

UNIVERSITY OF QUEBEC IN MONTREAL

THE PERFORMANCE OF THE INTERNATIONALIZATION PROCESS
OF MEXICAN MANUFACTURING FIRMS: AN EMPIRICAL STUDY

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IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DOCTORAL DEGREE IN BUSINESS ADMINISTRATION

BY

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UNIVERSITÉ DU QUÉBEC À MONTRÉAL

LA PERFORMANCE DU PROCESSUS D'INTERNATIONALISATION DES FIRMES
INDUSTRIELLES MEXICAINES : UNE ENQUÊTE EMPIRIQUE

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ALEJANDRO ROGRIGUEZ-VALLE

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DE LA EMPRESA MANUFACTURERA MEXICANA

TESIS

PRESENTADA

COMO EXIGENCIA PARCIAL

DEL DOCTORADO EN ADMINISTRACION

POR

ALEJANDRO RODRIGUEZ-VALLE

ENERO DEL 2013

A mis padres

To my parents

À mes parents

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LISTS OF ABBREVIATIONS AND ACRONYMS

ACA	Absorptive Capacity
BANCOMEXT	Mexican Export Bank
CANACINTRA	Mexican Chamber of Manufacturing Firms
CANACO	National Chamber of Commerce
CECOFE	Industrial Development Council of the State of Guanajuato
CEPAL	Economic Council for Latin America
CONACYT	Mexican Council of Science and Technology
DOI	Degree of Internationalization
EC	European Community
ESG	School of Management Sciences (see UQAM)
FDI	Foreign Direct Investment
FSI	Ratio of Foreign Sales to Total Sales (Foreign Sales Intensity)
FUNDES	Latin American Fund for Economic and Social Development
HBS	Harvard Business School
IJV	International Joint Venture
IMF	International Monetary Fund
INEGI	Mexican Institute for Geographical and Economic Research
IOENT	International Oriented Entrepreneurship
IOTM	International Oriented Top Management
JV	Joint Venture
KBT	Knowledge-based Theory
MERCOSUR	South American Common Market
MFG	Manufacturing

MIT	Massachusetts Institute of Technology
MKTG	Marketing
MNC	Multinational Corporation
NAFTA	North American Free-Trade Accord
OE	Organizational Economics
OECD	Organization for Economic, Cooperation and Development
RBV	Resource-based View
R and D	Research and Development
SIC	Standard Industry Code
SME	Small and Medium-sized Enterprises
SPSS	Statistical Package for Social Sciences ©
TCE	Transaction Cost Economics
UQAM	University of Québec in Montreal
UNAM	National University of Mexico
UNCTAD	United Nations Centre for Technology and Development
UNCTC	United Nations Centre for Trans-national Corporations
UK	United Kingdom
USA	United States of America
UV	State University of Veracruz

RÉSUMÉ

L'étude scientifique de l'internationalisation de la firme est sur le point d'arriver à ses cinquante ans de recherche, toutefois durant tout ce temps, un volume et une variété de matériel considérables ont été réalisés. Il est clair que la recherche réalisée et celle qui est en cours, visent à expliquer, démontrer et créer une nouvelle théorie autour de l'activité internationale des entreprises dont les centres de décisions se situent dans les pays du « monde occidental développé ». Ce qui signifie que presque tout le travail académique, autant la partie théorique qu'empirique, s'efforce de remplir les vides perçus dans les différentes explications de l'internationalisation de la firme de ces pays, à supposer que n'importe quelles généralisations obtenues soient applicables dans le monde, autant développé que non développé. En tout cas, de cet effort de la communauté académique ressort une concurrence fermée afin de réussir à imposer une théorie générale d'internationalisation de la firme, tout en créant dans le processus « écoles de pensée » qui prétendent apporter « la » théorie générale et qui explique le phénomène de l'internationalisation de la firme.

Il est indubitable que les apports en matière d'internationalisation, venant des pays appelés « pays développés », ont été diffusés, avec une certaine réussite, tout en impliquant que ces apports sont universellement éminents et applicables. Ceci n'est pas du tout passé inaperçu et de cette manière, des organisations comme la Conférence des Nations Unies pour le Commerce et le Développement (CNUCED) a lancé un appel pour une rencontre d'experts afin d'explorer l'élargissement de la capacité des « pays en voie de développement » à travers l'internationalisation de leurs compagnies (CNUCED, 2005)

Cette thèse argumente que la théorie de l'internationalisation de la firme a besoin d'une recherche scientifique du phénomène dans des contextes alternatifs, comme dans les pays appelés « pays non développés ». Une telle activité de recherche doit éclairer la discussion sur le fait que pour être comprise, il faut que l'internationalisation soit d'abord mise en contexte. En suivant cette réflexion, nous avons étudié l'internationalisation de la firme mexicaine. Le Mexique fait partie des quinze plus grandes économies mondiales, c'est aussi un participant actif dans le commerce et les investissements mondiaux et le Mexique, en collaboration avec le Canada et les Etats Unis, a fondé le Traité de Libre Commerce d'Amérique du Nord (A.L.E.N.A) et pourtant la communauté académique des affaires internationales a travaillé de manière limitée sur une théorie de l'internationalisation de la firme mexicaine. Dans ce projet de recherche, nous nous sommes concentré sur la firme

mexicaine manufacturière internationalisée et en voie de l'être car cela représente un des secteurs économiques qui possède l'information statistique disponible la plus sophistiquée et complète (Holtbrügge, 2003 ; INEGI, 2005). Nous avons vérifié la littérature correspondante dans le but de positionner notre projet et nous avons développé un cadre conceptuel préliminaire. De la même manière, nous en avons déduit une série de propositions théoriques ou d'hypothèses à démontrer par rapport à ces entreprises mexicaines.

