2004b; Gelmetti, 2006). In addition,

⁸⁰ Enterprise Development Strategy: Small and Medium Sized Enterprises. [Online] Available from: <http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=369684> (Accessed: 15th November 2008).

⁸¹ Enterprise Development Strategy: Small and Medium Sized Enterprises. [Online] Available from: <http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=369684> (Accessed: 15th November 2008).

because of the family ownership structure of SMEs, they tend to be risk averse and have a lower proclivity to increase their scale and scope to internationalize (George et al, 2005; Soto and Dolan, 2003).

In addition, when analysing Mexican SMEs, Haar et al (2004) identified some problems affecting their competitiveness, such as scarce product differentiation, a lack of designs and training, poor customer service, risk aversion, inappropriate entrepreneurial plans and excessive control vested in one person (the owner), who is usually commissioned with managerial and strategic operations. This means that SMEs do not have a specific staff member assigned to the firms' international operations (Dussel, 2001). Furthermore, according to Soto and Dolan (2003), Mexican SMEs do not consider internationalization as a strategy, or do not know how to do so. They also lack the certification required in foreign markets (Cruz et al, 2004b). Furthermore, SMEs take longer to adapt their products to consumer needs and struggle to manage their relationships with important clients (Carrillo-Rivera, 2007).

Thus, LMT-SMEs in Mexico face many managerial and organizational limitations and poor capabilities to operate abroad; hence, it is necessary for them to improve these areas to internationalize. The empirical evidence shows that the successful exporting Latin American SMEs are those that have the organizational, managerial and commercialization capabilities to operate abroad, such as product design, quality control and certification (Milesi et al, 2007). Similarly, Mexican SMEs that have developed their own brands, met standards and implemented innovations tend to achieve higher profits in foreign markets than those that do not (Dussel, 2001).

4.3.4 Lack of Participation in Associations and Business Culture

The empirical evidence also shows that the performance of Mexican SMEs has been affected by the lack of participation in chambers of commerce or other private institutions. For instance, Dussel (2001), who analysed the successful integration of Mexican SMEs in the US market, maintains that the performance of Mexican SMEs in foreign markets has been negatively affected by the lack of participation in chambers of commerce or other private institutions. Indeed, he points out:

“The problem of Mexican SMEs is not their size; the problem is that they are isolated, work alone and do not participate in chambers. (Dussel, 2001)”

The lack of participation in networks and the lack of formation of alliances are issues related to the business culture. Carrillo-Rivera (2007), who analysed and compared the formation of SMEs from Brazil and Mexico, states:

“It is interesting to notice how Mexican entrepreneurs tend to be significantly more individualistic than the Brazilian entrepreneurs, which has its origins in the cultural dimension.”

Ruiz-Garcia (2009) also found that the Mexican business culture has limited the internationalization of Mexican SMEs in the EU. This is because SMEs are not used to working in networks and establishing alliances, have short-term strategies and are not accustomed to reinvesting their profits. Cruz et al (2004b) also consider that among the factors hindering the successful formation of associations among Mexican SMEs are the individualism, differences of interests, difficulties in setting up agreements among the participants, asymmetry of information among the members and uncertainty. Altogether, these highlight and explain the problems that inhibit the interactions among Mexican firms.

4.3.5 The Information Gap

As explained in Chapter 2, information gaps are cumbersome market failures that inhibit firms' entrepreneurship (Stiglitz, 1989; Weiler, 2000). The information gap is a problem affecting the internationalization of SMEs because many barriers to entry are due to new entrants' information disadvantage or poor information about foreign markets. These cause costly mistakes and hinder the internationalization of SMEs (Acs et al, 1997; Fliess, 2007; Leonidou, 2004; OECD, 2007b; Westhead et al, 2001; Young, 1995).

With regard to Mexican SMEs, Dussel (2001) and the OECD (2007b) consider that the low proportion of SMEs with international operations is due to the difficulties SMEs encounter in identifying and accessing information about international markets from both private and governmental sources. Indeed, according to Dussel (2001), Mexican SMEs tend to focus on local and regional markets due to the lack of information about foreign markets. Therefore, Soto and Dolan (2003), who analyse the performance of Mexican SMEs in the globalizing environment, consider that the use of and access to information about foreign markets need to improve in order to increase the participation and competitiveness of SMEs in foreign markets.

4.3.6 Lack of Technological Progress and Innovation

At present, Mexican SMEs operating abroad recognize the need to implement technological advances to compete in and satisfy either foreign or domestic markets (Dussel, 2001; Soto and Dolan, 2003). However, the problem is that in countries such as Mexico, the majority of firms lag behind those of industrialized countries technologically.⁸² Mexican SMEs lack technological progress and innovation, and they do not invest in R&D or innovate (Carrillo-Rivera, 2007). A comparison undertaken by the OECD, which includes firms from Mexico, Argentina, Brazil and Uruguay, shows that Mexican firms have a very low rate of innovation (OECD, 2007b). Similarly, Haar et al (2004), who analysed the impact of the NAFTA on the competitiveness of Mexican SMEs, identified the lack of innovation, the use of old technologies and the low levels of technological processes as factors affecting the performance of SMEs.

Since the empirical evidence on successful exporting SMEs from Latin America shows that technological competencies and technical training are important factors to succeed in foreign operations (Milesi et al, 2007), it could be said that the lack of technological progress and innovation are factors that affect the performance of Mexican SMEs, in both

⁸² World Development Indicators (2005) [Online] Available from: <http://publications.worldbank.org/WDI/> (Accessed: 15th October 2008).

domestic and foreign markets, and they also explain the minimal participation of Mexican SMEs in international markets.

4.4 Comparison of Mexican Firms with Other Latin American Firms

This section presents a comparison of the trade, innovation and workforce from the most important Latin American economies, including Mexico, Argentina, Brazil and Chile⁸³ (see Table 4.4). As no data are available for Mexican SMEs, this comparison was based on overall firms and not just SMEs. Nonetheless, this table is useful for inferring conclusions about the participation and problems of Mexican firms, including SMEs.

⁸³ Comparing Mexico, Argentina, Brazil and Chile is theoretically justified because they share similar histories (import substitution and liberalization) and problems (inflation and large foreign debts) (Dominguez and Brenes, 1997; Kotler et al, 1997). They also have similar social, financial and economic structures and the contribution of SMEs to the employment generation is comparable (Carrillo-Rivera, 2007).

Table 4.4: Comparison of Trade, Innovation and Workforce: Mexico vs. Other Latin American Economies

Trade	Argentina	Chile	Brazil	Mexico	Latin American Region	All Countries
% of exporter firms	43.66	13.92	30.81	2.99	20.83	25.95
Innovation and technology	Argentina	Chile	Brazil	Mexico	Latin American Region	All Countries
% of firms using technology licensed from foreign companies	16.40	12.25	7.50	6.37	12.63	11.75
% of firms using the Web to communicate with clients/suppliers	71.78	61.18	73.14	28.16	41.58	39.57
Workforce	Argentina	Chile	Brazil	Mexico	Latin American Region	All Countries
% of firms offering formal training	52.15	46.89	67.05	24.61	43.96	39.00

Source: The information in this table was collated by the author with information published by the WB. [Online] Available from: <http://www.enterprisesurveys.org> (Accessed: May 2008).

As the above table shows, Mexican firms have the lowest proportion of exporter firms (2.9%), firms using technology licensed from foreign companies (6.37%) and firms using the Web to communicate with clients and suppliers (28.26%). Mexican firms also have the lowest proportion of firms offering formal training to their employees (24.6%). In all these areas, Mexico ranked the lowest compared not only with Argentina, Brazil and Chile but also with the whole Latin American region and all countries. These issues highlight poor AC and capabilities, the lack of use of foreign technologies and problems that constrain knowledge flows with customers and suppliers (who are drivers of innovation). Altogether, they explain why Mexican SMEs have poor innovation performance. Despite Mexican firms being ranked the lowest in such areas, the exports conducted by Mexican SMEs are more diversified than the exports conducted by SMEs from Argentina, Chile and Colombia (see Appendix Table A1).

Overall, the analysis presented in this section has highlighted micro and meso factors, such as the size of SMEs, the lack of resources and capabilities for internationalization and the lack of interactions, which may explain Mexican LMT-SMEs' low participation

in foreign markets. Altogether, they shed light on the areas that need to be improved in order for LMT-SMEs to achieve a better performance in foreign markets. To identify other areas in which the Government could intervene in order to improve the internationalization of LMT-SMEs, the next section analyses the most relevant macro and policy factors of domestic (Mexican) and foreign (the EU) origin that may have an influence on SMEs' internationalization.

4.5 Macro and Policy Factors that May Impact on LMT-SMEs' Internationalization

This section presents various macro and policy factors of both domestic and foreign origin that may have an impact on the internationalization of Mexican LMT-SMEs in developed and distant markets such as the EU. Section 4.5.1 presents a discussion that highlights the importance of considering the differences in economic growth and development levels among the trading countries when analysing the internationalization of LMT-SMEs.

Section 4.5.2 presents the issues relevant to the domestic environment in Mexico to unfold some macro and policy factors that may explain the current status of LMT-SMEs in foreign markets and the problems affecting their internationalization. Section 4.5.3 presents an analysis of the EU to explain some problems stemming from the external context that may affect the internationalization of Mexican LMT-SMEs in the EU.

4.5.1 Economic Growth Differences

When analysing the performance of SMEs, it is also worth considering the economic growth and development levels among the trading countries since they result in a marked difference in competitiveness between developed countries' firms and other SMEs (Llisterri and Angelelli, 2002; OECD, 2007a; Ruiz-Garcia, 2009). According to Frazier et al (1989), the IDB, Llisterri and Angelelli (2002) and Ruiz-Garcia (2009), the differences in development levels result in differences in the economic, technological, socio-cultural and legal-political frameworks that impact on the firms' performance.

Regarding Mexican SMEs, the OECD (2005; OECD, 2007a; OECD, 2007b) recognizes that SMEs from developing countries such as Mexico differ from those of developed countries in being constrained by weak human and institutional capacities, which result in the benefits of globalization being realized very slowly.⁸⁴ In particular, the OECD (2007b) considers that Mexican SMEs face huge obstacles that negatively affect their performance. These include weak institutions, poverty, inadequate social conditions and low levels of competitiveness. In addition, Ruiz-Garcia (2009) found that, among the differences between developing and developed countries, the constraints to the internationalization of SMEs from developing countries are an inappropriate infrastructure and logistics for exporting, credit rationing, scarce government support and subsidies and a lack of technological advances.

To make such problems evident, when comparing Mexico with other developed and developing countries, such as the US, Germany, the UK, the Netherlands, France, Spain, China, Italy, India and Chile, they all ranked higher than Mexico in the areas of education and training, business sophistication, innovation and technology.⁸⁵ Altogether, they suggest that Mexican LMT-SMEs are at a disadvantage not only compared with developed countries but also compared with other developing countries in the areas previously mentioned.

This suggests that a systemic perspective is needed to deal with issues originating from several dimensions (micro, meso, macro and policy) in order to explain the entrance and performance of SMEs from developing countries in developed countries. To unfold some macro and policy issues that may explain the current status of Mexican LMT-SMEs in the EU, the next section analyses the domestic environment of Mexican SMEs.

⁸⁴ Promoting SMEs for Development: “The Enabling Environment and Trade and Investment Capacity Building”. [Online] Available from: <http://www.oecd.org/dataoecd/6/7/31919278.pdf> (Accessed: 20th August 2008).

⁸⁵ Global Competitiveness Index, Innovation and Business Sophistication Factors 2007-2008. [Online] Available from: <http://www.gcr.weforum.org/> (Accessed: 29th May 2008).

4.5.2 The Domestic Environment: The Mexican Economy

As this research considers the context in which to unfold and explain the problems hindering the internationalization of LMT-SMEs from Mexico in the EU, this section analyses the most relevant aspects of the Mexican economy that help to shed light on the current status of its LMT-SMEs in foreign markets, such as the exporting sector, the industrial policy, programmes and support for the internationalization of SMEs and the role of the foreign trade commission of Mexico (BANCOMEXT) in the internationalization of SMEs.

4.5.2.1 Liberalization of the Mexican Economy

As the Mexican economy is one of the most liberalized economies in the world, it is worth paying attention to the problems that may result from this liberalization and that may affect the performance of SMEs either in domestic or in foreign markets.

Mexico started its economic liberalization by leaving aside a protective economic model, the *import substitution industrialization (ISI)* economic model,⁸⁶ in 1982 after one of the most severe economic crises (Basave and Ochoa, 2001; Ros, 1994). As a consequence, the new liberalizing strategies included trade and financial liberalization, FDI deregulation, privatization and elimination of subsidies and fiscal incentives for domestic companies (Guillen, 2005; Moreno-Brid et al, 2005; Rugman and Boyd, 2001). Later, in 1994, the North American Free Trade Agreement (NAFTA)⁸⁷ between Mexico, the US and Canada came into force. It dramatically increased Mexico's market size and exposed the Mexican economy to foreign competition (Carrillo-Rivera, 2007; OECD, 2007b). It also helped the economy to increase its productivity, competitiveness and trade (Silva-Herzog, 1997). As consequence of the NAFTA, Mexico's exports, imports and FDI also increased (Carrillo-Rivera, 2007; OECD, 2007b; Silva-Herzog, 1997). The intra-industry (intra-firm) specialization rose as well (Moreno-Brid et al, 2005).

⁸⁶ The *ISI economic model* was characterized by trade protection measures, highly regulated measures on FDI and protective measures for domestic firms (Gomez, 1997; Moreno-Brid et al, 2005; Rugman and Boyd, 2001).

⁸⁷ The NAFTA is a trade and investment union but is definitely not a labour market union.

Today, the Mexican Government is disseminating the idea that the network of 43 free trade agreements that Mexico has signed all over the world (see Appendix Table 2) offers firms, including LMT-SMEs, the opportunity to internationalize in various markets and take advantage of the opportunities arising from the FTAs, such as: i) the diversification and expansion of markets, ii) production enhancement, iii) cost reduction, iv) product and brand improvements and v) increasing the value of the firm.⁸⁸

However, it is also worth recognizing that LMT-SMEs have been the most vulnerable and affected by the rapid trade liberalization because of the break of productive chains, strong foreign competition and the lack of compensatory public support. For instance, the break of productive chains mirrors the strong relationship between exporting firms and foreign suppliers and highlights the breakdown of internal linkages in Mexico's domestic production structure (Guillen, 2005; Moreno-Brid et al, 2005). It explains both the SMEs' low participation in foreign markets and their low export performance (Basave and Ochoa, 2001; De Maria y Campos, 2002).

In addition, the massive entrance of imports at low prices has taken many LMT-SMEs out of the market (Dussel, 2001; Haar et al, 2004; OECD, 2007b; Soto and Dolan, 2003). It may explain why, in a recent study on the performance of Mexican SMEs (Haar et al, 2004), SMEs ranked *foreign competition* as their major threat. It is also worth noting that a comparative analysis of SME formation in Brazil and Mexico (Carrillo-Rivera, 2007) found that Mexican SMEs face significantly higher levels of competition than Brazilian firms. Furthermore, the liberalization of the Mexican economy was not accompanied by compensatory policies and support for SMEs (Basave and Ochoa, 2001; Dussel, 2001; Guillen, 2005; Haar et al, 2004; IDB;⁸⁹ Moreno-Brid et al, 2005; Salama, 1999).

⁸⁸Ministry of Economy, Mexico. [Online] Available from: <http://www.economia.gob.mx/?P=2264> (Accessed: 11th May 2007).

⁸⁹ Enterprise Development Strategy in the IDB. [Online] Available from: <http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=369684> (Accessed: 16th November 2008).

This section makes evident that the results of the liberalization of the Mexican economy have been dualistic. On one hand, there have been some positive implications resulting from the liberalization of the Mexican economy, including increases in competitiveness, intra-firm specialization linked to foreign companies and dynamism in the manufacturing sector. On the other hand, domestic firms, in particular LMT-SMEs, have not been fully engaged in foreign operations due to their low level of involvement in the production chain of foreign firms. Foreign competition and lack of good public policies have also affected the performance of LMT-SMEs. Altogether, these problems, originating at the macro and policy levels, affect the internationalization of LMT-SMEs in foreign markets.

4.5.2.2 The Exporting Sector in Mexico

Continuing with the discussion of the liberalization of the Mexican economy, and to unfold some possibilities for the internationalization of LMT-SMEs, this section presents the export sector in Mexico. When considering Mexican exports, it is noticeable that manufacturing exports make the highest contribution to the total exports, contributing up to 77.7% of the total exports.⁹⁰ Manufacturing is followed by petroleum (18.3%), agriculture (3.4%) and mining (0.6%).⁹¹ In particular, the *maquila* sector⁹² is a vital force behind the Mexican export drive (De Maria y Campos, 2002; Guillen, 2005; Moreno-Brid et al, 2005) that contributes up to 90% of the total manufacturing exports.⁹³ However, it is marginally engaged with the rest of the economy (productive chains and industries) as it is mainly made up of transnational firms, the operations of which are intra-firm, mainly with American companies that import up to 60% of their components (Guillen, 2005; Moreno-Brid et al, 2005; Silva-Herzog, 1997).

⁹⁰ The exporting manufacturers belong to a few industries, such as motor engines and auto-parts, automobiles, computers and other electronic equipment. Other dynamic branches include non-electric machinery and equipment, soap and cosmetics, transport equipment and electro-domestic appliances (Moreno-Brid et al, 2005).

⁹¹ Statistics published by the National Association of Mexican Importers and Exporters (NAMIER). [Online] Available from: http://www.anierm.org.mx/pdf/Reportes_economicos/Reporte%20Economico%20-%20Cifras%20Revisadas%20de%20Junio%202008.pdf (Accessed: 11th May 2009).

⁹² *Maquiladora* is a corporation with foreign investment participation in capital and in management of up to 100%. Usually, *maquilas*' products are exported, either directly or indirectly (source: BANCOMEXT. [Online] Available from: <http://www.bancomext-mtl.com/invest/vox128.htm>).

⁹³ The Mexican Ministry of Economy. [Online] Available from: www.economia-snci.gob.mx.

Exports in Mexico are highly concentrated within the North American bloc, specifically the US (Ruiz-Garcia, 2009). Indeed, 87% of Mexican exports are directed to the North American market (see Table 4.5). This positions Mexico as one of the most important suppliers of manufactured goods (mainly made by *maquiladoras* for re-exporting) in the American market. The second destination for Mexican exports is the European market; around 5.35% of Mexican exports are destined for the EU. The Mexican exports to the rest of the world are almost insignificant (see Appendix Figure 1). Therefore, it could be said that the Mexican economy shows signs of *regionalism* because it concentrates its trade on the American economy.⁹⁴ In addition, the internationalization (exports) in other markets, such as the European market, occurs at a slow pace.

Table 4.5: Distribution of the Total Mexican Exports

Total Mexican Exports	230304.9 million dollars = 100%
North America	87.12%
The EU	5.35%
LAIA (Latin American Integration Association)	2.48%
Central America	1.01%
East Asian NICs (New Industrialized Countries)	0.82%
European Free Trade Association	0.64%
Japan	0.31%
China	0.20%

Source: The information in this table was collated by the author with information on 2006 published by the Mexican Ministry of the Economy. [Online] Available from: http://www.economia-snci.gob.mx/sphp_pages/estadisticas/cuad_resumen/expmx_e.h (Accessed: 9th February 2007).

The composition of Mexican exports to the EU consists of manufactured products such as machinery and transport equipment and automotive parts; they are mainly made up of *intra-firm operations*. These are followed by chemical products and textiles and primary products (energy and agricultural products being the most representative).⁹⁵ Among the

⁹⁴ The analysis of imports and FDI in Mexico also shows that the US is Mexico's main commercial partner. Indeed, the imports from the rest of the world into Mexico are insignificant when compared with the imports from the US, and the latter are continuing to grow (see Appendix Figure 3). Appendix Figure 4 also shows that the most important investor in Mexico is the US, followed by the EU (Eurostat, 2006). However, the European FDI in Mexico is relatively small compared with American FDI.

⁹⁵ Information from EUROSTAT (COMEXT, Statistical Regime 4). [Online] Available from: <http://trade.ec.europa.eu> (Accessed: 1st September 2008).

most important EU partners are Germany, Spain, France and the UK (see Appendix Figure 2).

To sum up, this section indicated that large foreign firms are marginally engaged in the productive chain in Mexico. This may affect the performance and participation of LMT-SMEs in foreign markets as they do not benefit from spillovers from large firms. In addition, the Mexican economy is highly integrated with the American economy as opposed to the rest of the world. This may explain the low participation of Mexican exports in other countries, such as the EU. To overcome the high vulnerability of the Mexican economy arising from the strong dependence on the American economy, the Ministry of Economy, Mexico,⁹⁶ and some authors (Guzman, 2009) have advocated the diversification of the external trade of Mexico, in particular the exporting sector, to other markets such as Latin America and the EU.

4.5.2.3 Industrial Policy in Mexico

This section looks at the industrial policy of Mexico to uncover issues that may explain the participation and performance of Mexican SMEs in foreign markets. Since the mid-1980s, the industrial policy in Mexico has aimed at trade openness, the facilitation of the establishment of *maquiladoras* and the negotiation of FTAs (Cruz et al, 2004b). Later, in the 1990s, the industrial policy aimed to prompt associations, set up clusters and subcontracting in order to integrate Mexican firms (large and small firms) into international operations and diminish the excessive delinking of some productive chains (Haar et al, 2004). However, this industrial policy has been criticized because, in practice, *it mainly targeted larger firms* and did not attend to deeply rooted industrial problems such as technological gaps, weaknesses in the national innovation system, the lack of long-term financial resources and inadequate investment, which have constrained the performance of domestic firms (Moreno-Brid et al, 2005).

⁹⁶ The Ministry of Economy, Mexico. [Online] Available from: http://www.economia.gob.mx/swb/es/economia/p_Comercio_Exterior (10th June 2011).

Indeed, no significant advance exists in the SMEs' industrial policies. According to Dussel (2001) and the OECD (2007b), SMEs have been negatively affected by past, non-favourable government policies and a lack of public support, which have had negative consequences for SMEs' current performance. It was only during the last period (2001-2006) that some programmes for SMEs were set up to cover areas of technical assistance, associations and productive chains. Therefore, according to numerous authors (Basave and Ochoa, 2001; Cruz et al, 2004b; De Maria y Campos, 2002), SMEs have been the firms most affected by the liberalization of the economy. Therefore, as a result of the trade liberalization and lack of governmental support, a dual structure exists in the manufacturing sector. On one hand, there is a dynamic sector linked to foreign operations and large foreign firms. Among the sectors and firms benefiting from the trade liberalization are the auto-parts, electronics, metal mechanic and plastic industries (Haar et al, 2004).⁹⁷ On the other hand, the remaining firms (mainly small firms and SMEs) focus on domestic markets and struggle to survive the strong foreign competition (Dussel, 2001; Guillen, 2005; Haar et al, 2004; Moreno-Brid et al, 2005; OECD, 2007b). The most negatively affected SMEs are those in the textile, garment, food and toy sectors (Guillen, 2005; Haar et al, 2004).

Nowadays, the technology gap and lack of innovation in Mexico represent serious problems limiting firms' competitiveness in both domestic and foreign markets. Among the OECD countries, Mexico has recorded by far the lowest share of R&D expenditure out of the GDP (0.4% of the GDP vs. 2.4% for the OECD area as a whole).⁹⁸ Insufficient government investment in technology has negatively affected SMEs' competitiveness in particular: this explains why they have not reached economies of scale or reduced their production costs (Guillen, 2005; OECD, 2007b). For this reason, the IDB has called for public actions; otherwise, SMEs are at risk of being excluded from the globalizing process as they are not able to participate in international markets.⁹⁹

⁹⁷ Haar et al (2004) identified some winner and loser SMEs in Mexico City and neighbouring areas; in this analysis, the *maquila* sector is excluded.

⁹⁸ <http://www.oecd.org/dataoecd/28/24/39880863.pdf> (Accessed: 22nd October 2008).

⁹⁹ Enterprise Development Strategy: Small and Medium-Sized Enterprise. [Online] Available from: <http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=369684> (Accessed: 15th November 2008).

As seen in this section, there have been few government attempts to integrate LMT-SMEs into foreign firms and to prompt their internationalization. It highlights the scarce government support aimed at improving their performance and participation in foreign markets.

4.5.2.4 The Business Environment in Mexico

When discussing Mexican firms, it is worth thinking about the business environment in which they grow and perform. It is well known that Mexican SMEs are growing and performing in an *adverse environment* (Dussel, 2001; Haar et al, 2004; OECD, 2007b; Soto and Dolan, 2003). In addition to the lack of policies for SMEs, Mexican SMEs have been negatively affected by the constant economic crisis, currency volatility and inflation (Gomez, 1997). They have also faced intense competition in domestic markets (Haar et al, 2004). Moreover, Mexican SMEs face high costs of production.¹⁰⁰ The OECD (2007b) considers this *hostile environment* to be characterized by high real interest rates, high tax compliance costs, heavy regulations and incomplete coordination among government bodies. Altogether, these explain why SMEs have highlighted the fact that the macro environment is the major threat they face (Haar et al, 2004). Therefore, the IDB has called for government intervention to improve the business environment in which Mexican SMEs grow and operate.¹⁰¹

4.5.2.5 Access to Credit

When referring to the performance of SMEs, it is also important to consider their access to credit as it affects their performance in domestic and foreign markets (Acs et al, 1997; Cruz et al, 2004a; OECD, 2005). Regarding Mexican SMEs, although there has been

¹⁰⁰ According to the OECD (2007b), the costs of transport, telephone charges and electricity in Mexico are among the highest in the OECD countries.

¹⁰¹ Enterprise Development Strategy: Small and Medium-Sized Enterprises. [Online] Available from: <http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=369684> (Accessed: 15th November 2008).

progress in their access to credit and financing in recent years, credit for firms is still scarce (Cruz et al, 2004a; Dussel, 2001). Indeed, Mexican firms consistently rate access to credit as their greatest barrier since it is especially difficult for Mexican firms to obtain credit.¹⁰² A comparison undertaken by the World Bank examined where it is easier to obtain credit. Some of Mexico's commercial partners, such as the UK, China, Germany and the US, ranked among the first ten positions of countries where obtaining credit is easier; in contrast, Mexico ranked in the forty-eighth position.¹⁰³

To highlight the problems that LMT-SMEs may face in accessing credit in Mexico, Table 4.6 shows that, among the countries of the Latin American region (this comparison includes Colombia, Chile, Mexico and Argentina), Mexican firms have the lowest proportion using banks to finance their investment or expenses (7.2%) and the lowest proportion accessing bank loans or lines of credit (3.8%). In addition, it is also evident that Mexican firms have the highest proportion using internal funds to finance their operations.

¹⁰² The World Bank Group, available at:

<http://www.doingbusiness.org/ExploreEconomies/?economyid=127> (Accessed: 30 March 2008).

¹⁰³ Doing Business 2008, Mexico, the World Bank available at: <http://www.doingbusiness.org/ExploreEconomies/?economyid=127> (Accessed: 30 March 2008).

Table 4.6: Finance Indicators in Latin America

	Mexico	Colombia	Chile	Argentina	Latin America and the Caribbean
Finance Indicators					
% of Firms Identifying Access/Cost of Finance as a Major Constraint	15.1	22.30	20.4	38.5	23.2
% of Firms Using Banks to Finance Investments or Expenses	7.2	56.80	50.9	30.3	38.9
% of Investments Financed by Internal Funds	66.2	33.00	54.3	71.00	60.9
% of Firms with Bank Loans/Line of Credit	3.8	49.80	64.5	35.00	36.5

Source: The information in this table was collated by the author with information published by the World Trade Bank Group. [Online] Available from: <http://www.enterprisesurveys.org/CountryProfiles/> (Accessed: 29th August 2008).

4.5.2.6 Logistics and Transport Costs

Regarding the internationalization of firms, it is worth considering issues of infrastructure and transport costs since they could facilitate the internationalization of firms or hinder such activity. With regard to developing countries such as Mexico and other Latin American economies, the poor and inefficient infrastructure¹⁰⁴ represents a problem affecting firms' internationalization. In this region, inappropriate logistics and infrastructure and weak provision of basic services such as transportation and energy are seen as the toughest business barriers (Gomez, 1997; IDB;¹⁰⁵ Mesquita et al, 2008).

As a result of the inefficient infrastructure and high transport costs, the trade of the region (including Mexico) has been constrained and export diversification limited (Mesquita et al, 2008). This is because high transport costs and time delays both depress the exporting of sensitive goods and heavy products in which these countries specialize¹⁰⁶ (Djankov et al, 2006; Mesquita et al, 2008). Together these explain why a great number of authors (Collier and Dollar, 2002; Djankov et al, 2006; Mesquita et al, 2008; Nakata and

¹⁰⁴ Infrastructure refers to all those physical institutions outside the production unit that form a necessary part of the production and distribution process. Infrastructure includes roads, transport services, communication networks, security systems, water, energy, etc. (Wallerstein, 2004).

¹⁰⁵ Enterprise Development Strategy: Small and Medium-Sized Enterprise. [Online] Available from: <http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=369684> (Accessed: 15th November 2008).

¹⁰⁶ Heavy products are usually natural resources such as minerals, grains, commodities and manufacturing products that are very heavy to transport. Note that freight costs are directly proportional to weight; thus, it is more expensive to transport these products than other kinds of products (Mesquita et al, 2008).

Sivakumar, 1997) consider that inefficient infrastructure and logistics represent a highly pervasive barrier to trade.

In a recent empirical study about the impact of transport costs on the Latin American and Caribbean trade (Mesquita et al, 2008), it was seen that Mexico and the Latin American region spend much more on transport costs than countries such as the US, Europe and Asia. This represents a huge problem for the internationalization of LMT-SMEs since high transport costs may result in high prices for the final products. It may therefore make Mexican products less competitive than other countries' products. It is also worth considering the distance among the markets since, according to the World Bank, distance is an obstacle to trade, specifically with distant markets, because it increases the transport costs hugely and prevents trading.¹⁰⁷ Altogether, these factors suggest that Mexican LMT-SMEs may face problems of high transport costs that may be enhanced by the great distance existing between Mexico and the EU and may hinder the internationalization of LMT-SMEs.

4.5.2.7 Programmes and Support for the Internationalization of SMEs

To elaborate on the government role in the internationalization of SMEs, this section presents the current programmes and support for the internationalization of SMEs. Among these are the *Mexican SMEs Fund (Fondo PYME)*, *Centros Pymexporta*, *Impulsoras Programme for Exportable Offer*, *BANCOMEXT*,¹⁰⁸ *PYMEexporta Centres* and *Programme for Commercial Missions*.¹⁰⁹ These programmes are coordinated by the Ministry of Economy, Mexico, and they provide information about foreign markets, tailor-made consultancy and technical assistance to deal with the requirements, regulations, quality and pricing in foreign markets.¹¹⁰ In addition, the *Mexican–European Union Business Centre (CEMUE)-PIAPYME*¹¹¹ was a relevant programme funded by the EU oriented towards strengthening the competitiveness of SMEs through promoting

¹⁰⁷ World Bank Group, Doing Business 2008, Mexico. [Online] Available from: <http://www.doingbusiness.org/ExploreEconomies/?economyid=127> (Accessed: 30th March 2008).

¹⁰⁸ For more information about the activities of BANCOMEXT, see Chapter 5: The Unit of Analysis.

¹⁰⁹ They aim to act as accelerators and export and incubator centres.

¹¹⁰ Ministry of Economy, Mexico. [Online] Available from: <http://www.economia.gob.mx> (Accessed: June 2008).

¹¹¹ Ministry of Economy, Mexico. [Online] Available from: <http://www.economia.gob.mx> (Accessed: June 2008).

quality standards, services and world-class productivity; however, this programme concluded in December 2009.¹¹²

It is worth noting that although the Mexican Government has set up programmes and policies targeted at making SMEs more efficient and improving their exporting capacity, it needs to continue to improve the support for SMEs since much of the current support was introduced recently (2001-2006): before 2000, no coherent and comprehensive policy framework existed for SMEs (Basave and Ochoa, 2001; Cruz et al, 2004b; De Maria y Campos, 2002; Dussel, 2001; OECD, 2007b).

As much of the support for SMEs was introduced recently and there are still numerous areas that have not been completely covered, several authors have identified various areas in which the government could intervene to improve the performance of SMEs. For example, Cruz et al (2004b) recommend that the Mexican Government consolidates the current programmes for SMEs since they are currently dispersed. Cruz et al (2004a) recommend setting up an integral programme that tackles the social and economic problems of SMEs and the adverse business environment and covers various areas, such as credit, consultancy, innovation, channels of distribution and the fulfilment of foreign requirements. Carrillo-Rivera (2007) and Dussel (2001) also recommend that the Mexican Government should set up an information support system to close the information gap among SMEs. In addition, it is worth providing Mexican SMEs with information about government programmes, as suggested by numerous authors researching Mexican SMEs (Cruz et al, 2004a; Haar et al, 2004).

Mexican SMEs also require training to increase their competitiveness in foreign markets. In particular, the provision of education and training in areas of management, accounting and marketing is required (Cruz et al, 2004b; OECD, 2005). The provision of training will also help workers to gain skills and contribute to SMEs' internationalization (Cruz

¹¹² The Mexican–European Union Business Centre. [Online] Available from: <http://www.cemue.com.mx/apps/sitemgreng.nsf/portada/1?OpenDocument&menu=&menuItem=it1x0x1> (Accessed: March 2010).

et al, 2004a; Cruz et al, 2004b; OECD, 2005; Silva-Herzog, 1997). In addition, it is recommended that the Mexican Government invests in infrastructure, in particular in roads, ports, airfreight and shipping services, to reduce transport costs close to the levels in developed countries, which will help to expand trade into new markets (Moreno-Brid et al, 2005; OECD, 2007b; Silva-Herzog, 1997).

To sum up, the analysis presented in this section shows that although the Mexican Government has taken some actions towards the internationalization of SMEs, a broad range of actions is still needed. Some of these are at the SME level and are targeted at improving SMEs' capabilities. Other actions are at the country level and aim to improve the country's level of competitiveness, which will contribute to improving the competitiveness and performance of SMEs operating in either domestic or foreign markets.

4.5.2.8 Public Intermediaries in Mexico and the Internationalization of LMT-SMEs

Continuing with the analysis of the Government's role in the internationalization of LMT-SMEs in Mexico, this section pays attention to BANCOMEXT. This is the government body that acts as the foreign trade commission of Mexico, commissioned to attract foreign investment and support the internationalization of Mexican SMEs. BANCOMEXT was established in 1937; it currently has an ample network of 31 offices located around the world: i) 11 offices in the US, ii) 6 offices in the EU, iii) 7 offices in Latin America and iv) 7 offices in Asia. To facilitate the commercial relationship between Mexico and the EU, BANCOMEXT established 6 offices in various European countries: England, Germany, Italy, Spain, Holland and France.¹¹³ Among the main objectives of these representations abroad are: i) to promote Mexican exports and investment opportunities in Mexico, ii) to consolidate Mexico's export capacity, iii) to design strategies to

¹¹³ These offices were established in the 1950s. For example, the representation of Mexico in Italy (Milan) was set up in 1956 by the Secretariat of Commerce and Industrial Development (SECOFI-Mexico), which later turned into a representation of the Mexican Institute of Foreign Trade; then, in 1985, it turned into a representation of BANCOMEXT. Information provided by the Director of BANCOMEXT-Milan (August 2009).

introduce Mexican products to international markets¹¹⁴ and iv) to act as a matchmaker between Mexican companies and foreign importers and investors¹¹⁵. *It is worth mentioning that BANCOMEXT is simply an executor of the policies and programmes for the internationalization of SMEs set up by the Ministry of Economy, Mexico.*

Among the SME clients of BANCOMEXT-Europe are SMEs (mainly small to medium-sized firms with between 15 and 100 employees on average) that are either interested in exporting or already exporting and want to diversify to Europe, as well as companies that export indirectly as suppliers of final exporters. BANCOMEXT does not offer support to micro-enterprises as they do not fulfil the production capacity and capabilities required to internationalize. To receive BANCOMEXT's support, SMEs need to fulfil a specific profile. They need to be small to medium-sized firms with current domestic operations, years of experience in production and commercialization in the domestic market and a production capacity that allows them to supply a foreign market.¹¹⁶ The highest proportion of SMEs serviced by BANCOMEXT-Europe belongs to industries such as the automobile, metal–mechanic, electric–electronics and food. BANCOMEXT has also served in a minor proportion of SMEs in aeronautic and other high-technology industries, the operations of which are linked to foreign firms. The services offered by BANCOMEXT include export promotion services, training, consulting, technical and financial assistance, exporter missions, support for participation in international fairs and the identification of and establishment of contact with potential customers. Furthermore, BANCOMEXT offers advice about tariff regimes and non-tariff regulations and technical assistance to improve products and productive processes. According to BANCOMEXT, its services have been very helpful and allowed SMEs to enter distant markets.¹¹⁷ However, there are no empirical studies that support the effectiveness of BANCOMEXT in the internationalization of LMT-SMEs. It is also necessary to note that the current services of BANCOMEXT do not aim to facilitate knowledge sharing with foreign actors. Chapters 2 and 3 identified that the internationalization of SMEs is difficult due to the

¹¹⁴ <http://www.consulmexny.org/bancomext/banc2.htm> (Accessed: 18th March 2007).

¹¹⁵ http://www.mexico-trade.com/NEWSITE/UK/BRITI_CO.htm (Accessed: 18th March 2007).

¹¹⁶ When SMEs contact BANCOMEXT to receive its support, they first need to complete a questionnaire that aims to determine their profile. If they meet the required profile, they will continue with the process, but if they do not, they will be given the reasons why they were not selected to receive the support.

¹¹⁷ BANCOMEXT's annual report 2004. [Online] Available from: www.bancomext.com (Accessed: 18th March 2007).

problems involved in accessing knowledge from abroad. Thus, policies and activities aiming at helping SMEs to access knowledge from abroad could be an area for potential intervention of BANCOMEXT-Europe.

Finally, it is worth mentioning that BANCOMEXT became PROMEXICO in 2008 and it continues with activities of FDI attraction and facilitating the internationalization of SMEs. To improve the activities for the internationalization of SMEs, today, PROMEXICO is financially supported by the Mexican Government and is working jointly with the Mexican Ministry of Economy and in coordination with other related Mexican secretariats that deal with various productive sectors. To continue with the analysis, the next section analyses the European market to assess the environment that LMT-SMEs face when targeting the EU.

4.5.3 The Foreign Environment: The European Union

Continuing with the analysis of the context, this section turns to the European market. This analysis aims to discover both opportunities and problems for the internationalization of LMT-SMEs in the EU. Accordingly, it starts by presenting an analysis of the EU as a market, which is followed by the opportunities for the internationalization of SMEs in the EU and an analysis of the EU-FTA agreement.

4.5.3.1 The European Market

This section analyses the European market to unfold other issues that may have an impact on both the LMT-SMEs' activities and the scope of activities of the Foreign Trade Commission of Mexico (BANCOMEXT) in Europe. Although the EU has emerged as an important and powerful economic bloc where economic and political interdependencies are institutionalized in complex structures of organized cooperation¹¹⁸ (Armstrong and Anderson, 2007; Axtmann, 1998; Paganetto, 2007; Rugman and Boyd, 2001), it is

¹¹⁸ As an example of these interdependencies and cooperation ties, the common policy for competition, agriculture, transport, etc. that exists among the EU members should be noted (Armstrong and Anderson, 2007).

difficult to talk about the EU as a single market. This is because there are multiple social, political, cultural and linguistic differences among the numerous EU members.

Economically, the EU is mainly made up of developed economies (Western Europe), characterized by strong capital and industrial systems (Wood and Yesilada, 2007). Among the most important economies are the UK, Germany, France and Italy. They have recently developed strong trading and investment links across the Eastern borders (Axtmann, 1998). Nonetheless, the new members that recently joined the EU are much poorer than the older members (Paganetto, 2007).

With regard to trade, according to Bretherton and Vogler (2006), more than 60% of the EU trade is intra-industry and intra-regional. It takes place within transnational firms spread across Europe and organized for global competition between blocs. For this reason, the EU is considered as a bloc that is little integrated with the rest of the world and more exclusive and closed than North America or East Asia (Armstrong and Anderson, 2007; Axtmann, 1998; BANCOMEXT;¹¹⁹ Bretherton and Vogler, 2006; Rugman and Boyd, 2001; Wengel and Kleinknecht, 1998). The next highest share of the EU's commercial transactions takes place with rich OECD countries, in particular with the US (Wengel and Kleinknecht, 1998).

The aspects discussed in this section suggest that the EU has emerged as one of the world's largest trading and powerful economic blocs, the actions of which have a strong impact on international arenas. It explains why various authors (Armstrong and Anderson, 2007; Bretherton and Vogler, 2006; Engelbrekt and Hallenberg, 2008; Rugman and Boyd, 2001; Wood and Yesilada, 2007) consider the EU as a *big or great power* alongside Japan and the US.

¹¹⁹ BANCOMEXT: Europe-Promotion Plan January 2006. [Online] Available from: <http://www.bancomext.com/Bancomext/aplicaciones/publicaciones/categorias.jsp?idColeccion=27> (Accessed: 10th October 2006).