Il est utile de mentionner que notre recherche a été éminemment empirique, y compris l'application d'un sondage à partir de bases de données nationales de firmes manufacturières mexicaines. De même, une série d'entretiens a été réalisée auprès de cadres et de chefs d'entreprises en voie d'internationalisation. Ce travail de recherche a eu pour but de produire de nouvelles perspectives théoriques et pratiques sur le phénomène de l'internationalisation de la firme manufacturière mexicaine. Il s'avère que cette recherche a signalé une zone d'études dans laquelle nos travaux de recherche s'inscrivent et qui devraient produire de nombreux résultats.

Mots-clés : Internationalisation de la firme – firme industrielle – firme mexicaine – intensité des ventes étrangères – satisfaction avec la performance – entrepreneuriat.

ABSTRACT

The study of the internationalization of the firm is about to be fifty years old; nevertheless, it has become voluminous and varied since its start. It is not surprising that completed and pending research concentrates its effort to explain the internationalization process as it happens in firms whose headquarters are located in what are called 'developed countries'. Theoretical and empirical work converges in an effort to fill-in the gaps perceived in the different explanations of the internationalization of firms. This has resulted in the formation of schools of thought which pretend to have provided the definitive general theoretical explanation of the internationalization of the firm phenomenon.

It is a fact that the products of these efforts have produced contributions to a body of knowledge that nowadays has successfully established worldwide the general theory of internationalization of the firm, assuming along the proposed lines of thought that this theory is universally applicable the same way it claims applicability in the rather limited group of the so-called 'developed countries'. But this inconvenience has not gone unnoticed at the United Nations Conference on Trade and Development (UNCTAD), which has called for an expert meeting on enhancing capacity of developing country firms through internationalization (UNCTAD, 2005).

This thesis argues that theory on the internationalization of the firm needs major testing in the non-developed countries environment. Such research activity should shed light on the argument that internationalization of the firm is a 'culture-contextualized' phenomenon. With this need in mind, we studied the internationalizing of Mexican firms because though Mexico is among the fifteen largest economies in the world, an active participant in international trade and a co-founder of the North American Free Trade Accord (NAFTA), the international business scholarly community has largely ignored building theory on the internationalization of the Mexican firm. Among the Mexican internationalizing firms we focused on the manufacturing firm, which represents the economic sector with the best statistical databases to support the research efforts in the area of the internationalization of the firm (Holtbrügge, 2003, INEGI, 2005). We went through a literature review to position our research effort and developed a preliminary conceptual framework. Based on our conceptual framework we derived a set of theoretical propositions to be tested with Mexican manufacturing firms. Our

research inquiry was fundamentally empirical, which included the application of an internet survey to a national sample of internationalizing Mexican manufacturing firms and in-depth interviews of senior officers and owners of internationalizing Mexican manufacturing firms. This research, we believe, has produced some theoretical and practical insights into the internationalization of the Mexican manufacturing firm phenomenon and identified future research areas which could be particularly fruitful.

Keywords : Internationalisation of the firm – manufacturing firm - Mexican manufacturing firm – foreign sales intensity – performance satisfaction – entrepreneurship.

RESUMEN

El estudio científico de la internacionalización de la firma esta a punto de cumplir cincuenta años de antigüedad, y sin embargo en este tiempo ya se ha alcanzado un volumen y variedad de material considerables. No es entrañable que la investigación realizada, y la que esta en curso, estén enfocadas a explicar, a probar y a crear nueva teoría en torno a la actividad internacional de empresas, cuyos centros de decisión se encuentran, en los países denominados del 'mundo occidental desarrollado'. Esto quiere decir, que casi todo el trabajo académico, tanto teórico y como empírico, converge en esfuerzos por llenar los vacíos percibidos en las diferentes explicaciones de la internacionalización de la firma de estos países, en el supuesto que cualesquiera generalizaciones alcanzadas sean aplicables a todo el mundo conocido, tanto el 'desarrollado' como el 'no desarrollado'. De cualquier manera, dicho esfuerzo de la comunidad académica ha resultado en una competencia cerrada por lograr imponer una teoría general de internacionalización de la firma, creando en el proceso 'escuelas de pensamiento' que pretenden aportar 'la' teoría general que explica el fenómeno de la internacionalización de la firma.

Es indudable que las aportaciones en materia de internacionalización, originada en los llamados 'países desarrollados', han sido difundidas, con cierto éxito, implicando que dichos aportes al conocimiento son 'universalmente' relevantes, y aplicables. Esto no quedado desapercibido del todo, y así, organizaciones como la Conferencia de las Naciones Unidas para el Comercio y el Desarrollo (UNCTAD) ha hecho un llamado a un encuentro de expertos para explorar la ampliación de la capacidad de los 'países en desarrollo' al través de la internacionalización de sus firmas (UNCTAD, 2005).

Esta tesis arguye que la teoría de la internacionalización de la firma necesita de investigación científica del multicitado fenómeno en contextos alternativos, como en los llamados países 'no desarrollados'. Tal actividad de investigación debe arrojar luz sobre la discusión de que la internacionalización de la firma para ser comprendida debe ser previamente contextualizada. Siguiendo esta línea de pensamiento, estudiamos la internacionalización de la firma mexicana. México es una de las quince economías mas grandes del mundo, es un activo participante en el comercio y las inversiones mundiales, y ha fundado conjuntamente con Canadá y USA el Tratado de Libre Comercio para América del Norte (NAFTA), y sin embargo la comunidad académica de negocios internacionales, ha trabajado muy limitadamente en la tarea de hacer teoría sobre la internacionalización de la firma mexicana. En este proyecto de investigación, nos hemos concentrado en la firma Mexicana

manufacturera internacionalizada e internacionalizándose, porque representa uno de los sectores económicos con la mas sofisticada y completa información estadística disponible (Holtbrügge, 2003; INEGI, 2005). Realizamos una revisión de la literatura correspondiente, para posicionar nuestro proyecto de investigación, y desarrollamos un marco conceptual preliminar. Asimismo, deducimos una serie de proposiciones teóricas o hipótesis para ser probadas con respecto a estas empresas mexicanas. Cabe mencionar que nuestra investigación fue eminentemente empírica, incluyendo la aplicación de una encuesta a partir de bases de datos nacionales de firmas manufactureras mexicanas. Asimismo se aplicó una serie de entrevistas a altos ejecutivos y propietarios de empresas en proceso de internacionalización. Este trabajo de investigación buscó producir nuevas perspectivas teóricas y prácticas sobre el fenómeno de la internacionalización de la firma manufacturera mexicana. Esta investigación produjo asimismo el señalamiento de futuras áreas de estudio, donde nuevos trabajos de investigación habrán de producir nuevos frutos.