4.5.3.2 Opportunities for the Internationalization of Mexican SMEs in the EU

To obtain a complete view of the internationalization of Mexican LMT-SMEs in the EU, this section begins by presenting the opportunities that the Mexican Government and the Foreign Trade Commission of Mexico have identified for the internationalization of Mexican SMEs in the EU. Firstly, the Mexican Government considers that the ample network of FTAs, such as the EU–Mexico FTA, has brought many opportunities, such as outsourcing, access to new technologies and economies of scale for the internationalization of SMEs. Secondly, the large size of the EU market and the high purchasing power of the EU citizens are also seen as market opportunities.¹²⁰

BANCOMEXT has identified specific opportunities in the EU for various Mexican sectors, such as the food (for both processed and fresh food) and drink (soft and alcoholic) sectors. There are also opportunities in the automotive and textile sectors, furniture, handicrafts, the chemical industry, electrical devices, electronics devices and footwear.¹²¹ For Mexican products to enter the EU market, they must fulfil the various regulations, standards and certification established by the EU for products from developing countries such as Mexico.¹²²

The analysis presented in this section suggests that there are some opportunities for the internationalization of Mexican LMT-SMEs in the EU. Although the EU is a highly attractive market due to its high-income purchasing power, it is worth being aware of its closed structure, its minor integration with other markets and the intra-industrial trade operations of EU firms. Altogether, these may result in few opportunities for the internationalization of non-EU firms in the EU. These opportunities may be even fewer when considering the EU protectionism to deter foreign competition and protect specific industries and markets. To continue with the analysis, the next section examines the EU–

¹²⁰ The Mexican Ministry of Economy. [Online] Available from: www.economia.gob.mx (Accessed: 30th November 2008).

¹²¹ These sectors were stated according to the number of projects identified in Europe. Source: BANCOMEXT, Europe Promotion Plan January 2006. [Online] Available from: <http://www.bancomext.com/Bancomext/aplicaciones/publicaciones/categorias.jsp?idColeccion=27> (Accessed: 10th December 2006).

¹²² Information from the European Commission. [Online] Available from: <http://ec.europa.eu> (Accessed: February 2010).

Mexico Free Trade Agreement since the opportunities identified by BANCOMEXT for the internationalization of SMEs are framed by the EU–Mexico FTA.

4.5.3.3 The EU–Mexico Free Trade Agreement

Continuing with the analysis of the EU market, this segment focuses on the EU–Mexico FTA. The EU–Mexico FTA is considered mutually favourable for both the EU and Mexico. From Mexico's perspective, it offers huge opportunities for Mexican and European firms to establish alliances; it also favours the European flows of investment into Mexico.¹²³ The EU also considers this agreement as highly favourable for entering the American market due to Mexico's geographical location and participation in the NAFTA.¹²⁴ In addition, the EU sees this agreement as very comprehensive in coverage (goods, services, procurement, competition, intellectual property rights and investment), in which the tariff dismantling process was extremely rapid (Artis and Nixon, 2007).

As a result of the EU–Mexico FTA entering into force in October 2000, the EU–Mexico trade flows show a high level of activity in intra-industrial trade, the most favoured sectors being chemicals, cars and electronics.¹²⁵ Specifically, the car industry has been highly favoured as EU tariffs on cars and auto parts from Mexico were phased out in 2003 and will proceed to complete liberalization on trade in goods and services.¹²⁶ Similarly, the trade in services has been progressively liberalized. However, although 62% of the trade in agricultural products has been fully liberalized, key Mexican products, such as meat, cereals and dairy products, are excluded by the EU–Mexico trade agreement (Artis and Nixon, 2007). In this regard, authors such as Telo (2007) consider that the EU–Mexico FTA is aimed at European countries wishing to take advantage of the role of Mexico in

¹²³ The Mexican Ministry of Economy, Mexico. [Online] Available from: <http://www.economia.gob.mx/?P=2113> (Accessed: 21st March 2008).

¹²⁴ EUROSTAT. [Online] Available from: <http://trade.ec.europa.eu> (Accessed: 1st September 2008). This shows that the NAFTA economic region is the most favoured by the EU trade compared with the rest of the world.

¹²⁵ [Online] Available from: <http://trade.ec.europa.eu> (Accessed: August 2008).

¹²⁶ The European Commission. [Online] Available from: http://ec.europa.eu/trade/issues/bilateral/countries/mexico/index_en.htm (Accessed: 29th August 2008).

the NAFTA and enjoy the same access as NAFTA countries: however, Mexico has not gained the same access to the EU.

The analysis of the EU–Mexico FTA has also shown that although there are some signs of deep integration, such as standards and legal norms for commercial practices, the EU–Mexico FTA mainly aims at *shallow integration* as it largely focuses on goods trade.¹²⁷ In this regard, it is a reminder that the analysis undertaken by Evans et al (2006a), who assessed different trade agreements between developed countries (the EU) and developing countries (Egypt and Caribbean countries), concluded that engaging in shallow integration with the EU is unlikely to be beneficial for developing countries.

Finally, as seen in this section, there are some opportunities in the EU for LMT-SMEs that fulfil all the requirements and achieve all the certification established by the EU. There are also opportunities for LMT-SMEs to participate in the production chain of large European firms. Altogether these represent areas that LMT-SMEs and the Mexican Government need to upgrade in order for these firms to enter the EU.

4.5.3.4 Tariff and Non-Tariff Barriers in the EU

As this research examines the problems affecting the performance of Mexican LMT-SMEs in the EU, it is worth discussing tariff and non-tariff barriers in the EU. These can take the form of legal and political barriers to prevent competition from foreign countries' firms, which hinders developing country firms' understanding of the benefits of trade integration (Acs et al, 1997; Collier and Dollar, 2002; Hoekman and Martin, 2001; Leonidou, 2004; Llisterri and Angelelli, 2002; OECD, 2007b; Stiglitz and Charlton, 2005). In particular, non-tariff barriers from developed countries are considered as strongly affecting the internationalization of SMEs from developing countries as they are

¹²⁷ According to Evans et al (2006a), shallow integration involves the lowering or elimination of tariff barriers to the movement of goods and services. On the other hand, in addition to lowering tariffs, deep integration involves harmonizing market institutions, standards and legal norms, such as commercial practices, administrative and contract law, and the regulation of labour markets and financial investment: this integration can be part of a formal trade agreement. As a result of deep integration, there is potential synergy between increased trade and increased productivity and growth (Evans et al, 2006b).

more subtle and are becoming stricter and more demanding (Acs et al, 1997; Cruz et al, 2004a).

Among the tariff and non-tariff barriers identified in the EU are tariffs, countervailing duties, emergent protection, quantitative restriction or quotas (Axtman, 1998), anti-dumping actions¹²⁸ (Artis and Nixon, 2007), regulations to prevent the importing of goods hazardous to health and/or the environment (Bretherton and Vogler, 2006), subsidies and support for specific sectors (Axtman, 1998; Wood and Yesilada, 2007). In addition, the European models of enforcement of the rule of origin (RoO)¹²⁹ are among the most restrictive worldwide (Estevadeordal and Suominen, 2008).

In particular, EU subsidies are seen as the most damaging non-tariff barrier. The EU is the largest subsidizer of agriculture amongst the OECD countries, with an average tariff rate four times higher than that applied to industrial goods (Bretherton and Vogler, 2006). The largest recipient of subsidies and support are France, Spain, Germany, Italy and Poland¹³⁰ (Wood and Yesilada, 2007). Overall, these subsidies and support negatively affect developing countries since they cannot compete with them (Bretherton and Vogler, 2006). Furthermore, there are various tariff, tariff escalation and non-tariff barriers to processed food from developing countries. For example, rice can enter the EU free of duty but it is subject to various tariffs when it is imported as processed rice or rice products; in similar situations are wood products, palm oil, etc. (Thomas-Slayter, 2003).

The empirical evidence shows that among the most cumbersome non-tariff barriers affecting the entrance of SMEs from developing countries (Mexico) in the EU are certification, standards and subsidies. The first two are seen as very time-consuming,

¹²⁸ Dumping is when a product is sold on a market at less than its normal value. Anti-dumping measures are arbitrary in nature because the estimation of the size of anti-dumping duties are dubious and discriminate not only between countries but also between firms, penalizing the most efficient producers (Artis and Nixon, 2007).

¹²⁹ RoO defines the processes to be performed and/or inputs to be incorporated into a final product within a particular preferential trade agreement (PTA) area in order for the product to qualify for a conferred preferential tariff treatment.

¹³⁰ During 2000 to 2006, the largest budget of the EU was for agriculture, favouring the traditional products of the six original EU members: these included cereals, beef/veal and dairy products. Moreover, with the enlargement of the EU, new crops from Central and Eastern European countries will be favoured, including cotton, tobacco and olives (Wood and Yesilada, 2007).

costly and strict, and the EU subsidies and support are much larger than developing countries' support (Mexico), which puts the competitiveness of Mexican SMEs at a disadvantage (Ruiz-Garcia, 2009).

4.6 Conclusion

This chapter presented an overview of the LMT-SME sector in Mexico, the environment for the internationalization of LMT-SMEs. Therefore, empirical studies about Mexican SMEs and the Mexican economy and literature about the EU were analysed. This chapter made evident the huge challenges to their internationalization in the EU, that Mexican LMT-SMEs may face, for example, the small size of Mexican SMEs, which are relatively small. This may be a factor explaining the lack of SMEs' involvement in foreign markets, even in the American market, which is the main market for Mexican firms. Nonetheless, despite this lack of participation in foreign markets, it is worth researching LMT-SMEs because of their important contribution to the GDP and employment generation in Mexico. In addition, by serving demanding customers from abroad, Mexican SMEs could upgrade their innovation performance and competitiveness.

This chapter also showed that Mexican SMEs internationalize through exporting, but the more active Mexican SMEs in the US and EU markets have internationalized as suppliers of foreign firms, through networks or alliances. However, they represent a small proportion of the SMEs with foreign operations. This may be explained by the fact that Mexican LMT-SMEs have little involvement in the production chain of foreign firms as a consequence of the liberalization of the Mexican economy. The latter pointed out an area for government intervention through policies in order to link domestic firms to the operations of foreign firms to ease and speed the internationalization of Mexican LMT-SMEs.

Furthermore, the analysis presented in this chapter identified some *micro and meso factors* that may explain the low participation and performance of LMT-SMEs in foreign markets. They include financial constraints as well as LMT-SMEs' low productivity, lack of organizational and managerial capabilities, small size, lack of participation in associations and lack of technological process, training and innovations. All in all, they suggest that LMT-SMEs lack the resources and capabilities to internationalize. These problems may be acute for exporting LMT-SMEs from Mexico targeting far-off and developed markets (such as the EU) as more resources and capabilities may be required

to interact with foreign actors (e.g. customers, suppliers, etc.), satisfy demanding customers' needs, deal with environmental differences and access information and knowledge from a very different market in terms of language, culture, legislation, industrial and economic development levels, etc.

Among the macro and policy factors that this chapter identified as factors that may affect the internationalization of LMT-SMEs in foreign markets are the limited commercial relations between Mexico and the EU, differences in economic growth and problems rooted in the domestic environment (Mexico). The latter include an adverse business environment characterized by high foreign competition in the domestic market, lack of policies and support for SMEs, inappropriate industrial policy and technological advances, credit rationing, inadequate logistics and infrastructure and high transport costs. Altogether, they may constrain the possibilities of LMT-SMEs to internationalize. Despite government attempts to support the internationalization of SMEs through BANCOMEXT, which provides information and consultancy and puts SMEs into contact with customers from abroad, little has been undertaken by BANCOMEXT to aid the LMT-SMEs serviced to access *knowledge* from abroad. This represents an area that remains unheeded by the Mexican Government and public intermediaries. In addition, the Mexican Government has not made any attempts to deal with the macro and policy issues affecting SMEs' performance. Nonetheless, the macro and policy issues identified in this chapter have helped to identify some possible areas for public intervention in order to improve the LMT-SMEs' performance.

With regard to the EU, despite its high purchasing power and the opportunities identified for SMEs' internationalization, there are also huge challenges that need to be assessed when analysing the entrance and performance of these firms in developed markets (the EU), for example, the number of non-tariff barriers to protect the EU market and the number of adaptations required.

To sum up, the analysis presented in this chapter suggests that, to explain the current status of Mexican LMT-SMEs in the EU, the internal capacities of the LMT-SMEs and the external environment, both the domestic and the foreign environment need to be considered due to the marked differences in the *institutional set-up* existing between Mexico and the EU. In particular, this chapter shed light on the micro, meso, macro and policy issues that could help to explain the slow internationalization and low level of participation of Mexican LMT-SMEs in the EU.

CHAPTER 5

METHODOLOGY AND RESEARCH DESIGN

5.1 Introduction

Any research and its findings are judged by the methodology followed, from the data collection to the research findings. This chapter presents the methodology and research design underlying this thesis. It also explains the steps that were followed to reach the outcome of the data analysis and the interpretation of the findings. In order to do so, Section 5.2 starts by presenting the methodological options available for this research, the quantitative, qualitative and combined methodologies, in order to explain the reasons that drove the researcher to select the case study methodology for this research (Section 5.3). Then, the research design is presented in various sections: for example, Section 5.4 presents the research questions; Section 5.5 presents the interviewees; Section 5.6 presents the interview design; and Section 5.7 studies the access to BANCOMEXT and the data collection. Section 5.8 presents the data analysis followed in this thesis. Section 5.9 explains how the researcher increased the validity and reliability of the findings of this thesis and the final section presents the conclusions of this chapter.

5.2 Methodological Options Available for this Research

To shed light on the motivations that drove the researcher to select *the case study methodology* for this research, this section presents the different methodologies¹³¹ available: the quantitative, combined and qualitative (case study) methodologies. Each one tackles the research problem differently depending on the nature of the research questions and the purpose of the research. Thus, the same research problem can be studied from different angles and for different purposes using different methodologies. However, one of them might be more suitable than the others, depending on where the research emphasis lies (Saunders et al, 2007). The next section explains each methodology and its most important characteristics.

¹³¹ Methodology refers to the theory of how research is undertaken (Saunders et al, 2007). It entails the combination of different techniques used to enquire into a particular situation (Easterby-Smith et al, 1991).

5.2.1 *Quantitative and Combined Methodologies*

Through the analysis of the literature review, it was noticed that some studies dealing with issues related to the internationalization of SMEs are based on quantitative and combined methodologies. In particular, most of the studies about SMEs and the role of governments in the internationalization of SMEs¹³² are based on the quantitative methodology. They include a large number of participants and rely on econometric and statistical analyses. In such studies, questionnaires and surveys are the main methods used to collect the data. These studies aim to find the causal relationships among different variables that affect the performance of SMEs in international markets and measure their impact without paying attention to the analysis of the context.

However, among the disadvantages of the quantitative methodology is the problem that most of the real meaning of the context is lost. This is because in order to identify and test the causal relationships, the scope becomes very narrow (Easterby-Smith et al, 1991; Hogan and Sinclair, 1996; Punnett and Shenkar, 2004; Yin, 2003). Moreover, the generalization of the results is questionable when there are particular cases that do not match the general findings (Johnson and Duberley, 1995). Therefore, if the researcher aims to look at the context and particular cases, other more appropriate methodologies, such as the qualitative methodology, might be used since an advantage of qualitative research is the enormous amount of information that is discovered (King et al, 1994).

Other researchers who have also studied issues concerning the internationalization of SMEs have used the combined qualitative/quantitative methodology. For example, Kaiser (1998) based his research on a combined methodology to study the internationalization strategies (*joint venture*) for UK and German SMEs. Similarly, Lashley (2001) followed a mixed methodology, specifically a questionnaire survey and two company case studies, to investigate the internationalization of SMEs.

¹³² Alvarez (2004); Camino and Cazorla (1998); De Chiara and Minguzzi (2002); Holmlund and Kock (1998); Julien et al (1994); Katsikeas (1996); Lages and Montgomery (2004); Lee and Yang (1990); Li et al (2004); Nummela et al (2004); Pedersen and Petersen (2004); Pollard and Jemicz (2006); Sriram and Manu (1995); Stottinger and Schlegelmilch (1998); Wilkinson and Brouthers (2006).

The combined methodology is seen as a methodology that is complementary to and advantageous over either the quantitative or the qualitative methodology. This is because quantitative analysis does not capture the overall context or address the mechanism behind the predicted events. However, qualitative research does address the context in which the events take place. Therefore, the combination of the two analyses represents an advantage over a single methodology (Easterby-Smith et al, 1991:p.37; Saunders et al, 2007). Nonetheless, according to some authors (Alvesson and Deetz, 2000), the results of the combined methodology will not always be consistent since the quantitative and qualitative methodologies are ontologically and epistemologically different.¹³³

Therefore, there are advantages and disadvantages of both the combined and the quantitative methodology that need to be considered in order to select a research methodology. Both of them aim to measure the impact of the research problem. Nonetheless, when the researcher addresses a topic for which little is known and measurement is difficult, other methodological options need to be considered, such as the case study methodology (qualitative methodology), which is analysed in the next section.

5.2.2 Qualitative Methodology (Case Study)

A case study is a methodology frequently used in qualitative research. The latter is typically oriented to the *inductive* study of the reality and pays attention to meanings, ideas or practices; it also takes the local point of view seriously (Alvesson and Deetz, 2000; Hesse-Biber and Leavy, 2004). That is why a case study focuses on a small participant group, drawing conclusions only about them and only in that specific context. Thus, the techniques used in a case study to gather information include interviews, observations and secondary data analysis (George and Bennett, 2005; Ghauri and Gronhaug, 2005; Yin, 2003).

The case study methodology is frequently used to explore, describe and search for explanations of the phenomenon under study rather than the discovery of a universal,

¹³³ It means that qualitative and quantitative research are different because they are based on different paradigms that make different assumptions about the social world, how science should be concluded and what constitutes legitimate problems, solutions and criteria of proof (Kuhn, 1970).

generalizable truth. Thus, it can involve either single or multiple cases and numerous levels of analysis¹³⁴ (Eisenhardt, 1989; George and Bennett, 2005; Gummesson, 2000; Yin, 1981; Yin, 1984; Yin, 2003). However, single case studies are considered more appropriate only when they involve rare, critical or revelatory cases (Ghauri and Gronhaug, 2005).

The most powerful advantage of a case study over a quantitative methodology is the *holistic view* of a specific situation, i.e. a full, in-depth analysis of the phenomenon under study that enables the researcher to study many different aspects, examine them in relation to each other and view the process within its total environment (Easterby-Smith et al, 1991; George and Bennett, 2005; Gummesson, 2000; King et al, 1994; Punnett and Shenkar, 2004; Yin, 2003). Moreover, a case study can also include quantitative methods in its methodology (Ghauri and Gronhaug, 2005). Thus, its results can be based on just qualitative or a mix of quantitative and qualitative evidence (George and Bennett, 2005; Ghauri and Gronhaug, 2005; Yin, 2003).

Case Studies and Qualitative Interviews Regarding the Internationalization of SMEs

Through the literature review undertaken in this research, qualitative interviews¹³⁵ and case studies were the qualitative methods most frequently identified to study issues relating to the internationalization of SMEs. For example, the studies about SMEs' internationalization based on interviews include that by Lindmark (1995), whose research is a project financed by the Nordic Government to study the importance of internal and external resources for the internationalization of Nordic SMEs. It pays significant attention to the local environment (the context) and is based on *detailed interviews* with entrepreneurs.

Fonfara and Collins (1990) studied the internationalization of businesses in Poland; their research is also based on *in-depth interviews*. Calof and Beamish (1995) also conducted

¹³⁴ For example, there is evidence of case studies conducted at two levels of analysis: industry and firm (Eisenhardt, 1989).

¹³⁵ Qualitative interviews, either semi-structured or unstructured, provide the basic data for the development of an understanding of the relationships between the social actors and their situations (Alvesson and Deetz, 2000; Hesse-Biber and Leavy, 2004).

interviews, specifically asking open questions, so as not to bias the study in the direction of any particular theory. The empirical study by Neupert et al (2006), which examines the exporting challenges of SMEs from transitional, developing and developed countries, is also based on interviews. In this study, the participants were asked to tell the story of the biggest challenge in conducting international business, its nature and its consequences.

Among the case studies addressing issues related to the internationalization of SMEs is that by Chetty and Blankenburg-Holm (2000), who analysed the importance of networks in the internationalization of manufacturing SMEs in New Zealand; their results are based on a multiple case study in which the firm is the unit of analysis and the data were collected through structured interviews. In addition, Hutchinson et al (2006) carried out multiple case studies to analyse the internationalization of British SME retailers. The data collection included face-to-face in-depth interviews with senior managers and consultancy companies, as well as interviews with the Government to provide a macro-level perspective of the phenomena. Secondary data were also used to triangulate the results.

Haar et al (2004) also conducted a case study based on Mexican SMEs to analyse the dynamics and links of the macro policy (the impact of the NAFTA) to the competitiveness of SMEs. This study pays special attention to the managerial and organizational features and capabilities of SMEs. The data collection relied on interviews with executives of SMEs. Lastly, Lashley (2001) undertook a case study to research the structures and relationships causing and affecting the internationalization of SMEs.

As explained above, a case study is a powerful qualitative methodology that offers a number of advantages, pays attention to the context and includes various levels of analysis, as does this thesis. Specifically, when the researcher aims to explore and explain topics that have received little research attention, as this researcher does, the most appropriate methodology is the qualitative case study methodology.

5.3 Justifications for Undertaking the Case Study of BANCOMEXT-Europe

Once the different methodologies available for this research had been analysed, the case study methodology was selected to research the role of governments and public intermediaries in the internationalization of LMT-SMEs and to shed light on the internal and external barriers that public intermediaries have identified as affecting the internationalization of Mexican LMT-SMEs. Among the reasons that drove the researcher to select the case study methodology for this research are the following:

i) There are few studies that investigate the role of public intermediaries from developing countries (Mexico) in the internationalization of LMT-SMEs in distant markets (Ruiz-Garcia, 2008; Ruiz-Garcia, 2009). As this thesis explores an area that has been the subject of little research, it requires plenty of knowledge, interpretation and understanding of the research topic (Morris, 2008). In this regard, Diamond (2003) and Mansfield¹³⁶ (1972; Mansfield, 1995; Mansfield et al, 1977) recognize that when researching topics about which relatively little is known, econometric studies are subject to significant limitations and shortcomings. This is because econometric analysis oversimplifies the complex relationship among the variables that affects the measures and results. In addition, it is difficult to measure something that has been researched little. A combination of these factors may result in poor-quality measurements (Diamond, 2003; Mansfield, 1995). In the same regard, a number of authors (Eisenhardt, 1989; Ghauri and Gronhaug, 2005; Saunders et al, 2007; Yin, 2003) also recommend the qualitative methodology to contribute to areas that have been mostly ignored. Therefore, to research topics about which little is known, as this research does, the case study methodology was selected to avoid the limitations of econometrics studies (measurement and aggregation).

ii) This research looks at the context in which BANCOMEXT-Europe and Mexican LMT-SMEs operate. Various levels of analysis (micro, meso, macro and policy levels) are considered to take a systemic view of the problem. In this regard, numerous authors (Gummesson, 2000; Punnet and Shenkar, 2004) consider that qualitative research is most suitable when considering the context in the analysis.

¹³⁶ Mansfield is a very well-known researcher specializing in policies and innovation. He has gathered data at the firm and industry levels, and his econometric studies have had a huge impact at the policy level.

iii) As this research pays simultaneous attention to the role of the government, the role of public intermediaries, the internal and external barriers affecting the internationalization of LMT-SMEs and the environment for innovation and the internationalization of LMT-SMEs, the research topic can be seen as complex, with multiple interactive relationships. In such circumstances, a case study is recommended to accommodate complex causal relationships, interaction effects and dependencies (George and Bennett, 2005; Punnett and Shenkar, 2004; Yin, 2003). Therefore, the case study was selected for this research to identify and analyse the multiple interactions, factors and dimensions involved.

iv) The research questions asked in this thesis have exploratory and explanatory purposes. In this regard, Yin (2003) recommends undertaking a case study when the research questions look for explanations or include *how*, *why*, *what*, *where* or *who* research questions.

v) A case study is useful when it is difficult to study the researched phenomenon outside its natural setting or context (Ghauri and Gronhaug, 2005). For this research, BANCOMEXT-Europe represents the right organization to study and analyse the role of government and public intermediaries as facilitators of the internationalization of LMT-SMEs from developing countries (Mexico) in distant and developed markets (the EU). In addition, the interviewees from BANCOMEXT have considerable experience in supporting the internationalization of SMEs; they know the problems (barriers) affecting the internationalization of LMT-SMEs when targeting foreign markets such as the EU. For such reasons, they are considered key interviewees for this research. As discussed, the case study is the most suitable methodology for this research because it covers the purposes of this thesis and addresses the nature of the research questions. The next section presents the research questions for the case study of BANCOMEXT-Europe.

5.4 Research Questions

Having analysed the literature about the models and issues explaining the internationalization of SMEs, the role of government and public intermediaries in the internationalization of SMEs, the LMT-SME sector in Mexico and the characteristics of the EU market, the research questions that were developed include the following:

- Which barriers (internal and external to the firms) have public intermediaries from developing countries identified that affect the internationalization of LMT-SMEs in distant and developed countries' markets (the EU)?
 - What is the impact of these barriers on the internationalization of LMT-SMEs from developing countries (Mexico) in developed economies (the EU)?
- What is the role of public intermediaries from developing countries (Mexico) in addressing the internationalization of LMT-SMEs?
 - Have the government efforts in Mexico supported the internationalization of LMT-SMEs in distant and developed countries (the EU)?

These research questions aim to shed light on the internal and external barriers hindering the internationalization of LMT-SMEs in developed markets (the EU) and the role of governments and public intermediaries (BANCOMEXT-Europe) from developing countries (Mexico) in the LMT-SMEs' internationalization.

5.5 The Interviewees

As this research aims to take the first step towards analysing the role of governments and public intermediaries from developing countries (Mexico) in the internationalization of LMT-SMEs and to uncover the barriers that public intermediaries from developing countries have identified as affecting the internationalization and competitiveness of LMT-SMEs in foreign and distant markets (such as the EU), BANCOMEXT-Europe was selected as the unit of analysis for this research. BANCOMEXT deals directly with the internationalization of LMT-SMEs and knows both the targeted markets and the capabilities and limitations of the supported LMT-SMEs. Although selecting a specific unit of analysis and key interviewees seems subjective, it is trustworthy and illuminates the research topic enormously (Yin, 1984; Yin, 2003). Thus, ad hoc opinion survey based on interviews with key government officers of BANCOMEXT-Europe (from offices in Madrid, Milan, Frankfurt, London, the Hague and Paris) were undertaken for this research. The interviewees hold different positions, such as commercial counsellor and financial representative; commercial counsellor assistant; and trade assistants. They have

plenty of knowledge and experience regarding topics such as foreign markets, the problems affecting exporting LMT-SMEs from developing countries (Mexico) in distant and developed markets (e.g. the EU, the US and Japan) and the role of the government and public intermediaries in the internationalization of LMT-SMEs. For example, the commercial counsellor and financial representative of BANCOMEXT-Madrid was also the Director of the programme PIAPYME. This is a joint programme between Mexico and the EU that deals with the internationalization of Mexican SMEs in the EU.

Thus, it could be said that this research has gained credibility by undertaking interviews with government officers of BANCOMEXT. In this regard, it is worth recalling Rubin and Rubin (2005), who consider that interviews gain credibility when the interviewees are experienced and have first-hand knowledge about the research problem. It is also worth recalling Mansfield (1972; Mansfield, 1995; Mansfield et al, 1977), who has made relevant contributions to policy and innovation topics. Before Mansfield undertook an econometric analysis, he selected specific units of analysis and interviewed key people who had plenty of knowledge and experience about the topic and received and discussed data (Mansfield et al, 1977). His interviewees included government officers and firms' vice-presidents in order to gain an understanding of the complexity of the research problem and illuminate areas in which little was known (Mansfield, 1972; Mansfield, 1995; Mansfield et al, 1977). This helped Mansfield to reach relevant conclusions (Diamond, 2003; Mansfield, 1995). In the same way, this research selected key interviewees to deal with little-known areas.

Lastly, regarding the number of interviewees, a small number of participants is justified when the purpose of the study is to understand the world as experienced by one specific group of people¹³⁷ (Steinar, 1996). Table 5.1 presents the number of interviews carried out in each office, the interviewees' positions and their years of experience in international markets.

¹³⁷ Even more, in particular cases, having just one interviewee is enough (Steinar, 1996).

Table 5.1: BANCOMEXT-Europe: The Interviewees and their Years of Experience

Representations of BANCOMEXT in Europe	Participants	Participants' Years of Experience
England: BANCOMEXT- London (3 interviews)	CC&FR CCA CA	20 years 19 years 5 years
France: BANCOMEXT- Paris (3 interviews)	CC&FR CCA CA	28 years 17 years 15 years
Spain: BANCOMEXT-Madrid (2 interviews)	CC&FR CCA	18 years 18 years
Italy: BANCOMEXT-Milan (1 interview)	CC&FR	17 years
Germany: BANCOMEXT-Frankfurt (2 interview)	CC&FR CA	15 years 7 years
The Netherlands: BANCOMEXT-The Hague (1 interview)	CC&FR	15 years

(Commercial counsellor and financial representative of BANCOMEXT (CC&FR), commercial counsellor assistant (CCA), commercial assistants (CAs)).

5.6 The Interview Design

The method used to collect the data on which this research relies consists of qualitative semi-structured¹³⁸ and face-to-face interviews with a single respondent¹³⁹ (the in-depth interview). The qualitative interview¹⁴⁰ represents the right approach for this research because it allows the interviewer to ascertain what people think about the topic and their explanations (McCracken, 1988; Rubin and Rubin, 2005). Its importance is well known in projects in which interviews are helpful to fill in gaps in information and describe particular events (Bauer and Gaskell, 2000; McCracken, 1988; Rubin and Rubin, 2005).

The interviews were also semi-structured to allow the researcher the flexibility to be influenced by the interviewees' areas of interest (Farr, 1982). Moreover, the interviews were based on open-ended questions to allow the respondents to tell their stories on their own terms and suggest topics, concerns and meanings that are important to enrich the research (Rubin and Rubin, 2005; Steinar, 1996). Open-ended questions also allowed the

¹³⁸ Rubin and Rubin (2005) refer to semi-structured interviews as focused questions.

¹³⁹ Bauer and Gaskell (2000) define the individual interview as a conversation lasting normally for one to one-and-a-half hours.

¹⁴⁰ A qualitative interview can be defined as a conversation in which the researcher gently guides the conversational partner in an extended discussion (Rubin and Rubin, 2005; Steinar, 1996).

interviewer to exercise some control over the interview to focus on specific topics (McCracken, 1988).

To impose order and structure on the interview, an agenda of 42 open-ended questions was developed. These questions dealt with the challenges and opportunities for the internationalization of LMT-SMEs from Mexico in the EU, the European market, the internationalization of Mexican LMT-SMEs (the characteristics, weaknesses and strengths of LMT-SMEs), the role of BANCOMEXT and the Government in the internationalization of LMT-SMEs (the role of public intermediaries, programmes, the government role in Mexico and other countries to support SMEs' internationalization and suggestions for the internationalization of LMT-SMEs).

As the interview questions aimed to discover *what* is happening and to seek an explanation of the events, they can be considered as having exploratory and explanatory purposes. Regarding the length of the interviews, although Bauer and Gaskell (2000) recommend that interviews should last for one to one-and-a-half hours, the interviews undertaken for this research lasted two and a half to three hours, as McCracken (1988) recommends, in order for the interviewees to explain the topic freely and explore the key terms.

5.7 Access to BANCOMEXT-Europe and Data Collection

The first contact with BANCOMEXT-Europe was in autumn 2006 when the researcher visited the office of BANCOMEXT-London to meet the commercial counsellor and financial representative and trade assistants. At this meeting, the researcher explained the interest in undertaking a case study of BANCOMEXT-Europe to analyse the role of governments and public intermediaries in the internationalization of LMT-SMEs from developing countries and to shed light on the barriers that public intermediaries have identified as affecting the internationalization of LMT-SMEs.

The commercial counsellor and financial representative and the trade assistant were very pleased with the research topic and they were willing to participate in future interviews. During the first meeting, BANCOMEXT's government officers explained to the researcher a little about their experience as a facilitator of the internationalization of SMEs in London. This meeting was very useful and it helped the researcher to develop new research questions.

In order to become familiar with the activities of BANCOMEXT and to obtain more knowledge about the topic, the researcher attended different events organized by BANCOMEXT-London, such as i) the London wine and spirit trade fair (specializing in alcoholic drinks) and ii) an event organized jointly by BANCOMEXT-London and the Ministry of Economy, Mexico, to attract European FDI to Mexico. For instance, when attending the London wine and spirit trade fair, the researcher had the opportunity to meet and undertake some informal conversations with the Mexican businessmen participating in this fair. This conversation was around their experience in trade fairs.

In addition, by attending the event organized by BANCOMEXT that aimed to attract FDI to Mexico, the researcher was able to unfold the ideology underpinning BANCOMEXT. Overall, attending these events helped the researcher to define the questions for the interviews. This is what Becker and Geer (1957) call *participant observations*, which help the researcher to gain a better understanding of the topic.

Finally, during summer and autumn 2007, 12 semi-structured interviews were conducted in the various offices of BANCOMEXT-Europe located in London, Madrid, Paris, Milan, the Hague and Frankfurt. As the interviews were undertaken during office hours, a restriction of time was expected. However, the interviewees talked freely without pressure of time. The interviews were recorded and transcribed in Spanish and later translated into English.

5.8 Data Analysis

This section presents the *inductive* approach¹⁴¹ used to analyse the interviews. The *inductive* approach was followed when interpreting, deducing, developing and defining both the codes (concepts) and the categories emerging from the interviews. At this stage, the data are treated as potential indicators of concepts, incidents or events, i.e. elements related to a particular theme, and the researcher needs to reflect on which concepts they fit best (Bryman and Bell, 2007; Campbell, 1975; Eisenhardt, 1989; Hutchinson et al, 2006; Saunders et al, 2007). According to Bryman and Bell (2007), a *concept* is useful if it is frequently found through the data and the interviewees are able to recognize and relate it to their experiences; if so, that concept is regarded as representing a real-world phenomenon.

In this research, the main *concepts* were identified through coding,¹⁴² i.e. all the interviews were broken down into various relevant issues (concepts or codes) pointed out by the interviewees. Later, these concepts (or codes) were clustered into various *categories* (relevant themes), as suggested by Bryman and Bell (2007), Creswell (2002) and Miles and Huberman (1994). A category may subsume two or more concepts; it represents a higher level of abstraction than concepts. Indeed, a category may become a *core category* around which other categories pivot and the number of core categories may in fact be relatively small¹⁴³ (Bryman and Bell, 2007).

Among the empirical studies relating to the internationalization of SMEs that have followed similar approaches to analysing the data are the following:

- i) Neupert et al (2006), whose qualitative study examines the challenges faced by SMEs from developing, transitional and developed economies in their internationalization processes. They broke up the interviews and grouped the data

¹⁴¹ In inductive approaches, the research findings result from multiple interpretations made from the raw data by the researcher who codes the data (Thomas, 2006).

¹⁴² According to Bryman and Bell (2007), coding implies breaking down the data into component parts, which are given names (labels) to organize, categorize and cluster the data.

¹⁴³ For example, from a large data set, 100 concepts were initially identified, but fewer than 40 of these proved to be very useful and only 10 provided the basis for the final analysis (Bryman and Bell, 2007).

according to the common themes discussed by the interviewees. Later, they were classified as internal or external exporting problems;

- ii) Haar et al (2004), who analysed the impact of NAFTA on the performance of Mexican SMEs. They identified the factors affecting the performance of SMEs and classified them into macro and micro issues.

In this thesis, after identifying the codes and upper categories, they were related to the theoretical background and research questions,¹⁴⁴ as suggested by Campbell (1975), Eisenhardt (1989) and Saunders et al (2007). In addition, to increase the validity of the outcome of the data analysis, the outcome was compared with other similar cases and literature about the topic to determine whether the findings, reasons and conclusions hold with the existing literature, as suggested by Alvesson and Deetz (2000), McCracken (1988) and Rubin and Rubin (2005).

5.9 Quality of this Research

As many researchers undertaking case studies do not follow systematic procedures, or have biased views that influence the direction of the findings and conclusions, case studies have been criticized and considered to lack reliability and validity, objectivity or rigour (Gummesson, 2000; Yin, 2003). To avoid these problems, this section presents the four conditions that Yin (2003) suggests a case study must satisfy to reduce the possibility of obtaining incorrect results.

5.9.1 Construct Validity

To increase the validity of a case study, the use of multiple sources of evidence and the establishment of a chain of evidence is recommended (Yin, 2003). Thus, to increase the construct validity of this research, all the government officers of BANCOMEXT located in various European countries were included; by interviewing all of them, the source of evidence was enhanced. In addition, the same interview agenda was applied to each

¹⁴⁴ Inductive reasoning uses the data to generate ideas and deductive reasoning begins with the idea and uses the data to confirm or negate the idea (hypothesis testing) (Thorne, 2000).

interviewee, which helped in the comparison of the answers when analysing the data. Furthermore, to understand the logic of the conclusions reached through this research, the codes and categories that were identified through the data analysis were discussed with my main supervisor. These are presented in Chapter 6 in order to establish a chain of evidence.

5.9.2 Internal Validity

Different authors (Ghauri and Gronhaug, 2005; Mayring, 2000; Yin, 2003) recommend pattern matching and triangulation to increase the accuracy of the judgements and the validity of the findings. To increase the internal validity of this research, the data are linked to the theoretical propositions (pattern matching). In addition, the results of this research are compared with those of other studies in the sense of triangulation and to increase the reliability. It is worth remembering that one of the main advantages of triangulation is that it produces a more complete, holistic and contextual portrait of the phenomenon under study (Ghauri and Gronhaug, 2005; Yin, 2003). It also widens the perspective of the researcher, helps to improve the accuracy of the judgements and diminishes problems of bias (Gummesson, 2000).

5.9.3 Reliability

Reliability refers to the extent to which the data collection techniques or analysis procedures yield consistent findings, i.e. whether similar observations and results are attained by other researchers (Gummesson, 2000). In this regard, to increase the reliability of this research, the interviews were based on an agenda of questions; the agenda was developed after analysing the literature on the different topics discussed during the interviews. In addition, all the procedures of the data analysis have been documented in this research, as suggested by Saunders et al (2007) and Yin (2003).

5.9.4 External Validity or Generalizability

Case studies have also been criticized for contributing little to scientific generalization (Gummesson, 2000; Yin, 2003). However, it is worth pointing out that a *case study does not aim to achieve statistical generalization or verification: it aims to understand the complexity of a particular situation*. That is why it is based on a small number of participants chosen for specific reasons (Easterby-Smith et al, 1991; Yin, 2003). Moreover, *the validity of case study research relies on the theoretical validity, i.e. the use of theory through all the stages of the case study represents the main vehicle for generalizing the outcome of the case study* (Saunders et al, 2007; Yin, 2003).

In this research, the external validity or generalizability relies on the literature review, which played a key role in the development of the research and interview questions. In addition, the outcome of the data analysis has been matched to the current literature on the topic. Lastly, it is worth mentioning that it was not intended for the conclusions of this research to be generalizable to other cases, as this research is based on a specific organization from a specific country. The aim of this research is to explain the role of the Government and public intermediaries in the internationalization of LMT-SMEs from Mexico in distant and developed markets such as the EU and to identify the barriers affecting the internationalization of these LMT-SMEs.

5.10 Conclusion

As the methodology is one of the most important components of any research, this chapter has attended to the methodology on which this thesis relies. It opened with the presentation of the various methodologies available for this research (quantitative, qualitative and combined methodologies) to explain the reasons that drove the researcher to select the qualitative methodology.

Specifically, the case study was found to be the most suitable methodology for various reasons. It contributes to illuminating areas of study that few have explored before and considers the context, various levels of analyses and their relationship to each other, as this thesis does. In addition, the research questions of this thesis aim to explore and explain the topics addressed in this thesis. The latter are the role of the Government and public intermediaries and the barriers that public intermediaries have identified as affecting the internationalization of Mexican LMT-SMEs.

Through the analysis presented in this chapter, it was also evident that BANCOMEXT-Europe is the appropriate organization with which to undertake the case study in this research. This is because BANCOMEXT is the most specialized public organization dealing with the internationalization of LMT-SMEs in foreign markets. It has first-hand knowledge about the foreign markets in which BANCOMEXT is located, and it knows the experience of the LMT-SMEs that BANCOMEXT has served. Indeed, by discussing the topics addressed in this thesis with these interviewees, the researcher could reach relevant conclusions, and the research gained credibility because of the experience and first-hand knowledge of the interviewees. Lastly, it is worth recalling that the small number of interviewees involved in this research (twelve interviews of forty-two questions lasting two-and-a-half to three hours each) is justified because the purpose of this research is to understand a particular situation from the point of view of a specific organization.

Lastly, the various procedures that were followed both to analyse the data from the interviews and to reach the findings were presented. It is worth remembering that the data were analysed following an inductive approach, i.e. interpreting and deducing the themes in order to identify the main concepts and later the outcome of the data analysis was linked to and compared with the theoretical and empirical frameworks.