Palabras clave: Internationalizacion de la firma –firma manufacturera – firma mexicana – intensidad de la ventas foráneas – satisfacción del desempeño – empresario.

INTRODUCTION

Overview

In 2005, Mexico was the tenth largest exporting nation, representing 2.8 percent of worldwide exports. Also in 2005, Mexico became the eighth largest importing nation, representing 2.9 percent of worldwide imports. In the nineties, Mexican exports and imports grew at a compound rate of 15 percent, tripling its pre-NAFTA international total trade by the year 2000. At the regional level, Mexican international total trade represents more than 45 percent of Latin American international trade, and in 2005 Mexico received approximately US \$18 billion of FDI, the largest amount in the region. Nevertheless, concern was expressed in the business media about the Mexican firm's ability to sustain its presence in the fiercely international markets, so much so that the international competitiveness of the Mexican manufacturing firm was questioned (Abarca, July 2006). In the 2005 economic survey on Mexico, OECD experts expressed some doubts regarding the endurance of the Mexican firm vis-à-vis the Chinese and Indian firms (OECD, 2005, p. 26, Devlin *et al.*, 2006). Often, the worldwide internationalization of national firms is actualized, on the one hand, as a result of national economic vitality, and on the other hand, this very same internationalization of national firms is perceived as instrumental for furthering economic wealth creation, which should alert us to the importance attached to internationalization of firms by vested national interests throughout the world; this is an arena for a never-ending contest among international participating firms, each promoting its own vested interests while servicing those markets.

Adding to this challenging environment, the Mexican internationalizing firm has no specific base knowledge to rely upon; therefore, it must take shortcuts and rely upon research done in the academia of developed countries, assuming that its international management theories are context-free (Hafsi and Faransini, 2005). This assumption might prove harmful for both the private and the national interest in the less developed world, with the possibility that blame be on defective implementation work, which might not be the case. The former should be more than enough reason for the intense academic testing of the validity of theoretical work already done, and advanced empirical work worldwide (Daniel and Radebough, 1998; Welch and Luostarinen, 1999).

Definition of the internalization of the firm

In this thesis we will adopt the definition of internationalization of the firm as 'the process of its increasing involvement in international operations' (Welch and Luostarinen, 1999). This definition applies to both inward and outward internationalization of the firm, as well as to the internationalization of the firm in its several qualifiers, like those of large vs. small and medium-sized firms, or public versus private firms, or manufacturing versus service firms, or national versus foreign-owned firms. Our definition is focused on the internationalization of Mexican private manufacturing firms, but for simplifying purposes referred to as the *Mexican manufacturing firm*.

The concept of internationalization is a problem insofar as its significance becomes difficult to grasp due to conflicting theoretical stances and the high economical and political stakes that are involved. In addition, internationalization gets sometimes confused with the concept of globalization as it happens, for example, with the globalization-regionalization debate (Rugman, 2000). And we will not take this debate further. Instead we will concentrate on a discussion at the level of the firm where decision-making concerning the internationalization process of a specific firm takes place.

Mexico and its manufacturing firms

The manufacturing firm comprises a large portion of all firms across the world, and the situation in Mexico is no exception to this rule. In Mexico, enterprises are defined in

terms of a sector and employment criterion (Zevallos, 2003). The manufacturing sector comprises the more formalized and studied type of enterprise in Mexico, as elsewhere around the world. In table A below, we present an estimation of the number of the population of Mexican manufacturing firms, based mainly on the commercial and industrial census work published by the Secretary of Economy (INEGI 2000, 2005, 2010).

Table A

Mexican manufacturing firms comparison 1998, 2005 and 2009 (in thousands of firms)

Year	1998	2004	2009
Total firms	2793	2940	5194
Δ %		5%	43.3%
Manufacturing firms	363	382	435
Δ %		4.9%	12.1%

Sources: Zevallos, 2003) and the Mexican National Micro-business Survey (INEGI, 2010).

In Mexico, manufacturing firms represent an elitist part of the economy and the evolution of this sector is a consequence of the contradictions of the signing of the NAFTA treaty by Mexico. This can be seen in table A, where the manufacturing firms' growth rate shows to be the same as that of the rest of the firms between 1994 and 2004; this was a period of economic boom for Mexico. But the 12.1 percent growth rate between 2005 and 2009 for manufacturing firms contrasts severely with the 43.3 percent for the rest of the firms. This represents a shrinkage of the number of manufacturing firms from 13 percent to 8.4 percent of the total of censused firms.

Outward Internationalization of the firm

When most internationalizing firms enter foreign markets, their fragility becomes evident due to their lack of experience, and most probably, their lack of tangible and intangible resources. A consensus seems to have been achieved by the international financial institutions as to the urgency of activating the competitiveness of the firms from the so-called

developing world and the economies 'in transition'. This concern centers on the argument that competitiveness of the firm can be achieved through internationalization (UNCTAD, 2005). Unfortunately, however, this consensus does not stem from any general theoretical development concerning the internationalization of the firm. The risk is undertaking actions whose causal links are not understood, but based on a hunch and 'common sense'.