Finally, as any research is judged by the quality of its methodology, this chapter has explained the ways in which this research has gained validity and reliability. For example, the theoretical framework and analysis of the empirical studies played a key role in this research. They helped the researcher to develop the research questions and the questionnaire for the interviewees. In addition, the outcome of the data analysis was linked to and compared with the theoretical and empirical frameworks.

CHAPTER 6

THE NSI IN THE DATA ANALYSIS

6.1 Introduction

In order to track the findings of this research, this chapter presents the outcome of the analysis of the interviews. Thus, Section 6.2 explains the reasons that drove the researcher to utilize the NSI approach in the data analysis. Section 6.3 presents the cluster analysis that was undertaken once the main concepts and categories had been identified in order to analyse the findings at the upper level. The outcome of the data analysis is presented in various groups, including micro, meso, macro and policy categories and supply, demand, trade competitiveness and regulation issues. The last section of this chapter presents the conclusions.

6.2 NSI in the Data Analysis

The NSI approach is utilized in the cluster analysis in order to analyse the findings from the *systemic perspective*, which considers the firms (in this case the LMT-SMEs), the environment (the industry, domestic (Mexico) and foreign environments (the EU)), the differences in the institutional set-up (between Mexico and the EU), the role of the Mexican Government, interactions and the role of knowledge, learning and innovation in order to uncover areas in which the Mexican Government could intervene to upgrade the internationalization of Mexican LMT-SMEs through improving the national system of innovation.

As the NSI can be charted and analysed through either functions or actors, as inferred from Chapter 2 (in which the NSI approach was presented), this chapter charts the findings of the cluster analysis by the function of the NSI (this chapter does not take R&D as a function). According to Edquist (2005), the function of the NSI is to develop, diffuse and use innovation at the national level. The NSI also highlights knowledge as the most fundamental resource to innovate as innovation can result from combining knowledge in new ways (Edquist, 2005; Lundvall, 1992). In particular, knowledge from abroad enables

firms to identify new business opportunities and upgrade their innovative performance (Ernst et al., 1998; Fagerberg et al, 2005; Grimpe and Sofka, 2009; Hervas-Oliver et al, 2011; OECD, 1997b; Santamaria et al, 2009). The NSI also pays particular attention to learning, which *is the most important process* through which agents communicate and cooperate in the creation and utilization of new, economically useful knowledge (Lundvall et al, 2002). Particularly in developing and industrialized economies, in order for firms to become innovators, it is important to set up the basis for *active learning* as in these nations the process of technical change is usually limited to the *absorption*¹⁴⁵ and *improvement of innovations produced in the industrialized countries* (Viotti, 2002).

The data analysis, by considering the NSI, also takes the environment into consideration. It is worth recalling that the function of the NSI is influenced by the environment. According to various authors (Edquist, 2005; Fagerberg, 2005; Freeman, 1987; Freeman, 1995; Freeman, 2002; Lundvall, 1992; Lundvall and Borrás, 1997; Lundvall and Borrás, 2005; Metcalfe and Georghiou, 1997; Nelson, 1993), innovation occurs within a system in which formal and informal institutions (including the language, the way business is conducted, habits, government policies, infrastructure, the role of knowledge, interrelations, etc.), i.e. the environment, determines the flows of knowledge and shapes the inter-relationships necessary to innovate. The data analysis also considers the *system failures*, including institutional, infrastructural and interaction failures, and the lack of capabilities as they block the flows of knowledge, interactions and learning and therefore the innovation performance of the whole system (Rubalcaba et al, 2010; Smith, 2000; Woolthuis et al, 2005).

In addition, the utilization of the NSI in the data analysis enables attention to be paid to micro, meso, macro and policy factors as the NSI approach adopts a systemic perspective that involves interactions and encompasses organizational, social and political and economic factors (Edquist, 2005; Lundvall, 1992; Lundvall et al, 2002; OECD, 1997b). Furthermore, as explained in Chapter 2, demand and supply factors can be uncovered as

¹⁴⁵ Viotti (2002) defines absorption as the process of diffusion perceived from the perspective of the recipient of the technique. A technique is diffused only when it is effectively assimilated and this depends on the ability and the efforts developed by the recipient, firm, industry or country.

the analysis of the NSI considers them. Moreover, by utilizing the NSI approach to analyse the internationalization of Mexican SMEs in the EU, it is possible to uncover the regulation and trade competitiveness issues explaining the internationalization of Mexican SMEs in the EU.

6.3 Cluster Analysis

As explained in Section 5.8, the first stage of the data analysis in this thesis took place when interpreting, deducing, developing and defining codes and categories from the interviews. Accordingly, the interviews were broken down into various relevant issues (concepts or codes) pointed out by the interviewees. They were related to the theoretical background and research questions. Later, the concepts (or codes) that were frequently found were clustered into various *categories* (relevant themes). As a result of the data analysis, 220 concepts and 28 categories were identified. Within each category there are typically 2 to 5 or 6 concepts. As this research takes a systemic perspective, aiming to integrate a macro and policy investigation with the meso and micro levels, the concepts and categories identified through this research are grouped at the micro, meso, macro and policy levels. They span issues about the internationalization of Mexican SMEs, the European market, problems affecting the internationalization of Mexican SMEs in the EU and their innovation performance to operate abroad, and the role of BANCOMEXT and policy makers in the internationalization of these firms.

Aiming to conduct the upper level of analysis and reach better conclusions, once the 220 concepts had been identified, a cluster analysis was undertaken to group these concepts into an upper category. It is worth reiterating that cluster analysis is an inductive technique and statistical method well known for its robustness, consistency and general applicability; cluster analysis is used as a data reduction technique to develop empirical groups when no information other than the observed values is available (Fraley and Raftery, 1998; Kaufman and Rousseau, 2005). Thus, as a result of the cluster analysis, meaningful groups emerge that are more general and more easily managed than individual observations, which may serve as the basis for further analysis (Punj and Stewart, 1983).

Table 6.1 presents the cluster membership resulting in the 220 concepts identified through the data analysis.

Table 6.1: Cluster Membership

Case	5 Clusters	4 Clusters	3 Clusters
NL	1	1	1
DE1	2	2	2
UK1	3	2	2
ES1	4	3	3
FR1	2	2	2
UK2	2	2	2
UK3	2	2	2
FR2	2	2	2
FR3	3	2	2
ES2	5	4	2
DE2	5	4	2
IT	5	4	2

The above table uses hierarchical clustering methods (splitting algorithms) first on the twelve “variables”, i.e. the respondents. Beginning with the initial solution (not shown above – two columns further to the right), in which all the variables belong to the same cluster, the procedure based on proximity or dissimilarity detached the dissimilar individual cases of NL and ES1, which remained as separate “clusters” throughout the remaining splitting exercises as one moved leftwards across the columns and beyond, ultimately having each and every variable as a separate cluster (several more columns further to the left of the first column printed here).

In the right-hand column for three clusters, all the remaining ten variables (respondents) of course appear in the other cluster (nominated as cluster 2). This tells us very little about the way in which the other groups are clustered, especially as the dendrogram (not depicted) shows most of these respondents behaving quite divergently. In the four-cluster solution (the middle of the data columns), the last three respondents (ES2, DE2 and IT) split off, while in the five-cluster solution, UK1 and FR3 (which are actually the most

proximate pair in the dendrogram) induce the next stage of disaggregating the initial solution.

What meaning can be placed on these clustering patterns? We can assess this in two ways: first intuitively and second more technically. Intuitively, the result seems to fit what was observed in carrying out these interviews, that some interviewees took fairly optimistic views of the future of Mexican exports to Europe, especially UK3, FR1, DE1 and FR2, while others took consistently more negative viewpoints, especially NL, IT, ES2, DE2 and UK1. The rest of the interviewees, who do not belong to either of these two categories, are located in between.

This casual inference can be aligned with the more technical findings here, which are obtained by running the same data set using the same method by grouping by cases – of which there are some 220, being the replies to each of the questions posed – instead of grouping by variables. The large number of cases to consider greatly complicates the task of interpreting the results.

The first important disaggregation does not therefore occur until the 4-c1 solution, in which cluster 1 hives off a new substantial element that becomes – and remains – the revised cluster 2. This cluster of 55 elements has a composition that reflects the panel of data at large quite well, although with some over-representation of the meso level. Many of the issues raised in this incipient cluster relate to products, market and trade access; it is therefore regarded here as generally reflecting demand-side matters.

The second important disaggregation takes place in the 6-c1 solution, in which another 48 responses are taken out of the residual category 1 and are set up as cluster 3 (the number in this group falls to 39 in the 7-c1 and 8-c1 solutions). The responses in these clusters relate mainly to concerns about trade and competitiveness. Finally, cluster 5 (4 items) in the 5-c1 solution mainly deals with product matters, and so is added to the

demand-side cluster (eventual 3) in subsequent analyses; equally, clusters 4 and 5 in the 8-cl solution focus on competitiveness issues, so are maintained in the trade competitiveness grouping in the subsequent analyses. While the “residual” cluster 1 is by no means yet fully stripped out but forms 8 clusters, a preponderance of the issues that compose it deals with matters such as costs, sectoral breakdowns, information and knowledge problems, etc.; hence, this cluster is taken to represent supply-side concerns, once the other 3 elements (demand, trade competitiveness and regulation) are separated into their own clusters.

Although the items are, to an extent, arbitrary, the implication is that some 47.27% of the responses are classified in the supply group (cluster 1), 26.36% fall into the demand group (clusters 2 and 8), 21.81% appear in the trade competitiveness group (clusters 3, 4 and 5) and 4.1% are allocated to the regulation group (clusters 6 and 7).

We can now analyse the results a little further given how these groups turn out, in the light of the respondents – now reconsidered individually – and in addition the four original classifications of the questions into micro, meso, macro and policy issues. These are represented in successive contingency tables and are assessed using correspondence analysis.

As explained above, cluster 1 in all these cases is the original hold-all category: in effect a motley collection of unsorted “residual” issues. Even in the three-cluster solution, cluster 1 accounts for about 96% of all the entries. Cluster 2 in 3-cl (three-cluster solution) is an oddity of two unrelated responses, one at the meso and the other at the macro level; since it cannot be given a sensible interpretation, it is included in cluster 7 in subsequent efforts to ascribe meaning to the results (based on the nature of the two items). It survives as a separate cluster until at least the 8-cl solution in the final column, though its numbering changes repeatedly. Cluster 3 in 3-cl shows similar continuity, ending as cluster 7 in 8-cl, although its composition does suggest a meaning related to regulatory and standard-setting practices and policies.

Appendix Table 3 is printed by default with the smallest number of clusters in the right-hand margin as before. Hereafter, this will be reversed in presenting elaborations of the results, as this will clarify the logic involved. Table 6.2 summarizes the numbers of entries in each cluster, disaggregating these into micro-, meso-, macro- and policy-level outcomes.

Table 6.2: The Cluster Analysis and its Interpretation

Cluster	Level	1 c1.	3cls.	4cls	5cls	6cls	7cls	8cls	Interpretation
1	Micro	54	54	43	43	32	32	32	Supply
	Meso	80	77	50	48	30	30	30	
	Macro	38	36	28	27	19	19	19	
	Policy	48	44	35	34	23	23	23	
2	Micro		0	11	11	11	11	11	Demand
	Meso		1	27	27	27	27	27	
	Macro		1	8	8	8	8	8	
	Policy		0	9	9	9	9	9	
3	Micro		0	0	0	11	11	11	Trade comp.
	Meso		2	1	1	18	14	14	
	Macro		1	1	1	8	6	6	
	Policy		4	0	0	11	8	8	
4	Micro			0	0	0	0	0	
	Meso			2	2	1	4	2	
	Macro			1	1	1	2	0	
	Policy			4	4	0	3	2	
5	Micro				0	0	0	0	Trade comp.
	Meso				2	2	1	2	
	Macro				1	1	1	2	
	Policy				1	4	0	1	
6	Micro					0	0	0	Regulation
	Meso					2	2	1	
	Macro					1	1	1	
	Policy					1	4	0	
7	Micro						0	0	Regulation
	Meso						2	2	
	Macro						1	1	
	Policy						1	4	
8	Micro							0	Demand
	Meso							2	
	Macro							1	
	Policy							1	

To continue with the analysis, the next section presents the components of the groups that resulted from the cluster analysis.

6.3.1 Outcome of the Data Analysis

This section considers the four groups that resulted from the cluster analysis: the supply, demand, trade competitiveness and regulation groups. The codes in each cluster are also grouped according to the various levels of analysis: i) micro (issues at the firm level, the SMEs)), ii) meso (interactions, issues in the LMT industry in Mexico and competition in the LMT industry in the EU), iii) macro (e.g. weaknesses in the national environment affecting the competitiveness of Mexican LMT-SMEs) and iv) policy (concerning the role of the government at the micro, meso and macro levels). See Appendix Tables 4 to 7.

This taxonomy (the four clusters and the various levels of analyses) enables judgements to be made about the role of the Government and BANCOMEXT in the internationalization of SMEs, the environment for the internationalization of SMEs and issues of knowledge and internal problems of SMEs affecting the competitiveness of Mexican LMT-SMEs.

Of the 220 codes that were identified through the data analysis:

- 105 (47.27%) belong to the *supply cluster* (Appendix Table 4).
This refers to firms' issues affecting the product output. The codes in this cluster are also grouped according to the micro, meso, macro and policy levels.
- 58 (26.36%) belong to the *demand cluster* (Appendix Table 5).
This involves demand-side concerns such as product matters, the kind of products demanded, the EU market and trade access. The 58 codes of this cluster are also grouped according to the micro, meso, macro and policy levels.
- 48 (21.81%) belong to the *trade competitiveness cluster* (Appendix Table 6).
This encompasses foreign trade, the business environment (trade to business environment or business environment to trade) and trade competitiveness issues. The 48 codes that belong to this cluster are grouped according to the micro, meso, macro and policy levels.
- 9 (4.09%) belong to the *regulation cluster* (Appendix Table 7). This refers to regulatory policies for industries, e.g. the lack of policies to deal with certification problems. These codes are grouped according to the meso, macro and policy levels.

Therefore, by paying attention to the supply, demand, trade competitiveness and policy clusters, as well as the micro, meso, macro and policy levels of analysis, it has been possible to identify the factors explaining the scarce participation of Mexican LMT-SMEs in the EU. These include the identification of weaknesses within LMT-SMEs and the system (in Mexico) and problems arising due to differences in the institutional set-ups (between Mexico and the EU) that make it difficult for Mexican LMT-SMEs to access

knowledge from abroad and negatively affect their internationalization and competitiveness in the EU. The analysis has also contributed to uncovering areas for government intervention at the various levels of analysis to improve SMEs' innovation performance for internationalizing.

The various clusters and dimensions of analysis also shed light on the complexity involved in the internationalization process, as well as the interrelation between the firm (micro level), the interactions (meso) and the environment (macro level) and the role of the Government and BANCOMEXT (policy level). In order to make the outcome of the data analysis more understandable, the next sections present each cluster with its upper categories and its components; the issues identified in the next sections will be related to the theoretical and empirical frameworks in Chapters 7 and 8 in order to answer the research questions of this thesis. In Chapter 7, they will be analysed from the point of view of internal and external barriers hindering the internationalization of LMT-SMEs and the Uppsala model of internationalization. In Chapter 8, the issues identified in this chapter will be related to the role of the Government and public intermediaries in the internationalization of LMT-SMEs and the NSI.

6.3.1.1 The Supply Cluster

The *supply cluster* (Table 6.3) uncovers issues at the micro, meso, macro and policy levels affecting the SMEs' *supply output* to internationalize. At the *micro level* (the firm level), internal strengths and weaknesses are uncovered. The internal weaknesses refer to problems constraining the competitiveness of Mexican LMT-SMEs in the EU, e.g. low production capacity, lack of brands and marketing, lack of internationalization culture and poor capabilities and AC to operate in the EU. The latter explain why LMT-SMEs encounter problems in accessing knowledge from the EU. It is worth recalling that Chapter 2 explained that poor capabilities and AC mirror poor internal resources (in particular human capital resources), which negatively affect the acquisition and creation of knowledge, impeding firms from improving their products and innovating (Barney, 1991; Bessant et al, 2005; Nelson, 1991; Peteraf, 1993; Penrose, 1959). In addition, from the system failure approach, the lack of capabilities and AC in a system is a *capability*

failure that deters firms from moving from old to new technologies, learning new capabilities, benefiting from interactions with other actors and adapting to new markets. Consequently, capability failures contribute to poor innovative performance in the system (Rubalcaba et al, 2010; Smith, 2000).

At the *meso level*, the analysis revealed problems related to the lack of participation in international events and lack of cooperation and linkages among LMT-SMEs to internationalize. These problems shed light on *interaction failures* (*poor interaction*). Poor interaction between actors prevents innovation and learning as it inhibits the flow and creation of knowledge (Woolthuis et al, 2005). This level of analysis also sheds light on the kinds of products offered by the LMT-SMEs serviced by BANCOMEXT (jewellery, textiles, agricultural and furniture products). At this level, it is also apparent that SMEs mainly supply the American market rather than the EU market, due to the familiarity with the American market and the lack of knowledge to operate in the EU. This is explained by the Uppsala model of internationalization. According to this model, due to the difficulty in accessing information and knowledge from abroad, the internationalization of SMEs in distant countries is seen as a difficult and slow process. For this reason, SMEs start internationalizing in neighbouring countries (e.g. the US) that are more familiar to SMEs (e.g. Mexican LMT-SMEs) (Johanson and Vahlne, 1977; Johanson and Vahlne, 1990; Pedersen and Petersen, 2004; Stottinger and Schlegelmilch, 1998).

The analysis at the *macro level* uncovers problems at the national level affecting firms' output, such as uncompetitive energy costs and problems of infrastructure at the country level. According to the system failures, these problems are infrastructural failures that block the national innovation performance (Rubalcaba et al, 2010; Smith, 2000; Woolthuis et al, 2005). The analysis at this level also uncovers issues about the positive and negative impacts of globalization on LMT SMEs. In addition, the perception of the Mexican economy in the EU and the differences in economic development levels among the trading countries affecting the internationalization of LMT-SMEs from developing countries (Mexico) in developed countries (the EU) are uncovered. As explained in

Chapter 2, differences among trading countries make the transfer of knowledge and knowledge sharing difficult because of the differences in AC among the actors of different systems (Lundvall and Borrás, 1997; Lundvall et al, 2002; Metcalfe and Georghiou, 1997; Nauwelaers and Wintjes, 2003) and because knowledge sharing (which mainly occurs through interactions) is extremely sensitive to environmental differences (i.e. differences in formal and informal institutions). In addition, differences in economic development among countries result in differences between the supplied products (the products supplied by Mexican LMT-SMEs) and the demanded products (the characteristics of the products required by demanding customers like the European customers). These issues need to be considered when analysing the participation and performance of Mexican LMT-SMEs in the EU.

The analysis at the *policy level* identifies the lack of government policies and support for the internationalization of SMEs. From the viewpoint of the system failures, the lack of government policies could be seen as institutional failures (Rubalcaba et al, 2010; Woolthuis et al, 2005), i.e. an obstacle in the formal set-up that inhibits innovation and learning within the system (Mexico) and also affects the Mexican LMT-SMEs' internationalization. Thus, this cluster also sheds light on some recommendations made by BANCOMEXT-Europe to the Mexican Government with the aim of improving the performance of LMT-SMEs in the EU.

Table 6.3: Summary of the Outcome of the Data Analysis: The Supply Cluster

	MICRO	MESO	MACRO	POLICY	TOTAL
SUPPLY	<p>1.1 Strengths Skilled labour, quality of products, original products.</p> <p>1.2 Weaknesses Lack of brands, lack of marketing, lack of post-sales services, small volume of production, ICT problems, lack of technical specialization, little experience in exporting, lack of vision to internationalize, lack of programme awareness, lack of involvement with globalization, lack of knowledge of BANCOMEXT, slow response, lack of knowledge of other cultures.</p> <p>1.3 Lack of internationalization Sporadic exports, domestically oriented, little experience in foreign markets.</p> <p>1.4 Issues of firms' size SMEs absorbed by large firms.</p>	<p>2.2 Attraction to the American market Large Hispanic population in the US, American traders in Mexico, experience in the American market.</p> <p>2.4 Characteristics of the EU markets High-income and well-informed markets, educated consumers, high competition and expensive markets.</p> <p>2.5 Lack of knowledge about the EU market Lack of knowledge about customers' needs, regulations, markets and operations in the EU.</p> <p>2.6 Low presence of Mexican firms in the EU Small amount of trade between Mexico and the EU, scarce presence of Mexican SMEs in the EU.</p> <p>2.8 Mexican industries in the EU Petroleum and natural resources, chemical and pharmaceuticals, software and IT, textiles, agricultural products, furniture and jewellery.</p> <p>2.9 Perception and knowledge of Mexican products in the EU Lack of knowledge of products and firms.</p> <p>2.11 Necessity of alliances and team working Alliances of Mexican firms as a solution, alliances are costly, team working as a solution, SMEs unused to groups.</p> <p>2.12 Participation in international events Lack of preparation for trade fairs, missions and consultancy is important.</p>	<p>3.1 Globalization issues Removal of trade barriers, ideological and cultural phenomenon, access to inputs, catching up, sectors negatively affected, SMEs do not use trade agreements, SMEs unprepared for globalizing, issues of exploitation.</p> <p>3.3. Country cost competitiveness Problems of infrastructure, uncompetitive energy costs, bureaucracy, corruption and crime.</p> <p>3.4 Differences in economic development Different profits from EU firms, different advantages of trade agreements, Mexico mainly exports raw materials, social condition affects internationalization, globalization began in the developed world.</p> <p>3.5 Perception of Mexico in the EU Mexico preferred to other Latin American countries, good image of Mexico, not seen as an industrial country.</p>	<p>4.1 Liberalization of the economy Export promotion and FDI important, positioning Mexico as a commercial power.</p> <p>4.2 The role of the Government Support through credit, more active role for SMEs, lack of support for BANCOMEXT, inadequate industrial policy for SMEs, lack of investment in infrastructure, lack of dissemination of information, lack of funding for technological advances, lack of investment in education, SMEs pay for BANCOMEXT services.</p> <p>4.3 Developing countries' support Chinese and other SMEs supported.</p> <p>4.5 Recommendations for the Government Financial support and credit, prompt industrial networks, strengthen specific sectors, prompt national associations and chambers, open BANCOMEXT offices abroad, information technology unit needed, investment in technology and R&D, investment in infrastructure and logistics.</p> <p>4.6 SMEs' strategies for internationalization Management of information, trademarks, Mexican SMEs in the EU help others enter.</p>	105
TOTAL	33	30	19	23	105

6.3.1.2 The Demand Cluster

The *demand cluster* (Table 6.4), at the *micro level*, refers to LMT-SMEs' internal problems in matching the EU demand, such as the lack of competitiveness and added-value products for export and designs. It is worth remembering that in Chapters 2 and 3, it was explained that among the demand drivers of innovation within LMT-SMEs is contact with demanding customers (Grimpe and Sofka, 2009; Kaufmann and Tödtling, 2003; Porter, 1990; Russo, 1999; von Tunzelmann and Acha, 2005). Thus, Mexican LMT-SMEs, by being in contact with EU customers, have uncovered areas that need to be improved in order to upgrade their products (innovate) to satisfy demanding customers from abroad. Other issues in the demand cluster shed light on the difficulties of LMT-SMEs in internationalizing in the EU (slow and difficult internationalization and exporting as the main entry mode). Chapter 2 stated that the slow internationalization of SMEs in distant markets could be explained by the Uppsala model (Buckley, 1989; Johanson and Vahlne, 1977; Johanson and Vahlne, 1990; Johanson and Wiedersheim-Paul, 1975).

The *meso level* of analysis reveals issues in the EU environment that explain why it is difficult for Mexican LMT-SMEs to internationalize in the EU, for example, the intense competition in LMT industries in the EU, the lack of linkages between EU firms and Mexican LMT-SMEs, the negative perception of Mexican products and firms, the geographical distance and differences in the informal institutional set-up (e.g. differences in languages and cultural issues). In Chapter 2, it was explained that the geographical distance and differences in the institutional set-up are factors considered by the NSI approach. They are factors that affect knowledge acquisition and creation, interactive learning and thus innovation (Lundvall and Borrás, 1997; Lundvall et al, 2002; Metcalfe and Georghiou, 1997; Nauwelaers and Wintjes, 2003; Nonaka and Takeuchi, 1995). The differences in institutional set-up and geographical distance also explain the low level of interaction among Mexican LMT-SMEs and foreign firms and customers. Thus, due to the differences in institutional set-up and the great geographical distance, the positive role of trade fairs and government intermediaries in the internationalization of LMT-SMEs is highlighted in this cluster. They allow Mexican LMT-SMEs to be in contact with potential customers from abroad and to be aware of what is demanded in other markets.

This agrees with authors such as Bernard and Jensen (2004), Chetty and Blankenburg-Holm (2000), Noble et al (1989), Pollard and Jemicz (2006) and Welch and Luostarinen (1988), who have researched the role of public intermediaries and trade fairs in the internationalization of SMEs.

The *macro level* of analysis uncovers some issues that refer to the neo-liberal ideology of the Mexican Government and BANCOMEXT, such as the viewpoint of BANCOMEXT-Europe about trade agreements. They are seen as a competitive advantage as they enhance the demand (access to foreign markets due to the reduction of tariffs) and they attract FDI to Mexico. Nonetheless, the macro level also sheds light on the negative aspects of the intense liberalization of the Mexican economy: intense competition from foreign companies in the Mexican market.

The *policy level* of analysis shows on one hand the positive role of BANCOMEXT in the internationalization of SMEs in the EU because it links the demand and the supply side (i.e. EU customers and Mexican SMEs) and its most representative activity is the attraction of FDI. It also aims to assist Mexican LMT-SMEs in establishing alliances with foreign firms. On the other hand, the issues at this level also shed light on the *policies* required in order for LMT-SMEs to improve their supply output to satisfy the product demand in the EU. The recommendations made by BANCOMEXT in this regard include policies attending to product specialization and design, certification and more support for the internationalization of LMT-SMEs in order to match the EU demand.

Table 6.4: Summary of the Outcome of the Data Analysis: The Demand Cluster

	MICRO	MESO	MACRO	POLICY	TOTAL
DEMAND	<p>1.2 SMEs' weaknesses regarding entering the EU SMEs constrained due to lack of resources, lack of good designs, lack of competitiveness, other countries' firms having lower costs, lack of added-value products, need for technological advances, lack of preparation to enter the EU.</p> <p>1.3 Internationalization of Mexican SMEs Exporting directly, slow and difficult internationalization.</p> <p>1.4 The smallness of SMEs affects their internationalization Smaller firms are less ready to internationalize.</p>	<p>2.1 Distance from the EU Distance to the EU is a disadvantage.</p> <p>2.2 Attraction to the American market Strong attraction to the US, economic integration, the US market is more profitable, close proximity to the US.</p> <p>2.3 Language and cultural issues Mexican firms attracted to Spain due to language, differences in languages as a difficulty, Mexico-Spain cultural and historical links.</p> <p>2.4 Perception of the EU markets Expensive and demanding markets, markets of brands, specialized and organized markets, unattractive markets for Mexican firms, much adaptation and flexibility demanded, loyal and humanitarian markets.</p> <p>2.5 Attraction to the Spanish market SMEs attracted to Spain.</p> <p>2.7 Competitors from developing countries in the EU Some Latin American competitors, Asian firms (including China and India).</p> <p>2.8 SMEs in the EU in different sectors Fresh produce, leather, shoes, textiles and handicrafts, automobile and electronics, few SMEs in non-traditional sectors.</p> <p>2.9 Poor perception of Mexican products and firms Mexican products seen as low-price products, SMEs thought unreliable, poor perception of quality, no image of high-technology products.</p> <p>2.10 Importers and intermediaries Commercialization through importers.</p> <p>2.11 Alliances to enter the EU Strategic alliances to internationalize, few alliances between Mexican and EU firms.</p> <p>2.12 Trade fairs and international events to position products Trade fairs help to position products.</p>	<p>3.1 Globalization beneficial for internationalization Globalization as internationalization, trade agreements as a competitive advantage, trade agreements attract FDI to Mexico, access to new technology, the EU–Mexico trade agreement is beneficial.</p> <p>3.2 Negative aspects of competition Domestic markets intensely competitive.</p> <p>3.3 Other external country factors affecting SMEs Lack of credit at a good interest rate, constant economic crises.</p> <p>3.5 Positive image of Mexico Mexico as a tourist destination.</p>	<p>4.1 The role of BANCOMEXT Attracting FDI the most representative, BANCOMEXT important for internationalization, BANCOMEXT offices located in the major markets, promoting alliances between Mexican and foreign firms.</p> <p>4.2 Support from the Government Programmes for SMEs' internationalization.</p> <p>4.3 More support from other Latin American countries Some Latin American countries receiving more support.</p> <p>4.6 SMEs' strategies for internationalization Product specialization and design, acquisition of technology, obtain certification, international marketing and branding.</p>	58
TOTAL	10	29	9	10	58

6.3.1.3 The Trade Competitiveness Cluster

The *trade competitiveness cluster* (Table 6.5) at the *micro level* sheds light on some problems that explain why Mexican SMEs do not embark on entering foreign markets (e.g. risk aversion, financial weaknesses). It also illuminates the problems stemming from differences in the business culture between Mexico and the EU that undermine the operations of Mexican SMEs with their EU counterparts, such as problems of communication and Mexican firms' domestic market orientation. These issues can be explained by differences in the *informal institutional set-up* (e.g. language, the way business is conducted, etc.) (Fagerberg et al, 2005; Lundvall and Borrás, 2005; Smith, 2000; Woolthuis et al, 2005). Thus, it could be said that these differences affect not only the internationalization of LMT-SMEs, but also their innovation performance and thus their competitiveness in foreign markets like the EU.

The *meso level* highlights the problems affecting the interaction between Mexican LMT-SMEs and their EU counterparts that hinder the competitiveness of LMT-SMEs in the EU, e.g. the lack of cooperation among SMEs to internationalize, the lack of image of Mexican products in the EU and the intense competition from other countries in the EU market. The meso level also uncovers issues that suggest that the EU market is a difficult market (the EU is a highly regulated market). This level of analysis also shows that the internationalization of Mexican LMT-SMEs is easier with countries sharing cultural links, such as Spain. The latter is explained by the Uppsala model of internationalization, which stresses that firms start to internationalize in familiar countries in which the perceived psychic distance is shorter because neighbouring countries are more familiar, easier to understand and perceived to be less uncertain (Johanson and Vahlne, 1977; Pedersen and Petersen, 2004; Stottinger and Schlegelmilch, 1998).

At the macro level of analysis, the neo-liberal ideology of BANCOMEXT-Europe was uncovered in particular concerning competition, which is seen as a means to increase competitiveness, but little attention has been devoted to creating growth from the supply side. For example, it was shown that the Mexican Government gives little consideration to improving firms' competitiveness through improving the national competitiveness

(e.g. it is mirrored by the fall of competitiveness in Mexico). In addition, for BANCOMEXT, the provision of information about foreign markets is seen as the most important activity, but it does not pay heed to knowledge sharing and knowledge creation. This could be explained by the fact that *the neoclassical economic theory and the market failure approach* see knowledge as synonymous with information that is easily accessed by all economic actors; it also assumes an instant transfer of technology (Lundvall, 1992). However, Chapter 2 explained that information is not knowledge. Knowledge (skills, expertise, etc.) requires the enhancement of AC and the development of capabilities and it is important that firms access and create knowledge to upgrade their innovation performance and produce the products demanded in foreign markets. Thus, the findings highlight that the difficulties in internationalizing of SMEs are mainly problems of knowledge.

This level of analysis also revealed differences between developed and developing countries in internationalizing, for example differences between firms from developing countries and firms from developed countries, and that developed countries perform better in negotiations. The negative image of Mexico (not valued as a trade/business partner) was also uncovered. These issues could be explained by the NSI approach presented in Chapter 2, which considers that the differences in economic development among countries affect the interactions and knowledge sharing among them.

The *policy level* of analysis highlighted that despite the strong neo-liberal ideology of BANCOMEXT, the interviewees are aware that the Government's actions to support the internationalization of LMT-SMEs are minimal compared with those in other countries. Thus, among the policies and recommendations that BANCOMEXT-Europe pointed out are the commercial infrastructure, business incubators and programmes for the internationalization of LMT-SMEs. At this level of analysis, it can also be seen that the current activities of BANCOMEXT mainly focus on the provision of information about foreign markets and putting Mexican LMT-SMEs in contact with potential foreign customers.

Table 6.5: Summary of the Outcome of the Data Analysis: The Trade Competitiveness Cluster

	MICRO	MESO	MACRO	POLICY	TOTAL
TRADE COMPETITIVENESS	1.1 Entrepreneurship Risk taking. 1.2 Issues of competitiveness Financial weaknesses, lack of resources affecting product development, European labour more skilled than Mexican labour. 1.3 Internationalization in Europe Much effort to sell small volumes 1.4 Issues of the firm size Added-value products of large firms, large firms in the EU, SMEs' flexibility in production. 1.5 Issues of the business culture EU foreign trade vs. Mexican domestic trade, differences in communication.	2.1 Mexico's strategic location Strategic location to enter the US and Latin America, strategic partner for the NAFTA, positive location to attract FDI. 2.3 Issues of language and links Transactions with Americans in Spanish, EU countries trade with ex-colonies. 2.4 The EU as a difficult market Closed markets, protected markets, EU markets operate in associations, highly regulated markets, risk-averse markets. 2.6 Presence of Mexican firms in the EU Lack of Mexican investment in the EU, increase of SMEs in the EU from trade. 2.7 Competitors in the EU Eastern European countries and other countries. 2.9 Image and perception of Mexican products No image of Mexican products, stereotypes as exotic products. 2.10 Importers and intermediaries A large number of intermediaries raise prices. 2.11 Alliances and team working Mexican SMEs are unused to groups.	3.1 Issues of globalization Neo-liberal ideology of BANCOMEXT. 3.2 Issues of competition Increase in competitiveness, Mexican firms enter markets if competitive, competition from developed countries. 3.3 Country cost competitiveness The country cost competitiveness has fallen. 3.4 Differences in economic development Differ from developed countries' firms, developed countries better at negotiations. 3.5 Negative image of Mexico Not valued as a trade/business partner.	4.1 Role of BANCOMEXT Provision of information and technical assistance. 4.2 Mexican Government Need for good policies, need for foreign commercial infrastructure, strong neo-liberal ideology. 4.3 Other countries' support for firms Developed countries' subsidies hurt Mexico, developed countries' commercial intelligence units, developing countries' support is lower. 4.5 Recommendations for the Government Set up sub-contract projects, foster business incubators and programmes for internationalization.	48
TOTAL	11	18	8	11	48

6.3.1.4 The Regulation Cluster

The *regulation cluster* (Table 6.6) sheds light on issues at the meso, macro and policy levels that affect the internationalization of the Mexican LMT-SMEs serviced by BANCOMEXT in the EU, such as certification, regulations and standards. They are the threat of entry into a specific industry aiming to influence the intensity of competition (Porter, 1980) or neo-protectionism that deters the entrance of foreign products and firms into the EU market (Armstrong and Anderson, 2007; Bretherton and Vogler, 2006; Collier and Dollar, 2002; Hoekman and Martin, 2001; Michalopoulos, 2001; Rugman and Boyd, 2001; Ruiz-Garcia, 2009; Sampson, 2001; Stiglitz and Charlton, 2005). Overall, they are policy barriers of foreign origin that strongly affect the internationalization of SMEs (Acs et al, 1997; Cruz et al, 2004a; Llisterri and Angelelli, 2002), such as Mexican LMT-SMEs in the EU, as uncovered in this thesis. However, they also act as drivers of innovation as they push firms (like Mexican LMT-SMEs) to upgrade their products and innovate in order to satisfy the needs of demanding customers (like the European customers) (Porter, 1990; von Tunzelmann and Acha, 2005).

This cluster also reveals that despite the positive contribution of BANCOMEXT (the presence of Mexican SMEs in the EU has risen thanks to BANCOMEXT), policies and programmes with a long-term horizon for the internationalization of LMT-SMEs are still needed.

Table 6.6: Summary of the Outcome of the Data Analysis: The Regulation Cluster

	MICRO	MESO	MACRO	POLICY	TOTAL
REGULATION	---	2.6 The presence of Mexican SMEs in the EU SMEs' presence has risen due to BANCOMEXT, lack of certification and regulations causing low presence.	3.1 Benefits of trade agreements Attracting FDI generates income. 3.5 Lack of knowledge about Mexico Mexico is not broadly known.	4.4 Difficulties with EU regulations Regulations and standards are problematic, requirements and certifications are costly. 4.5 Policy recommendations Reduce tariffs and taxes, set up projects with long-term horizons.	9
	0	3	2	4	9

6.4 Conclusion

This chapter has presented the outcome of the data analysis, based on a cluster analysis that considered the insights of the NSI approach to analyse the entrance and performance of Mexican LMT-SMEs in the EU. Through this analysis, the 220 concepts and 28 categories that were identified by an inductive analysis were separated into four clusters: supply, demand, trade competitiveness and regulation. As a result, 105 of the 220 codes (47.27%) were grouped in the supply cluster (problems that affect the supply output of SMEs), 58 (26.36%) in the demand cluster (which includes issues related to markets, trade access and problems matching the EU demand), 48 (21.81%) in the trade competitiveness cluster (mainly problems stemming from the business environment affecting the internationalization of LMT-SMEs and their competitiveness in foreign markets) and 9 (4.09%) in the regulation cluster (the regulation framework for firms' internationalization and areas for government intervention). Most of the problems inhibiting the internationalization of LMT-SMEs from Mexico in the EU affect the supply side of LMT-SMEs, including poor capabilities and AC, which explains the difficulty for Mexican LMT-SMEs in accessing knowledge from the EU, the low production capacity, the lack of cooperation and linkages among SMEs to internationalize, the uncompetitive energy cost and problems of infrastructure and the lack of policies and investment. Therefore, the findings show that to improve the national competitiveness (Mexico) and to improve the participation and performance of Mexican SMEs in the EU, it is necessary to improve the national supply output, which will allow LMT-SMEs to match the EU demand and improve their innovation and competitiveness in foreign markets.

The supply, demand, trade competitiveness and regulation issues identified in the analysis were also grouped according to the micro, meso, macro and policy levels as follows:

i) The micro level. The analysis at this level shows that internal weaknesses, such as the lack of internationalization culture, low production capacity, problems accessing knowledge from abroad (which implies poor AC) and lack of capabilities affect SMEs' internationalization. Thus, they may act as internal barriers to the internationalization of SMEs and barriers that deter firms to adapt their products to match the EU demand. In particular, poor capabilities and problems accessing knowledge from abroad can also be

seen as a *capability failure* that deters firms from moving from old to new technologies, learning new capabilities, benefiting from interactions with other actors and adapting to new markets. Consequently, capability failure is a system failure that contributes to poor interactions, poor learning capacity and poor innovative performance in the national system (Rubalcaba et al, 2010; Smith, 2000).

ii) *The meso level.* This level of analysis uncovered the lack of interaction among LMT-SMEs to internationalize (lack of teamworking) between Mexican LMT-SMEs and EU firms (e.g. there are few alliances between Mexican firms and EU firms) and the lack of involvement with EU customers. These problems mirror *system failures: lack of interactions*. This level of analysis also uncovered problems of knowledge transfer due to geographical distance and differences in the institutional set-up between the EU and Mexico, as well as the intensity of competition for Mexican LMT-SMEs in the EU. These issues suggest that government efforts are required to prompt interactions among the actors to ease interactive learning, overcome knowledge problems, upgrade products to internationalize and facilitate the internationalization of Mexican LMT-SMEs.

iii) *The macro level.* This level of analysis showed that some *system failures (infrastructural failures: underinvestment in infrastructure, technology and ICT)* affect the national competitiveness (Mexico) and thus the performance of LMT-SMEs in foreign markets. As seen, despite the neo-liberal ideology of BANCOMEXT, the respondents recognize that there are macro factors that have not been attended to by the Mexican Government, which affect the internationalization of Mexican LMT-SMEs. These issues were evident when the respondents referred to the differences between developing countries (in particular Mexico) and developed countries (the EU) and the country competitiveness.

iv) *Policy level.* The analysis at this level indicates that BANCOMEXT has had a positive impact on the internationalization of SMEs but it has ignored some areas, such as the internal weaknesses of SMEs and problems accessing and creating knowledge. This may be explained by the neo-liberal ideology of BANCOMEXT-Europe, which mainly pays

attention to information and assumes that firms can easily access information. Though BANCOMEXT shares the neo-liberal ideology of the Mexican Government, several of the interviewees have a critical point of view about the trade liberalization and internationalization of Mexican SMEs. They acknowledge that the lack of policies (which could be seen as an *institutional system failure*) affects the performance of SMEs and thus the internationalization of LMT-SMEs. They also acknowledge that other developing and developed countries are working harder on the internationalization of their SMEs; thus, BANCOMEXT-Europe suggests government policies to improve the participation and performance of SMEs in the EU. The analysis at this level also shows that there are entry barriers (non-tariff barriers) to Mexican LMT-SMEs in the EU, such as standards, regulations and certifications, which are problematic for their internationalization.