In Mexico, as in other actively internationally involved countries, a concern for the Chinese and the Hindu economic challenges is mounting to such an extent that a discourse is emerging in the local business and scholarly communities. A popular argument is that lack of a coherent technology and innovation strategy on the part of the Mexican Establishment has rendered the Mexican firm fragile and uncompetitive. The need to understand the competitiveness entanglement lies within these perceptions, but empirically-based scholarly advice is absent from the 'war-rooms' of governments. After fifteen years of NAFTA enactment, a sense of urgency is mounting due to the reverse of fortune for the Mexican firm, both in foreign and domestic markets. After the more than quadrupling of the Mexican goods trade from barely US\$50 billion to more than US\$200 billion in 2005, trade has started to stagnate in several sectors of the Mexican economy, and incoming FDI is diminishing significantly (Didiot and Cordellier, 2004; Moreno-Brid and Rios, 2004). The former argument can be confirmed when examining international trade statistics shown in Table B. Exports figures are periodically published by the Mexican government and we can observe a steady growth of exports, although manufacturing exports grow faster than the rest of Mexican goods and services exports. Nevertheless, a decline in the growth rate is evident in 2003 and a decline in absolute terms is present in 2009. The possible recovery of the external sector of the Mexican economy brings into the discussion the competitiveness of the Mexican manufacturing firm and firms alike.

Table B
External sector of the Mexican economy 1995-2010

Year	1995	1997	1999	2001	2003	2005	2007	2009
Exports (US\$ B)	80	110	136	171	178	214	271	229
Manufacturing Exports (US\$ B)	31	36	53	77	78	97	--	--

Sources: L'état du monde 2005. OECD Economic Surveys-Mexico, 2005. Secretaria de Economía-Mexico, 2010.

Lack of understanding for the mechanism of internationalization of the Mexican firm alarms politicians, entrepreneurs, managers, and business analysts alike (Thomas, 2001).

Globalization and internationalization experts alike warn of greater difficulties in the near future for a few countries like Mexico. In fact, due to the mounting industrial emergence of the Chinese and Indian economies, not many countries are to be seen steering their path through a turbulent economic scenario on their own terms (MacGillivray, 2006).

The Mexican manufacturing firm

This doctoral dissertation focuses on the Mexican manufacturing firm, due to its proportionally greater institutional development and to its being organized around what in Mexico is known as the 40,000 member *Chamber of Manufacturing Firm* (CANACINTRA). In contrast with manufacturing firms, most service firms are organized around institutions whose available statistical data is of a much lower quality compared to that of the manufacturing sector. Also, the bulk of the Mexican Research and Development investment is made by manufacturing firms (OECD, 2005).

Research on the internationalization of the Mexican firm

Most of the research on internationalization of the firm, which has been undertaken in the so called developed countries, has remained unchallenged as the relevant material for

developing theory for the understanding and prediction of behavior of internationalizing Mexican firms. It is not clear to what extent Mexico's emergent market condition prevents manufacturing firms from engaging in an internationalization process.

In the case of Mexico, a few studies on internationalization of the firm have taken place, but the very few published studies aim at explaining the internationalization process of less than half a percent of censused firms (see Salas-Porras, 1998; Salgado, 2001; Leroy-Beltran, 2003; Young, 1993; Salas-Porras, 1998; Thomas, 2001, 2006; Carrillo-Rivera, 2003; Vasquez-Parraga, 2004; Vargas-Hernández, 2011; Thomas et al, 2012). Most of the research work has been sponsored by CONACYT, the National System of Research (SIN), The Mexican Network of Researchers and the Mexican branch of the Academy of Management (ACACIA), all of them with headquarters in Mexico city. In chapter I, we will comment further on the research of internationalized and internationalizing Mexican firms.

The problem statement

It is encouraging to find some effort spent on research on the internationalization of Mexican firms, even though this effort is devoted solely to either a few large Mexican firms or foreign subsidiaries in Mexico (see Lenartowicz and Johnson, 2003; Rozenzweig, 1994; Rozenzweig and Shaner, 2001; and Kuada and Sorensen, 2000.)

The international activities of firms have been studied at the firm level of analysis since the late fifties (Hymer, 1960), but the bulk of theoretical contributions had a slow start. This research work was done mostly by scholars from the so-called 'developed' world, resulting in theories about the internationalization process that reflected each scientist's culture and interests (Hofstede, 1994, p. 4). The prevalent idea was that if one best way to manage a business firm could be found, then it was applicable across countries and cultures. A challenge to such idea proved however difficult to accept (Newman and Nollen, 1996, p. 753). Kiggundu and his colleagues (1983) observed that most of the 'specialized' literature they reviewed was written by and for Western audiences, concluding that "each time the environment is involved, the theory developed for Western setting does not apply".

The theoretical and methodological problem with prevalent literature on the internationalization of the firm is one of external validity. Rosenzweig (1994) asked himself whether the relationship found replicated with firms from other cultures and backgrounds. This research addresses the issue of lack of replication. Therefore, we aim at carrying out empirical research specifically focusing on the Mexican manufacturing firm.

The context of international business research is a quiet, but radical, transformation in the adoption of internationalization by firms all around the world. This international strategic diversification has accelerated particularly in 'liberalized' markets, Mexico among them. This kind of general phenomena pushes decision-making to higher uncertainty levels, for entrepreneurs and managers alike. The lack of background information guiding management and entrepreneurs' actions poses a threat to the management of firms, hesitant of either getting involved or advancing still more into their internationalization (Ghoshal and Moran, 1996; Ghoshal, 2006).