As is apparent, the analysis shows that to explain the current status of Mexican SMEs in the EU, it is necessary to take a *systemic perspective* (the NSI approach) to determine the importance of interactions, learning, knowledge, the role of policy makers and innovation to upgrade the competitiveness of LMT-SMEs, which could ease their internationalization. Therefore, various issues that span the supply, demand, trade competitiveness and regulation clusters and various levels of analysis, micro (e.g. issues at the firm level), meso (e.g. interactions among firms), macro (e.g. the environment (institutional set-up) and policy (policy framework)) were considered. These levels of analysis allowed the analysis of the internationalization of Mexican LMT-SMEs in the EU, taking into consideration the complex function of the system and the problems of poor interaction among the actors (e.g. among Mexican LMT-SMEs and between Mexican LMT-SMEs and foreign counterparts) and identifying issues that affect knowledge flows and learning and thus inhibit innovation and the competitiveness of Mexican LMT-SMEs in the EU. These issues include weaknesses within LMT-SMEs (the lack of internal resources, such as financial resources, human capital resources: capabilities, AC, etc.), the lack of knowledge about operating in the EU, the adverse domestic environment affecting the LMT-SMEs' internationalization and their innovation performance and the passive role of the Mexican Government (the lack of investment and the lack of policies can both be seen as system failures). It was also seen that BANCOMEXT could extend its current activities, which mainly focus on dealing

with the information gap, to activities aiming to overcome knowledge problems and upgrade SMEs' capabilities to internationalize. In addition, areas for government intervention to improve the internationalization and competitiveness of Mexican LMT-SMEs in the EU were identified.

Since this chapter uncovered important issues that deserve more attention, Chapter 7 will utilize the outcome of the cluster analysis of this chapter and analyse the internal barriers (SMEs' internal weaknesses) and external barriers (weaknesses in the system) in the light of the Uppsala model of internationalization in order to contribute to the analysis of external and internal barriers affecting the internationalization of LMT-SMEs from developing countries (Mexico) in developed countries (the EU).

CHAPTER 7

EMPIRICAL FINDINGS

BARRIERS TO THE INTERNATIONALIZATION OF LMT-SMEs FROM DEVELOPING COUNTRIES (MEXICO) IN DEVELOPED COUNTRIES' MARKET (THE EU)

7.1 Introduction

Chapters 7 and 8 are devoted to answering the research questions on which this thesis is built. The findings presented in Chapters 7 and 8 resulted from linking the outcome of the cluster analysis (from Chapter 6) to the theoretical and empirical literature presented in Chapters 2-4. Chapter 7 is in particular devoted to answering the first research question about the internal and external barriers identified by public intermediaries from developing countries (Mexico) as affecting the internationalization of LMT-SMEs in distant and developed markets (the EU) and the complementary research question: What is the impact of these barriers on the internationalization of LMT-SMEs from developing countries (Mexico) in developed countries (the EU)? By identifying these barriers and their impact, it will be possible to suggest policies aiming to correct those problems and help Mexican LMT-SMEs to improve their competitiveness in the EU.

To identify such barriers, Section 7.2 begins by analysing the entrance and performance of LMT-SMEs in the EU from the international business perspective. For this reason, the Uppsala model is addressed to explain the current participation and performance of Mexican SMEs in the EU. To shed more light on the problems affecting the competitiveness of LMT-SMEs in the EU, Section 7.3 presents the weaknesses in the domestic environment (Mexico) and the threats of entry into the EU (both external barriers). This section also presents the internal weaknesses (internal barriers) identified within the LMT-SMEs serviced by BANCOMEXT as affecting their internationalization. Both types of barriers, external and internal, are analysed from the business viewpoint (barriers to the internationalization of SMEs) and their impact on the NSI is also considered. Finally, Section 7.4 presents the conclusions of this chapter.

7.2 The Internationalization of Mexican LMT-SMEs in the EU

Regarding the internationalization of Mexican LMT-SMEs in the EU, this thesis identified that there is a low proportion of Mexican SMEs with international operations in the EU, and a small amount of trade exists between Mexico and the EU. Both issues belong to the supply-meso group identified in the cluster analysis. For example, FR2 stated:

“Overall, there are few Mexican SMEs in the EU.”

Moreover, FR1 stated:

“The absence of much business activity between Mexico and the rest of the EU except Spain is due to the limited historical and commercial relationships between Mexico and the rest of the EU.”

In Chapter 4, when comparing the exporting firms from the most important Latin American economies, it became evident that Mexico has the lowest proportion of firms with exporting operations. Moreover, when the distribution of the Mexican exports was presented in Chapter 4, it was apparent that Mexican exports to the EU represent just 5% of the total Mexican exports. Therefore, it could be said that the negligible participation of Mexican SMEs in the EU is partially explained by the insufficient trade between Mexico and the EU and the low proportion of Mexican SMEs with foreign operations.

This thesis also identified that the LMT-SMEs serviced by BANCOMEXT-Europe have internationalized through exporting and that they have had sporadic participation in the EU (supply-micro). They have not used a more sophisticated entry mode to international markets, such as alliances; indeed, there are few alliances between Mexican and EU firms (demand-meso). For example, ES1 stated:

“The internationalization of Mexican SMEs into Europe is sporadic, unsystematic, and with little support.”

In addition, DE1 stated:

“SMEs mainly internationalize into the EU through distributors or exporting directly. The internationalization of the Mexican SMEs has not reached more advanced schemes.”

As exporting is the initial step towards international expansion (Acts et al, 1997; Aulakh et al, 2000; Gelmetti, 2006), it could be said that the majority of LMT-SMEs using the services of BANCOMEXT-Europe are at the earliest stages of internationalization and they have had sporadic and unsystematic participation in the EU.

7.2.1 The Uppsala Model and the Internationalization of LMT-SMEs from Mexico in the EU

This thesis also identified that the internationalization of Mexican LMT-SMEs serviced by BANCOMEXT-Europe has been a slow and difficult process, as described by the Uppsala model. This issue belongs to the demand–micro group identified in the cluster analysis. For example, FR2 stated:

“The internationalization of SMEs into Europe has been very difficult.”

Moreover, NL stated:

“The internationalization of SMEs into Europe has been a gradual process since it demands lots of innovations and adaptations.”

However, the interviewees also recognized that some SMEs are successfully operating in the EU due to the experience they have acquired in domestic and foreign markets. For example, ES2 stated:

“Mexican SMEs operating in the EU are mature and successful firms with plenty of experience in domestic and foreign markets.”

The issues above can be explained by the *Uppsala model of internationalization*. In the Uppsala model, a strong domestic market is required to support the internationalization of firms (Chetty and Campbell-Hunt, 2004). In addition, internationalization is seen as a slow process of stages because, over time, the learning process helps to overcome the distance (the perceived psychic distance) that disturbs the flow of information and knowledge between firms and foreign markets (Johanson and Vahlne, 1977; Johanson and Vahlne, 1990; Johanson and Wiedersheim-Paul, 1975). It is worth remembering that psychic distance refers to the differences between any two countries in terms of language, culture, business practice, legislation and industrial development (Chetty and Campbell-Hunt, 2004; Johanson and Vahlne, 1977; Johanson and Vahlne, 1990). Among the issues

identified in this thesis that are related to the psychic distance of the Uppsala model and the difficulty of internationalizing in the EU are:

- i) Differences in business culture¹⁴⁶ (trade competitiveness-micro and meso)
- ii) Problems of language, except with Spain (demand-meso)
- iii) Few cultural, commercial and historical links between Europe (except Spain) and Mexico (demand-meso)
- iv) Lack of knowledge about the EU (supply-meso)
- v) Distance to the EU as a disadvantage (demand-meso)

As seen above, the *Uppsala model* of internationalization explains the internationalization of the LMT-SMEs serviced by BANCOMEXT-Europe. The issues presented in this section uncover the problems affecting the internationalization of Mexican LMT-SMEs in the EU arising due to environmental differences. As most of these issues belong to the meso level of analysis, it is inferred that the environmental differences also affect the Mexican LMT-SMEs' interactions with EU firms, customers, etc., which in turn affects the knowledge transfer. As the Uppsala model says little about the micro, macro and policy factors affecting the internationalization of SMEs, the next section attends to the external and internal barriers identified in this thesis affecting the internationalization of Mexican LMT-SMEs in the EU.

7.3 Barriers Hindering the Internationalization of Mexican LMT-SMEs in the EU

Regarding the external and internal barriers for the internationalization of Mexican SMEs in the EU, it is worth recalling Leonidou (2004), who defines barriers to exporting as all constraints that hinder the ability of firms to initiate, develop or sustain business operations in overseas markets. To uncover the barriers affecting the internationalization of Mexican LMT-SMEs in the EU, the issues identified in the cluster analysis (Chapter

¹⁴⁶ Including a) EU long-termism vs. Mexican short-termism, b) EU foreign trade vs. Mexico domestic trade, c) differences in communication (EU firms communicate by the Internet and Mexican SMEs are not used to it) and d) Mexican SMEs are not familiar with grouping but European firms are accustomed to operating in groups.

6) are linked in this chapter to the theoretical and empirical frameworks about external and internal barriers (or in other words the weaknesses in the national system (Mexico), threats in the EU environment and internal weaknesses within SMEs). By identifying the internal and external barriers affecting the internationalization of LMT-SMEs, it will be possible to suggest policies aiming to improve their competitiveness and performance in the EU. It is worth remembering that authors like Kaufmann and Tödtling (2003) and Nauwelaers and Wintjes (2003) highlight that in order to suggest policies aimed at improving the competitiveness and innovation performance of SMEs, it is first necessary to identify the internal weaknesses of the SMEs and the external weaknesses in the environment. To start the analysis, the next section considers the external barriers.

7.3.1 External Barriers

Among the external barriers that were identified as affecting the internationalization of LMT-SMEs and their innovation performance are: 1) procedural barriers, 2) environmental barriers in the domestic market, 3) environmental barriers in the EU, 4) differences in economic development levels and 5) geographical distance. These issues are linked to the cluster analysis of Chapter 6.

7.3.1.1 Procedural Barriers

According to Leonidou (2004), procedural barriers include communication problems and unfamiliarity with operating in a foreign market. The issues that were identified in this thesis that refer to the procedural barriers affecting the internationalization of Mexican LMT-SMEs include:

- i) Differences in communication (EU firms communicate by the Internet, but Mexican SMEs are not used to using it (trade competitiveness–micro);
- ii) Differences in language affect Mexican SMEs' internationalization in Europe (demand–meso). In this regard, NL stated:

“A weakness that affects Mexican SMEs' internationalization in Europe is the difference in language. For instance, Mexican businessmen do not speak French.

If they could communicate in French, they could establish better commercial relations in France.”

- iii) Lack of knowledge about the EU regulations and how to register brands and obtain marks in the EU (supply–meso).

The procedural barriers to the internationalization of SMEs identified in this section can be explained by the NSI approach as these problems stem from differences in the institutional set-ups between the countries and make it difficult to access knowledge and to interact with actors from abroad. Therefore, the procedural barriers identified in this thesis affect not only the internationalization of Mexican LMT-SMEs but also their innovation performance as these barriers affect the interactions among Mexican LMT-SMEs and EU actors (e.g. customers, suppliers, etc.) and make knowledge transfer and interactive learning difficult. However, these problems can be overcome by upgrading the AC and developing capabilities within Mexican LMT-SMEs.

7.3.1.2 Environmental Barriers in Mexico

The environmental barriers in Mexico that were identified in this section as affecting the internationalization of LMT-SMEs include: i) governmental barriers (the lack of government policies for the SMEs’ internationalization), ii) the adverse economic environment and iii) the underinvestment in infrastructure.

7.3.1.2.1 Governmental Barriers

The issues identified in this thesis that refer to the governmental barriers (the lack of government support for SMEs’ internationalization) affecting their entrance and performance in the EU include:

a) Inadequate industrial policy for SMEs (supply–policy)

For instance, ES1 stated:

“In Mexico, the industrial policy and infrastructure are both absent. There is no industrial policy that supports Mexican firms and SMEs. It affects the internationalization of Mexican SMEs.”

b) Lack of government support for BANCOMEXT (the Mexican Government did not fund the commercial promotional activities of BANCOMEXT) (supply-policy)

c) Poor government support for the internationalization of Mexican SMEs (supply-policy).

For example, ES2 stated:

“Mexican SMEs have internationalized to Europe with little support. Furthermore, neither the support provided by BANCOMEXT nor the government support has been enough to support their internationalization.”

d) Lack of dissemination of information about foreign markets (supply-policy).

In this regard, NL stated:

“Accessing information in Mexico about foreign markets is not easy. The government has lots of work to do in order to disseminate, analyse, systematize and publish the information about the opportunities in foreign markets.”

Regarding the inadequate industrial policy for SMEs, Chapter 4 showed that there is marginal support for SMEs and there has been no significant advance in SMEs' industrial policies, affecting their performance and competitiveness (Basave and Ochoa, 2001; Cruz et al, 2004b; De Maria y Campos, 2002). The inadequate industrial policy for SMEs can also be seen as an *institutional failure*. It affects the environment in which firms are embedded and blocks interactive learning and the knowledge creation and flows and as a consequence they negatively affect the innovation system as a whole (Rubalcaba et al, 2010; Smith, 2000; Woolthuis et al, 2005). Regarding the lack of dissemination of information about foreign markets, it affects the internationalization of Mexican LMT-SMEs because many barriers to entry are due to new entrants' information disadvantage or poor information about foreign markets, which causes costly mistakes and hampers the internationalization of SMEs, as suggested by various authors (Acs et al, 1997; Fliess, 2007; Leonidou, 2004; OECD, 2007b; Westhead et al, 2001; Young, 1995).

In general, the governmental barriers to the internationalization of Mexican SMEs identified in this section shed light on the *lack of government support and policies for the internationalization of Mexican SMEs*, which negatively affects their internationalization. According to various authors (Acs et al, 1997; Alexander and Warwick, 2007; Leonidou,

2004), the governmental barriers are the most pervasive barriers to SMEs' internationalization. As the governmental barriers identified in this section belong to the *supply-policy cluster*, they constrain the supply output of Mexican LMT-SMEs in internationalization and also affect their innovation performance.

7.3.1.2.2 *The Adverse Economic Environment in Mexico*

This thesis identified various issues at the macro level that refer to the adverse economic environment in Mexico affecting the performance of Mexican SMEs, including: intense competition in the domestic market (trade competitiveness-macro), the constant economic crisis (demand-macro), the lack of long-term credit at low rates for SMEs (demand-macro) and the fall in the Mexican economy's competitiveness (trade competitiveness-macro). In particular, the fall in the Mexican economy's competitiveness and the lack of long-term credit at low rates for SMEs affect the LMT-SMEs' internationalization. Regarding the lack of credit at low rates, UK1 stated:

“The lack of credit at low interest rates represents another weakness affecting the internationalization of SMEs that impedes SMEs in setting up long-term strategies.”

Chapter 4 also showed that Mexican firms see access to credit as the most cumbersome barrier, the impact of which is stronger for SMEs operating abroad. This is because the internationalization process requires plenty of resources (Gelmetti, 2006). The lack of credit at low rates for Mexican LMT-SMEs also affects their innovation performance as the NSI approach considers the *financial obstacles as formal institutional failures* that undermine the firms' and nation's innovation performance (Rubalcaba et al, 2010; Woolthuis et al, 2005).

With regard to the fall in the Mexican economy's competitiveness (trade competitiveness-macro), UK1 stated:

“Mexico decreased its international level of competitiveness, which affects its firms' competitiveness as well.”

Chapter 4 showed that when comparing the competitiveness of Mexico with that of other developed and developing countries (e.g. the US, Germany, the UK, the Netherlands, France, Spain, China, Italy, India and Chile), all of them ranked higher than Mexico. This suggests that Mexican SMEs are at a disadvantage not only compared with developed countries but also compared with other developing countries in terms of competitiveness. As seen, the problems in this section uncovered an *adverse economic environment* affecting Mexican LMT-SMEs' internationalization and inhibiting their innovation performance. This explains why Mexican SMEs have highlighted the macro environment as the major threat that they face (Haar et al, 2004).

7.3.1.2.3 Underinvestment in Infrastructure

The issues identified that show the underinvestment in infrastructure affecting the internationalization of Mexican SMEs in the EU and their innovation performance include: a) lack of funding for technological advances (supply–macro), b) inappropriate transport infrastructure and logistics (supply–macro) and c) uncompetitive energy costs and lack of ICT infrastructure (supply–macro).

a) Lack of funding for technological advance (supply–macro). In this regard, UK1 stated:

“Other countries are funding technology research centres to develop new technologies; on the contrary Mexico is not. It affects the competitiveness of Mexican SMEs.”

The interviewee's point is supported by the OECD (2007b), which found that among the OECD countries, Mexico has recorded by far the lowest share of R&D expenditure out of its GDP (0.4% of the GDP vs. 2.4% for the OECD area as a whole), which has negatively affected the Mexican SMEs' competitiveness (Guillen, 2005; OECD, 2007b).

b) Inappropriate transport infrastructure and logistics (supply–macro).

For example, ES1 stated:

“The lack of an appropriate infrastructure in Mexico increases costs and negatively affects the competitiveness of the Mexican SMEs in the EU.”

It is worth recalling that Gomez (1997), the IDB and Mesquita et al (2008) also consider that the poor and inefficient infrastructure represents one of the toughest problems affecting the internationalization of firms from developing countries.

c) Uncompetitive energy costs and lack of ICT infrastructure (supply–macro).

In this regard, DE1 stated:

“Mexican production costs are high due to the high costs of energy (gas and electricity) and inappropriate infrastructure in telecommunication; this represents a serious problem affecting the competitiveness and internationalization of SMEs.”

According to the NSI approach, the lack of ICT infrastructure, uncompetitive energy costs, the lack of funding for national technological advances and inappropriate transport infrastructure and logistics identified in this thesis constitute *infrastructural system failures*, which damage the competitiveness and innovation performance of firms. They call for government intervention to correct these failures (Rubalcaba et al, 2010; Smith, 2000; Woolthuis et al, 2005).

Overall, the adverse domestic environment contains *government, environmental and underinvestment barriers* affecting the internationalization of SMEs. As shown, most of these barriers belong to the supply, demand and trade competitiveness clusters at the macro and policy levels, which means that these external barriers negatively affect the ability of the output of Mexican SMEs to match the EU needs and their competitiveness in foreign markets. As the environmental barriers identified in this thesis not only affect the internationalization of Mexican LMT-SMEs but also represent *system failures*, they justify government intervention. This is because system failures block the flows and creation of knowledge, learning and the innovation system as a whole (Rubalcaba et al, 2010; Smith, 2000; Woolthuis et al, 2005).

7.3.1.3 Environmental Barriers in the EU

This thesis also reveals various problems affecting the entrance and performance of Mexican LMT-SMEs in the EU originating in the foreign environment (the EU). According to the classification of external barriers suggested by Leonidou (2004), the

environmental barriers in the targeted market include *socio-cultural* and *political–legal barriers*. Though Leonidou (2004) and the OECD (Fliess, 2007) did not include *threats in the industry environment* in their classification of external barriers hindering the internationalization of SMEs, this section does include them. This is because these issues belong to the environment in which Mexican LMT-SMEs operate in the EU and the outcome of the cluster analysis in Chapter 6 shed light on various issues that can be related to these categories. Therefore, the environmental barriers presented in this thesis include i) threats in the environment, ii) socio-cultural barriers and iii) different foreign customers' needs and attitudes towards foreign products.

7.3.1.3.1 Threats in the EU Environment in which Mexican LMT-SMEs Compete

To shed light on the environmental barriers that Mexican LMT-SMEs may face in the EU, it is worth recalling Porter (1980), who recommends analysing the industry environment to determine the intensity of competition that firms face. According to Porter (1980), the definition of an industry is essentially made up of a choice of where to draw the line between existing firms and potential entrants. Thus, the forces that were identified that show intense competition for Mexican LMT-SMEs in the EU include a) intense rivalry among current competitors and b) threats of entry.

a) Intense Rivalry

According to Porter (1980), the intensity of rivalry among current competitors could include numerous competitors and lack of differentiation. The issues identified in this thesis that relate to intense rivalry for Mexican LMT-SMEs in the EU include:

1) Intense competition from firms operating in the EU, including other Latin American firms, Chinese, Indian and Eastern European firms. This issue belongs to the supply–meso group. For example, FR3 stated:

“Most of the SMEs serviced by BANCOMEXT-Europe belong to traditional sectors and there are few in non-traditional sectors; thus, the Mexican products exported to Europe are mostly low added-value products. For this reason, they face lots of competition and difficulties to enter and compete in the EU.”

The intense competition that Mexican LMT-SMEs face in the EU could be overcome by upgrading their innovation performance, either by introducing new technologies from abroad (supply drivers of innovation) and/or adapting their products to demanding foreign customers' needs (demand drivers of innovation) (von Tunzelmann and Acha, 2005). However, the problem is that SMEs frequently lack the resources to invest in new technologies (Kaufmann and Tödtling, 2003). Thus, Mexican LMT-SMEs could start innovating by undertaking incremental changes to their products to satisfy demanding customers, improving the quality and fulfilling the requirements of standards, as recommended by various authors (Grimpe and Sofka, 2009; Hervás-Oliver et al, 2011; Kaufmann and Tödtling, 2003; Porter, 1990; Santamaria et al, 2009; von Tunzelmann and Acha, 2005).

b) Threat of Entry

According to Porter (1980), the threat of entry could include high investment requirements, cost disadvantages and government policy (standards, regulations), among others. This thesis identifies: 1) high investment required to operate in the EU and 2) government entry barriers: i) high subsidies and support for EU firms and ii) highly regulated markets (e.g. tough standards and certification in the EU for foreign firms). These issues belong to the trade competitiveness–meso group of the cluster analysis. For instance, UK1 stated:

“European countries are deterring the entrance of foreign products through non-tariff barriers, which take the form of new regulations and changes in standards and restrictions. These make the entrance of developing countries' products into the EU really difficult. Moreover, developing countries' subsidies, like Mexico, are much lower than developed countries' subsidies (the EU); as a result, the conditions of competition are unfair.”

What the interviewee mentioned sheds light on *neo-protectionism in the EU* to deter the entrance of non-EU competitors like Mexico. This agrees with various authors (Armstrong and Anderson, 2007; Bretherton and Vogler, 2006; Collier and Dollar, 2002; Hoekman and Martin, 2001; Michalopoulos, 2001; Rugman and Boyd, 2001; Ruiz-Garcia, 2009; Sampson, 2001; Stiglitz and Charlton, 2005), who stress the presence of neo-protectionism in the EU (e.g. standards, regulations, subsidies, etc.) to deter products from developing countries. Though Mexican LMT-SMEs are facing difficulties in the EU

because of their lack of European standards and certification, they can also be seen as *drivers of innovation (demand drivers)* as they push Mexican SMEs to upgrade their innovation performance and improve their quality, which will enable them to move ahead and produce products that earn high prices (Porter, 1990; von Tunzelmann and Acha, 2005). As standards and certification are drivers of innovation that could contribute to improving LTM-SMEs' competitiveness and these firms are facing difficulties in this regard, government intervention is required and justified.

With regard to the *high investment required to operate in the EU*, this thesis identified issues that are related to the high entry costs and investment necessary to operate in the EU as a problem affecting the internationalization of Mexican LMT-SMEs in the EU, including:

- a) High investment required to acquire technological advances in order for Mexican LMT-SMEs to produce fashionable products for the EU customers (demand–meso);
- b) Promoting and positing brands in the EU are costly (demand–meso);
- c) The large number of intermediaries in the commercialization chain increases the costs (trade competitiveness–meso).

For example, UK2 stated:

“Promoting and positioning foreign brands in Europe is extremely expensive. In addition, in the EU, the majority of Mexican products reach high prices because of the large number of intermediaries in the commercialization chain.”

Though intermediaries increase the price of operating in the EU, according to the interviewees, they are necessary to position Mexican products in the EU due to the intermediaries' logistics and experience in the market. In this regard, FR2 stated:

“In order to increase the presence of Mexican SMEs in the French market, it is necessary for Mexican SMEs to establish a close relationship with an importer who is commissioned to introduce the product and has good relations with the retailers and the infrastructure (logistics and good reputation) required for commercializing products.”

The high investment required to operate in the EU market has also deterred Mexican LMT-SMEs from operating in the EU, which agrees with Acs et al (1997), who see entry costs as external barriers that affect the internationalization of SMEs.

7.3.1.3.2 Socio-cultural Barriers

The socio-cultural barriers that were identified in this thesis as affecting the internationalization of LMT-SMEs from Mexico in the EU include: a) differences in languages (demand–meso and trade competitiveness–micro) and b) differences in business practices. Among the latter can be mentioned:

- 1) Differences in communication: EU firms communicate by the Internet, but Mexican SMEs do not use it (trade competitiveness–micro);
- 2) European foreign trade vs. Mexican domestic trade (trade competitiveness–micro);
- 3) Differences in the length of negotiations: European long-termism vs. Mexican short-termism (supply–micro);
- 4) Mexican SMEs are not used to grouping but European firms work in associations and alliances (supply–meso).

For example, NL stated:

“SMEs do not know or are not used to working in associations, trading chambers and/or entering foreign markets as a part of a group or association; they want to internationalize alone and this, of course, is more difficult because they lack all kinds of resources. On the contrary, European firms have plenty of experience of working in groups.”

Regarding the latter, authors such as Cruz et al (2004b) and Dussel (2001) also stress that the lack of teamwork and participation in chambers of commerce are factors hindering the performance of Mexican SMEs in foreign markets. From the viewpoint of the NSI approach, these problems can be seen as an *interaction failure* since poor interaction between actors inhibits the flow and creation of knowledge, learning and innovation in the system (Woolthuis et al, 2005). These failures justify government intervention as they block the transfer of knowledge, interactive learning and innovation (Rubalcaba et al,

2010; Smith, 2000; Woolthuis et al, 2005). Chapter 9 presents recommendations in order for the Mexican Government to address the problems of poor interaction.

As seen above, the issues included in the *socio-cultural barriers* belong to the supply, demand and trade competitiveness clusters. They explain why it has been difficult for Mexican LMT-SMEs to collaborate or interact effectively with European firms to internationalize. From the viewpoint of the NSI approach, the *socio-cultural barriers* could be seen as problems arising from the differences in *informal institutions* (language, culture, norms, habits, the way business is conducted, etc.). They have an influence on learning, the transfer of knowledge and interrelations (Edquist, 2005; Fagerberg, 2005; Freeman, 1987; Freeman, 1995; Lundvall, 1992; Lundvall and Borrás, 1997; Lundvall and Borrás, 2005; Metcalfe and Georghiou, 1997; Nelson, 1993).

7.3.1.3.3 *Different Foreign Customers' Needs and Attitudes towards Foreign Products*

As foreign customers have a different profile from the home country's customers, Leonidou (2004) considers *foreign customers' habits or attitudes* as task-external barriers to the internationalization of SMEs. These problems partly arise due to the fact that EU customers are high-income customers from developed countries. The issues identified in this thesis that belong to this category include: a) the EU customer profile and b) the negative attitude of European customers towards Mexican products and firms.

a) The EU Customer Profile

The issues related to this category include 1) EU customers prefer European products to foreign products (trade competitiveness–meso) and 2) EU customers are demanding (demand–meso). Regarding the latter, FR2 stated:

“The EU markets give lots of attention to the quality, designs, innovations and the products' competitiveness.”

As seen in this thesis, the internationalization of Mexican LMT-SMEs in the EU provided the opportunity for these firms to be in contact with demanding EU customers, but the products of Mexican LMT-SMEs do not match the EU customers' needs. Nonetheless,

demanding customers like the European customers act as demand drivers of innovation for Mexican LMT-SMEs as they pressure firms to improve their quality, satisfy standards, upgrade their technology and innovate (the innovations may include modifications, redesign of products and new products), as pointed out by various authors (Ernst et al, 1998; Grimpe and Sofka, 2009; Hervás-Oliver et al, 2011; Kaufmann and Tödtling, 2003; Porter, 1990; Russo, 1999; Santamaria et al, 2009; von Tunzelmann and Acha, 2005).

b) The Negative Attitude of the European Customers Towards Mexican Products and Firms

There are several issues that uncover a negative attitude towards Mexico, its firms and their products in the EU that affect SMEs' internationalization. For instance, the interviewees mentioned:

- 1) Mexico is not valued as a trade/business partner nor seen as an industrial country (trade competitiveness–macro);
- 2) Mexican SMEs are thought to be unreliable partners (supply–meso);
- 3) Mexican products are seen as low-quality and low-price products (demand and trade competitiveness–meso).

These problems stem from the economic differences between Mexico and the EU, the lack of knowledge of the country of origin (Mexico) and the great geographical distance, which affect the internationalization of Mexican LMT-SMEs in foreign markets. Regarding the perception of products from developing countries in developed countries, various authors (Ahmed et al, 1995; Al-Sulaiti and Baker, 1998; Aulakh et al, 2000; Cordell, 1993; Ghadir, 1990; Khachaturian and Morganosky, 1990; Kotler and Gertner, 2002; Wang and Lamb, 1983; Yaprak, 1978) have also found that products and firms from developing countries are undervalued in developed countries.

7.3.1.4 Differences in Economic Development Levels between the Trading Countries

Though Leonidou (2004) and the OECD (Fliess, 2007) did not include differences in economic development levels among the trading countries as an external barrier to the internationalization of SMEs, this thesis uncovers various issues that can be related to this category. They are presented according to the cluster to which they belong:

i) Supply

a) Mexico mainly exports low-added-value products (macro).

ii) Demand

a) Operating in developed markets (the EU) requires a high level of investment (meso).

b) The EU customers are very demanding (meso).

c) Mexican products are seen as low-price and low-quality products (meso).

iii) Trade competitiveness

a) The competitiveness of the Mexican economy is below the EU competitiveness (macro).

b) SMEs from developing countries differ from developed countries' firms (macro).

c) Mexico is not seen as an industrial country nor valued as a trade/business partner in the EU (macro).

d) Tough government entry barriers exist in developed markets (the EU).

1) A high degree of support exists for EU firms (meso).

2) There are tough standards and certification in the EU for foreign firms (meso).

e) Developing countries (including Mexico) offer few subsidies and little support for the internationalization of SMEs compared with the EU (policy).

These issues have been discussed in the various areas of external barriers in this chapter. They show that when analysing the internationalization of SMEs, it is also worth considering the economic growth and development levels among the trading countries, because differences in the economic development levels among the trading countries have

an impact on the supply output (e.g. the kind of products offered by Mexican LMT-SMEs) and the demand (the kind of products demanded, the perception of foreign products in the targeted countries (the EU) and the investment required to operate in the targeted market). In addition, the differences in economic development among the trading countries explain the differences in trade competitiveness, which affect the internationalization of SMEs from developing countries in developed countries, such as Mexican LMT-SMEs. They confirm that a *systemic* (holistic) perspective is necessary to explain the entrance and performance of LMT-SMEs from developing countries (Mexico) in developed countries (the EU).

The differences in economic development among the trading countries call for developing countries (Mexico) to upgrade their knowledge base and learning capacity, which will contribute to reducing the gaps (e.g. the technological and innovation gaps and as a consequence the gaps in economic development) among the countries, ease innovation and facilitate the transfer of knowledge, as suggested by various authors (Freeman, 1987; Freeman, 1995; Lundvall, 1992; Patel and Pavitt, 1994; Smith, 2000). Altogether, they will favour the internationalization of LMT-SMEs from developing countries (Mexico) in developed countries (the EU).

7.3.1.5 Geographical Distance as a Disadvantage

This thesis also finds that the geographical distance between Mexico and the EU is a disadvantage for the internationalization of LMT-SMEs. This issue belongs to the demand–meso cluster of analysis. It is worth noting that when talking about distance as a problem for the internationalization of Mexican SMEs in the EU, the interviewees frequently referred to the internationalization of Mexican SMEs in the US. According to the interviewees, Mexican SMEs prefer the American market because of the *short geographical distance* and the fact that they are more familiar with the US market than with the EU market. For instance, FR1 stated:

“There is a low number of Mexican SMEs in the EU because they are strongly attracted to the American market, which is closer. In addition, entering and operating in the American market is not as expensive as the European market.”

Moreover, the US is our main trade partner and it is more familiar for Mexican SMEs than the European market."

The interviewees' point can be explained by the Uppsala model. According to the Uppsala model, firms start internationalizing in neighbouring countries, in which the perceived *psychic distance* is shorter because neighbouring countries are more familiar, easier to understand and perceived to be less uncertain (Johanson and Vahlne, 1977; Pedersen and Petersen, 2004; Stottinger and Schlegelmilch, 1998). Among the factors that have reduced the psychic distance between Mexico and the US are the large community of Hispanics in the US and the deep economic integration between Mexico and the US (Ruiz-Garcia, 2009). In contrast, according to the interviewees, the geographical distance between Mexico and the EU is a barrier to the internationalization of SMEs. For example, IT stated:

"The geographical distance between Mexico and Europe is another factor affecting the entrance of SMEs into the EU; Mexican firms consider Europe as a distant market."

The WB also considers distance as a barrier to firms' internationalization as it increases the transport costs.¹⁴⁷ This problem is acute for Mexican SMEs as Chapter 3 showed that Mexico has an inefficient transport and logistics infrastructure and higher transport costs than other countries. In addition, from the viewpoint of the NSI approach, geographical distance represents a barrier to interactive learning and the transfer of knowledge because knowledge (skills, expertise and modes of interpretation) is transferred by interactions among various actors (e.g. customers and firms from abroad) (Dalum et al, 1992; Ernst et al, 1998; Lundvall, 1992; Lundvall and Borrás, 1997; Lundvall et al, 2002; Metcalfe and Georghiou, 1997; Nauwelaers and Wintjes, 2003; OECD, 1997b; Patel and Pavitt, 1994). They altogether explain why the large geographical distance between Mexico and the EU is a barrier to the internationalization of Mexican LMT-SMEs.

¹⁴⁷ The World Bank. [Online] Available from: <http://www.doingbusiness.org/ExploreEconomies/?economyid=127> (Accessed: 30th March 2008).

To continue to identify the barriers affecting the internationalization of Mexican LMT-SMEs in the EU, the next section presents the internal barriers that were identified in the cluster analysis undertaken in Chapter 6.

7.3.2 Internal Barriers

This section concerns the internal problems of the Mexican LMT-SMEs serviced by BANCOMEXT-Europe that affect their internationalization in the EU. The classification of internal barriers in this section is based on the classification of internal barriers hindering the export development of SMEs suggested by Leonidou (2004), who classified internal barriers as a) informational, b) functional and c) marketing barriers. Though Leonidou (2004) did not include problems of knowledge and lack of innovation as internal barriers affecting the internationalization of SMEs, they are included in this thesis. These new categories stem from the analysis of the Uppsala model of internationalization, the NSI approach and the literature on innovation in SMEs.

7.3.2.1 Informational and Knowledge Barriers

This thesis has identified the informational and knowledge barriers affecting the internationalization of Mexican LMT-SMEs in the EU. According to Leonidou (2004), informational barriers refer to problems in identifying, selecting and obtaining relevant information that can be used for SMEs' international operations. This thesis identified some issues that belong to the supply cluster that act as informational barriers affecting the internationalization of Mexican LMT-SMEs. They include:

i) Lack of programme awareness (supply–micro). In this regard, DE2 stated:

“It would be very helpful if Mexican firms knew and made use of government programmes aimed at the internationalization of firms. It would help SMEs to internationalize.”

ii) Lack of awareness of BANCOMEXT (supply–micro). ES2 stated:

“Many Mexican SMEs do not know about the presence and role of BANCOMEXT. For this reason, it is necessary to disseminate information about the activities of BANCOMEXT.”

Regarding *knowledge barriers*, the classification of barriers hindering the internationalization of SMEs suggested by Leonidou (2004) and the classification of impediments affecting the entrance and performance of SMEs in foreign markets suggested by the OECD (Fliess, 2007) only include informational problems, and they do not consider *knowledge barriers* as impediments to the internationalization of SMEs; this thesis identified issues that refer to *problems of knowledge* (e.g. skills, expertise, etc.) affecting the internationalization of Mexican LMT-SMEs in the EU. *The lack of knowledge is considered as an internal barrier* because, according to the RBV, knowledge is a meaningful internal resource that contributes to innovation and the competitive advantage of the firm (Nelson, 1991; Penrose, 1959; Teece, 1982). In contrast, the lack of knowledge has pervasive consequences. The issues identified in this thesis that pertain to the lack of knowledge affecting the internationalization of LMT-SMEs in the EU mainly belong to the supply–micro and –meso clusters. They include:

- a) *Lack of knowledge to conduct exporting operations in the EU (supply–micro);*
- b) *Lack of knowledge of other cultures (supply–micro);*
- c) *Lack of knowledge of the EU market (supply–meso);*
- d) *Lack of knowledge to deal with EU regulation (supply–meso);*
- e) *Lack of knowledge to register brands and obtain CE marks¹⁴⁸ in the EU (supply–meso).*

For example, ES1 stated:

“Overall, the main reason explaining the low presence of Mexican SMEs in the EU is the lack of knowledge about the European internal legislations and regulations, the lack of knowledge about the European markets and customers’ needs and the lack of knowledge about how to operate in the EU. For this reason, SMEs consider the EU as a difficult market.”

The issues presented in this section relate to both *informational barriers and knowledge barriers*. Though *information* (codified knowledge) can be acquired quickly and easily because it can be transferred over long distances and across organizations due to advances in the ICT infrastructure (Ernst et al, 1998; Lundvall and Borrás, 1997; Nauwelaers and Wintjes, 2003; OECD, 1997b), this thesis found that it is difficult for Mexican LMT-

¹⁴⁸ The CE mark states that the product has been assessed before being placed on the market and meets EU safety, health and environmental protection requirements. Source: [Online] Available from: <http://ec.europa.eu/enterprise/policies/single-market-goods/cemarking/> (Accessed: June 2013).

SMEs to access information not only from Mexico but also from the EU, which negatively affects their internationalization. This agrees with Dussel (2001) and the OECD (2007b), who consider the low participation of Mexican SMEs in foreign markets to be due to difficulties in accessing such information from both private and public sources. According to various authors (Fliess, 2007; Leonidou, 2004; OECD, 2007b), this problem is among the most cumbersome barriers to the internationalization of SMEs.

In order for Mexican LMT-SMEs to overcome the informational gaps and knowledge barriers (such as difficulties in accessing knowledge from abroad), it is necessary for them to enhance their AC in order to recognize the value of new information and knowledge and acquire, absorb, utilize and transfer it, as suggested by various authors (Bessant et al, 2005; Cohen and Levinthal, 1989; Todorova and Durisin, 2007). This could enable Mexican LMT-SMEs to respond to the markets' needs and improve their innovation performance and competitiveness, as highlighted by various authors (Ernst, 1998; Fagerberg et al, 2005; Grimpe and Sofka, 2009; Lundvall and Borrás, 1997; Lundvall and Borrás, 2005; OECD, 1997b; Tiler et al, 1993; von Tunzelmann and Wang, 2007; Zahra and George, 2002). As problems accessing knowledge arise from poor AC, which is a severe internal barrier that inhibits the transfer of knowledge and negatively affects firms' innovation performance and competitiveness (Todorova and Durisin, 2007), following the NSI approach, government intervention in Mexico is required. Chapter 9 presents some policy recommendations aimed at enhancing the AC of Mexican LMT-SMEs.

7.3.2.2 Functional Barriers

According to Leonidou (2004), functional barriers pertain to inefficiencies of various internal functions with regard to exporting. They include a lack of personnel for exporting, a lack of resources and a lack of production capacity. As, according to the RBV, internal resources are important determinants of firms' competitiveness (Barney, 1991), it could be said that the functional barriers suggested by Leonidou (2004) refer to

the lack of internal resources that affects the competitiveness of SMEs in foreign markets. This thesis identified several functional barriers showing that Mexican LMT-SMEs are less ready to internationalize because of their limited production capacity, lack of technical specialization and lack of resources (physical resources and capabilities). According to the cluster analysis undertaken in Chapter 6, these problems belong to the supply cluster and mainly span the micro level of analysis. They include the following:

i) Production capacity below the EU demand (supply–micro)

In this regard, IT stated:

“Very frequently SMEs cannot supply the volume demanded by the EU importers and consequently the commercial relations end.”

The latter agrees with various authors (Dussel, 2001; Llisterri and Angelelli, 2002; Moreno-Brid et al, 2005; OECD, 2007b; Ruiz-Garcia, 2009; Soto and Dolan, 2003), who see the low production capacity and productivity of Mexican SMEs as factors affecting their performance. This problem is acute among LMT-SMEs from Mexico as they are currently internationalizing in the EU alone. Nonetheless, they could overcome this problem by establishing alliances and collaborating with other SMEs to internationalize.

ii) A lack of technical specialization in LMT-SMEs (supply–micro)

In this regard, IT stated:

“A weakness for the internationalization of Mexican SMEs that explains their scarce number in the EU is their lack of technology.”

The lack of technical specialization in the LMT-SMEs serviced by BANCOMEXT-Europe identified in this thesis is another factor explaining the minimal participation of Mexican LMT-SMEs in the EU. This agrees with authors such as Carrillo-Rivera (2007) and Haar et al. (2004), who have pointed out that in Mexico, the majority of firms utilize old technologies and have low levels of technological processes, which affect their competitiveness. This problem calls for LMT-SMEs from Mexico to introduce *high technology* from other industries or more developed countries into their existing products and production processes (they are supply drivers of innovation). This will help these firms to innovate and improve their competitiveness, as highlighted by various authors

(Kaufmann and Tödtling, 2003; Mendoca, 2009; OECD, 1997b; Robertson et al, 2009; Santamaria et al, 2009; von Tunzelmann and Acha, 2005).

iii) Lack of resources (financial constraints and lack of ICT infrastructure) (supply–micro)

For instance, ES2 stated:

“SMEs are not established in Europe as it represents a high investment and SMEs lack economic resources to afford these expenses.”

The lack of financial resources not only inhibits the internationalization of LMT-SMEs from Mexico, as uncovered in this thesis and supported by various authors (Cruz et al, 2004a; Llisterri and Angelelli, 2002; OECD, 2007b; Soto and Dolan, 2003). It also inhibits the innovation performance of SMEs as it frequently deters SMEs from investing in new technologies, as highlighted by Kaufmann and Tödtling (2003).

Regarding the lack of ICT infrastructure, Mexican LMT-SMEs have the potential to utilize ICT to improve their performance and competitiveness as they scarcely use the Web to communicate with clients and suppliers and for business purposes. The comparison of Mexican firms with firms from Argentina, Brazil and Chile presented in Chapter 4 shows that Mexican firms have the lowest proportion of firms using the Web to communicate not only in the region but also compared with the rest of the countries. Overall, the lack of resources within Mexican LMT-SMEs calls for government intervention as it affects their internationalization and interactions with other actors, inhibits knowledge flows and undermines their innovation performance.

iv) Lack of capabilities to internationalize

This thesis identifies the lack of capabilities to internationalize as an internal barrier deterring the internationalization of LMT-SMEs from Mexico in the EU. It constrains the supply output of the LMT-SMEs from Mexico to attend to the EU market. The issues that relate to this problem include:

a) Lack of involvement with the internationalization concept (supply–micro). For example, UK2 stated:

“A weakness for the internationalization of SMEs is that they are little involved with the concept of internationalization.”

b) Lack of personnel to deal with the internationalization process (supply–micro). For instance, DE1 stated:

“SMEs do not have a specific person commissioned for foreign operations; those activities are generally performed by the owner of the firm, which represents a weakness for the internationalization of these firms.”

c) Lack of preparation for participating in trade fairs (supply–meso). In this regard, ES2 stated:

“SMEs participating in international events are not prepared for establishing negotiations; they do not know how to sell their products internationally or how to deal with contracts.”

The issues above agree with a number of authors (George et al, 2005; Soto and Dolan, 2003), who indicate that in general, SMEs suffer from managerial problems and limited experience of operating abroad and do not consider internationalization as a strategy (George et al, 2005; Soto and Dolan, 2003). These problems limit the SMEs' entrance into and performance in foreign markets because in order to participate in international markets, SMEs need to have experience in foreign markets and to be familiar with different business environments, cultures and languages (Nummela et al, 2004; OECD, 2007b; Westhead et al, 2001).

The lack of capabilities to internationalize among the LMT-SMEs serviced by BANCOMEXT-Europe highlights that government efforts are necessary in order for these SMEs to upgrade their capabilities, which will help to improve their performance in foreign markets. Poor capabilities in the system (*capability failures*) call for government intervention as they deter firms from moving from an old to a new technology, learning new capabilities, benefiting from interactions with other actors and adapting to new markets (Rubalcaba et al, 2010; Smith, 2000). In particular, it is

important for SMEs to upgrade their capabilities to attend trade fairs since, according to Chen (2009), these exhibitions represent an informal learning mechanism through which LMT-SMEs that have the skilled personnel to attend trade fairs can acquire the technological know-how and information from competitors necessary to upgrade their products.

As seen above, the functional barriers affecting the internationalization of the Mexican SMEs serviced by BANCOMEX-Europe refer to the lack of internal resources (*physical resources and capabilities*). As Mexican SMEs are relatively small compared with other SMEs (OECD, 2007b), it could be said that the functional barriers that affect their internationalization are enhanced due to their small size. The cluster analysis in Chapter 6 found that the smallness of LMT-SMEs affects their internationalization (demand–micro). For example, FR3 stated:

“Some weaknesses for the internationalization of Mexican SMEs in the EU are the firms’ size and their financial restriction, which do not help to attend different markets. In general, Mexican SMEs can target one or two markets but not more.”

The above agrees with various authors (Alvarez, 2004; Cruz et al, 2004b; Gelmetti, 2006; OECD, 2005; OECD, 2007b) who point out that the small size of the SMEs brings limitations to their internationalization because their international expansion is highly likely to fail due to their few resources and capacities to perform in foreign markets (Acs et al, 1997; Bernard and Jensen, 1999; Bromley, 1985; Eden et al, 1997; Khon, 1997; Roberts and Tybout, 1997).

7.3.2.3 Marketing Barriers

According to Leonidou (2004), these barriers involve problems of adaptation, meeting the *quality demanded in foreign markets*, standards, packaging and labelling, complex foreign distribution channels and adjusting the promotional activities. The marketing barriers that were identified in this thesis belong to the supply cluster (spanning the micro and meso levels). They include:

i) Lack of post-sales service (supply–micro)

In this regard, NL stated:

“Mexican SMEs do not have a good post-sales service in the EU, which affects their competitiveness in the EU.”

Mexican SMEs could overcome this problem by setting up and strengthening a relationship with foreign dealers (agents or distributors) since, according to Chen (2009), foreign dealers can offer post-sales services in foreign markets on behalf of SMEs.

ii) Lack of involvement with EU customers (supply–meso)

For instance, ES1 stated:

“Among Mexican SMEs there exists a lack of involvement with EU markets; Mexican SMEs should be conscious of trends, innovation and customer satisfaction.”

As the Mexican LMT-SMEs serviced by BANCOMEXT-Europe have little involvement with EU customers, it is necessary to strengthen their relationships with foreign customers as they *are drivers of innovation* in LMT industries (von Tunzelmann and Acha, 2005). In other words, LMT-SMEs could improve their competitiveness and market shares by focusing on customers and undertaking innovations in order to satisfy demanding customers. This will allow firms to improve their quality and produce sophisticated products that achieve high prices (Ernst et al, 1998; Grimpe and Sofka, 2009; Hervás-Oliver et al, 2011; Kaufmann and Tödtling, 2003; Porter, 1990; Russo, 1999; Santamaria et al, 2009; von Tunzelmann and Acha, 2005).

iii) Problems of adaptation (the slow response of LMT-SMEs to the EU markets) (supply–micro)

For example, ES2 mentioned:

“Mexican SMEs are used to adapting slowly to market conditions, but to enter into the EU they need to undertake all the adaptations from the beginning.”

The issue above agrees with Ruiz-Garcia (2009), who found that a weakness in the internationalization of SMEs from developing countries (Mexico) in developed countries

(the EU) is the lack of adaptations. This is an acute problem as SMEs that delay adapting to the foreign market demands are less likely to succeed (Julien et al, 1994). To achieve the adaptation strategy, it is necessary for Mexican LMT-SMEs to develop close links with customers and distributors and upgrade their AC in order to identify and use knowledge and be able to translate the needs of sophisticated customers into products, as suggested by various authors (Hervas-Oliver et al, 2011; Mendoca, 2009; Smallbone et al, 2003). Nonetheless, Mexican LMT-SMEs' financial and capability constraints, poor AC and lack of credit at a competitive interest rate may explain why the adaptations required in the EU represent a barrier to their internationalization.

iv) Lack of marketing and branding (supply–micro)

In this regard, UK1 stated:

“The lack of brands and marketing among Mexican SMEs makes it difficult to position and commercialize their products in the EU.”

The marketing barriers identified in this thesis agree with the findings of authors like Cruz et al (2004b), Dominguez and Brenes (1997), Gelmetti (2006), George et al (2005) and Soto and Dolan (2003), who found that the limited managerial and marketing experiences to operate abroad are cumbersome problems affecting the internationalization of SMEs from Latin America. To overcome this problem, it is necessary for these firms to upgrade their marketing capabilities (specifically branding and product differentiation). Investing in marketing, design and learning (hiring tertiary degree employees and training) are *non-R&D activities* through which LMT-SMEs could improve their innovation performance and competitiveness (Hervas-Oliver et al, 2011; Santamaria et al, 2009), enabling LMT-SMEs to undertake incremental changes to their products in order to move to more sophisticated products and markets (Smallbone et al, 2003; von Tunzelmann and Acha, 2005). It is also recommended that SMEs from developing countries like Mexico should establish strategic alliances with firms from developed countries to position and market their products through the developed country partners' brands as developing countries' brands command lower prices and quality (Aulakh et al, 2000).

7.3.2.4 Innovation Barriers

Though Leonidou (2004) did not include *poor innovation performance* as an internal barrier deterring the internationalization of SMEs, this thesis does include it. This is because the classification of marketing barriers (including the lack of good designs, lack of value-added products for exporting, lack of involvement with EU customers and lack of adaptations) presented in the previous section represent various issues that can be related to poor innovation performance as a barrier hindering the internationalization of Mexican LMT-SMEs in the EU. In addition, the literature review in this thesis highlighted the importance of innovation within LMT-SMEs to internationalize. For example, von Tunzelmann and Acha (2005) state that LMT-SMEs could move ahead and participate in other markets by upgrading their innovation performance. In contrast, the lack of innovation affects the internationalization of SMEs. In this regard, this thesis reveals that the lack of innovation and technological specialization are problems affecting the entrance and performance of Mexican LMT-SMEs in the EU. For example, DE2 stated:

“Mexican SMEs invest few resources in innovation and technological advances, which makes their internationalization difficult.”

This agrees with authors like Carrillo-Rivera (2007), Haar et al (2004) and OECD (2007b), who see the lack of innovation, the use of old technologies and the low levels of technological processes among Mexican SMEs as factors affecting their competitiveness. The poor innovation performance among Mexican SMEs represents a severe obstacle to their internationalization; it is worth remembering that these firms have a very low rate of innovation (OECD, 2007b). The comparison of firms between Mexico and other Latin American countries (Argentina, Chile and Brazil) presented in Chapter 4 showed that Mexican firms invest few resources in innovation activities. They ranked in the lowest position not only compared with other Latin American countries but also compared with other countries in terms of the percentage of firms using technology licensed from foreign companies and the percentage of firms offering formal training. To shed more light on the innovation problems deterring the internationalization of the Mexican LMT-SMEs serviced by BANCOMEX-Europe, it is worth considering the example provided by the commercial counsellor and financial representative in Germany, who stated:

“Mexican SMEs serviced by BANCOMEXT-Europe need more technology and design. For example, BANCOMEXT-Frankfurt offered consultancy to a Mexican leather glove manufacturer who could not enter the German market because his gloves did not use nano-technology. It is a pity this company did not have the technological advances required in Germany; for this reason, BANCOMEXT-

Frankfurt could not help it to enter the German market. There are many examples like this that show that Mexican SMEs do not have the technology or kind of products demanded in the EU. For this reason, Mexican SMEs interested in internationalizing in the EU need to advance in technology, innovation, designs and packaging.”

As seen from the example above, the Mexican glove manufacturer could not enter the German market because it could not adapt the product to the EU market demand. It is worth recalling that at this moment BANCOMEXT-Europe only provides information about market opportunities for SMEs and does not contribute to transforming that information into knowledge. For this reason, BANCOMEXT did not match the glove company with other agents for R&D, such as universities and research laboratories, to transform the information gathered by BANCOMEXT-Europe into knowledge, which would enable LMT-SMEs to undertake further adaptations and innovative designs. The example provided above calls for government intervention through innovation policies in order for SMEs to improve their knowledge base and interact with the knowledge infrastructure, which will enable them to adapt their products to the foreign demand and upgrade their innovation performance.

Finally, it was found that many of the internal barriers affecting the internationalization of Mexican LMT-SMEs in the EU also affect their innovation performance. Based on the classification of innovation barriers suggested by Kaufmann and Tödtling (2003), the following table presents the internal problems that affect the innovation performance of the LMT-SMEs serviced by BANCOMEXT-Europe. This table resulted from the barriers inhibiting the internationalization of Mexican LMT-SMEs presented in this chapter, but in the table below, they are analysed from the viewpoint of problems affecting the SMEs' innovation performance.

Table 7.1 Problems Affecting the Innovation Performance of the LMT-SMEs Serviced by BANCOMEXT-Europe

Problem Categories	Issues Included
Finance	1. The financial constraints of Mexican LMT-SMEs do not allow them to invest in technological advances and internationalize.
Personnel/Qualification	1. Lack of capabilities to deal with the internationalization process and to attend trade fairs. 2. Lack of capabilities to improve marketing practices and designs.
Technology	1. Lack of technological advances. 2. As BANCOMEXT does not link SMEs with the knowledge infrastructure, more system innovation activities are needed.
Market Access/Information and Knowledge	1. The LMT-SMEs' products do not match the EU demand. 2. Lack of involvement with EU customers. 3. Deficits in marketing and branding. 4. Mexican LMT-SMEs are not well equipped to analyse market trends and opportunities. 5. Slow adaptation to meet the EU demand.
Time/Organization	1. Deficits in international business and innovation practices 2. Problems dealing with the EU certification, standards and regulations.
Strategy	1. Little willingness and commitment to enter the EU market. 2. Mexican LMT-SMEs unused to collaborating with other firms from domestic or foreign origins. 3. Poor linkages of Mexican LMT-SMEs with actors such as: * EU customers * BANCOMEXT, e.g. little awareness of the existence of BANCOMEXT * Lack of links between the LMT-SMEs serviced by BANCOMEXT and the knowledge infrastructure (research centres, innovation incubators, universities and technical institutions). * Other secretariats (e.g. lack of awareness of government programmes).

This table was elaborated by the author based on the issues affecting the internationalization of Mexican LMT-SMEs in the EU presented in Chapters 6 and 7.

As LMT-SMEs are able to innovate by undertaking *non-R&D activities* (Santamaria et al, 2009; von Tunzelmann and Acha, 2005), Mexican LMT-SMEs could upgrade their innovation performance by enhancing their AC, developing their capabilities (managerial, organizational, marketing and networking capabilities) and strengthening their linkages with firms (domestic or foreign), customers (who are the demand drivers of innovation) and the knowledge infrastructure, which could also contribute to improving their participation in foreign markets. In addition, LMT-SMEs from Mexico could upgrade their innovation performance and participation in foreign markets by introducing technological advances from abroad or other industries, as suggested by various authors (Kaufmann and Tödtling, 2003; Mendoca, 2009; Robertson et al, 2009; Santamaria et al, 2009; von Tunzelmann and Acha, 2005). Finally, it could be concluded that the internal barriers identified in this thesis are very pervasive in the internationalization of Mexican LMT SMEs in the EU. This is because, according to the RBV theory, firms' internal resources (physical resources, capabilities and knowledge)

play a key role in determining their competitiveness, innovation strategies and market diversification (Barney, 1991; Montgomery and Hariharan, 1991; Penrose, 1959; Peteraf, 1993; Teece, 1982). In contrast, a lack of internal resources undermines firms' competitiveness and innovation performance and negatively affects their market diversification and participation in foreign markets like the EU.

7.4 Conclusion

This chapter has answered the research question about the internal and external barriers that public intermediaries (BANCOMEXT) from developing countries (Mexico) have identified regarding the internationalization of LMT-SMEs in developed markets (the EU). In this chapter, the issues identified in Chapter 6 were linked to the theoretical and empirical frameworks. They were classified as internal and external barriers based on the classification of barriers hindering the internationalization of SMEs suggested by Acs et al (1997), Leonidou (2004) and the OECD (Fliess, 2007). To shed more light on the impact of such barriers, they were related to the Uppsala model of internationalization, the RBV theory, the NSI approach and system failures. By addressing the RBV theory, the importance and impact of the internal barriers to firms were uncovered. In addition, as the NSI highlighted the importance of learning and knowledge and the Uppsala model additionally highlighted the importance of learning to contribute to the internationalization of SMEs, special emphasis was given to improving the internationalization of LMT-SMEs through enhancing the firms' learning capacity, knowledge access and innovation, in which the firms' internal resources play a key role. Thus, the NSI approach was preferred to the neoclassical economic theory to discuss the problems affecting the internationalization of Mexican LMT-SMEs in the EU. By addressing the NSI approach, it was also possible to identify the barriers to the internationalization of LMT-SMEs that have been considered little in the relevant studies, such as geographical distance, differences in economic development and problems of knowledge and learning, which affect the internationalization of Mexican LMT-SMEs. In addition, the NSI allows the identification of the *system failure* affecting knowledge flows, interactions, learning and the whole innovation system (Mexico), which also affects the internationalization of Mexican LMT-SMEs. After identifying the barriers affecting the internationalization of Mexican LMT-SMEs and related them to the system failures, it was possible to determine possible solutions.

To begin, this chapter revealed that the internationalization of the Mexican LMT-SMEs serviced by BANCOMEXT-Europe is explained by the Uppsala model of internationalization. This is because this thesis found that these firms have entered distant markets (the EU) at a slow pace, they are at the earliest stages of the internationalization

process (exporting alone), they have a low level of participation in the EU and their internationalization has been a difficult process. They have not reached more sophisticated entry modes, such as alliances in the EU, either. Their internationalization has been particularly difficult due to problems resulting from the geographical distance and environmental differences (e.g. differences in business practice and languages, etc.) between Mexico and the EU, which make the internationalization of Mexican LMT-SMEs in the EU difficult. By addressing the NSI approach, it was seen that the differences in institutional set-ups (formal and informal) or environmental differences and the geographical distance between Mexico and the EU affect the interactions between Mexican LMT-SMEs and EU firms and customers, as well as the flows of knowledge as it is transferred by interactions. They impede Mexican LMT-SMEs from accessing knowledge from abroad in order to adapt their products to the EU customers' needs, establish relations with EU firms and innovate; altogether, they negatively affect the internationalization of Mexican LMT-SMEs in the EU.

The **external barriers** identified in this thesis include:

1) Procedural barriers: i) differences in communications between Mexican SMEs and EU firms (trade competitiveness–micro), ii) differences in languages (demand–meso) and iii) unfamiliarity with operating in the EU (supply–meso). They affect the internationalization of LMT-SMEs in the EU as these problems complicate the transfer of knowledge and affect interactions among Mexican firms and EU firms and customers.

2) Environmental barriers in Mexico: i) Governmental barriers, including the lack of government policies for SMEs' internationalization (supply–policy). They can also be seen as institutional failures that block the NSI in Mexico. ii) The adverse economic environment (demand–macro and trade competitiveness clusters). For example, they include: the fall in the Mexican economy's competitiveness and lack of long-term credit at low rates for SMEs. The latter is a system failure that negatively affects not only the internationalization of Mexican LMT-SMEs but also the NSI in Mexico because it inhibits innovation. iii) Underinvestment in infrastructure (supply–macro cluster) affects not only the internationalization of Mexican LMT-SMEs but also the LMT-SMEs' innovation performance as it is an *infrastructural system failure*. The *system failures* in

Mexico identified in this thesis affect not only the innovation system, but also the internationalization of Mexican LMT-SMEs in the EU as these failures constrain the Mexican LMT-SMEs' supply output to internationalize.

3) *Environmental barriers in the EU*: i) Threats in the EU environment. a) *Intense rivalry* (many competitors operating in the EU market) (supply–meso). As most of the SMEs serviced by BANCOMEXT-Europe belong to the traditional sector and just a few of them operate in non-traditional sectors, they face strong competition in the EU market. However, Mexican SMEs could overcome this problem by upgrading their products and innovating. b) The threat of entry (trade competitiveness–meso) mainly sheds light on government entry barriers in the EU (e.g. standards, regulations, subsidies and certification) affecting the entrance and performance of LMT-SMEs from Mexico. Though they can be seen as non-tariff barriers aiming to protect the EU markets and industries from foreign competition (Armstrong and Anderson, 2007; Artis and Nixon, 2007; Estevadeordal and Suominen, 2008; Wood and Yesilada, 2007), the EU standards and certification also act as drivers of innovation for Mexican LMT-SMEs as they push them to innovate and upgrade their products to satisfy EU demanding customers, as suggested by Porter (1990) and von Tunzelmann and Acha (2005).

ii) Socio-cultural barriers arise due to the differences in business culture and languages between Mexico and the EU, which affect the internationalization of Mexican LMT-SMEs in the EU. These issues belong to the supply, demand and trade competitiveness clusters. These barriers hinder the transfer of knowledge and interactions among Mexican LMT-SMEs and EU firms and customers. Specifically, the lack of collaboration among Mexican LMT-SMEs (supply–meso) was identified as a barrier affecting their internationalization. It is an *interaction failure* (poor interaction between actors) that negatively affects the internationalization and innovation performance of Mexican LMT-SMEs because the lack of effective interactions inhibits knowledge exchange and learning.

iii) Different foreign customers' needs and attitudes towards foreign products. They include: a) the EU customer profile (high-income, demanding customers) (demand–meso) and b) a negative attitude towards Mexican products and firms (demand and trade competitiveness–meso). These problems stem from the economic differences between Mexico and the EU. As Mexican products come from a developing country, they are undervalued and seen as low-price products in developed countries (the EU). In addition, due to the great geographical distance, Mexican firms and the industrial side of Mexico are little known in the EU.

4) *Differences in economic development levels* among the trading countries (between Mexico and the EU). This is a new category of external barriers in this thesis, included by neither Leonidou (2004) nor the OECD (Fliess, 2007). This thesis found that the differences in development levels between Mexico and the EU have an impact on the supply output (the kind of products offered by Mexican SMEs in LMT industries), the demand (the kind of products demanded and the perception of foreign products in the targeted countries (the EU) and the trade competitiveness (differences in the levels of competitiveness and economic, industrial and innovation developments between Mexico and the EU). To overcome the differences in economic development levels, the NSI approach calls for nations (e.g. Mexico) to devote more resources to learning, the creation of knowledge and innovation activities (Freeman, 1987; Freeman, 1995; Lundvall, 1992; Patel and Pavitt, 1994; Smith, 2000).

5) *Geographical distance* (demand–meso) was identified as an external factor that negatively affects the internationalization of Mexican LMT-SMEs in the EU. It increases the transport costs and negatively affects the interactions with actors from abroad (e.g. customers and firms) as well as the access to information and the flows of knowledge from distant countries like the EU. The latter is because knowledge is transferred through interactions.

Regarding the **internal barriers** identified in this thesis, they include 1) informational and knowledge barriers, 2) functional and 3) marketing barriers and 4) poor innovation performance. Knowledge barriers and poor innovation performance are new categories of barriers identified in this thesis; the classification of barriers suggested by Leonidou (2004) does not include them.

1) Informational and knowledge barriers. The informational barriers include i) lack of programme awareness, ii) lack of awareness of BANCOMEXT and iii) little information about the EU market. As they belong to the supply cluster and span the micro and meso levels of analysis, they have a negative impact on the supply output of LMT-SMEs and affect their internationalization in the EU.

Though Leonidou (2004) and the OECD (Fliess, 2007) did not include a lack of knowledge as an internal barrier affecting the internationalization of SMEs (they only focus on informational problems), this thesis identified issues such as: i) lack of knowledge (experience) to conduct exporting operations, ii) lack of knowledge of other cultures and the EU market and iii) lack of knowledge to operate in the EU market (e.g. *lack of knowledge to deal with EU regulation and lack of knowledge to register brands and obtain CE marks in the EU*). They belong to the supply micro and meso levels of the cluster analyses. As knowledge is important to innovating and to uncovering new business opportunities, the lack of knowledge (knowledge barriers) explains the underperformance of Mexican LMT-SMEs in the EU. It is worth recalling that the lack of AC is a severe internal barrier that inhibits the transfer of knowledge and negatively affects firms' innovation performance and competitiveness (Bessant et al, 2005). Therefore, the LMT-SMEs serviced by BANCOMEXT-Europe could overcome the informational and knowledge barriers by enhancing their AC, which would enable them to identify and make use of relevant information, recognize the value of new knowledge, acquire, transform or assimilate it and exploit it (Todorova and Durisin, 2007); thus, LMT-SMEs could innovate and upgrade their products to internationalize in the EU.

2) Functional barriers: i) production capacity below the EU demand, ii) lack of technical specialization in SMEs, iii) lack of resources (financial constraints and lack of ICT infrastructure) and iv) lack of capabilities to internationalize. They belong to the supply cluster and mainly span the micro level of analyses. These barriers involve the lack of internal resources (capabilities and physical resources), which negatively affects the

internationalization and competitiveness of Mexican LMT-SMEs in the EU. They constrain the Mexican LMT-SMEs' supply output and do not allow them to improve their products. As the lack of capabilities deters firms from adapting to new markets, it is considered as a *capability failure* that contributes to poor innovation performance of the firms and the nation; thus, this problem calls for government intervention (Rubalcaba et al, 2010; Smith, 2000). Policies aiming to enhance the SMEs' AC and establish links with other firms to internationalize as groups could help to overcome the problem of lack of capabilities.

3) *Marketing barriers*: i) lack of post-sales service, ii) lack of involvement with EU customers, iii) problems of adaptation and iv) lack of marketing and branding. As seen above, these barriers are about problems in meeting the *quality demanded in foreign markets (the EU)*. They belong to the supply cluster (spanning the micro and meso levels). Due to marketing deficiencies, the Mexican LMT-SMEs' products do not match the EU customers' needs.

4) *Poor innovation performance*. Though Leonidou (2004) did not include *poor innovation performance* as an internal barrier to the internationalization of SMEs, this thesis uncovers the lack of innovation and technological specialization as problems affecting the internationalization of the LMT-SMEs serviced by BANCOMEXT-Europe. These problems deter the Mexican LMT-SMEs' products from matching the EU customers' needs. To overcome this barrier, it is necessary for these firms to enhance their AC, develop capabilities, introduce new technologies and establish links with the knowledge infrastructure in Mexico and customers from abroad in order to upgrade their innovation performance. Currently, BANCOMEXT does not link Mexican SMEs with the knowledge infrastructure, which makes it difficult for them transform the information provided by BANCOMEXT into knowledge to upgrade their products.

By identifying the external and internal barriers affecting the internationalization of Mexican SMEs, it was also possible to identify areas for government intervention. Among the macro and policy problems that call for government intervention from the NSI

perspective are the underinvestment in various kinds of infrastructure, including the knowledge and logistics infrastructure (infrastructural failures) and institutional failures (including the lack of support for BANCOMEXT, inadequate industrial policy for SMEs, lack of credit for SMEs, etc.). Government intervention is also required to deal with problems at the micro and meso levels. At the micro level, government intervention through policies must focus on actions that help Mexican LMT-SMEs to overcome their internal weaknesses (poor physical resources, poor capabilities and poor innovation performance) that negatively affect their internationalization. At the meso level, government intervention is required to overcome the problems affecting the interactions (interaction failures) among actors (e.g. poor interactions between Mexican SMEs and between Mexican SMEs and EU firms). All these failures negatively affect the competitiveness of firms, the flows of knowledge and interactive learning, thus blocking the NSI as a whole (Rubalcaba et al, 2010; Smith, 2000; Woolthuis et al, 2005). Consequently, these failures also affect the internationalization of LMT SMEs.

Regarding the supplementary research question about *the impact of the external and internal barriers* on the internationalization of LMT-SMEs from developing countries (Mexico) in developed countries (the EU), after analysing the internationalization of Mexican LMT-SMEs in the EU from the viewpoint of BANCOMEXT-Europe in the light of the Uppsala model, the barriers hindering the internationalization of LMT-SMEs and the NSI approach, as carried out in this chapter, *the pervasive impact of both the external and the internal barriers was identified as they undermine the Mexican LMT-SMEs' competitiveness in the EU*. The impacts of these barriers are stronger due to the differences in *informal institutions* (language, culture, the way business is conducted, etc.) and the differences in *formal institutions* (innovation, legal and industrial development levels) between developing countries (Mexico) and developed countries (the EU), as well as the great geographical distance between Mexico and the EU. The latter negatively affects the interactions among Mexican LMT-SMEs and EU firms, customers, etc., making learning and accessing knowledge difficult. Overall, the findings suggest that to analyse the problems affecting the internationalization of Mexican LMT-SMEs in the EU, a *systemic* perspective (the NSI approach) needs to be considered in order to shed light on the *micro, meso, macro and policy factors* affecting the internationalization of these firms and their impact.

CHAPTER 8

EMPIRICAL FINDINGS

PUBLIC INTERMEDIARIES AND GOVERNMENTS FROM DEVELOPING COUNTRIES (MEXICO) IN THE INTERNATIONALIZATION OF LMT-SMEs

8.1 Introduction

This chapter is devoted to answering the second research question underlying this research into the role of public intermediaries from developing countries (Mexico) in addressing the internationalization of LMT-SMEs in distant and developed countries' markets (the EU) and its complementary research question regarding whether the governmental efforts in Mexico have supported the internationalization of LMT-SMEs in far-away and developed countries (the EU).

In order to answer such questions, this chapter takes the outcome of the cluster analysis presented in Chapter 6 and analyses it in the light of the current role of BANCOMEXT-Europe and the Mexican Government in the internationalization of Mexican LMT-SMEs in the EU. Accordingly, Section 8.2 attends to the role of the Foreign Trade Commission of Mexico (BANCOMEXT-Europe, now PROMEXICO) in the internationalization of LMT-SMEs. Section 8.3 presents the role of the Government in the internationalization of LMT-SMEs by analysing it from the perspective of the NSI approach and system failures. The recommendations made by BANCOMEXT-Europe for the Mexican Government to support the internationalization of Mexican SMEs in the EU are presented in section 8.4. Finally, Section 8.5 presents the conclusions of this chapter.

8.2 The Role of Public Intermediaries (BANCOMEXT) in the Internationalization of LMT-SMEs

This section analyses the role of the foreign trade commission of Mexico (BANCOMEXT-Europe) in the internationalization of Mexican LMT-SMEs in the EU. The issues presented here belong to the demand–policy and trade competitiveness–policy groups of the cluster analysis (presented in Chapter 6). From the business viewpoint, these issues show that BANCOMEXT has acted as a facilitator of the entrance and performance of SMEs in the EU mainly through the provision of information and activities aimed at putting SMEs into contact with customers abroad. For instance, IT stated:

“The role of BANCOMEXT is very important; SMEs could not export without the help of BANCOMEXT-Europe. It guides SMEs in this process, opens market opportunities, deals with problems of shipments and represents SMEs in foreign markets. In addition, thanks to the promotional activities and the provision of information undertaken by BANCOMEXT about foreign markets, the number of Mexican SMEs in the EU has increased.”

The above suggests that BANCOMEXT-Europe performs the activities of a *trading organization*, the activities of which have contributed to the internationalization of LMT-SMEs through the provision of information and assistance to establish contacts abroad. This agrees with Noble et al (1989), who state that the main contributions of a trading organization to firms’ internationalization are made through discovering and opening new foreign markets, helping to establish personal contacts with potential foreign buyers and providing information about foreign markets. For these reasons, trading organizations have a positive impact on firms’ internationalization.

In addition, BANCOMEXT has eased the internationalization of Mexican LMT-SMEs in the EU by representing these firms in a distant and little-known market, such as the EU market. Thus, BANCOMEXT also plays the role of a *trusted intermediary*, that is, an intermediary between the firms in the home market and the firms in foreign markets. This agrees with Alexander and Warwick (2007), who see *trusted intermediaries* as highly useful when limited information about foreign markets exists.

8.2.1 Activities Performed by Public Intermediaries from Developing Countries (BANCOMEXT) to Support the Internationalization of LMT-SMEs

This thesis reveals that though the main activities performed by BANCOMEXT-Europe include a) the identification and provision of information, b) the coordination of international events, c) the establishment of alliances between Mexican SMEs and foreign firms and d) technical and financial assistance, it is necessary for BANCOMEXT to expand its activities to deal with the problems identified in this thesis. Below, the current activities of BANCOMEXT and their contribution to the internationalization of LMT-SMEs are explained.

i) Activities aiming to deal with the information gap: identification and provision of information (demand-policy and trade competitiveness-policy)

In particular, the identification of information and help to establish contacts in foreign markets are the main contributions of BANCOMEXT to the internationalization of Mexican LMT-SMEs. All of the interviewees highlighted the provision of information and the activities coordinated by BANCOMEXT (such as trade fairs, agendas and exporting missions) as its most important contributions. For example, ES1 stated:

“BANCOMEXT has an ample network of offices abroad to obtain information about foreign markets. In addition, thanks to the coordination of agendas, export missions and trade fairs, BANCOMEXT helps SMEs to establish contact with potential customers in foreign market. This contributes to the internationalization of SMEs in the EU.”

The activities performed by BANCOMEXT-EUROPE show that the main contribution of BANCOMEXT is to close the information gap (ease the transfer of information and put into contact Mexican and EU firms). According to numerous authors (Chetty and Blankenburg-Holm, 2000; Pollard and Jemicz, 2006; Welch and Luostarinen, 1988), both the provision of information and the help to establish contacts with counterparts in foreign markets help SMEs in the first stages of the internationalization process to enter distant and unknown markets.

As seen above, BANCOMEXT-Europe mainly focuses on information (codified knowledge), but little has been attempted to transform the information on foreign markets into knowledge. This can be attributed to the neo-liberal ideology of BANCOMEXT, which is based on the neoclassical economic theory. It is worth remembering that a criticism of the neoclassical economic theory is that it sees knowledge as synonymous

with information that is easily accessed by all economic actors, which does not happen as information (codified knowledge) is not knowledge (tacit knowledge: skills, expertise, modes of interpretation, etc.) (Lundvall, 1992). In this thesis, it has been explained that information is not knowledge by addressing the NSI approach. Knowledge, which is transferred by interaction among actors, is very important to innovate and to internationalize but it is more difficult to transfer over long distances due to the environmental differences (differences in the institutional set-up) and the geographical distance. To overcome the problems related to knowledge, it is necessary for firms to enhance their AC. Therefore, despite the efforts of BANCOMEXT-Europe to close the information gap between the EU market and the Mexican SMEs by providing information, in Chapter 7 it was found that Mexican SMEs are continuing to encounter problems in internationalizing in the EU as BANCOMEXT has done little to upgrade the knowledge base of the SMEs.

ii) Coordination of international events (demand–meso)

Through the cluster analysis in Chapter 6, it was also seen that the international events coordinated by BANCOMEXT, such as trade fairs, contribute to the internationalization of SMEs since they help to position firms' products. In addition, by participating in these events, SMEs gain knowledge and experience about foreign markets. For example, IT stated:

“The participation of SMEs in international events and trade fairs coordinated by BANCOMEXT has the greatest impact on the SMEs' internationalization. By participating in those events, SMEs establish contacts and gain experience and knowledge about foreign competitors and foreign markets.”

According to the ITO (1997) and the empirical evidence from Latin American exporting SMEs (Milesi et al, 2007), the international events and trade fairs coordinated by public agencies are highly useful in establishing contacts and positioning SMEs' products in foreign markets and have a positive impact on firms' internationalization. In addition, participating in trade fairs represents an informal learning mechanism through which LMT-SMEs could acquire knowledge from competitors necessary to upgrade their products (Chen, 2009). However, in order for SMEs to be able to absorb knowledge during the trade fairs, it is necessary for them to enhance their AC.

iii) Establishing alliances between Mexican SMEs and foreign firms (demand-policy)

Another important contribution of BANCOMEXT to easing the internationalization of SMEs in the EU is its conducting of activities aimed at the establishment of alliances between domestic and foreign firms. In this regard, FR1 stated:

“As the internationalization of Mexican SMEs in Europe would be easier if they established alliances with European firms, BANCOMEXT is working to facilitate strategic alliances between Mexican SMEs and European firms.”

In this regard, various authors (Aulakh et al, 2000; Gelmetti, 2006; Khon, 1997; OECD, 2005; Soto and Dolan, 2003) recommend that SMEs internationalize through alliances to ease the internationalization process, access new technologies, share experiences, achieve economies of scale, prompt innovations and improve competitiveness and productivity to internationalize. Despite the efforts of BANCOMEXT-Europe, it has had limited effectiveness in helping Mexican SMEs to establish strategic alliances with foreign counterparts. Indeed, there are few alliances between Mexican and EU firms in existence today. For example, DE2 stated:

“Currently, there are no alliances between Mexican and German firms.”

Chapter 7 explained the lack of alliances among Mexican SMEs and EU firms as being due to the lack of cooperative behaviour among Mexican SMEs and the lack of capabilities and economic resources. Regarding the high cost of establishing alliances with EU firms, ES2 stated:

“It is difficult for Mexican SMEs to establish alliances with the Europeans because of the high costs of negotiations.”

With regard to the lack of teamworking or cooperative behaviour among SMEs, it is worth recalling that Carrillo-Rivera (2007) and Dussel (2001) found that Mexican SMEs are unused to cooperating, participating in networks or chambers and establishing alliances, negatively affecting their performance. This problem affects not only the internationalization of these firms but also the innovation performance of the system. Poor interactions among actors (among Mexican LMT-SMEs and between Mexican

LMT-SMEs and EU firms) could be seen as a system failure (in Mexico) that blocks the flows of knowledge, interactive learning and innovation performance. This problem calls for government intervention (in Mexico) through policies (Rubalcaba et al, 2010; Woolthuis et al, 2005). Policies and programmes aimed at enhancing AC could contribute to enabling the cooperative behaviour among SMEs (Ernst, 1998; Fagerberg et al, 2005; Lundvall and Borrás, 1997; Lundvall and Borrás, 2005; OECD, 1997b; von Tunzelmann and Wang, 2007).

iv) Technical and financial assistance (trade competitiveness–policy)

As mentioned by the interviewees, BANCOMEXT-Europe also provides technical and financial assistance. For example, UK1 stated:

“BANCOMEXT offers credit, guarantees for exporting, technical assistance and a range of services to promote Mexican exports in foreign markets.”

That is, BANCOMEXT-Europe also helps SMEs to obtain the skills to operate in international markets. What the interviewees mentioned sheds light on the active role of public agencies in the internationalization of SMEs. These findings agree with Alexander and Warwick (2007), who found that public organizations dealing with the internationalization of SMEs from developed markets take a more active role and help SMEs to develop skills to operate abroad. Despite the more active role of BANCOMEXT-Europe, Chapter 7 uncovered some areas that have not been fully addressed by BANCOMEXT, such as activities aiming to enable SMEs to gain more knowledge to operate in the EU market.

As seen in this section, the activities undertaken by public intermediaries from developing countries, such as BANCOMEXT-Europe, contribute to the internationalization of SMEs in distant markets (the EU) mainly through the provision of information and the coordination of international events aimed at enabling SMEs to gain information about distant markets and technical assistance. As most of these activities belong to the demand cluster, it means that the activities of BANCOMEXT contribute to the internationalization of Mexican LMT-SMEs from the demand side (e.g. contact with foreign clients) as they

are mainly focused on dealing with the information gap, but few attempts have been made to contribute to the internationalization of Mexican firms from the supply side, i.e. through activities and programmes aiming to improve the supply output of these firms through activities facilitating interactive learning, knowledge creation and knowledge sharing and innovation (gradual innovation). Though BANCOMEXT-Europe has undertaken actions in order for SMEs to establish alliances with foreign counterparts, its efforts have not been effective as Mexican SMEs are unused to teamwork and establishing alliances. *As poor interactions are system failures* that block innovation and affect interactions, they represent an area that could be improved through policies and programmes to facilitate the internationalization of Mexican LMT-SMEs in distant and developed markets like the EU. In addition, more efforts from BANCOMEXT-Europe are required to help Mexican LMT-SMEs to access and create knowledge and improve their learning capacity.

8.3 The Government's Role in LMT-SMEs' Internationalization

As BANCOMEXT is an organization that executes policies towards the internationalization of Mexican SMEs that are set up by the Government; by analysing BANCOMEXT, it will be possible to uncover issues at the macro and policy levels that explain SMEs' internationalization. It is worth recalling that governments and policy makers are important elements of the NSI. Governments, through investment in infrastructure, learning, innovation policies and upgrading AC, can influence the rate and direction of innovation and thus build the nation's comparative advantage and the firms' competitiveness (Dalum et al, 1992; Lundvall, 1992; Nelson, 1993; Patel and Pavitt, 1994; Woolthuis et al, 2005). This insight can be utilized to analyse the role of the Mexican Government in the internationalization of Mexican LMT-SMEs in the EU.

When discussing the role of the Mexican Government in the internationalization of SMEs in the EU, though various interviewees acknowledged that the Mexican Government is taking a more active role in this process, they also suggested that other governments, either from developed or from developing countries, are engaged in more efforts to prompt the internationalization of their SMEs than Mexico (supply-policy cluster).

Indeed, according to the interviewees, the support for the internationalization of Mexican SMEs is marginal. For example, DE2 stated:

“The Chinese Government highly supports their SMEs, through credit and appropriate logistics, but Mexico does not provide the same support. Indeed, the governmental support in Mexico for SMEs to attend EU markets is marginal. This support does not cover aspects such as technology, certification, innovation, labelling and marketing.”