Another issue relates to internationalization counselling, which risks offering simplistic formulas, sometimes derived from access to insufficiently tested theory. There is a role and a place for responsible scholars doing research on homogeneity and replication of existing internationalization theories. Therefore, we advocate additional research efforts spent on testing available internationalization theories, as well as more research on the generation of alternative scientific explanations of the internationalization phenomenon.

The research objective

This dissertation is an effort to challenge prevalent scientific explanation about the mechanisms and consequences of the internationalization process of Mexican manufacturing firms. Prevalent theory was developed outside Mexico and this research will test its explanatory power by using primary data collected from Mexican manufacturing firms.

Mexico's geographical position and closer economic ties with the USA somehow isolate Mexican scholars from other Latin American research efforts. Although unfortunate, this situation may be explained in light of Western scholars who do not usually mix their research efforts across nations, except for multinational companies and their subsidiaries,

which are but extensions of their home country and culture. For this reason, our objective in this research is to produce new insight into performance of the internationalization process of manufacturing firms in Mexico, based on rigorous research methodology, which includes a literature review, the development of a conceptual framework, and a research design mixing quantitative and qualitative methodology as deemed necessary; it also involves the use of research tools and the production of data, results, and conclusions, which should help better ascertain whether the performance of the internationalization process of Mexican manufacturing firms is explained by prevalent theory.

The research questions

Throughout this study we aim at answering the following questions:

Question one: How does the internationalization process of the Mexican manufacturing firm take place?

Question two: Does the performance of the internationalization process of the Mexican manufacturing firm conform to prevalent theory on the performance of the manufacturing firm from developed countries?

Most of the research design, data analysis, and the research work attempts to supply appropriate answers to these research questions.

Organization of this doctoral dissertation

Chapter I includes a review of the literature on internationalization of the firm, where most relevant research is reviewed and commented. In chapter II, a conceptual framework, developed out of prevalent theory, is presented to relate the variables we research in their relationship to a performance of the process, as well as in the whole process of internationalization, as pictured in our abstraction of the process. Chapter III presents our research methodology together with what comprises the research framework where transformations are made of raw concepts into operational variables or indicators. It is followed by the development of the research instruments, the sampling plans as well as field

work designs. Related to chapter III are the appendixes B through J where different instruments are included: formats of the letter of introduction to the firms surveyed and the correspondent research instrument, in their English and Spanish versions. The field work also requires instruments for collecting, classifying, and interpreting qualitative data (see appendixes F-K). Other appendixes contain information such a summary of previous research findings related to our hypotheses (see appendix A), and a set of worksheets with coded data extracted from our qualitative database.

Chapters IV and V contain descriptive and analytical work from the quantitative and qualitative approaches to the internationalization process. The final chapter contains some of our conclusions and comments on the scope and limitations of our research work.

CHAPTER I

LITERATURE REVIEW

1.1 Overview

The subject of internationalization of the firm has been studied since the late fifties, but it is only recently that research has increased significantly (Cavusgil and Zou, 1994; Zhou, L., 2007). When Mexican firms were the object of scientific research, the attention was focused on foreign subsidiaries. Exceptions to this are Wells (1981, 1983), Thomas (2001), and a few others.

Among the several ways of structuring the literature review of the research work done on the internationalization of the firm, we choose to use what is called *schools of thought*, that is, arbitrary groupings of literature by perspective (Ware, 2002). It is often observed that some scholars affiliated with a particular school portend that their propositions become *the* general theory of the internationalization of the firm. Researchers new to the study of the internationalization of the firm are often faced with choosing between contradictory explanations. Through this literature review, we want to position our research questions in the context of prevalent theory, of what is known or explained and what remains unknown or unexplained in the field of the internationalization of the firm.

The literature review proceeds as follows: firstly, we briefly review the Organizational Economics school, centered on the research of Stephen Hymer (1960, 1968), his followers and critics. Secondly, we review the school that emphasizes that internationalization is a sequential and incremental process. This Process school argues that internationalization, once started, inevitably proceeds as a slow and incremental process. Thirdly, we review a group of schools which depart from strategic and unique resources, knowledge creation, collaborative arrangements, entrepreneurship orientation, etc. Finally,

we briefly review some research done of the internationalization process of Mexican firms. Each of the four main schools' review will be followed by our comments on the relevance for our research project. We will conclude with the overall state of received knowledge regarding the answers to our research questions.

1.2 The Organizational Economics school

1.2.1 The Monopolistic Advantages school

The Canadian Stephen H. Hymer (1960) is the first scholar to depart from the traditional study of international operations of firms from a macroeconomic perspective. Based on a detailed analysis of secondary data from Canadian, American, and English secondary sources, Hymer developed a theory of the *direct foreign investment* (DFI). The originality of his argumentation sets this research apart, as *the* antecedent of later studies on the internationalization of the firm. Hymer rejects the argument of the relevance of the interest-rate theory for explaining the existence of foreign direct investment, due to its serious contradictions with reported flows of investment between developed countries, particularly between the U.S. and Western European countries, e.g. the UK. Hymer's sole contribution places him as the pioneer of scholarly research on Foreign Direct Investment and the Multinational Company (Czinkota and Ronkainen, 1993; Daniels and Radebough, 1998; Cateora and Graham, 2005). From an initial position that foreign direct investment results from international activities of the firm, Hymer (1968) emphasizes that *search for control* is a motivation for undertaking a foreign direct investment, and he argued that firms entering foreign markets carry a *disadvantage of foreignness*, due to the lack of business experience abroad. According to this author, there are three causes for undertaking international operations in spite of the disadvantage of foreignness: a) the control of foreign enterprises for the removal of conflict; b) the establishment of controlled foreign operations; and c) risk diversification. The later does not happen for search of control reasons and Hymer considers the exploitation of monopolistic advantages as a way to succeed in foreign markets (1960): "The firm is a practical institutional device which substitutes for the market. The firm

internalizes or supersedes the market... Why is the market an inferior method of exploiting the advantage? We look at imperfections in the market.” (Hymer, 1960, pp. 48)