The interviewees also highlighted issues that reveal the lack of policies, investment and support to facilitate the internationalization of Mexican SMEs. Most of these issues belong to the supply–policy and trade competitiveness–policy clusters and macro levels. For instance, the interviewees recognized various issues, such as:

- i) Poor government support for globalization (trade competitiveness–policy)
- ii) The need for foreign commercial infrastructure (trade competitiveness–policy)
- iii) Low competitiveness of the Mexican economy (trade competitiveness–macro)
- iv) The lack of government support for BANCOMEXT (supply–policy)
- v) Inadequate industrial policy for SMEs (supply–policy)
- vi) Lack of investment in infrastructure (supply–policy)
- vii) Lack of dissemination of information (supply–policy)
- viii) Lack of funding for technological advances (supply–policy)
- ix) Lack of credit at good interest rates (macro)
- x) Uncompetitive energy costs affect the performance of SMEs (supply–macro)
- xi) Problems of infrastructure: ICT, logistics, etc. (supply–macro)

For example, ES1 stated:

“In Mexico, the industrial policy and infrastructure are absent; there is no industrial policy supporting SMEs.”

As explained in Chapter 7 when discussing the external (or environmental) barriers, the lack of policies for SMEs could be seen as a formal *system failure* and the underinvestment in infrastructure as an *infrastructural failure*. As the issues presented here belong mainly to the supply and trade competitiveness clusters and the policy and macro levels identified in Chapter 6, it means that these external problems (out of the control of the firms) constrain the output of LMT-SMEs and affect their competitiveness in foreign markets. In particular, the system failures inhibit interactive learning, knowledge creation and knowledge flows and the whole innovation system (Rubalcaba et al, 2010; Smith, 2000; Woolthuis et al, 2005). Thus, system failures also inhibit the internationalization of SMEs. If the Mexican Government does not correct the system failures and they persist, they will lead to divergent rates of technological and economic growth, as stressed by Patel and Pavitt (1994), and Mexican SMEs would be in danger of exiting the market due to their lack of competitiveness.

Therefore, this thesis found that a more active role from the governments of developing countries (Mexico) is needed in order for their LMT-SMEs to internationalize in far-away and developed countries' markets (the EU). This is an idea shared by various authors,¹⁴⁹ who stress that developing countries need to take a more active role for their SMEs to participate in foreign markets. Consequently, developing countries (like Mexico) need to set up government policies aimed at strengthening the country's competitive level and the domestic productive system.¹⁵⁰ That is, government policies must aim to improve the domestic environment (institutional set-up) in which SMEs operate and upgrade the firms' internal resources and capabilities, which will contribute to improving the firms' innovation performance and the competitive advantage of nations (Kaufmann and Tödtling, 2003; Nauwelaers and Wintjes, 2003). This will also contribute to the internationalization of LMT-SMEs since by upgrading their innovation performance SMEs will be able to undertake the adaptations required in developed countries' markets and deal with the environmental differences. The next section uncovers the ideology of

¹⁴⁹ Acs et al (1997); Alexander and Warwick (2007); Cruz et al (2004b); Leonidou (2004); Nugent and Yhee (2002); OECD (2005); OECD (2007a); OECD (2007b); Prieto-Carreón et al (2006); Wilkinson and Brouthers (2006).

¹⁵⁰ Collier and Dollar (2002); Hoekman and Martin (2001); Kaul et al (1999); Michalopoulos (2001); Pettigrew (2000); Rodrik (2000); Rugman and Boyd (2001); Sampson (2001); Stiglitz and Charlton (2005).

the Mexican Government regarding the internationalization of SMEs and market integration.

8.3.1 The Neo-liberal Ideology of BANCOMEXT

It is worth noting that when discussing the role of the Government in the internationalization of SMEs, BANCOMEXT-Europe highlighted a *neo-liberal ideology*. The issues presented in this section were identified through the cluster analysis in Chapter 6: they span the demand–macro and trade competitiveness– macro clusters. With regard to the neo-liberal ideology of BANCOMEXT-Europe (trade competitiveness–macro cluster), the analysis of the 12 respondents demonstrates a division between the majority who incline towards the orthodox consensus (emphasizing the advantages of free trade agreements as a factor of competition and considering competition as a means to improve firms’ competitiveness) and the minority who are more sceptical of the benefits of trade liberalization for the internationalization of Mexican SMEs (Ruiz-Garcia, 2009). Regarding the interviewees who demonstrate an orthodox neo-liberal ideology, from six of the interviewees a strong neo-liberal ideology was inferred when issues about the government role in the internationalization of SMEs were discussed. For example, DE2 stated:

“Mexican firms are used to receiving lots of government support; probably they are waiting for government support to internationalize. However, the conditions of competition have been established by the free market and the decision to enter international markets only depends on the firm’s abilities to enter and compete in such markets.”

In particular, the neo-liberal ideology was stressed when the interviewees discussed issues about trade agreements as a competitive advantage (demand–macro) and the intense competition as a means to increase Mexican SMEs’ competitiveness (trade competitiveness–macro). Regarding trade agreements, NL stated:

“What Mexico has and other countries do not have is the broad network of trade agreements, which favours the internationalization of SMEs.”

With regard to competition, IT stated:

“A positive implication of globalization is that due to the intense competition, Mexican SMEs had to increase their competitiveness to compete with firms from all over the world.”

However, other interviewees demonstrated a more critical perspective on globalization. They acknowledged that SMEs are unprepared for globalizing (supply–macro cluster) and do not utilize the ample network of trade agreements such as the EU–Mexico Free Trade Agreement (supply–macro cluster). For example, NL stated:

“When the Mexican economy liberalized, SMEs did not have enough preparation to participate in the globalized process.”

In addition, DE1 stated:

“The problem is that Mexican firms are not used to internationalizing; for this reason, they do not use the trade agreements. NAFTA is the most used trade agreement by Mexican firms but the EU Free Trade Agreement is not used at all.”

As seen above, when explaining why Mexican SMEs do not use the EU–Mexico Free Trade Agreement, the interviewees stated that Mexican SMEs prefer to internationalize in the US than in the EU. According to the interviewees, this is due to the familiarity of Mexican firms with the American market, the existing social networks in the US, the economic integration between Mexico and the US, the short geographical distance and the low costs to enter the US. For instance, FR1 stated:

“Mexican SMEs are mainly targeting the American market, which is our main trade partner. It is also closer, more familiar for Mexican firms and demands lower costs. For these reasons, Mexican SMEs prefer to target the American market than the EU.”

Similarly, Agtamel (2008) and Ruiz-Garcia (2009) agree that the familiarity of Mexican firms with the American market is due to the short geographic distance, the deep economic integration and the large Hispanic population in the US. It is also worth recalling the FTA between Mexico and the US that came into force in 1994; since then, there has been strong integration between Mexico and the US. In contrast, the FTA between Mexico and the EU is more recent; it came into force in 2000. The analysis in Chapter 4 shows that the exports, imports and FDI between Mexico and the EU are very small and they are growing slowly. In addition, some products in which Mexico has strength were excluded by the EU–Mexico Free Trade Agreement (Artis and Nixon, 2007). Consequently, Telo (2007) considers that the EU–Mexico FTA is intended for European countries to take advantage of the role of Mexico in the NAFTA. However, Mexico has not gained the same access to the EU.

Other reasons explaining why the EU trade agreement is not utilized at all by Mexican SMEs were uncovered in Chapter 7. They include the Mexican LMT-SMEs' lack of certification and standards demanded in the EU and problems stemming from the environmental differences between Mexico and the EU (differences in informal institutions (culture, language, business practices) and differences in formal institutions (differences between developed and developing countries in terms of economic, technological, industrial, legal and innovation development levels)). In addition, the majority of Mexican SMEs serviced by BANCOMEXT-Europe belong to LMT industries, which suffer from various internal weaknesses (lack of resources (financial and technological resources) and capabilities (e.g. marketing, exporting, organizational, innovation, networking and poor AC)). The products of these SMEs also lack designs, innovations and adaptations to satisfy demanding customers (the EU customers). Chapter 7 also found problems stemming from the long geographical distance between the EU and Mexico, including the high transport costs, inappropriate logistics infrastructure to attend the EU market, difficulties in accessing knowledge from the EU and interaction problems (between Mexican SMEs and EU firms and customers) due to the large geographical distance. Furthermore, the operation and entry costs in the EU are higher than those in the US. Altogether, they explain why Mexican SMEs do not utilize the EU-FTA.

Overall, the issues presented in this section show that BANCOMEXT-Europe is a public organization with a neo-liberal ideology that reflects the viewpoint of the Government towards trade integration and the internationalization of SMEs. On one hand, some of the interviewees considered that competition, trade agreements and the liberalization of the economy have contributed to the internationalization of SMEs by enhancing the access of Mexican firms (such as SMEs) to foreign markets (enhancing the demand). On the other hand, despite the neo-liberal ideology of BANCOMEXT-Europe, a more critical group of interviewees highlighted some issues that suggest that the liberalization of the economy has not benefited Mexican LMT-SMEs at all. This is because SMEs are not prepared to internationalize and do not utilize the free trade agreements that Mexico has signed (supply-macro cluster). Overall, the respondents were able to identify various

problems in the environment and within SMEs that affect the entrance and performance of Mexican LMT-SMEs in the EU (these issues were presented in Chapter 7). The fact that the Mexican Government has mainly paid attention to promoting growth from the demand side shows that little attention has been given to achieving growth from the supply side (through improving SMEs' capabilities and resources, setting up innovation policies aimed at improving SMEs' learning capacity, knowledge creation and knowledge flows and investing in infrastructure), as uncovered in Chapter 7. To solve some problems affecting the internationalization of Mexican LMT-SMEs, the next section presents a list of recommendations in order for the Government to support the internationalization of SMEs.

8.4 Areas for Governmental Intervention

This section includes the recommendations made by BANCOMEXT for the Mexican Government to prompt the internationalization of SMEs in Europe. They span the supply, demand, trade competitiveness and regulation clusters that were identified in the cluster analysis in Chapter 6. This section also includes other recommendations to improve the internationalization of SMEs in the EU that were not made by the interviewees but were identified as important through the literature review in this thesis. As seen from the suggestions made by the interviewees, they are aware of various cumbersome problems affecting the entrance and performance of Mexican SMEs in developed markets (the EU). For this reason, their suggestions aim to help the Mexican Government to deal with such problems. Their suggestions include:

1) Financial support and credit for SMEs (supply-policy)

Various interviewees recommended the provision of financial support and credit for SMEs. For example, FR2 stated:

“The Mexican Government should provide SMEs with credit, so they could prepare and train to attend to different foreign demands. Currently, the lack of credit at low rates does not allow SMEs to set up long-term strategies, which affects the internationalization of SMEs.”

The lack of credit is one of the most cumbersome problems inhibiting the internationalization of SMEs from Latin America and Mexico (Cruz et al, 2004a; Llisterri and Angelelli, 2002; OECD, 2007b; Soto and Dolan, 2003). The lack of credit for SMEs can also be considered as a *system failure* (formal institutional failures: a financial obstacle) (Rubalcaba et al, 2010; Woolthuis et al, 2005) that deters SMEs from innovating (Kaufmann and Tödtling, 2003) and operating in the EU. To overcome this problem, government intervention is necessary and justified. The empirical evidence (Nugent and Yhee, 2002) shows that when governments take action in order for SMEs to access credit and financial resources, their performance in international markets improves significantly.

To improve SMEs' access to credit, the Mexican Government could take various actions, such as implementing business angels' networks (OECD, 2007a) and non-market institutions (Besley, 1995; Stiglitz, 1989), facilitating SMEs' access to seed capital and VC funds through the development of the PE/VC industry (Ribeiro, 2007) and the provision of financial training to win commercial funding (Bessant et al, 2005). In addition, the Mexican Government could extend long-term credit to SMEs through a government bank and indirectly through special lines of credit to private financial institutions, as undertaken by BNDES in Brazil (Kumar, 2005).

2) Prompt industrial networks (supply-policy)

The interviewees also suggested the participation of SMEs in networks for the internationalization of Mexican SMEs in the EU. For instance, NL stated:

“To support the internationalization of SMEs, the government needs to take action to promote and prompt SMEs to work in groups and networks. This would help SMEs to have more opportunities in foreign markets.”

This is an idea shared among various authors (Chetty and Blankenburg-Holm, 2000; Russo, 1999) who found that participation in networks accelerates the internationalization

of SMEs and facilitates their entrance into geographically distant markets. However, teamworking does not occur spontaneously in developing countries (such as Mexico, where SMEs are not use to collaborating); thus, a government instigator is needed to prompt the formation of networks (Ghauri et al, 2003; Russo, 1999). In addition, Chapter 3 explained that training to induce behavioural change within SMEs could contribute to facilitating teamworking, innovation and the internationalization of SMEs.

3) Upgrading the collaboration between SMEs and foreign firms to internationalize (demand–policy) and upgrading the participation of Mexican firms in associations and chambers to internationalize (supply–policy)

The interviewees recommended strategic alliances between Mexican and foreign firms and prompting the participation of Mexican firms in national associations and chambers to internationalize. For example, ES2 stated:

“It would be helpful if Mexican SMEs established alliances with foreign firms, worked as a member of an association or a chamber to overcome their financial restrictions, improve their productive capacity and internationalize.”

Overall, the cooperation among SMEs in the form of networks, clusters, alliances and participation in value chains and chambers of commerce is recommended in order to access new technologies, share experiences, prompt innovations, improve the production capacity and internationalize (Audretsch and Thurik, 2001; Aulakh et al, 2000; Fliess, 2007; Gelmetti, 2006; Khon, 1997; Llisterri and Angelelli, 2002; OECD, 2005; Soto and Dolan, 2003). However, these kinds of cooperation do not occur spontaneously due to the lack of collaboration among Mexican SMEs. Therefore, the Mexican Government needs to take a more active approach to promoting collaboration among firms. This is an idea shared by numerous authors, who suggest an active government role as collaborations among actors do not occur spontaneously (Alexander and Warwick, 2007; Ghauri et al, 2003; OECD, 2005; Russo, 1999). It is worth recalling that the NSI approach sees the *lack of interactions among the actors as a system failure* that blocks the flows of knowledge, interactive learning and the system’s innovation performance as a whole (Rubalcaba et al, 2010; Smith, 2000; Woolthuis et al, 2005). Thus, government intervention is necessary to stimulate linkages among the actors. A policy instrument that

could be utilized is the intervention of coaches aiming to change the attitudes of SMEs to be willing to collaborate (Daghfous, 2004; Jansen, 2000).

4) Strengthen the industrial policy and specific sectors to internationalize (supply-policy)

For example, UK3 stated:

“The Mexican Government should strengthen SMEs, sectors and industries that have the potential to internationalize.”

Moreover, DE2 stated:

“Mexico needs an industrial policy that supports the production of added-value products.”

This is particularly necessary as little has been undertaken in the area of industrial policy for SMEs in Mexico since the 1980s (Dussel, 2001; Guillen, 2005; Haar et al, 2004; Moreno-Brid et al, 2005; OECD, 2007b). Specifically, innovation policies are required to improve the internationalization of SMEs from Mexico in the EU. They are necessary as today the basis of competition is shifting more and more to the creation and assimilation of knowledge (Dalum et al, 1992; Porter, 1990). It is worth recalling that the findings presented in Chapter 7 uncovered poor innovation performance among the LMT-SMEs serviced by BANCOMEXT and problems in accessing knowledge from abroad, which inhibit their entrance and performance in the EU. Therefore, to contribute to the internationalization of Mexican LMT-SMEs, it is necessary to set up innovation policies that deal with the firms' internal weaknesses and the problems stemming from the environment, as recommended by Nauwelaers and Wintjes (2003). These policies could enable SMEs to achieve growth from the supply side (Dalum et al, 1992; Edquist, 2005; Freeman, 1995; Lundvall and Borrás, 1997; Lundvall and Borrás, 2005; Lundvall et al, 2002; Patel and Pavitt, 1994).

5) Open BANCOMEXT offices and warehouses in strategic markets (demand-policy)

For example, IT stated:

“There should be offices and warehouses strategically located in new markets such as Russia, the Middle East, India and South Africa since these markets offer lots of opportunities for Mexican SMEs.”

In this regard, Rose (2005) considers that having agencies and/or embassies/consulates performing commercial activities abroad contributes to the improvement of the export performance of the whole country.

6) Set up an information intelligence unit (supply-policy)

The interviewees recommended setting up an information intelligence unit to provide SMEs with information about foreign markets, BANCOMEXT services and the public organizations and programmes available for their internationalization. In this regard, DE1 stated:

“Another recommendation is to disseminate information about BANCOMEXT, its services, opportunities in the EU, organizations and programmes available for firms’ internationalization and promote free trade agreements among SMEs.”

It is worth remembering that the information gap was identified in Chapter 7 as an informational barrier that affects the internationalization of Mexican SMEs in the EU. This idea is shared by other authors (Acs et al, 1997; Fliess, 2007; Leonidou, 2004; OECD, 2007b; Westhead et al, 2001; Young, 1995), who agree that the lack of information about foreign markets is one reason why SMEs do not internationalize. The pervasive effects of the information gap justify government intervention through the provision and analysis of information (Bartik, 1990; Weiler, 2000). For this reason, Carrillo-Rivera (2007) and Dussel (2001) stress that to contribute to the internationalization of Mexican SMEs, it is necessary for the Government to set up an information support system for SMEs.

Regarding the kind of information to be provided for small exporters, the literature review uncovered: the competitive conditions in foreign markets (Noble et al, 1989), demand patterns and opportunities (Fliess, 2007; Knight and Liesch, 2002) and information about the cultural context, economic systems and social and political issues (Pollard and Jemicz, 2006). In addition, it is recommended to disseminate information about trade fairs and

missions (Fliess, 2007), technical standards, legislation and customer lists (Leonidou, 2004), and government programmes (Cruz et al, 2004a; Haar et al, 2004). Moreover, in order for Mexican LMT-SMEs to make use of that information and transform it into valuable knowledge for their internationalization, it is necessary for them to enhance their AC and improve their capabilities (Metcalf and Georgiou, 1997; Todorova and Durisin, 2007; von Tunzelmann and Wang, 2007).

7) Invest in technology and R&D to prompt the internationalization of SMEs (supply-policy)

In this regard, DE2 stated:

“Mexico needs to invest in R&D infrastructure and set up an industrial policy that supports the production and commercialization of added-value products for international markets.”

This agrees with the OECD (2005), which recommends that governments strengthen technologies and prompt innovations to support the internationalization of SMEs. It is worth reiterating that in Mexico the insufficient government investment in technology has negatively affected the competitiveness of Mexican SMEs (Guillen, 2005; OECD, 2007b). Moreover, the underinvestment in technology in Mexico opens technological and development gaps compared with developed countries. This is because the technological and development gaps among countries stem from differences in the resources devoted by each country to tangible (technology) and intangible investment in learning activities (Freeman, 1987; Freeman, 1995; Lundvall, 1992; Patel and Pavitt, 1994; Smith, 2000). Therefore, it is recommended that Mexico invests in the R&D infrastructure and knowledge infrastructure and learning in order to contribute to the internationalization of SMEs and to reduce the technological and development gaps between Mexico and developed countries.

8) Invest in infrastructure and logistics (supply-policy)

For example, FR3 stated:

“For Mexican SMEs to become competitive in European markets, Mexico needs to improve its logistics and infrastructure.”

In Chapter 7, the lack of infrastructure and logistics in Mexico were identified as external barriers hindering the internationalization of Mexican LMT-SMEs. Not only do they increase the cost of expanding abroad, they also cause a time delay that discourages trade and negatively affects firms’ competitiveness, as suggested by various authors (Collier and Dollar, 2002; Djankov et al, 2006; Mesquita et al, 2008; Nakata and Sivakumar, 1997). For this reason, Moreno-Brid et al (2005), the OECD (2007b) and Silva-Herzog (1997) recommend that the Mexican Government invests in infrastructure, in particular in roads, ports, airfreight and shipping services, in order to reduce the transport costs. This will help firms to expand their operations into new markets (Mesquita et al, 2008). It is also worth remembering that according to the NSI approach, the underinvestment in infrastructure is seen as a *system failure* (infrastructural failure) that damages the innovation performance and competitiveness within the system (e.g. Mexico) (Rubalcaba et al, 2010; Smith, 2000; Woolthuis et al, 2005).

9) Set up sub-contract projects (trade competitiveness–policy)

For instance, UK1 stated:

“As there are opportunities for Mexican SMEs to manufacture specific parts for large foreign firms, it is necessary that the Mexican Government establishes a specific department to inform SMEs about subcontracting opportunities.”

There are examples of governments around the world that have taken an active role in promoting collaboration among firms in the form of sub-contract projects to internationalize. For example, the French and Japanese agencies have supported the internationalization of SMEs by establishing *matching services* to link SMEs with overseas firms to undertake sub-contract projects (OECD, 2005). In addition, by bringing together actors that would not have cooperated spontaneously, *matchmakers* can contribute to improving the firm’s innovation performance (Dalum et al, 1992; Lundvall and Borrás, 2005; Lundvall et al, 2002; Nauwelaers and Wintjes, 2003). Therefore, *matchmakers*, by matching Mexican SMEs with foreign firms, can contribute to the internationalization of SMEs and to upgrading the firm’s innovation performance.

10) Foster business incubators for EU markets (trade competitiveness–policy)

For example, UK1 stated:

“The Mexican Government should set up SMEs incubators targeting the EU.”

According to Tsai and Wang (2009), it is recommended that these incubators also perform the activities of an *innovation incubator* to help SMEs to move to sophisticated products and adopt technological advances. This could help SMEs from developing countries to adapt their products to the developed countries’ demand, which could have a positive impact on the internationalization of Mexican SMEs in the EU.

11) Set up programmes for internationalization (trade competitiveness–policy)

The interviewees recommended setting up programmes for the internationalization of SMEs. These recommendations include a broad range of activities:

a) Technical assistance and consultancy (trade competitiveness–policy)

For example, ES2 stated:

“The Mexican Government should set up more programmes in the area of technical assistance and consultancy.”

In this regard, the OECD (2005; OECD, 2007b; Fliess, 2007) recommends providing SMEs with assistance in operating internationally aimed at identifying and setting up strategies to overcome the barriers to internationalizing. In particular, *consultancy by government intermediaries* (such as BANCOMET-Europe) is required to raise awareness among SMEs of the weaknesses that are not recognized as affecting their competitiveness in the EU. The provision of consultancy that enables SMEs to access government support is also recommended. Small firms made up of 10 to 49 employees are the group of SMEs that need to access consultancy the most (Kaufmann and Tödtling, 2003).

b) Positioning the image of Mexico and its products in the EU (trade competitiveness)

The interviewees recommended i) creating an image of Mexico in the EU as a reliable business partner and ii) strengthening the image of Mexican firms and products. For instance, DE2 stated:

“The Mexican Government needs to position the business image of Mexico, its sectors and its products in Europe to be considered as a commercial partner.”

Positioning the image of Mexico, its firms and its products in the EU could contribute to the internationalization of SMEs because as the knowledge and reputation of the country of production (Mexico) increase in the targeted market (the EU), the willingness to purchase a product increases, as suggested by various authors (Al-Sulaiti and Baker, 1998; Han, 1990; Kotler and Gertner, 2002; Nagashima, 1977).

c) Providing training for the internationalization of SMEs (trade competitiveness–policy)

For example, FR2 stated:

“The Mexican Government should provide training in the area of commercialization. It should also promote and support the participation of SMEs in exporting missions and international events.”

The training required to improve the internationalization of LMT-SMEs spans various areas. For example, Chen (2009) recommends programmes aiming to improve the SMEs' foreign languages to aid their effective participation in foreign markets. Bell and Pavitt (1993), Kaufmann and Tödtling (2003) and Nauwelaers and Wintjes (2003) recommend training in the areas of designs, quality control, marketing, innovation and organization. Altogether, they will contribute to the internationalization of LMT-SMEs in the EU. According to Czinkota and Johnston (1981) and Westhead et al (2001), policy makers must target their resources and assistance to the relatively small proportion of firms that have the business profile to be an exporter. In particular, Westhead et al (2001) recommend assisting those firms that are already servicing customers abroad. In addition, Czinkota and Johnston (1981) recommend customizing the assistance to the needs of the firms; for example, more experienced exporters need help with issues of financing, customer service and warehousing. Furthermore, the European Commission and the WB

recommend supporting the SMEs known as *gazelles* as they have the potential to succeed in international markets. They are young (mainly new start-ups) and fast-growing SMEs (either in number of employees or in revenues). They are also more innovative, take more risks and can be found in all kind of industries.¹⁵¹

12) Reduction of tariffs and taxes (regulation–policy)

One of the interviewees recommended the reduction of tariffs and taxes for Mexican firms in the EU. FR1 stated:

“If taxes become closer to zero, Mexican SMEs would be more interested in the European markets.”

This interviewee also explained that some Mexican products in the US are free of taxes, which has reduced their costs compared with other countries' products. For this reason, the interviewee thinks that if taxes for Mexican firms in the EU become close to zero due to the EU–Mexico trade agreement, Mexican SMEs would be more competitive in the EU. However, in Chapter 4, when discussing tariff and non-tariff barriers in the EU, it was seen that the EU market is highly protected against competition from non-EU countries; thus, the suggestion made by this interviewee might not be feasible.

This interviewee only considers the internationalization of Mexican SMEs by improving the demand side (reduction of taxes due to trade liberalization). This can be explained by the neo-liberal ideology of BANCOMEXT, which mainly pays attention to access to markets and free trade agreements. In contrast, the NSI approach calls for an active government role, policies and investment in infrastructure, knowledge creation, interactions, learning and innovation to improve the supply side (Lundvall and Borrás, 2005). Thus, in order for Mexican SMEs to have long-term participation in the EU, it is necessary for the Mexican Government to take actions to improve the supply output; if it just focuses on opening foreign markets (through the demand side: signing FTAs) without

¹⁵¹ Source: Gazelles – High-Growth Companies, Europe Innova, Sectoral Innovation Watch, 2011. [Online] Available from: http://ec.europa.eu/enterprise/policies/innovation/files/proinno/gazelles-final-report_en.pdf (Accessed: 6th June 2013) and the World Bank. [Online] Available from: <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/MENAEXT/0,,menuPK:247603~pagePK:158889~piPK:146815~theSitePK:256299,00.html> (Accessed: 5th June 2013).

improving the Mexican SMEs' competitiveness, SMEs will not be able to utilize FTAs or internationalize in distant and developed countries' markets, as this thesis shows.

13) Set up projects with long-term horizons (regulation–policy)

For example, IT stated:

“The Mexican Government needs to set up projects and programmes with a long-term horizon; the problem is that there is no constant policy to strengthen Mexican SMEs as every six years policies change as the president changes.”

In this regard, Cruz et al (2004b) recommend that the Mexican Government consolidates the current programmes for SMEs. In addition, various authors (Dalum et al, 1992; Freeman, 1995; Lundvall and Borrás, 1997; Lundvall and Borrás, 2005; Lundvall et al, 2002; Patel and Pavitt, 1994; Smith, 2000; Woolthuis et al, 2005) stress that governments need to set up long-term innovation policies in order to contribute to the nation's long-term growth.

14) Certification and regulations (regulation–policy)

These represent another area for government intervention, which was not stressed by the interviewees as a government recommendation but was identified through the cluster analysis (regulation–meso and regulation–policy clusters) as cumbersome for the internationalization of Mexican LMT-SMEs in the EU. For example, NL stated:

“The first barrier that European traders put against the Mexican products is that they do not fulfil European certifications and regulations. To enter the EU, Mexican firms need to fulfil specific packaging, labelling, regulations and norms.”

It is worth remembering that though LMT-SMEs from Mexico are currently struggling because they do not fulfil the standards and regulations required by the EU, the strict standards, regulations and certification have a positive impact on Mexican LMT-SMEs as they are important sources of knowledge and pressure firms to innovate and improve their competitiveness, as suggested by Porter (1990) and von Tunzelmann and Acha (2005). Thus, government intervention is required in order for Mexican SMEs to fulfil such certification and stimulate innovation within LMT-SMEs and the system (Mexico).

15) Upgrade the knowledge base, learning capacity and innovation performance of SMEs (supply)

The interviewees mentioned neither upgrading the knowledge base nor learning nor the innovation performance of the LMT-SMEs as recommendations for the Mexican Government to support the internationalization of LMT-SMEs in the EU. However, the analysis of the barriers inhibiting the internationalization of Mexican LMT-SMEs in the EU presented in Chapter 7 uncovered problems in accessing knowledge from the EU arising from the differences in institutional set-ups (or environments), the geographical distance between Mexico and the EU and poor interaction among Mexican LMT-SMEs and EU firms. Chapter 7 also found poor innovation performance among the LMT-SMEs serviced by BANCOMEXT (lack of good designs, lack of involvement with EU customers, lack of adaptations, lack of innovation and technological specialization).

Therefore, to upgrade the knowledge base and the innovation performance of the LMT-SMEs serviced by BANCOMEXT, innovation policies are required. They aim to improve the innovation performance through stimulating the production and diffusion of knowledge, interactive learning, reinforcing linkages and cooperation among actors, shaping the structure of production and the institutional set-up and upgrading capabilities (Dalum et al, 1992; Edquist, 2005; Freeman, 1995; Lundvall and Borrás, 1997; Lundvall and Borrás, 2005; Lundvall et al, 2002; Patel and Pavitt, 1994; Rubalcaba et al, 2010; Smith, 2000; Woolthuis et al, 2005). In particular, in developing countries and late industrializing countries like Mexico, *the process of technical change is essentially a process of learning rather than of innovation (stricto sensu)*. This is because in these nations the process of technical change is usually limited to the *absorption*¹⁵² and *improvement of innovations (incremental innovations) produced in the industrialized countries*; thus, the first step towards prompting innovation within the system is through stimulating interactive learning and paying attention to linkages, feedback and learning (Viotti, 2002). Through the literature review in this thesis, policies were identified that

¹⁵² Viotti (2002) defines absorption as the process of diffusion perceived from the perspective of the recipient of the technique. A technique is diffused only when it is effectively assimilated and this depends on the ability and on the efforts developed by the recipient, firm, industry or country.

could contribute to the internationalization of Mexican LMT-SMEs in the EU by upgrading the knowledge base and interactive learning, which include the following:

a) Enhancing the AC of LMT-SMEs

This could help SMEs to identify and make use of information and create knowledge. In addition, by enhancing their AC, they could upgrade other important capabilities (including TC, marketing, organizational, teamworking and design capabilities). That is, AC could help firms to undertake innovation (incremental innovations) and to adapt their products to market changes (Ernst, 1998; Fagerberg et al, 2005; Grimpe and Sofka, 2009; Lefebvre et al, 1998; Lundvall and Borrás, 2005; Tiler et al, 1993; Todorova and Durisin, 2007; von Tunzelmann and Wang, 2007; Zahra and George, 2002). The policy instruments that could be utilized include: the intervention of innovation coaches to induce behavioural changes in order for SMEs to change their attitudes and be willing to open up and form networks (Daghfous, 2004; Jansen, 2000; Nauwelaers and Wintjes, 2003). These policies could also induce the internationalization culture within LMT-SMEs.

As innovation in LMT-SMEs is a strategic and *market-driven perspective*, innovation policies should be built around markets and customers and include *non-R&D policy support* (Grimpe and Sofka, 2009; Hervás-Oliver et al, 2011; Santamaria et al, 2009; von Tunzelmann and Acha, 2005); these policies could include: linking SMEs with technological universities, co-funding qualified personnel, subsidies for hiring innovation managers and accessing consultancy and training support in the areas of designs (e.g. technology, product design), quality control, marketing, innovation management and organization (Bell and Pavitt, 1993; Kaufmann and Tödtling, 2003; Nauwelaers and Wintjes, 2003).

b) Linking LMT-SMEs with the knowledge infrastructure and other actors (including suppliers, foreign customers, other SMEs, consultants, dealers and large firms)

This could help SMEs to overcome their isolation, stimulate interactive learning and upgrade their knowledge base and innovation performance (Hervas-Oliver et al, 2011; Kaufmann and Tödtling, 2003; Mendoca, 2009; Nauwelaers and Wintjes, 2003; Santamaria et al, 2009). Therefore, it could contribute to the internationalization of LMT-SMEs in far-away and developed countries' markets. Some policy instruments to achieve this outcome could include: setting up innovation incubators (Tsai and Wang, 2009), co-funding innovation assistants and consultants, financial support to hire experts and setting up innovation centres and mobility schemes between universities and firms (Kaufmann and Tödtling, 2003; Nauwelaers and Wintjes, 2003).

8.5 Conclusion

This chapter has answered the research questions of this thesis: What is the role of public intermediaries from developing countries (Mexico) in addressing the internationalization of LMT-SMEs? Have the governmental efforts in Mexico supported the internationalization of LMT-SMEs in distant and developed countries (the EU)?

Regarding the first question, as discussed in this chapter, BANCOMEXT-Europe is a public organization performing the activities of a *trading organization* and *trusted intermediary*, the activities of which mainly contribute to the internationalization of LMT-SMEs from developing countries (Mexico) in far-away and developed countries' markets (the EU) by providing information about the foreign markets and putting Mexican LMT-SMEs into contact with potential clients abroad. That is, BANCOMEXT's activities (the provision of information, organization of trade fairs, business missions) *aim to reduce the information gap between the SMEs and the foreign market*. In addition, BANCOMEXT has taken a more active role through providing assistance for SMEs to obtain the skills necessary to enter foreign markets and promoting alliances between foreign and domestic firms. Nonetheless, despite the efforts of BANCOMEXT-Europe, there are few alliances between Mexican SMEs and EU firms because Mexican LMT-SMEs are not used to teamworking, the large geographical distance that negatively affects the interactions between Mexican SMEs and EU firms and customers and the environmental differences (such as differences in languages, business culture, economic and industrial development levels, etc.). Together they make it difficult for LMT-SMEs to access knowledge from abroad and inhibit interactive learning.

This chapter also shows that there are some areas that public intermediaries from developing countries like BANCOMEXT-Europe could improve to contribute to the internationalization of LMT-SMEs, such as linking these firms with the knowledge infrastructure and providing training in order for SMEs to enhance their AC and develop non-R&D capabilities (marketing, design, interaction, etc.). These are areas that are currently unattended to by BANCOMEXT-Europe since currently BANCOMEXT mainly helps Mexican LMT-SMEs to sell what they produce, but does not take actions to

help these firms to produce what the foreign market (e.g. the EU) demands (e.g. better quality of traditional products, sophisticated products, etc.).

However, BANCOMEXT, by paying attention to the unheeded areas previously mentioned, could help LMT-SMEs to undertake the changes and innovations required to match the needs of developed countries' markets and overcome the difficulties stemming from the environmental differences between developing countries (Mexico) and developed countries (the EU).

Regarding the research question: Have the government efforts in Mexico supported the internationalization of LMT-SMEs in distant and developed countries (the EU)?, when analysing the role of BANCOMEXT-Europe in the internationalization of Mexican LMT-SMEs in the EU, the economic and development levels of which are markedly different from those of Mexico, the challenges that BANCOMEXT-Europe has faced were highlighted. The majority of these challenges are due to the lack of government support and the passive role of the Mexican Government in the internationalization of SMEs. It is worth pointing out that although BANCOMEXT-Europe shares the neo-liberal ideology of the Mexican Government (i.e. the interviewees believe in free markets and consider the provision of information about foreign markets as one of the main contributions of BANCOMEXT), the interviewees acknowledged that a more active government role and investment are necessary to correct the deep-rooted problems affecting the competitiveness and internationalization of Mexican LMT-SMES in geographically distant markets such as the EU. By addressing the NSI approach, it has been possible to identify the main contribution of the Mexican Government to the internationalization of SMEs as occurring through the activities of BANCOMEXT and opening markets (signing trade agreements, i.e. expanding the demand). However, the Mexican Government has ignored the problems affecting the supply output of the Mexican LMT-SMEs to internationalize (little support has been given to SMEs to update their capabilities and resources to enter and perform in foreign markets), which explains why the products of Mexican LMT-SMEs do not match the EU demand. Thus, it could

be said that the current efforts of the Mexican Government have achieved little to support the internationalization of Mexican LMT-SMEs in the EU.

In order for the Mexican Government to improve the participation and performance of Mexican LMT-SMEs in the EU, the interviewees suggested a number of recommendations for the Mexican Government. These recommendations aim to improve the participation and performance of Mexican LMT-SMEs in the EU by improving their supply output and competitiveness in foreign markets through policies and investment. In addition, other recommendations that were not made by the interviewees but identified as important to improve the innovation performance of LMT-SMEs to internationalize were presented. That is, in order for Mexican LMT-SMEs to internationalize in far-away and developed countries (the EU), governments from developing countries (Mexico) need to take a more active role by setting up policies aimed at interactive learning, improving the output of LMT-SMEs, prompting interactions among actors (between Mexican SMEs and between Mexican SMEs and EU firms), accessing and creating knowledge, strengthening the competitiveness of Mexican SMEs in foreign markets through innovation and undertaking investment. Altogether, they could contribute to improving the domestic environment and overcoming the system failures, the internal weaknesses currently affecting the internationalization of Mexican LMT-SMEs and the problems resulting from the strict requirements, standards and certification demanded in the EU.

Overall, these policies could contribute to the nation's economic growth from *the supply side*, as recommended by Lundvall and Borrás (2005), and thus facilitate the long-term participation of LMT-SMEs from Mexico in foreign markets like the EU. These policies are necessary particularly due to the marked differences in the *informal and formal institutional set-ups* and the great geographical distance between Mexico and the EU.

CHAPTER 9

CONCLUSIONS

9.1 Introduction

This chapter presents the conclusions from this thesis. In order to do so, it is divided into various sections. Section 9.2 presents the research findings in the light of the first and second research questions. Section 9.3 presents the implications and evidence for theory. Section 9.4 presents policy recommendations for the Mexican Government to prompt the internationalization of LMT-SMEs in distant and developed markets like the EU. Finally, Section 9.5 addresses some limitations of this research and identifies lines for future research.

9.2 Response to the Research Questions

This thesis has investigated the internal and external barriers to the internationalization of Mexican LMT-SMEs in distant and developed markets (the EU) and their impact on the internationalization of LMT-SMEs. It has also analysed the role of public intermediaries and governments from developing countries (Mexico) in the internationalization of these SMEs. As such, this thesis is based on the experience of BANCOMEXT; for this reason, a case study of BANCOMEXT, the foreign trade commission of Mexico dealing with the internationalization of Mexican SMEs, was undertaken.

To build up the framework that is used to address the research questions of concern, the thesis draws on various bodies of literature: the internationalization of SMEs, barriers to the internationalization of SMEs, the NSI approach, innovation in LMT firms and the role of public intermediaries and governments in addressing the internationalization of these firms. Once all these bodies of literature and the empirical framework had been analysed, the main research questions of concern in this research were identified:

- Which internal and external barriers have public intermediaries from developing countries identified as affecting the internationalization of LMT-SMEs in distant and developed markets (the EU)?
 - What is the impact of these barriers on the internationalization of LMT-SMEs from developing countries (Mexico) in developed countries (the EU)?
- What is the role of public intermediaries from developing countries (Mexico) in addressing the internationalization of LMT-SMEs?
 - Have the government efforts in Mexico supported the internationalization of LMT-SMEs in distant and developed countries (the EU)?

The research questions were addressed through the case study of the Foreign Trade Commission of Mexico offices in Europe (BANCOMEXT, now PROMEXICO). The case study was undertaken in the six offices of BANCOMEXT in Europe located in various countries (Germany, the UK, Spain, Italy, France and the Netherlands). As the majority of the SMEs serviced by BANCOMEXT-Europe mainly fit into the category of small to medium-sized enterprises ranging on average between 15 and 100 employees and specializing in LMT industries, LMT-SMEs are the group of firms analysed in this thesis. BANCOMEXT-Europe does not serve micro-enterprises as, according to BANCOMEXT, these firms do not fulfil the production capacity requirement to operate in the EU.

The main source of information was in-depth interviews based on an agenda of 42 open-ended questions with the commercial counsellor and financial representative, commercial counsellor assistant and commercial assistants of the offices of BANCOMEXT-Europe, who have plenty of experience on topics such as foreign markets, internal and external problems affecting exporting SMEs and the role of governments and public intermediaries in the internationalization of SMEs. This study has an exploratory and explanatory character and should be seen as a first approach to an issue that has received little attention, in particular in developing countries like Mexico. To address the research topic from a systemic perspective (the NSI approach), this thesis looks at the analysis of the environment (the domestic (Mexico) and the EU environment), the internal issues of

the LMT-SMEs, issues of interaction, the transfer of knowledge and innovation. The next section reviews the outcome of the data analysis.

9.2.1 Outcome of the Data Analysis

After identifying the 220 concepts that resulted from the inductive analysis of the interviews, they were grouped into 28 core categories that represent an upper level of analysis. To reach better conclusions, a cluster analysis was undertaken. This grouped the 220 concepts and 28 categories into 4 clusters: supply, demand, trade competitiveness and regulation. They were also grouped according to the micro, meso, macro and policy levels as follows:

- i) Micro level: The analysis at this level mainly showed that internal weaknesses, such as low production capacity, lack of capabilities, knowledge problems accessing knowledge from abroad and lack of an internationalization culture, affect SMEs' internationalization. Thus, they act as internal barriers to the internationalization of SMEs and barriers that deter firms from adapting their products to match the EU demand.
- ii) Meso level: In particular, this level of analysis uncovered the lack of interaction among LMT-SMEs to internationalize (lack of teamworking) and between Mexican LMT-SMEs and EU firms (e.g. there are few alliances between Mexican firms and EU firms) and the lack of involvement with EU customers. These problems mirror system failures: lack of interactions. This level of analysis also revealed problems of knowledge transfer due to the geographical distance and the differences in the institutional set-up between the EU and Mexico, as well as the intensity of competition for Mexican LMT-SMEs in the EU, which affect the internationalization of Mexican LMT-SMEs in the EU. These issues suggest that government efforts in Mexico are required to prompt interactions among the actors (e.g. between Mexican SMEs and EU firms and customers, among Mexican SMEs and between Mexican SMEs and the knowledge infrastructure) to overcome knowledge problems, upgrade

products to internationalize and facilitate the internationalization of Mexican LMT-SMEs.

- iii) Macro level: This level of analysis showed that some *system failures* (infrastructural failures: underinvestment in infrastructure, technology and ICT) affect the nation's competitiveness in Mexico (innovation performance of the system) and thus the performance of Mexican LMT-SMEs in foreign markets. From this cluster, it can be seen that despite the neo-liberal ideology of BANCOMEXT, the respondents recognize that there are macro factors that have not been attended to by the Mexican Government, which affect the internationalization of Mexican LMT-SMEs. These issues were evident when the respondents referred to the differences between developing countries (in particular Mexico) and developed countries (the EU) and the country competitiveness (Mexico).
- iv) Policy level: The analysis at this level reflects that BANCOMEXT has contributed to the internationalization of Mexican LMT-SMEs mainly through the provision of information and helping SMEs to establish contacts abroad, but that it has overlooked some areas, such as the internal weaknesses of SMEs and problems in accessing and creating knowledge. This may be explained by the neo-liberal ideology of BANCOMEXT-Europe, which can be criticized because it assumes that firms can easily access information. It also sees knowledge as synonymous with information that is easily accessed by all economic actors, which does not happen as information (codified knowledge) is not knowledge (tacit knowledge: skills, expertise, modes of interpretation, etc.) (Lundvall, 1992). By addressing the literature on innovation, it was seen that SMEs could create and access knowledge by enhancing their AC. This would enable firms to recognize the value of information and transform it into new knowledge. In particular, AC enables firms to acquire, transform or assimilate, and exploit knowledge (Todorova and Durisin, 2007). Firms can build AC by investing in knowledge and learning, e.g. by employing new individuals with the required skills, providing training and education, and setting up linkages with other firms, customers and the knowledge infrastructure (Bessant et al, 2005; Dalum et al, 1992; Edquist, 2005; Lundvall and Borrás, 1997; Patel and Pavitt, 1994; Rubalcaba et al, 2010; Tiler et al, 1993).

Though BANCOMEXT shares the neo-liberal ideology of the Mexican Government, several of the interviewees have a critical point of view about the trade liberalization and internationalization of Mexican SMEs. They acknowledge the lack of policies (which could be seen as an institutional system failure) affecting the performance of SMEs and thus the internationalization of LMT-SMEs. They also acknowledge that other developing and developed countries are helping more with the internationalization of their SMEs; thus, BANCOMEXT-Europe suggests some government policies (recommendations) to improve the participation and performance of SMEs in the EU. The analysis at this level also showed that there are entry barriers (non-tariff barriers) for Mexican LMT-SMEs in the EU, such as standards, regulations and certification, which are problematic for their internationalization. Though they are problematic for Mexican LMT-SMEs, they also act as drivers of innovation as they push LMT-SMEs to upgrade their products to satisfy the requirements of demanding customers (Porter, 1990; von Tunzelmann and Acha, 2005).

As seen above, the analysis undertaken at various levels (micro, meso, macro and policy) helped to shed light on the role of the government and public intermediaries in the internationalization of SMEs. It also allowed the identification of the internal and external barriers affecting the internationalization of Mexican LMT-SMEs and the areas requiring policy intervention. The next section presents the findings from this research in the light of the main research questions.

9.2.2 Barriers Affecting the Internationalization of Mexican LMT-SMEs

This thesis has found that the internationalization of the LMT-SMEs serviced by public intermediaries (BANCOMEXT-Europe) from developing countries (Mexico) in developed countries' markets (the EU) is a slow and difficult process. To identify the difficulties that have slowed down the internationalization process, the first research question answered in this thesis concerned the internal and external barriers that public intermediaries from developing countries (Mexico) have identified as affecting the internationalization of LMT-SMEs in developed countries (the EU), and the complementary research question was "What is the impact of these barriers on the

internationalization of LMT-SMEs from developing countries (Mexico) in developed countries (the EU)?” The analysis based on BANCOMEXT-Europe, which is the unit of analysis as it has experience of the internationalization of LMT-SMEs, and the analysis carried out at the various levels (demand, supply, trade competitiveness, regulation, micro, meso, macro and policy) has helped to identify the internal and external barriers of the LMT-SMEs serviced by BANCOMEXT and their impact on their internationalization. As the theoretical framework of the NSI approach and the *system failures* allows the identification of the kind of problem and the solution, and the NSI approach aims to contribute to growth from the supply side by paying attention to learning, knowledge creation and knowledge sharing, interactions and innovations, the NSI approach was preferred to the neoclassical economic theory to discuss the internal and external barriers presented in this thesis.

9.2.2.1 Internal Barriers

Through the literature review in this thesis, no empirical studies were identified concerning the internal barriers hindering the internationalization of SMEs from Mexico in distant countries. Most of the studies focus on the internationalization of SMEs in neighbouring countries. Therefore, this thesis contributes to identifying the internal barriers affecting the internationalization of LMT-SMEs from developing countries (Mexico) in far-away and developed countries (the EU). Using the classification of internal barriers hindering the internationalization of SMEs suggested by Leonidou (2004), the insights of the RBV, the Uppsala model of internationalization and the NSI approach, the **internal barriers** identified in this thesis include 1) informational, 2) functional and 3) marketing barriers, as suggested by Leonidou (2004). In addition, 4) knowledge barriers (lack of knowledge) and 5) poor innovation performance were identified.

1) Informational and knowledge barriers. *The informational barriers* include i) lack of programme awareness, ii) lack of awareness of BANCOMEXT and iii) little information about the EU market. These issues belong to the supply cluster and span the micro and meso levels of analysis. Therefore, the findings show that informational barriers have a

negative impact on the supply output of the LMT-SMEs serviced by BANCOMEXT, which affects their internationalization in the EU. ***Knowledge barriers (lack of knowledge)*** were not included in the classification of Leonidou (2004) or in the study by the OECD (Fliess, 2007). This thesis includes *knowledge barriers* because the findings show that the LMT-SMEs serviced by BANCOMEXT-Europe have encountered difficulties in internationalizing due to i) lack of knowledge to conduct exporting operations in the EU, ii) lack of knowledge of other cultures and iii) lack of knowledge of the EU market. These issues belong to the supply cluster and span the micro and meso levels of analysis, which means that the lack of knowledge deters LMT-SMEs from offering appropriate products for the EU market. The lack of knowledge mirrors poor AC within the LMT-SMEs serviced by BANCOMEXT-Europe, which affects not only their internationalization but also their innovation performance. The LMT-SMEs serviced by BANCOMEXT-Europe could overcome the informational and knowledge barriers by enhancing their AC, which will allow them to identify and make use of relevant information and knowledge, innovate and upgrade their products to internationalize.

2) *The functional barriers* include: i) production capacity below the EU demand, ii) lack of technical specialization in SMEs, iii) lack of resources (financial constraints and lack of ICT infrastructure) and iv) lack of capabilities to internationalize. They belong to the supply cluster and mainly span the micro level of analysis. These barriers uncover a lack of internal resources (capabilities and physical resources), which negatively affect the internationalization and the competitiveness of the LMT-SMEs serviced by BANCOMEXT-Europe because these barriers constrain the output of these firms.

3) *The marketing barriers* include: i) lack of post-sales service, ii) lack of involvement with EU customers, iii) problems of adaptation and iv) lack of marketing and branding. They belong to the supply cluster (spanning the micro and meso levels). This means that due to marketing deficiencies the products offered by the LMT-SMEs serviced by BANCOMEXT-Europe have faced difficulties in satisfying the needs of the EU customers.

4) *Poor innovation performance*: Leonidou (2004) did not include *poor innovation performance* as an internal barrier to the internationalization of SMEs, but this thesis uncovered the lack of innovation and technological specialization as problems affecting the internationalization of the LMT-SMEs serviced by BANCOMEXT-Europe. These problems prevent the products of these firms from matching the needs of demanding customers from developed countries (the EU). They suggest that it is necessary for these firms to enhance their AC, develop capabilities, introduce new technologies and establish links with the knowledge infrastructure and EU actors (e.g. firms and customers) in order to upgrade their innovation performance. This will allow Mexican LMT-SMEs to upgrade their products to satisfy the requirements demanded by developed countries' markets. Currently, BANCOMEXT does not link Mexican SMEs with the knowledge infrastructure, which makes it difficult for them to transform the information provided by BANCOMEXT into knowledge to upgrade the products of the LMT-SMEs.

Overall, the internal barriers identified in this research refer to the lack of resources and capabilities for the internationalization of the LMT-SMEs serviced by BANCOMEXT-Europe, which explains why the great majority of these firms have not reached a more sophisticated entry mode (such as alliances) to target distant markets (the EU). The internal barriers mainly belong to the supply group identified through the cluster analysis; this means that the internal barriers negatively affect the supply output of LMT-SMEs. Following the NSI approach, the lack of capabilities, the problems of knowledge and the poor innovation performance of the LMT-SMEs serviced by BANCOMEXT-Europe call for government intervention through innovation policies. This is because these problems block the innovation system and create technological and development gaps between developing countries (Mexico) and developed countries (the EU). It is worth recalling that technological gaps and differences in the economic development levels among countries mirror the differences in the resources devoted by each country to learning activities and innovation (Freeman, 1987; Freeman, 1995; Lundvall, 1992; Patel and Pavitt, 1994; Smith, 2000).

9.2.2.2 External Barriers

The most relevant contribution of this thesis is the identification of the external barriers hindering the internationalization of SMEs from developing countries. From the current empirical studies about the barriers affecting the internationalization of SMEs, it is not clear how pervasive the impact of external barriers is on the internationalization of SMEs. For example, in the study by the OECD (Fliess, 2007), external barriers are considered as having a mild impact on the internationalization of SMEs. In addition, Milesi et al (2007) suggest that external factors (macro factors) have a weaker impact on the internationalization of SMEs than internal factors (micro factors). However, the findings of this thesis have uncovered the existence of pervasive external barriers of domestic and foreign origin impeding the entrance and performance of SMEs from developing countries (Mexico) in developed countries' markets (the EU). These barriers were identified by linking the experience of BANCOMEXT-Europe in the internationalization of LMT-SMEs from Mexico to the classification of external barriers suggested by Acs et al (1997), Fliess (2007), Leonidou (2004) and the OECD (2005; OECD, 2007b) and triangulating the results with other empirical studies about the topic.

The **external barriers** identified in this research include: **1) *Procedural barriers***, such as i) differences in communication between Mexican SMEs and EU firms, ii) differences in languages and iii) unfamiliarity with operating in the EU. They affect the internationalization of LMT-SMEs in the EU as these problems make the transfer of knowledge difficult and affect the interactions among Mexican firms and EU firms and customers.

2) *The environmental barriers in Mexico* include i) governmental barriers, ii) underinvestment in infrastructure and iii) the adverse economic environment. Among the governmental barriers are the lack of government support and policies for the internationalization of SMEs, which could be seen as *formal institutional failures*. The governmental barriers mainly belong to the *supply cluster*, which means that they negatively affect the supply output of SMEs to internationalize. Despite the neo-liberal ideology unfolding BANCOMEXT-Europe, the interviewees acknowledged the lack of governmental support as being unfavourable for the internationalization of LMT-SMEs. According to them, the negligible support for Mexican LMT-SMEs is evident when

comparing the support and subsidies for other countries' SMEs (either developed or developing) with the support granted to Mexican SMEs.

ii) *Underinvestment in infrastructure*. This issue belongs to the supply cluster (macro level of analysis) and it could be seen as an *infrastructural system failure*. In particular, the lack of infrastructure and appropriate logistics to reach the EU market were identified as a pervasive barrier that prevents the internationalization of LMT-SMEs due to the high costs of transport and the long time required to reach the EU. This affects the competitiveness of Mexican products in the EU. These findings agree with a number of authors (Collier and Dollar, 2002; Djankov et al, 2006; Mesquita et al, 2008; Nakata and Sivakumar, 1997), who see the lack of infrastructure and logistics for exporting as very pervasive factors that affect the internationalization of firms from developing countries.

iii) The adverse economic environment addresses problems that belong to the demand and trade competitiveness clusters (macro level of analysis), which mean that these issues affect the competitiveness of SMEs to internationalize and deter these firms from matching or adapting their products to the EU demand. For instance, the *lack of long-term credit at low rates for SMEs could be seen as a system failure*: an institutional failure (financial obstacle) that negatively affects SMEs' innovation performance and the system as a whole (Mexico).

3) The environmental barriers in the EU include i) threats in the EU environment. These consist of the threat of entry in the EU and the intense competition in the EU. The former sheds light on the government entry barriers (e.g. standards, regulations, subsidies and certification) impeding the entrance and performance of LMT-SMEs from Mexico that can be seen as *non-tariff barriers*. It is worth noting that in the study by the OECD (Fliess, 2007), political and legal barriers in foreign markets, such as regulations, standards and procedures, were considered to have a mild impact on the internationalization of SMEs. However, in this thesis, these barriers were found to be highly pervasive and to discourage the entrance of Mexican SMEs in the EU. These findings agree with authors such as Acs et al (1997), Alexander and Warwick (2007) and Leonidou (2004), who consider these governmental barriers of foreign origin as the greatest and most economically damaging obstacles, which increase the costs of operating

abroad. Though the findings from this thesis suggest that Mexican LMT-SMEs are struggling with the EU standards and certification, they also have a positive impact as they force firms (Mexican LMT-SMEs) to upgrade their quality and innovation performance (Porter, 1990; von Tunzelmann and Acha, 2005). Thus, government intervention is required in order to help LMT-SMEs to fulfil the certification and deal with the requirements in the EU.

ii) Socio-cultural barriers were also uncovered; they arise due to differences in the informal institutional set-up (e.g. differences in business culture and language) between the trading countries. These issues belong to the supply, demand and trade competitiveness clusters. These barriers make the transfer of knowledge and information and the interrelations between Mexican SMEs and EU firms difficult.

iii) *Different foreign customers' needs and attitudes towards foreign products* were identified in this research. They include: i) the EU customer profile (high-income and demanding customers) and ii) a negative attitude towards Mexican products and firms. As seen in this thesis, the negative attitude towards Mexican products stems from the economic differences between Mexico and the EU, the lack of knowledge of the country of origin (Mexico) and the great geographical distance between Mexico and the EU. This is because the geographical distance disturbs the flows of knowledge and information between the trading countries; thus, Mexican firms and the industrial side of Mexico are little known in the EU. In addition, as Mexican products come from a developing country, they are undervalued and seen as low-price products in developed countries (the EU). This is in accordance with a number of researchers (Ahmed et al, 1995; Cordell, 1993; Ghadir, 1990; Han, 1990; Johansson et al, 1985; Khachaturian and Morganosky, 1990; Kotler and Gertner, 2002; Wang and Lamb, 1983), who found that in developed countries, firms and products from developing countries are seen as low-value products and suffer from a lack of reliability.

4) Differences in economic development levels among the trading countries (between Mexico and the EU). This is a new category of external barriers included in this thesis. Leonidou (2004) and the OECD (Fliess, 2007) did not consider them to be an external barrier to the internationalization of SMEs. However, the findings of this thesis suggest that the differences in economic development levels between Mexico and the EU affect the supply output (the kind of products offered by Mexican SMEs in LMT industries), the demand (the kind of products demanded and the perception of foreign products in the targeted countries (the EU) and the trade competitiveness (differences in competitiveness and economic, industrial and innovation development levels are evident between Mexico and the EU). These differences make the internationalization of LMT-SMEs from Mexico in the EU difficult.

5) Geographical distance was identified as an external factor negatively affecting the internationalization of Mexican LMT-SMEs in the EU. It belongs to the demand–meso group of the cluster analysis. It means that though Mexican LMT-SMEs have the opportunity to satisfy the EU demand due to the FTA between Mexico and the EU, this opportunity is inhibited by the geographical distance. It increases the transport costs and negatively affects the access to information and the flows of knowledge (since knowledge is transferred through interactions) and interactions between Mexican LMT-SMEs and EU firms and customers. To overcome the problems stemming from the geographical distance, the Government could improve the transport infrastructure and logistics and improve the capabilities and enhance the AC of the Mexican LMT-SMEs in order for them to be able to access knowledge from geographical distant markets and prompt interactions.

As seen above, most of the external problems identified in this thesis are beyond the scope of the activities of the public intermediary (BANCOMEXT), but within the scope of the policy makers. For this reason, one of the interviewees stated:

“I wish the Mexican Government could access and read your conclusions and all the work that you are doing to set up policies that help the internationalization of Mexican SMEs; at the moment there is a lot of work to do in this area.”

From the analysis of the internal and external barriers that were identified in this research and considering the characteristics of the EU market, it can be concluded that the problems (barriers) affecting the internationalization of SMEs are enhanced when targeting far-away and developed markets such as the EU. This is because the EU is made up of developed countries characterized by their economic, technological and industrial levels. Moreover, each EU country is culturally and linguistically different from Mexico. Therefore, Mexican LMT-SMEs need to implement many adaptations according to each market that demand not only more resources and capabilities but also knowledge of each market. In addition, the large geographical distance and the environmental differences between the EU and Mexico make the transfer of knowledge difficult as it mainly occurs through interactions. In addition, due to the great geographical distance between Mexico and the EU, the cost of reaching the EU market increases. Altogether, these issues make the internationalization of SMEs from developing countries (Mexico) in distant and developed markets (like the EU) more difficult than in other developed markets, such as the American market, which is geographically closer and more familiar to Mexican SMEs.

9.2.2.3 The Uppsala Model in the Internationalization of Mexican LMT-SMEs in the EU

From the international business perspective, most of the external problems affecting both the internationalization of LMT-SMEs from developing countries (Mexico) and the scope of the activities of public intermediaries (BANCOMEXT) in the EU can be explained through the *psychic distance* addressed in the Uppsala model of internationalization. To begin with, despite the provision of information about the EU and the presence of BANCOMEXT in Europe, only a very small number of Mexican SMEs are interested in targeting the European market. This is due to the perceived differences in language and business culture, lack of knowledge, unfamiliarity with the EU market and large geographical distance. These issues refer to the *psychic distance* of the *Uppsala model*, which explains internationalization as a slow and difficult process due to the differences between the countries and the difficulties in acquiring knowledge and information from distant markets (Axinn and Matthysens, 2002; Chetty and Campbell-Hunt, 2004; Johanson and Vahlne, 1977; Johanson and Vahlne, 1990; Johanson and Wiedersheim-Paul, 1975). Moreover, the minor participation and the slow and difficult

internationalization of Mexican SMEs in the EU is due to the limited historical and commercial relations between Mexico and the rest of the EU (except Spain) and the cultural and linguistic differences. That is, it has been easier for Mexican SMEs to enter Spain than the rest of Europe because of the language and historical links that reduce the unfamiliarity between these countries. This agrees with Peng (2010), who points out that the commercial relations are stronger between ex-colonial and colonial countries. Ruiz-Garcia (2009) also found that the problems of the psychic distance between Mexico and Spain are reduced thanks to their cultural and linguistic similarities.

The *Uppsala model* also helps the understanding of the importance of public intermediaries, such as BANCOMEXT-Europe, as providers of information in the internationalization of LMT-SMEs in distant markets. The *Uppsala model* predicts that the perceived *psychic distance* is overcome through the acquisition of information and knowledge about the foreign market, which allows the internationalization process to advance (Johanson and Vahlne, 1977; Johanson and Vahlne 1990; Pedersen and Petersen, 2004; Stottinger and Schlegelmilch, 1998). In this regard, the interviewees mentioned that the lack of information about the EU is a factor that negatively affects the entrance and performance of Mexican SMEs in the EU. Thus, BANCOMEXT-Europe plays an important role in the internationalization of LMT-SMEs by collecting and processing information about EU markets, contributing to the closing of the information gap between Mexican LMT-SMEs and the EU market.

Moreover, the Uppsala model sheds light on the activities that public intermediaries from developing countries (such as BANCOMEXT) could improve to overcome some of the difficulties stemming from the lack of information and knowledge about the country of production in developed countries' markets. For instance, as this thesis reveals, the internationalization of Mexican SMEs in the EU has been negatively affected by the lack of knowledge of the economic and industrial development of Mexico, its firms and its products in the EU and because Mexican products are seen as low-price products and Mexican firms as unreliable partners. Thus, public intermediaries (BANCOMEXT) could set up promotional activities aimed at positioning Mexican firms, products and country

image in the targeted market (the EU), as suggested by a number of authors (Johansson et al, 1994; Khanna, 1986; Nagashima, 1977). These activities could help the foreign market (the EU) to become more familiar with the developing country (Mexico) and lessen the negative perception of Mexican products and firms.

It is worth noting that though the Uppsala model highlights that the problems of internationalization of SMEs are also due to problems in accessing knowledge from distant markets, it does not say how firms could overcome these knowledge problems. Nor does this model address the differences between information and knowledge or the role of the government in improving the internationalization of SMEs. Despite these shortcomings, the Uppsala model has been helpful in explaining the slow and difficult internationalization of Mexican LMT-SMEs in the EU by pointing out that attention must be given to problems of information and knowledge and differences in institutional set-ups to explain the slow internationalization of SMEs in distant markets. Therefore, the NSI approach was addressed because it pays attention to environmental issues, interactions, learning, flows and creation of knowledge, and innovation. According to the NSI approach, the environmental differences and geographical distance among countries complicate the transfer of knowledge (which is transferred by interactions and embedded in organizations, individuals and countries) and negatively inhibit the innovation performance of firms (Dalum et al, 1992; Ernst et al, 1998; Lundvall, 1992; Lundvall and Borrás, 1997; Lundvall et al, 2002; Metcalfe and Georghiou, 1997; Nauwelaers and Wintjes, 2003; OECD, 1997b; Patel and Pavitt, 1994). The NSI approach also addresses the role of the government in improving firms' competitiveness by upgrading their innovation performance, their learning capacity and their AC to utilize and create knowledge. Therefore, by utilizing the NSI approach to analyse the internationalization of Mexican LMT-SMEs in the EU, it has been possible to address micro, meso, macro, policy, supply, demand, trade competitiveness and regulation issues, to have a complete vision of the problem and to suggest some recommendations. The next section presents the role of public intermediaries in the internationalization of SMEs. The role of the Mexican Government in the internationalization of LMT-SMEs in the EU, which is analysed from the NSI perspective, is also presented.

9.2.2.4 The Role of the Government and Public Intermediaries (in Mexico) in the Internationalization of LMT-SMEs

The second research question addressed in this thesis was: What is the role of public intermediaries from developing countries (Mexico) in addressing the internationalization of LMT-SMEs? The complementary research question was: Have the government efforts in Mexico supported the internationalization of LMT-SMEs in distant and developed countries (the EU)? They are related to the first research question: What internal and external barriers have public intermediaries from developing countries identified as affecting the internationalization of LMT-SMEs in distant and developed markets (the EU)?

As seen previously, the Uppsala model, which has been utilized to analyse the internationalization of Mexican SMEs in the EU from the business perspective, explains some of the external problems due to the environmental differences between the domestic and the foreign markets. In addition, the *system analysis* undertaken at different levels (supply, demand, trade competitiveness, regulation, micro, macro, meso and policy) has highlighted the presence of system failures and the lack of physical resources and capabilities within LMT-SMEs affecting their internationalization. Therefore, it is imperative to analyse the role of public intermediaries and governments from developing countries in addressing the internal and external barriers affecting the internationalization of LMT-SMEs. These issues are covered in the second research question of this thesis.

The findings from this research suggest that public intermediaries from developing countries (Mexico), such as BANCOMEXT, have had an impact on the internationalization of LMT-SMEs in far-away and developed countries (the EU). This is because BANCOMEXT-Europe performs the activities of a *trading organization and a trusted intermediary*. These activities aim mainly to close the information gap between domestic SMEs and the foreign market by providing information about foreign markets through participation in international events organized by BANCOMEXT. These activities also help SMEs to establish contacts with potential clients in foreign markets. This agrees with a number of authors (Bernard and Jensen, 2004; Chetty and

Blankenburg-Holm, 2000; Pollard and Jemicz, 2006; Welch and Luostarinen, 1988), who found that these activities have a positive impact on the internationalization of SMEs.

However, as the empirical studies of the role of public intermediaries in the internationalization of SMEs in distant markets do not address issues of knowledge (they mainly focus on the provision of information), the empirical evidence from this research contributes to this field of knowledge. In this regard, this thesis found that the role of public intermediaries (such as BANCOMEXT-Europe) must expand to activities that aim to enhance the knowledge base and learning capacity of the LMT-SMEs and improve their capabilities to operate in foreign markets (the EU). Therefore, the role of public intermediaries should also be accompanied by an active government role through policies. Despite the neo-liberal ideology of BANCOMEXT-Europe, the interviewees highlighted that currently the Mexican Government has had a passive role and provided little support to the internationalization of SMEs. The findings suggest that government intervention is necessary to deal with the internal and external barriers identified in this thesis. In particular, government intervention is necessary in order for Mexico to upgrade its innovation and achieve long-term economic growth and development from the supply side, as highlighted by the NSI approach, and not only to focus on enhancing the demand (opening foreign markets), as the Mexican Government has done. Currently, Mexico has a network of 43 free trade agreements all over the world. If the Mexican Government does not set up policies for LMT-SMEs to update their supply output, they are in danger of failing to utilize the ample network of free trade agreements and thus they could be excluded from globalization. As seen above, this thesis calls for government intervention from developing countries to set up policies to incorporate LMT-SMEs into foreign markets. This is an idea shared by authors such as Collier and Dollar (2002), Hoekman and Martin (2001), Michalopoulos (2001), Pettigrew (2000), Rodrik (2000), Rugman and Boyd (2001) and Sampson (2001), who consider that openness to trade is only one part of the development strategy, which should be accompanied by government policies to facilitate the participation of firms in open markets and strengthen the country's competitive level and domestic productive system.

Specifically, the findings have uncovered the need for policies and investment to correct the system failures in Mexico. From the *system failure approach*, the problems identified in this thesis, such as the lack of policies for SMEs, poor governmental support for public intermediaries (BANCOMEXT), lack of industrial policies and lack of credit at competitive interest rates for SMEs refer to *institutional system failure*. The underinvestment in infrastructure (knowledge, transport and communication infrastructures) implies *infrastructural system failures*. The lack of interactions (among LMT-SMEs, between the LMT-SMEs and the knowledge infrastructure, and between LMT-SMEs and EU firms and customers) indicate *interaction failures*. In addition, the lack of capabilities to internationalize and poor AC shed light on *capability failures* (poor marketing, innovation and organizational capabilities). It is worth remembering that the LMT-SMEs serviced by BANCOMEXT have problems in accessing knowledge and have a poor innovation performance. All those system failures negatively affect the flows of knowledge and interactive learning and thus they block the innovation system as a whole (Rubalcaba et al, 2010; Smith, 2000; Woolthuis et al, 2005); therefore, they undermine the firms' competitiveness and negatively affect the internationalization of Mexican LMT-SMEs. To correct these problems, it is necessary for the government to intervene through policies and investment.

Overall, the empirical evidence presented in this research shows that when governments and policy makers from developing countries such as Mexico undertake little to set up actions and policies to improve the domestic business environment and the country's competitiveness level and upgrade SMEs' competitiveness, the SMEs will face huge difficulties in internationalizing, particularly in geographically distant and developed markets. This is due to the environmental differences (differences in formal and informal institutions, including economic, legal, industrial, cultural, linguistic, etc.) and problems of interactions and knowledge arising from the great geographical distance. For this reason, this thesis highlighted that an active role of the government is necessary to upgrade the internationalization and competitiveness of Mexican SMEs through policies that incentivize learning, knowledge sharing, knowledge creation and innovation. This agrees with Viotti (2002), who stresses that as in late industrializing and developing economies the process of technical change is essentially a process of learning, *absorption*

and improvement of innovations produced in industrialized countries, in order for late industrializing and developing countries to abandon *passive learning* and become *active learners* and innovators, it is necessary to ensure an active government role that builds adequate institutions and creates the type of environment that induces the active learning and interactions that are a necessary step towards the development of improvement capabilities necessary to innovate (an active incremental innovation).

9.3 Implications and Evidence for Theory

The main strengths of this thesis lie in both the depth of the case study and the system approach: the NSI approach, which includes several dimensions of analysis (supply, demand, trade competitiveness, regulation, micro, meso, macro and policy), is used in this research to explain the entrance and performance of SMEs from developing countries (Mexico) in distant and developed markets (the EU). A system approach allows internationalization to be seen as a process involving multiple interactions, firms, context and government; for this reason, the analysis addressed models explaining the internationalization of SMEs, barriers to the firm (internal and external barriers), issues of innovation, policies to improve the competitiveness of SMEs and the role of public intermediaries and the government in the internationalization of SMEs.

Through the analysis at the various levels (supply, demand, trade competitiveness, regulation, micro, macro, meso and policy), it was possible to identify weaknesses in the domestic environment (Mexico), threats in the EU, weaknesses within the Mexican LMT-SMEs serviced by BANCOMEXT-Europe and problems of interaction and to uncover areas for policy intervention. As a consequence, it was possible to shed light on the role of the government in the internationalization of SMEs. It is worth pointing out that the great majority of business studies about the role of governments in the internationalization of SMEs mainly focus on the role of public intermediaries as providers of information and the impact of international events and promotional activities undertaken by public intermediaries. However, little attention is paid to a system analysis (the NSI approach) to uncover the role of the government in the internationalization of LMT-SMEs from developing countries (Mexico) in foreign markets (the EU), as undertaken in this thesis.

The findings of this research show that the Uppsala model presents some limitations in explaining the internationalization of Mexican SMEs in the EU. This is because the Uppsala model assumes that the environment is given; therefore, it sees firms' internationalization as isolated efforts concerning the firm. For instance, according to the Uppsala model, the firm needs to obtain information and experience and adapt and adjust to the contextual foreign environment (Chetty and Campbell-Hunt, 2004; Johanson and Vahlne, 1977; Johanson and Vahlne, 1990), but it does not look at the role of the government in improving the domestic contextual environment or the firms' capabilities that will contribute to closing the psychic distance between the countries and speed the firms' internationalization. Nonetheless, as the definition of psychic distance addresses the environmental differences between any two countries in terms of legislation and industrial development levels, which are external factors that disturb the internationalization of SMEs, the Uppsala model was utilized to explain the internationalization of Mexican LMT-SMEs in the EU. In order to overcome the weaknesses of the Uppsala model, this research also took a system approach that included various levels of analysis to discover areas that could be improved by governments (the Mexican Government) in the domestic environment (institutional set-up) and in SMEs and the overall system in order to improve the internationalization of LMT-SMEs. Therefore, taking a system approach allowed the internationalization of SMEs to be seen as a process concerning both the firm and the public sector. The latter could intervene when justified through policies aimed at overcoming the problems that deter firms from moving ahead and improving their innovation and internationalization performance. As a result of such policies, the environmental differences between the domestic and the targeted market could be overcome and the rate of the internationalization process could be increased.

In addition, as most of the studies of the barriers affecting the internationalization of SMEs pay attention to the experience of SMEs from developed countries, this research contributes to this field of study by looking at the experience of BANCOMEXT in the internationalization of LMT-SMEs from developing countries (Mexico). The findings from this research also identified system failures affecting the internationalization of

these firms. In addition, this thesis identified external and internal barriers affecting the internationalization of LMT-SMEs from developing countries (Mexico) in far-away and developed countries (the EU) and uncovered their impact. In this thesis, the external barriers were found to be very pervasive in the internationalization of LMT-SMEs. Before this thesis, external barriers were viewed as having a mild impact on the internationalization of SMEs. For example, in the study by the OECD (Fliess, 2007), external barriers are considered as having a mild impact on the internationalization of SMEs. Milesi et al (2007) also consider that external factors (macro factors) have a weak impact compared with internal factors (micro factors) on the internationalization of SMEs.

This thesis also uncovered *internal barriers* and they were found to be highly pervasive as they affect the supply output of the Mexican LMT-SMEs, contribute to poor innovation performance, deter their internationalization and impede firms' products from satisfying the EU customers' needs. According to Leonidou (2004), the internal barriers are more controllable and easier to manage than the external barriers. However, based on the empirical evidence of this thesis, it can be concluded that the internal barriers to the internationalization of Mexican LMT-SMEs are not easy to manage as in order for SMEs to overcome them a great deal of effort from the Government, policy makers and the firms are required.

Another contribution of this thesis concerns the barriers affecting the internationalization of *SMEs* from developing countries. Based on an empirical study, Neupert et al (2006) concluded that the barriers affecting SMEs from developed countries were external barriers and the barriers affecting SMEs from other countries (e.g. SMEs from developing countries) were internal barriers. Aulakh et al (2000), Milesi et al (2007) and Nakata and Sivakumar (1997) also stress that the internationalization of SMEs from developing and emerging countries are mainly of internal origins. However, the empirical evidence of this research shows that the internationalization of SMEs from developing countries (Mexico) is affected by both internal and external barriers. Both of them have had a pervasive and strong impact on their internationalization.

Another contribution of this research is that it uncovered problems of knowledge, geographical distance and differences in economic development levels affecting the internationalization of LMT-SMEs. Authors (Leonidou, 2004) and transnational organizations like the OECD (Fliess, 2007) researching the barriers hindering the internationalization of SMEs focus on informational gaps (problems in accessing information from abroad) but they do not refer to problems of knowledge and they do not include differences in economic development levels among the trading countries (e.g. between Mexico and the EU) or the geographical distance affecting the internationalization of SMEs, as this thesis does.

9.4 Policy Recommendations to Upgrade the Internationalization of Mexican LMT-SMEs

After addressing the NSI and system failure approaches, this thesis showed that government intervention (Mexico) through policies and investment is necessary to improve the environment in which firms operate and overcome the weaknesses of LMT-SMEs that affect their access to knowledge, interactive learning and innovation and internationalization performances. As the NSI approach pays attention to interactions, learning, knowledge creation and knowledge flows, the institutional set-up and innovation, this approach was preferred to the neoclassical economic theory in this thesis to suggest policies to improve the competitiveness of LMT-SMEs and stimulate learning and innovation (incremental innovation). The policies presented in this section target the internal weaknesses of the LMT-SMEs and the environmental weaknesses (in Mexico) that prevent these firms from moving ahead and affect the performance of the NSI as a whole. Many of the recommendations for the Mexican Government in this section were discussed with the interviewees; the others resulted from the analysis of the literature review undertaken in this thesis. Therefore, the policy recommendations that could contribute to improving the competitiveness of Mexican LMT-SMEs in foreign markets and thus their internationalization include:

i) Developing readiness for change and openness to new ideas and solutions

This policy instrument might include the intervention of innovation coaches in order for LMT-SMEs to change their attitudes and be willing to embrace openness, networking and innovation.

ii) Policies to upgrade innovation and the knowledge base in order for Mexican LMT-SMEs to enter foreign markets

As innovation in LMT-SMEs involves a strategic and market-driven perspective, innovation policies should be built around markets and customers. Thus, these policies must include *non-R&D* policy support in the areas of design, quality control, marketing (branding and product differentiation), innovation, organization and international business (including support to develop the capabilities to participate in trade fairs, such as upgrading the SMEs' foreign languages, for effective participation in foreign markets). These policies will help LMT-SMEs to enhance their AC and upgrade their capabilities, which will allow them to identify and make use of relevant knowledge, undertake innovation, overcome the environmental differences between the trading countries and upgrade their products to internationalize. Some policy instruments could include linking firms with technological universities, co-funding qualified personnel, training and subsidies for hiring innovation managers and accessing consultancy. These policies must also pay attention to the less innovative or non-innovative SMEs in order to induce innovation in these firms (Kaufmann and Tödtling, 2003; Nauwelaers and Wintjes, 2003).

iii) Strengthen programmes in order to enable LMT-SMEs to obtain EU certification

As European certification was identified as both a *barrier deterring the internationalization* of the LMT-SMEs serviced by BANCOMEXT-Europe and a *driver of innovation* for LMT-SMEs, an active government role is necessary in order to support LMT-SMEs in their certification process. This also requires the joint participation of firms, the public sector and chambers.

iv) Pro-active consultancy by government intermediaries (BANCOMEXT)

It is necessary to provide LMT-SMEs operating abroad with consultancy that enables them to raise awareness of the weaknesses (such as the weaknesses or problems identified in this thesis) that are not recognized by exporting SMEs that affect their competitiveness and to set up strategies in order to overcome them.

v) Processing and disseminating information

To accelerate the internationalization of SMEs, public intermediaries and governments could set up policies and programmes aimed at informing and disseminating information regarding:

- a) The programmes available for SMEs;
- b) The public and private organizations dealing with the internationalization of SMEs and the services provided;
- c) The opportunities and/or projects identified for SMEs in foreign markets;
- d) Marketing information about foreign markets in order for SMEs to adapt their products to foreign countries' needs;
- e) Information about regulations, certification and trademarks in foreign markets and guidance to fulfil these requirements.

vi) Strengthening linkages

These policies aim to upgrade LMT-SMEs' networking capabilities and knowledge base, link SMEs with other actors and ease the interactive learning. These policies could help LMT-SMEs to overcome isolation (Kaufmann and Tödtling, 2003; Mendoca, 2009; Nauwelaers and Wintjes, 2003). They are presented in three groups, all of which require a pro-active role of the government as these kinds of cooperation do not occur spontaneously.

a) Strengthening linkages between SMEs and the knowledge infrastructure

In order for SMEs to adapt their products and produce sophisticated products, policy instruments could include: innovation incubators, co-funding of innovation assistants and consultants, financial support to hire experts and mobility schemes between universities and firms.

b) Integrate LMT-SMEs into the production chain of large foreign firms

This could help LMT-SMEs to internationalize as suppliers of large foreign companies, to overcome the barriers affecting their internationalization and to increase their competitiveness. The Mexican Government could strengthen the current programmes for the establishment of alliances and provide incentives for large firms (of domestic or foreign origin) to incorporate SMEs into their production chain.

c) Matching domestic SMEs with foreign firms

A pro-active matchmaker could bring together actors that would not have cooperated spontaneously. For effective matching, the opportunities identified in foreign markets might be displayed simultaneously by the various secretariats, universities, research centres and chambers of commerce dealing with the various sectors.

d) Cluster formation for the internationalization of SMEs

To encourage the participation of LMT-SMEs in networks and clusters to internationalize, it is firstly necessary to develop and upgrade their AC. It is also necessary for a local institution to act as a facilitator of the clustering/networking process.

vii) Provide long-term credit at low interest rates

This could enable LMT-SMEs to prompt innovation, attend foreign markets, invest in production capacity, develop capabilities and foster specialization. Some policy instruments include long-term funding for the development and commercialization of innovative products. Credit for LMT-SMEs could be provided directly by a government bank and indirectly through special lines of credit to private financial institutions. In addition, it is recommended to undertake government actions in order for SMEs to access seed capital, business angel networks and non-market institutions. SMEs could also

access VC funds through the development of the PE/VC industry. The provision of financial training to win commercial funding could also help LMT-SMEs to access credit.

viii) Investment in infrastructure

a) It is necessary to improve the transport infrastructure and logistics in order for Mexican LMT-SMEs to reach distant markets in a short time and at a low cost.

b) Investing in the knowledge infrastructure and technological advances could allow LMT-SMEs to upgrade their innovation performance and move to the production of sophisticated products in order to satisfy the demand of high-income customers from developed countries. This could also help LMT-SMEs to expand to other markets.

ix) Set up policies to strengthen key industries

It is also recommended to set up innovation policies to support key industries, such as the LMT industries. The LMT industries include food, oil and gas, paper, agricultural products and raw materials, textiles and clothing, glass in traditional manufacturing, vehicles and steel in scale-intensive and machinery industries (von Tunzelmann and Acha, 2005). These industries account for the largest number of SMEs in Mexico and these firms are the most important sources of employment and contribute enormously to the GDP. Thus, government policies are required in order for these industries to improve their competitiveness.

x) Negotiate better treatment of and access to Mexican products in foreign markets

As there are some sectors that have not been favoured by the EU–Mexico FTA, such as the food and textile sectors, the Government could contribute to the internationalization of LMT-SMEs through negotiating fair access to developing countries' products in developed countries' markets.

xi) Promotional activities

As the lack of knowledge and perception of Mexico and its products in geographically distant and developed countries were identified as barriers to the internationalization of SMEs, more promotional activities focusing on positioning Mexico, its firms and its products in foreign markets are necessary.

9.5 Limitations and Lines for Future Research

As seen above, this thesis has dealt with the internationalization of LMT-SMEs from developing countries (Mexico) in far-away and developed countries (the EU) from the experience of a public intermediary (BANCOMEXT-Europe). The strength of this research is that it includes the viewpoint of the policy suppliers, which was gathered from all the representations of BANCOMEXT in Europe. They are a valuable source of knowledge due to their experience of various years servicing SMEs in various markets all around the world. However, a limitation of this thesis is that it does not include the evidence collected from the users (LMT-SMEs) of the BANCOMEXT services, which could corroborate the evidence collected from the government actors. Collecting evidence from the users was beyond the scope of this research due to financial and time constraints.