Kindleberger (1969) suggests that market imperfections are the reason for the existence of foreign direct investment and clarifies that monopolistic advantages can be indicated by: a) departures from perfect competition in goods markets, e.g. product differentiation and special marketing skills; b) departures from perfect competition in factor markets, e.g. patented technology and internally acquired managerial skills; c) internal and external economies of scale, e.g. advantages from vertical integration; and d) government limitations e.g. limitations to entry into military contracting. The former classification is known as the *market imperfections paradigm* (Calvet, 1981). Interestingly enough, Kindleberger sets clearly that: “this is economics, not business administration. There is nothing on problems within the firm” (Kindleberger, 1969, p. vi)

Richard E. Caves (1971, 1974 and 1982) is also an important contributor to this school. He extends previous work on monopolistic advantages with several research projects developing and testing hypotheses previously proposed. This author reports lacking support for the level and extent of *managerial skills* required in an industry as contributing to foreign direct investment (FDI) activity. In the same line of thought, although he finds support for the hypothesis that an industry whose leading firms have extensive US multi-plant operations will be the same industries in which the multinational company holds a large share of the Canadian market, this hypothesis is not true for the British market (Caves, 1982). Nevertheless, this author is most recognized for his theoretical and empirical work on the *differentiation of products* as a critical advantage for FDI activity. According to Caves (1971), the firm investing abroad must not only enjoy ‘information advantage’, but must also find preferable producing abroad, compared to other ways of extracting an economic rent from the relevant foreign market.

1.2.2 The Core Theory of Internalization school

The increasing amount and quality of research conducted between 1960 and 1975 produced an impressive body of knowledge, and it is the judicious use of such richer sources that allows Buckley and Casson to write, in 1976, *The Future of Multinational Enterprise*. In this book, they include a model of the association of foreign penetration with industry characteristics. This model identified six phenomena to be explained:

- a) The emergence of the multi-nationalization of business is assumed to be the immediate post-war period;
- b) the post-war international investment apparently does not conform to the theory that capital moves from abundant countries to capital-scarce countries;
- c) multinationality tends to be greater the larger the firm;
- d) MNCs are concentrated in certain types of industry, characterized by high concentration and high level research and skill intensity;
- e) most MNCs are horizontally diversified, but relatively few are diversified as conglomerates;
- f) MNCs exhibit certain characteristics attributable to their nationality (Buckley and Casson, 1976).

The Future of the Multinational Enterprise explains that it is international investment activity that starts a multinational company and, as such, research interest shifts to the establishment of foreign production affiliates. It should be noticed that foreign market entry, not including investment in production facilities, is assumed to remain in the sphere of marketing studies. Internalization deals explicitly with the choice of either external (licensing or selling) or internal (internalized) markets. Transactions made within the firm have to be organized, bypassing external-market-mechanisms due to intrinsic (transaction cost) advantages of the firm in dealing with such activities. The merit of Buckley and Casson lies in their incorporating Hymer's and Coase's (1937) ideas into an international setting, together

with a conceptual theoretical schema named *the core theory*, which has come to be referred to as the *Internalization school*.

Most importantly, Buckley and Casson allow imperfect markets to feature in their model, which definitely breaks with orthodox microeconomic analysis of FDI, but which, while signalling the importance of intermediate goods markets (e.g. knowledge and marketing skills) introduces the concept of internalizing transactions of intermediate goods (Buckley and Casson, 1976, 1998, 2003). Briefly, the TCE/Internalization school considers that the MNC exists as a governance choice to minimize transaction costs across borders. In a mainstream version of TCE, this only occurs under conditions of uncertainty and opportunism contention. Much empirical work has been done on TCE, but notice should be taken that constructs like opportunism have remained an inconclusive issue (Hennart, 1982, 1991). Nevertheless, there has been extraordinary contributions to understanding the internationalization process which include the work on production facilities location (Dunning, 1980, 1981a, 1981b, 1991) under the name of the eclectic paradigm. Also, the TCE work on modes of foreign market entry has produced original explanations which required reading (see Anderson and Gatignon, 1993)

1.2.3 Comments on the relevance of the Organizational Economics (OE) school to our dissertation

Most Organizational Economics scholars consider that internationalization starts once a 'minimum' size is reached and a foreign direct investment is undertaken. This argument excludes the segment of small and medium-sized enterprises from internationalization research agenda of most Organizational Economics scholars. As Buckley (1999) and Depperu (2004) remark: only a few small and medium-sized enterprises will become multinational corporations. Also, when small and medium-sized enterprises undertake a foreign direct investment, they are already no longer small and medium-sized enterprises (Hennart, 1982), but the fact that practically all manufacturing Mexican firms are small and medium-sized precludes this school of thought from explaining the internationalizing process in the Mexican context.

Also, trust and lack of trust represent the more visible elements in the contradictions of the theory, which is based on distrust as a fundamental ingredient of human behavior (Combs and Ketchen, 1999). Such theory contradicts behavior among Mexican firms in general because trust is an essential element in Mexican culture, a typical collectivistic society.

On the positive side, the Organizational Economics school has developed useful concepts over the years, like the need to compensate for foreignness (Hymer, 1960). Suggestions include the acquisition of a competitive advantage, such as the differentiation of products (Caves, 1971). Also, the technology factor emerges with this school, emphasizing the fact that intermediate products, among innovative products and processes, are among the most powerful reasons for keeping knowledge and knowledge-based products within the legal boundaries of the firm, even across countries (Buckley and Casson, 1976). Nevertheless, this kind of arguments are limited to explain internationalization of manufacturing Mexican firms whose technological innovation is low compared to its trading partners.

The Organizational Economics school due to its focus on big business and its assumption of enough quality information, to back up its analyses and sophisticated decision-making, has no explanatory power concerning the internationalization process of the Mexican manufacturing firm, and therefore we will look elsewhere to build our conceptual framework.

1.3 The Process school

1.3.1 The Product Cycle of Trade and Investment school

This theory is the product of Harvard University professor Raymond Vernon (1966, 1979) and stands alone as a singularly interesting, highly regarded, although controversial theory of the *multinational corporation* (MNC). His seminal work on the international production and investment by technologically innovative firms constitutes a truly dynamic model, which has been used by scholars and practitioners alike as a tool to analyse and predict MNC behaviour.

Vernon (1966) examines country-specific advantages that are endowments present in a particular country, like highly disposable income, a sizable market, an educated labour force, highly qualified research institutions, etc. (Vernon first considered that USA was the most convenient location to invest in innovation where marketing such innovation was a safe bet for a MNC). Later, as the production of an innovative product reaches maturity, it is taken to be destined to another developed country; a final phase ensues when the once innovating product reaches decline, but standardization allows considering a FDI in less developed countries, from where production eventually reaches more advanced regions. Phases somehow overlap, but the concepts are precise.

In a later article, Vernon (1979) makes several corrections and admits some limitations to this model, as presented in his 1966 article. He stresses that the power of his hypotheses changed, mainly due to: on the one hand, an increase in the geographical reach of many of the enterprises that introduce new products, and on the other hand, a change that has taken place in the national markets of advanced countries, reducing some of the differences between those markets.

1.3.2 The Upsala Stages School

Research by Widersheim-Paul, Johanson, and Vahlne (1975, 1977) is by far the most influencing contribution to the internationalization literature. What these scholars propose is a behaviourist perspective to a domain thus far dominated by economists. Widersheim-Paul and Johanson (1975) conducted a research that used a longitudinal methodology—the case study of four Swedish firms: Sandvik, Atlas Copco, Facit, and Volvo, for periods of time up to more than 100 years. They also incorporated perspectives brought by the pioneers' work on the behavioural theory of the firm (Cyert and March, 1963). These scholars emphasized the incremental nature of the internationalization of firms. As the firm became more knowledgeable of international affairs across nations (starting with 'psychologically' closer market, and continuing in decreasing 'psychological' closeness), commitment towards foreign markets would change. According to Johanson and Vahlne (1977), "internationalization is the product of a series of incremental decisions, and all the decisions made, constitute the internationalization process". (p. 28) As shown in figure 1.1, these

authors show a two-part mechanism: a) what they call a *state element* (left side of figure 1.1) showing the resource commitment to the foreign market, and the knowledge about foreign markets and operations; and b) a *change element* of the model (right side of figure 1.1): as experiential knowledge is acquired and impacts on the state element, decisions are made to commit resources based on acquired knowledge and (measurable) performance of current business activities is derived. Briefly, this model assumes that the achieved state of internationalization impacts on perceived opportunities and risks, which in turn impact on commitment decisions and current business activities. Johanson and Vahlne (1977) show some mathematical equations (pp. 26, 30). However, these are not statistically derived from their empirical work; rather, they are an intuitive qualitative-derived representation of the mechanism of internationalization.

Although the Upsala Model school draws from empirical research in Sweden and neighboring developed countries, the *stages-process* or *incremental process* model has become the most adopted theory when dealing with small and medium-sized enterprises, because Sweden and other Scandinavian countries, with their reduced internal markets, present comparable challenges to those faced by firms from countries with limited internal markets, like those of most less developed countries (Johanson and Vahlne, 1977).

Figure 1.1 shows that the Upsala model is simple. Starting with state conditions, management first obtains market knowledge. Then the firm makes commitments involving foreign markets, namely management makes decisions and change takes place, under what Johanson and Vahlne call *change conditions* (1977). Then, the model acknowledges that current activities generate foreign market experience which in turn influences (changes) initial state conditions, in the form of new market commitment. Being such a simple and parsimonious model, Johanson and Vahlne's model is still, after more than thirty years, understandably popular amongst some scholars and many entrepreneurs and managers.

1.3.3 The Innovation school

This school is deeply anchored to international marketing and its research centers on the success of the exporting function, mostly among SMEs. Also, its research of the drivers

of the export decision process includes exogenous and endogenous drivers, but motivational factors and background of managers and managerial teams lead the bulk of the school's later research work. What drives the firm into entering foreign markets, specifically into exporting activities? This kind of research questions is popular at the time and it is assumed by the marketing community, as expressed in several research works that the issue is resolved, but the fact remains that only endogenous factors are controllable, and that a propensity or an orientation to enter foreign markets is behind most of the firms that decide to export; however, the so-called orientation has to wait several years to be studied by a school to be named *entrepreneurial*. Simpton and Kujawa' study involves 120 Tennessee firms which they stratify into either exporting (50 firms) or non-exporting (70 firms). Their research question was: What makes a successful exporting firm versus a non successful one. The answer remains inconclusive, except for revealing the factors associated with success. Interviews were conducted for what remains a classical study on the export decision process, and the answer remains that successful exporting is not controllable, at least not entirely, by the firm. Also, other research conducted by this school includes the size of the firm, as determinant of initiation of export activities, but results are, again, contradictory (Bilkey, 1978, 1981; Reid, 1981, 1985; Czinkota and Tesar, 1982). The bulk of the innovation concepts utilized by IS scholars comes from the diffusion of research on innovation by Rogers, who identified phases in the process of adopting an innovation: awareness, attention, motivation and adoption (Roger, 1968).