Another limitation of this research relies on the limited number of interviewees and the inductive analysis of the interviews. The cluster solution relies on judgements made by the researcher and the researcher decided on the number of clusters. Therefore, the analysis may be seen as subjective. Nonetheless, the problem of subjectivity was minimized because the judgements stemmed from the theoretical framework addressed in this thesis. In addition, the results were discussed with the thesis supervisor and the preliminary findings presented at international conferences in which the findings of this thesis were exposed to feedback and comments from an international community of scholars. Future empirical research could use the findings from this thesis to build an indicator in order to measure the impact of the internal and external barriers on the internationalization of LMT-SMEs.

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APPENDIX

Table A1: Manufacturing Exports by SMEs: Argentina, Chile, Colombia and Mexico

	Argentina	Colombia	Chile	Mexico
Exports by SMEs	Food	Food	Food	Food
	Non-electric machinery	Textiles	Drinks	Drinks
	Chemical products	Garment manufacturing	Wooden products	Leather
	Metallic products	Leather	Non-electrical machinery	Jewellery and handicrafts
		Other manufacturing products	Plastic products	Metal–mechanical products
				Chemical products
				Auto parts

Source: The information about Mexico was collected by the author through the interviews undertaken with the personnel of BANCOMEXT-Europe. The information about the other countries can be found in Milesi et al (2007).

Table A2: Network of Free Trade Agreements of Mexico

Free Trade Agreement	Relevant Information
1992 – Mexico–Chile FTA	This was Mexico's first FTA; in 1999, the original agreement was enhanced with additional topics including trade in services, government procurement, dispute settlement procedures and intellectual property. As a result, the total trade between Mexico and Chile increased.
1994 – NAFTA between Mexico, the US and Canada	Since it came into force in 1994, the North American Free Trade Agreement (NAFTA) has been a key instrument in increasing trilateral trade. Today, the North American region is one of the most dynamic and integrated economic areas in the world.
1995 – G3 FTA between Mexico, Venezuela and Colombia	This FTA has helped to strengthen and position Mexico as an economic leader in South America.
1995 – Mexico–Costa Rica FTA	This was Mexico's first FTA with a Central American country.
1995 – Mexico–Bolivia FTA	This has helped Mexico to increase its presence in the Andean market.
1998 – Mexico–Nicaragua FTA	Thanks to this agreement, Mexico's total exports to Nicaragua enter duty-free.
2000 – Mexico–EU FTA	This treaty created the first free trade area between Europe and the American continent. It offers the opportunities to establish alliances and attract FDI.
2000 – Mexico–Israel FTA	This has helped to increase Mexico's presence in the Israeli market.
2001 – Mexico–European Free Trade Association FTA	The Mexico–EFTA treaty signed with Norway, Iceland, Switzerland and Liechtenstein was negotiated thanks to the Mexico–EU FTA. Nowadays, Mexico is the only country in Latin America to have free trade agreements with the vast majority of the world's highest-income countries.
2001 – México– <i>Triangulo del Norte</i> FTA between Mexico, El Salvador, Guatemala and Honduras	This treaty has helped to increase Mexican exports to Central America.
2001 – México–China Bilateral Agreement	In September 2001, China and Mexico reached a bilateral agreement on China's accession to the WTO. Mexico committed itself to waiving anti-dumping measures contrary to the relevant WTO regulations after six years of China's accession to the WTO (Ministry of Foreign Affairs of the People's Republic of China). [Online] Available from: http://www.fmprc.gov.cn/eng/wjb/zzjg/ldmzs/gjlb/3508/ (Accessed: 28th October 2008).
2004 – Mexico–Uruguay FTA	This has helped to increase Mexico's presence in the Mercosur market.
2005 – Mexico–Japan EPA	Mexico and Japan successfully signed an Economic Partnership Agreement (EPA). Thanks to it, the bilateral trade has increased.

Source: The information in this table was collated by the author with information published by the Mexican Ministry of the Economy, Mexico. [Online] Available from: <http://www.economia.gob.mx/?P=2113> (Accessed: 21st March 2008).

Table A3: Cluster Membership

Case	8 Clusters	7 Clusters	6 Clusters	5 Clusters	4 Clusters	3 Clusters
1	1	1	1	1	1	1
2	1	1	1	1	1	1
3	1	1	1	1	1	1
4	2	2	2	2	2	1
5	1	1	1	1	1	1
6	3	3	3	1	1	1
7	1	1	1	1	1	1
8	3	3	3	1	1	1
9	2	2	2	2	2	1
10	1	1	1	1	1	1
11	1	1	1	1	1	1
12	2	2	2	2	2	1
13	1	1	1	1	1	1
14	1	1	1	1	1	1
15	1	1	1	1	1	1
16	3	3	3	1	1	1
17	1	1	1	1	1	1
18	2	2	2	2	2	1
19	2	2	2	2	2	1
20	3	3	3	1	1	1
21	2	2	2	2	2	1
22	1	1	1	1	1	1
23	2	2	2	2	2	1
24	2	2	2	2	2	1
25	1	1	1	1	1	1
26	1	1	1	1	1	1
27	1	1	1	1	1	1
28	1	1	1	1	1	1
29	1	1	1	1	1	1
30	1	1	1	1	1	1
31	1	1	1	1	1	1
32	2	2	2	2	2	1
33	2	2	2	2	2	1
34	1	1	1	1	1	1
35	3	3	3	1	1	1
36	1	1	1	1	1	1
37	1	1	1	1	1	1
38	1	1	1	1	1	1
39	3	3	3	1	1	1
40	3	3	3	1	1	1
41	1	1	1	1	1	1
42	3	3	3	1	1	1

43	2	2	2	2	2	1
44	1	1	1	1	1	1
45	3	3	3	1	1	1
46	1	1	1	1	1	1
47	1	1	1	1	1	1
48	1	1	1	1	1	1
49	1	1	1	1	1	1
50	1	1	1	1	1	1
51	1	1	1	1	1	1
52	1	1	1	1	1	1
53	3	3	3	1	1	1
54	3	3	3	1	1	1
55	4	4	3	1	1	1
56	4	4	3	1	1	1
57	5	4	3	1	1	1
58	2	2	2	2	2	1
59	2	2	2	2	2	1
60	1	1	1	1	1	1
61	1	1	1	1	1	1
62	2	2	2	2	2	1
63	1	1	1	1	1	1
64	2	2	2	2	2	1
65	2	2	2	2	2	1
66	3	3	3	1	1	1
67	2	2	2	2	2	1
68	2	2	2	2	2	1
69	2	2	2	2	2	1
70	3	3	3	1	1	1
71	3	3	3	1	1	1
72	3	3	3	1	1	1
73	3	3	3	1	1	1
74	2	2	2	2	2	1
75	1	1	1	1	1	1
76	2	2	2	2	2	1
77	2	2	2	2	2	1
78	1	1	1	1	1	1
79	2	2	2	2	2	1
80	1	1	1	1	1	1
81	2	2	2	2	2	1
82	3	3	3	1	1	1
83	2	2	2	2	2	1
84	1	1	1	1	1	1
85	3	3	3	1	1	1
86	3	3	3	1	1	1
87	2	2	2	2	2	1

88	1	1	1	1	1	1
89	1	1	1	1	1	1
90	1	1	1	1	1	1
91	2	2	2	2	2	1
92	1	1	1	1	1	1
93	1	1	1	1	1	1
94	2	2	2	2	2	1
95	3	3	3	1	1	1
96	5	4	3	1	1	1
97	6	5	4	3	3	2
98	7	6	5	4	4	3
99	7	6	5	4	4	3
100	2	2	2	2	2	1
101	2	2	2	2	2	1
102	3	3	3	1	1	1
103	2	2	2	2	2	1
104	2	2	2	2	2	1
105	1	1	1	1	1	1
106	2	2	2	2	2	1
107	1	1	1	1	1	1
108	2	2	2	2	2	1
109	1	1	1	1	1	1
110	1	1	1	1	1	1
111	1	1	1	1	1	1
112	1	1	1	1	1	1
113	1	1	1	1	1	1
114	1	1	1	1	1	1
115	3	3	3	1	1	1
116	1	1	1	1	1	1
117	8	7	6	5	1	1
118	3	3	3	1	1	1
119	1	1	1	1	1	1
120	8	7	6	5	1	1
121	1	1	1	1	1	1
122	2	2	2	2	2	1
123	3	3	3	1	1	1
124	2	2	2	2	2	1
125	1	1	1	1	1	1
126	2	2	2	2	2	1
127	1	1	1	1	1	1
128	1	1	1	1	1	1
129	3	3	3	1	1	1
130	1	1	1	1	1	1
131	1	1	1	1	1	1
132	2	2	2	2	2	1

133	1	1	1	1	1	1
134	1	1	1	1	1	1
135	2	2	2	2	2	1
136	1	1	1	1	1	1
137	1	1	1	1	1	1
138	2	2	2	2	2	1
139	2	2	2	2	2	1
140	6	5	4	3	3	2
141	1	1	1	1	1	1
142	2	2	2	2	2	1
143	2	2	2	2	2	1
144	3	3	3	1	1	1
145	1	1	1	1	1	1
146	1	1	1	1	1	1
147	1	1	1	1	1	1
148	1	1	1	1	1	1
149	1	1	1	1	1	1
150	5	4	3	1	1	1
151	5	4	3	1	1	1
152	2	2	2	2	2	1
153	3	3	3	1	1	1
154	3	3	3	1	1	1
155	2	2	2	2	2	1
156	1	1	1	1	1	1
157	1	1	1	1	1	1
158	8	7	6	5	1	1
159	1	1	1	1	1	1
160	3	3	3	1	1	1
161	1	1	1	1	1	1
162	1	1	1	1	1	1
163	1	1	1	1	1	1
164	1	1	1	1	1	1
165	1	1	1	1	1	1
166	3	3	3	1	1	1
167	2	2	2	2	2	1
168	1	1	1	1	1	1
169	1	1	1	1	1	1
170	7	6	5	4	4	3
171	3	3	3	1	1	1
172	1	1	1	1	1	1
173	2	2	2	2	2	1
174	1	1	1	1	1	1
175	1	1	1	1	1	1
176	2	2	2	2	2	1
177	2	2	2	2	2	1

178	4	4	3	1	1	1
179	3	3	3	1	1	1
180	8	7	6	5	1	1
181	1	1	1	1	1	1
182	2	2	2	2	2	1
183	1	1	1	1	1	1
184	3	3	3	1	1	1
185	3	3	3	1	1	1
186	1	1	1	1	1	1
187	4	4	3	1	1	1
188	1	1	1	1	1	1
189	1	1	1	1	1	1
190	1	1	1	1	1	1
191	1	1	1	1	1	1
192	1	1	1	1	1	1
193	1	1	1	1	1	1
194	3	3	3	1	1	1
195	3	3	3	1	1	1
196	2	2	2	2	2	1
197	1	1	1	1	1	1
198	3	3	3	1	1	1
199	7	6	5	4	4	3
200	7	6	5	4	4	3
201	7	6	5	4	4	3
202	1	1	1	1	1	1
203	3	3	3	1	1	1
204	1	1	1	1	1	1
205	1	1	1	1	1	1
206	7	6	5	4	4	3
207	1	1	1	1	1	1
208	3	3	3	1	1	1
209	5	4	3	1	1	1
210	1	1	1	1	1	1
211	1	1	1	1	1	1
212	1	1	1	1	1	1
213	1	1	1	1	1	1
214	2	2	2	2	2	1
215	2	2	2	2	2	1
216	1	1	1	1	1	1
217	2	2	2	2	2	1
218	1	1	1	1	1	1
219	2	2	2	2	2	1
220	1	1	1	1	1	1

Table A4: Supply Cluster

		NL	DE1	UK1	ES1	FR1	UK2	UK3	FR2	FR3	ES2	DE2	IT	Cluster Group	Category
1	11a1) Low labour cost	1		1									1	Supply	Micro
2	11b1) Good quality of Mexican labour	1			1	1	1						1	Supply	Micro
3	11b2) Skilled Mexican labour	2				2	2							Supply	Micro
4	11c1) Good quality of products	1	1	1		1	1	1				1	1	Supply	Micro
5	11d1) Original products											1	1	Supply	Micro
6	11e1) Good quality of service		1									1		Supply	Micro
7	12b1) Lack of brands			1					1		1		1	Supply	Micro
8	12c1) Lack of marketing			1								1	1	Supply	Micro
9	12c3) Lack of post-sales services	3			3					3			3	Supply	Micro
10	12d1) Small volume of production		1		1		1	1			1	1	1	Supply	Micro
11	12d2) Production capacity below EU demand										2	2	2	Supply	Micro
12	12e2) ICT problems from lack of resources	2									2			Supply	Micro
13	12h1) Lack of technical specialization in SMEs	1	1							1	1	1	1	Supply	Micro
14	12i2) Little experience in exporting	2	2	2			2				2	2	2	Supply	Micro
15	12i3) Lack of personnel with vision to target EU	3	3	3							3	3	3	Supply	Micro
16	12i4) Lack of knowledge of other cultures		4								4	4		Supply	Micro
17	12i5) Slow response to market needs	5			5		5						5	Supply	Micro
18	12i6) Lack of involvement with globalization	6			6		6					6	6	Supply	Micro
19	12j1) Lack of programme awareness		1		1		1				1	1	1	Supply	Micro
20	12j2) Lack of knowledge about B'Mext						2				2		2	Supply	Micro
21	13b1) Sporadic and unsystematic exports	1			1					1	1	1	1	Supply	Micro
22	13c1) Experience in domestic markets	1							1		1	1	1	Supply	Micro
23	13c2) Experience in international markets	2								2				Supply	Micro
24	14a1) Large and oligopolistic foreign firms	1		1	1				1		1	1	1	Supply	Micro
25	14b3) Trade agreements benefit large Mexican firms										3			Supply	Micro
26	14c3) SMEs absorbed by larger firms												3	Supply	Micro

27	15a1) Short-term horizons			1	1				1		1	1	1	Supply	Micro
28	15a2) Mexican SMEs not in time		2								2		2	Supply	Micro
29	15a3) Lack of internationalization culture		3		3						3	3	3	Supply	Micro
30	15a4) Non-investing business culture				4							4	4	Supply	Micro
31	15b1) Long time to establish operations		1	1							1	1	1	Supply	Micro
32	15c1) Cultural differences affect business		1								1	1	1	Supply	Micro
33	15c2) EU long-termism vs. Mexican short-termism	2	2				2		2		2		2	Supply	Micro
34	22a2) Large Latin population in US (networks)	2	2				2		2			2	2	Supply	Meso
35	22b1) Presence of American traders in Mexico								1			1	1	Supply	Meso
36	22b3) Mexican firms' experience in US market	3	3	3	3				3		3			Supply	Meso
37	24b2) High-income markets	2	2	2	2			2			2			Supply	Meso
38	24b5) Well-informed, educated consumers	5	5		5						5			Supply	Meso
39	24c2) High competition in the EU	2	2	2			2		2		2	2	2	Supply	Meso
40	24c6) Larger investment required	6	6	6					6	6	6	6	6	Supply	Meso
41	25a2) Lack of involvement with EU customers	2	2		2				2	2			2	Supply	Meso
42	25a3) Lack of knowledge to register brands in the EU				3						3			Supply	Meso
43	25a4) Lack of knowledge about EU regulation	4			4		4		4		4	4		Supply	Meso
44	25b2) Other EU markets		2					2				2	2	Supply	Meso
45	26a1) Small trade between Mexico and the EU	1	1	1					1		1		1	Supply	Meso
46	28a3) Petroleum and natural resources			3					3				3	Supply	Meso
47	28b2) Chemical, pharmaceutical exports	2			2		2		2		2		2	Supply	Meso
48	28b4) Software and IT	4			4				4					Supply	Meso
49	28c1) Textile sector	1		1	1		1			1			1	Supply	Meso
50	28c2) Agricultural sector	2		2									2	Supply	Meso
51	28c3) Furniture sector	3			3		3							Supply	Meso
52	28c4) Mexican silver jewellery industry						4						4	Supply	Meso
53	29a1) Lack of knowledge of Mexican firms, products	1		1	1						1	1	1	Supply	Meso

[illegible]

80	35a2) Mexico preferred to other Latin America				2						2		2	Supply	Macro
81	35a3) Good image of Mexico in the EU	3	3		3		3	3	3		3	3	3	Supply	Macro
82	35b3) Mexico not seen as an industrial country			3	3						3	3		Supply	Macro
83	41a2) Export promotion and FDI as important	2	2	2	2	2								Supply	Policy
84	41b1) Positioning Mexico as commercial power				1		1		1					Supply	Policy
85	42a1) Support through credit		1					1			1	1		Supply	Policy
86	42a3) Government more active for SMEs	3	3	3				3	3		3	3	3	Supply	Policy
87	42b3) Lack of government support for B'Mext	3		3	3		3						3	Supply	Policy
88	42b5) Inadequate industrial policy for SMEs			5	5	5					5	5	5	Supply	Policy
89	42c1) Lack of investment in infrastructure				1					1	1	1	1	Supply	Policy
90	42c2) Lack of dissemination of information	2	2		2						2	2	2	Supply	Policy
91	42c3) Lack funding for technological advance			3							3	3	3	Supply	Policy
92	42c4) Lack of investment in education	1												Supply	Policy
93	42c5) Mexican SMEs pay for B'Mext services	5											5	Supply	Policy
94	43b2) Chinese and other SMEs supported						2		2		2	2	2	Supply	Policy
95	45a2) Financial support and credit for SMEs	2			2	2			2		2	2	2	Supply	Policy
96	45a4) Prompt industrial networks	4			4									Supply	Policy
97	45a5) Strengthen specific sectors	5	5		5			5				5		Supply	Policy
98	45a7) Prompt national associations, chambers	7									7			Supply	Policy
99	45a10) Open B'Mext offices in foreign markets	1		1							1	1	1	Supply	Policy
100	45a11) Set up information intelligence unit	1	1	1	1		1		1		1			Supply	Policy
101	45a12) Mexico needs to invest in technology, R&D			2	2						2	2	2	Supply	Policy
102	45a13) Invest in infrastructure and logistics				1					1	1		1	Supply	Policy
103	46a3) Management of information	3	3		3		3		3				3	Supply	Policy
104	46a5) Trade marks (Made in Mexico)	5												Supply	Policy
105	46a7) Mexican SMEs in EU help others enter	7					7		7		7			Supply	Policy

Table A5: Demand Cluster

		NL	DE 1	UK1	ES1	FR 1	UK 2	UK 3	FR2	FR 3	ES2	DE2	IT	Cluster Group	Category
1	12a2) Mexican firms constrained in the EU	2	2			2	2	2		2	2	2		Demand	Micro
2	12c2) Lack of good designs	2	2	2				2		2	2	2	2	Demand	Micro
3	12f1) Lack of competitiveness	1	1	1			1	1		1	1		1	Demand	Micro
4	12f2) Other countries' firms have lower costs	2	2	2			2	2		2	2	2	2	Demand	Micro
5	12g1) Lack of added-value products for export	1				1		1		1	1	1	1	Demand	Micro
6	12h2) SMEs need technological advances		2	2		2		2		2	2	2	2	Demand	Micro
7	12i1) Lack of preparation for entering the EU	1	1	1		1		1	1	1	1	1	1	Demand	Micro
8	13a1) Exporting directly	1	1	1	1	1	1	1	1	1	1	1	1	Demand	Micro
9	13a2) Slow and difficult internationalization	2	2	2	2	2	2	2	2	2	2	2	2	Demand	Micro
10	14c2) Smaller firms less ready to internationalize	2	2	2	2	2				2	2	2	2	Demand	Micro
11	21b1) Distance to EU as a disadvantage	1	1	1		1	1	1	1	1	1	1	1	Demand	Meso
12	22a1) Strong attraction to America, Spain	1	1	1		1	1	1	1		1	1	1	Demand	Meso
13	22b2) Strong trade between Mexico and US		2	2		2	2	2	2			2	2	Demand	Meso
14	22b4) US market more profitable than EU		4			4	4		4	4	4	4	4	Demand	Meso
15	22c1) Close proximity between Mexico and US		1	1		1	1	1	1				1	Demand	Meso
16	23a2) Spain attracts Mexican firms due to language	2	2	2	2			2	2	2	2	2	2	Demand	Meso
17	23a3) Differences in languages as a difficulty	3	3			3		3	3	3	3	3	3	Demand	Meso
18	23b1) Cultural, historical links of Mexico, Spain		1	1	1			1	1	1	1	1	1	Demand	Meso
19	24b1) High costs	1	1	1		1	1	1	1	1	1	1	1	Demand	Meso
20	24b3) Demanding markets		3	3	3		3	3	3	3	3	3	3	Demand	Meso
21	24b4) Markets of brands			4				4			4		4	Demand	Meso
22	24c1) Unattractive markets for Mexican SMEs	1	1	1	1	1			1	1	1	1	1	Demand	Meso
23	24c3) Much adaptation, flexibility needed	3	3	3	3	3		3	3	3	3	3	3	Demand	Meso
24	24c5) Loyal and humanitarian markets				5			5		5			5	Demand	Meso
25	25a1) Lack of knowledge about EU markets	1	1	1		1	1	1			1	1	1	Demand	Meso
26	25b1) Spanish market		1	1	1			1	1	1	1	1	1	Demand	Meso
27	26a2) Little presence of Mexican SMEs in the EU	2	2	2	2	2	2		2	2	2	2	2	Demand	Meso
28	27a1) Some Latin American competitors		1	1				1		1	1		1	Demand	Meso

29	27a2) Asian firms (including India, China)	2	2	2	2	2	2	2			2	2	2	Demand	Meso
30	28a1) Fresh produce	1	1	1	1	1	1	1	1	1	1	1	1	Demand	Meso
31	28a2) Leather, shoes, textiles and handicrafts	2	2	2	2	2			2	2	2		2	Demand	Meso
32	28b1) Automobile, aerospace, electronics	1	1	1	1	1	1	1	1	1	1	1	1	Demand	Meso
33	28b3) Few SMEs in non-traditional sectors	3	3	3	3	3	3		3		3	3	3	Demand	Meso
34	29a4) Mexican products seen as low-price products						4	4						Demand	Meso
35	29b3) Good image of Mexican firms, products in EU		3		3			3					3	Demand	Meso
36	210a1) Commercialization through importers	1	1	1		1	1	1	1	1	1	1		Demand	Meso
37	211a1) Strategic alliances of foreign/Mexican firms	1	1	1	1	1	1		1	1		1	1	Demand	Meso
38	211a3) Few alliances between Mexican and EU firms		3	3	3	3		3	3		3	3	3	Demand	Meso
39	212a1) Trade fairs help position products	1	1	1	1	1	1	1	1			1	1	Demand	Meso
40	31a1) Globalization = internationalization	1	1	1		1	1	1	1	1	1	1	1	Demand	Macro
41	31b1) Trade agreements competitive advantage	1	1	1	1		1	1	1			1	1	Demand	Macro
42	31b2) Trade agreements attract FDI to Mexico		2	2		2		2	2			2	2	Demand	Macro
43	31b5) Trade access to new technologies	5	5	5	5	5		5			5		5	Demand	Macro
44	31b6) The EU–Mex trade agreement	6	6	6	6	6	6	6	6			6		Demand	Macro
45	32b1) Domestic markets intensely competitive	1		1		1	1	1			1	1	1	Demand	Macro
46	33a2) Lack of credit at good interest rates	2	2	2	2			2			2	2	2	Demand	Macro
47	33b1) The constant economic crises		1				1							Demand	Macro
48	35a1) Image of Mexico as tourist destination	1	1	1	1		1	1			1	1	1	Demand	Macro
49	41a1) Attracting FDI the most representative		1	1	1	1	1	1	1	1	1	1	1	Demand	Policy
50	41c1) B'Mext important for internationalization	1	1	1	1	1	1	1	1	1	1		1	Demand	Policy
51	41c2) B'Mext offices located in major markets		2	2	2	2			2		2	2	2	Demand	Policy
52	41d1) Promoting alliances of foreign/Mexican firms		1		1	1	1	1					1	Demand	Policy
53	42a2) Programmes for SME internationalization	2	2	2	2	2	2	2	2	2	2	2	2	Demand	Policy
54	43b1) Some Latin American countries support		1					1		1	1		1	Demand	Policy
55	46a1) Product specialization and design		1	1	1		1	1	1	1	1	1	1	Demand	Policy
56	46a2) Acquisition of technology		2	2		2		2		2	2	2	2	Demand	Policy
57	46a4) To obtain certification	4	4			4		4	4	4			4	Demand	Policy

58	46a6) International marketing and branding			6	6			6		6	6		6	Demand	Policy
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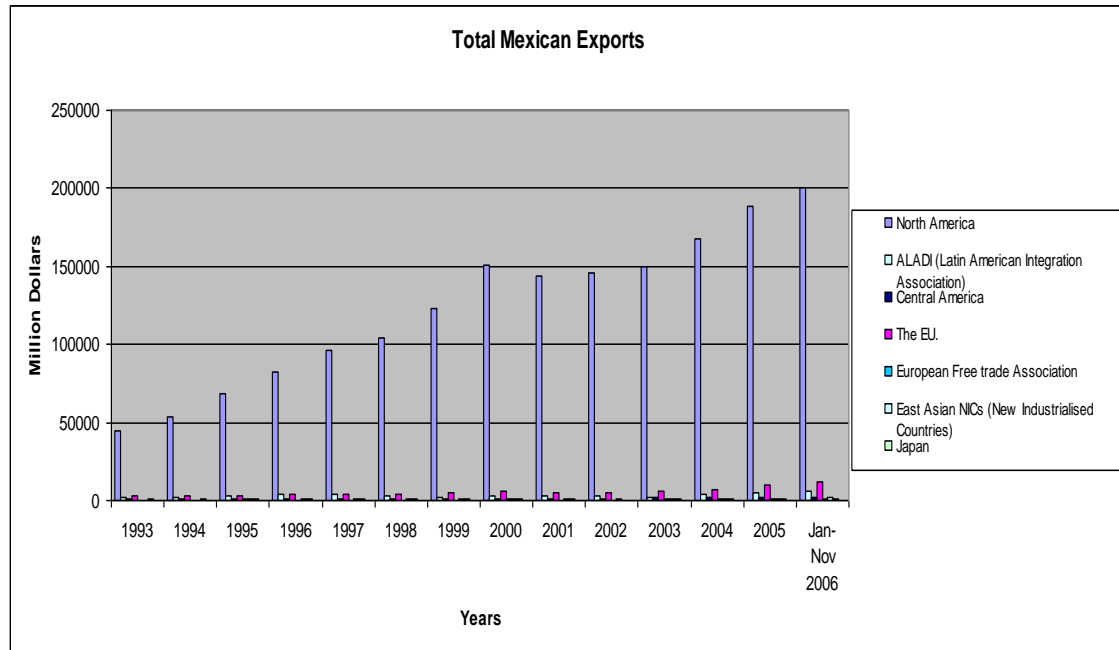
Table A6: Trade Competitiveness Cluster

		NL	DE1	UK 1	ES1	FR1	UK 2	UK 3	FR2	FR3	ES2	DE2	IT	Cluster Group	Category
1	11d2) Risk taking								2		2	2		Trade-comp	Micro
2	12a1) Financial weakness	1		1	1	1	1	1		1	1	1	1	Trade-comp	Micro
3	12e1) Resources affect product development			1						1	1	1	1	Trade-comp	Micro
4	12f3) European labour more skilled than Mexican			3										Trade-comp	Micro
5	13b2) Much effort to sell small volumes								2	2	2	2		Trade-comp	Micro
6	14b1) Added-value products of large Mexican firms	1		1						1		1		Trade-comp	Micro
7	14b2) Large Mexican firms in EU			2						2	2	2		Trade-comp	Micro
8	14c1) SMEs' flexibility in production		1	1	1									Trade-comp	Micro
9	14c4) Small size not against internationalization		4		4									Trade-comp	Micro
10	15c3) EU foreign trade vs. Mexican domestic trade											3		Trade-comp	Micro
11	15c4) Differences in communication									4	4	4		Trade-comp	Micro
12	21a1) Location to enter US, Latin America			1	1			1	1			1		Trade-comp	Meso
13	21a2) Strategic advantage for NAFTA			2	2			2	2	2		2	2	Trade-comp	Meso
14	21a3) Positive location to attract FDI	3		3	3				3	3		3		Trade-comp	Meso
15	23a1) Transactions with Americans in Spanish								1			1		Trade-comp	Meso
16	23c1) EU countries trade with ex-colonies			1			1			1				Trade-comp	Meso
17	23c2) Limited relations between Mexico, EU			2	2		2					2		Trade-comp	Meso
18	24a1) Closed markets			1			1	1		1	1	1		Trade-comp	Meso
19	24a2) Protected markets		2	2			2			2	2	2		Trade-comp	Meso
20	24c4) EU markets operate in associations	4	4	4						4	4	4		Trade-comp	Meso
21	24c7) Highly regulated markets	7		7			7			7				Trade-comp	Meso
22	24d1) Risk-averse markets			1			1							Trade-comp	Meso

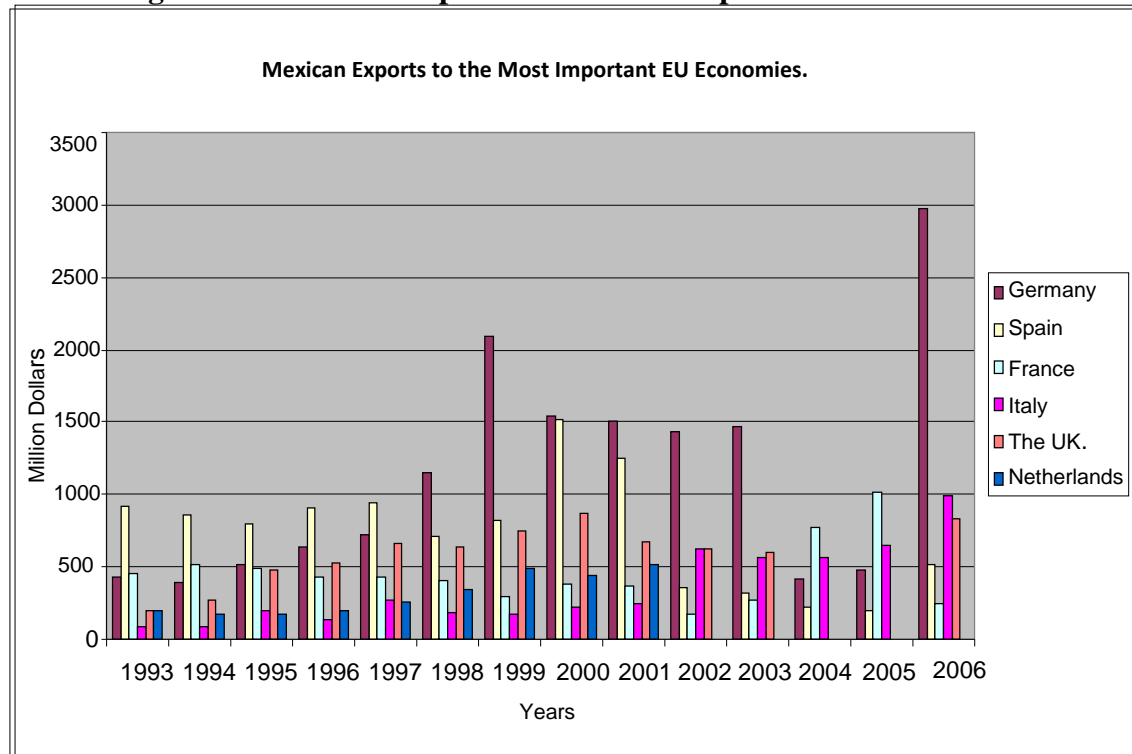
23	26a3) Lack of Mexican investment in EU			3								3		Trade-comp	Meso
24	26a4) Increase of Mexican SMEs in EU from trade	4	4	4		4			4			4	4	Trade-comp	Meso
25	27a3) Eastern Europe and Turkey			3		3	3	3		3				Trade-comp	Meso
26	29a2) No image of Mexican products			2	2					2	2	2		Trade-comp	Meso
27	29b1) Stereotypes as exotic products									1		1		Trade-comp	Meso
28	210a2) Number of intermediaries raises prices			2										Trade-comp	Meso
29	211b2) Mex SMEs unused to alliances			2	2							2		Trade-comp	Meso
30	31b7) Neo-liberal ideology of B'Mext			7			7	7	7	7		7		Trade-comp	Macro
31	32a1) Increase in competitiveness	1	1	1	1				1			1	1	Trade-comp	Macro
32	32a2) Mexican firms enter markets if competitive	2	2	2	2				2			2		Trade-comp	Macro
33	32b2) Competition from developed countries	2		2	2		2			2	2	2		Trade-comp	Macro
34	33a1) Mexican cost competitiveness has fallen			1	1									Trade-comp	Macro
35	34a1) Differ from developed countries' firms	1		1	1		1			1	1	1	1	Trade-comp	Macro
36	34a7) Developed countries better at negotiation			7										Trade-comp	Macro
37	35b2) Not valued as trade/business partner			2	2	2	2	2		2	2			Trade-comp	Macro
38	41c3) Providing technical assistance		3	3	3	3		3	3	3		3		Trade-comp	Policy
39	41c4) Providing information most important	4		4	4		4	4	4	4	4	4	4	Trade-comp	Policy
40	42b1) Poor government support for globalization	1		1	1	1	1			1	1	1	1	Trade-comp	Policy
41	42b2) Need foreign commercial infrastructure		2	2	2	2	2				2	2		Trade-comp	Policy
42	42b4) B'Mext has a neo-liberal ideology			4				4	4	4		4	4	Trade-comp	Policy
43	43a1) Developed country subsidies hurt Mexico			1	1		1				1			Trade-comp	Policy
44	43a2) Developed countries' intelligences				2									Trade-comp	Policy
45	43b3) Developing countries' support is lower			3	3		3				3	3		Trade-comp	Policy
46	45a3) Set up sub-contract projects			3										Trade-comp	Policy
47	45a8) Foster business incubators for EU		8	8										Trade-comp	Policy
48	45a9) Programmes for internationalization	4	4	4	4	4			4		4	4		Trade-comp	Policy

Table A7: Regulation Cluster

		NL	DE1	UK1	ES1	FR1	UK2	UK3	FR2	FR3	ES2	DE2	IT	Cluster Group	Category
1	26a5) SMEs' presence raised due to B'Mext					5	5	5	5		5	5		Regulation	Meso
2	26a6) Lack of certification and small presence	6		6		6		6		6			6	Regulation	Meso
3	26a7) EU regulations causing small presence	7		7	7	7			7	7			7	Regulation	Meso
4	31b3) Attracting FDI generates income				3	3			3		3			Regulation	Macro
5	35b1) Mexico is not broadly known			1		1	1			1		1	1	Regulation	Macro
6	44a1) Regulations and standards problematic	1		1	1	1	1		1	1			1	Regulation	Policy
7	44a2) Requirements and certifications costly	2		2		2	2		2				2	Regulation	Policy
8	45a1) Reduction of tariffs and taxes					1								Regulation	Policy
9	45a6) Set up projects with long-term horizons			6		6							6	Regulation	Policy

Figure A1: Total Mexican Exports 1993-2006

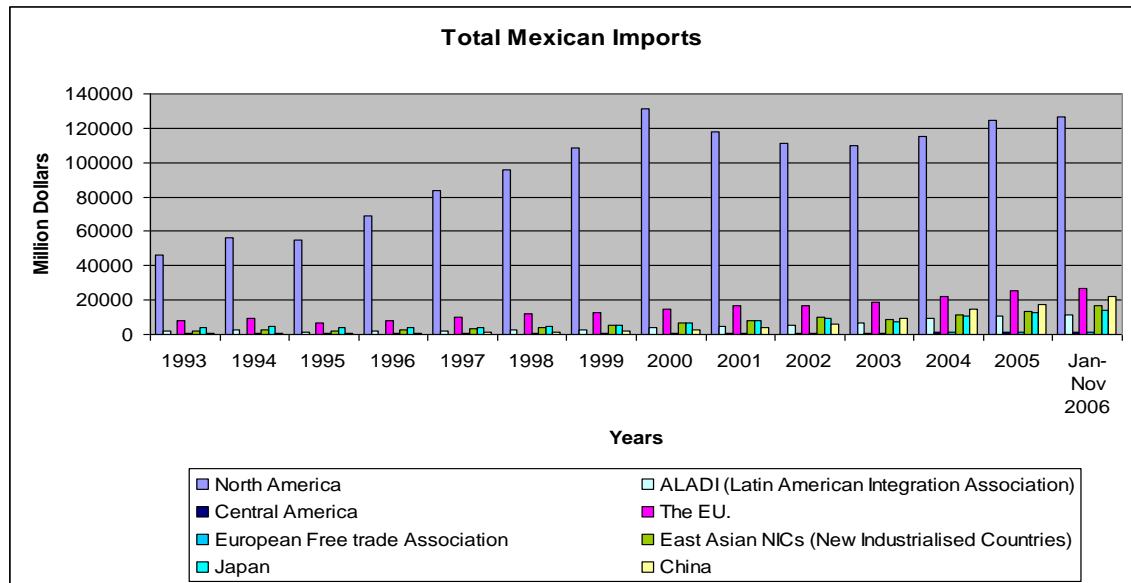
Source: This figure was elaborated by the author with information published by the Mexican Ministry of Economy. [Online] Available from: http://www.economia-snci.gob.mx/sphp_pages/estadisticas/cuad_resumen/expmx_e.h (Accessed: 9th February 2008).

Figure A2: Mexican Exports to the Most Important EU Economies

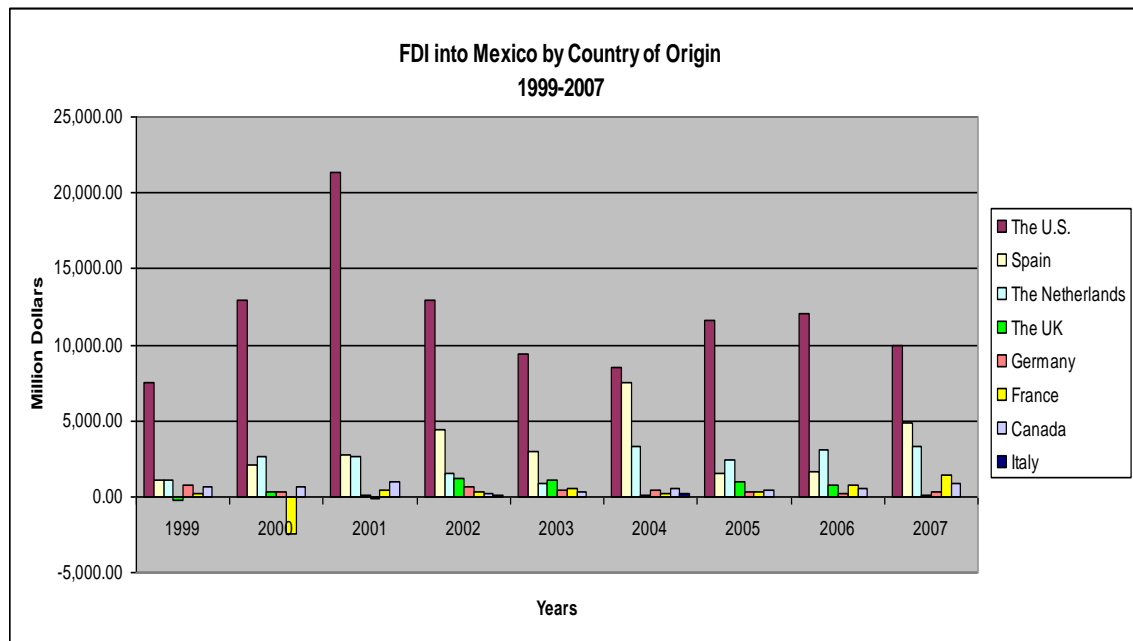
Source: This table was collated by the author with information published by the Ministry of Economy, Mexico. [Online] Available from: http://www.economia-snci.gob.mx/sphp_pages/estadisticas/cuad_resumen/expmx_e.h (Accessed: 9th February 2007).

Figure A3: Total Imports 1993-2006¹⁵³

¹⁵³Mexico imports manufacturing products, specifically machinery (power-generating machinery), chemicals products, transport equipment and primary products (mainly energy) from Europe (mainly from Germany, Italy, Spain and France) (Ministry of Economy, Mexico. [Online] Available from: http://www.economia.gob.mx/swb/es/economia/p_Comercio_Exterior (Accessed: 10th June 2011)).



Source: The information in this figure was collated by the author with information published online. Available from: www.economia-snci.gob.mx (Accessed: 9th February 2008).

Figure A4: The Main Investors in Mexico¹⁵⁴

Source: The information in this figure was collated with data from the Mexican Ministry of Economy. [Online] Available from: <http://www.si-rnie.economia.gob.mx> (Accessed: 29th August 2008).

¹⁵⁴ The main investors from Europe in Mexico are Spain, the Netherlands, the UK, France, Germany and Italy.