Innovation scholars started by considering internationalization as an innovation, that is a novel way of approaching the (geographical) diversification decision, so that a novel decision process takes place until its adoption (Andersen, 1993). Representative of IS models of internationalization of firms are those of Cavusgil and Reid, in which a process is delineated through adoption phases. Cavusgil recognizes five stages (domestic marketing, pre-export, experimental involvement, active involvement, and committed involvement). The strong influence from the Upsala School (US) is noticeable in the choice of incremental (experiential) knowledge as its most singled-out independent variable in the internationalization process (Cavusgil, 1980, 1982). Also, Reid distinguishes five stages toward internationalization: export awareness, export intention, export trial, export

evaluation, and export acceptance. In this case, we perceive most strongly Rogers' (1968) influence.

Other Innovation models have been developed (Andersen, 1993; Leonidou and Katsikeas, 1996), although it has been observed that exporting is overwhelmingly present as the ultimate stage in most models. Andersen (1993) observes the increasing application of a reasonably rigorous scientific methodology, using random sampling, advanced statistical analysis, and exploring for different sets of influencing variables.

The Innovation models have contributed to understanding the important role that *active* participation by management of the firm plays in influencing the initiation and sustaining effort towards internationalization. This school has served as a starting point for exploring other avenues of research (Leonidou and Katsikeas, 1996).

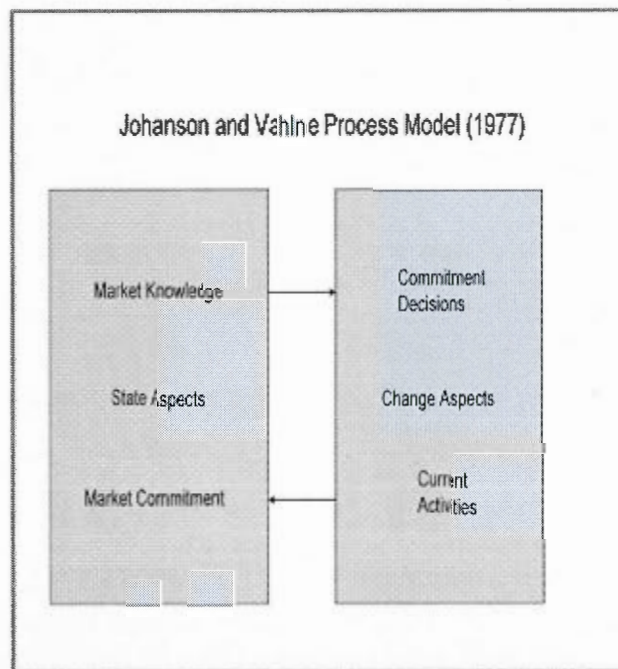


Figure 1.1 The Stages Process model

Sources: Johanson, Jan and Jan-Erik Vahlne (1977) "The Internationalization process of the firm: a model of knowledge development and increasing foreign market commitments" *Journal of International Business Studies* 8, pp. 34-40.

1.3.4 The Relationship or Network school

Businesses like individuals join effort to accomplish common objectives. Although collaborative organizational arrangements, strategic alliances, or simply networks have been studied by Organizational Economics scholars, a theoretical difficulty in examining the trust construct and related non-hierarchical arrangements remains. Trust is essential for organizations and collaborative organizational arrangements to function (Barnard, 1937; March and Simon, 1958; Johanson and Mattsson, 1988). Business networks are defined by Forsgren and Johanson (1992) as a mode of handling activity interdependencies between several actors. These interdependencies can be of a contractual nature or not, also named *formal* or *informal networks*, respectively (see appendices 3 and 5). According to Upsala scholars Forsgren and Johanson (1992), business networks emerge where coordination between specific actors yield significant gains.

For small and medium-sized enterprises, networks represent a unique mediating instrument to escape scarcity of resources, including executive talent, international business expertise, distribution channels, research and development projects, etc. (Coviello and Munro, 1999).

1.3.5 Comments on the relevance of the Process school to our dissertation

The Process school is perhaps the one that has had the most appeal to entrepreneurs and managers, due to its simplicity and common sense approach to the internationalization of the firm. The main appeal of this school's contributions is the fact that although deprived of formal treatment of the relationship of variables, its logical arguments are robust in the eyes of practitioners and of a variety of scholars of business schools.

The school has contributed with concepts like *psychic distance*, relevant for most small and medium-sized firms around the world. In addition, the incremental nature of the internationalization process, starting with a pre-internationalization stage all the way to an investment in foreign direct investment (in production facilities).

The simple taxonomy of pre-internationalization starts in foreign markets through direct selling; brokerage or foreign sales representation; the establishment of a foreign sales establishment; the establishment of a foreign production facility.

We consider that this school of thought has contributed much to the internationalization of all sizes of firms.

The Process school represents relevant theory to build our conceptual framework, due to its emphasis on a sequential or stages internationalization process and psychic distance, both constructs of potential explanatory power in our research of the internationalization process of the Mexican manufacturing firm.

1.4 The Strategy school

1.4.1 The Decision-Making Process school

In 1966, Yair Aharoni unveils the mystery of the decision making process surrounding a FDI. Much in the Mintzberg tradition, he reveals a somewhat chaotic world, far from the rational decision making image codified in management textbooks. The foreign investment decision process is delineated as a social process, where the decision to look abroad translates as looking at the possibilities of a specific investment in a specific country. He delineates five elements of a FDI as observed in a sample of Israeli manufacturing firms:

- a) The organization and environment in which the decision making takes place;
- b) A time dimension;
- c) Uncertainty;
- d) Goals; and
- e) Constraints.

Aharoni (1966) observes decision phases or steps taken by every firm: 1) An irresistible initiating force; 2) a decision to invest; and 3) the creation of commitment during the investigation.

In the late nineties, Molina (2000) researches the internationalization decision making process of Colombian firms. His investigation into the commitment to the exporting decision in a turbulent environment yields inconclusive results, due to the assumption that the decision making environment is rational.

Previously, the exporting decision had been researched for drivers or motivation factors that start the decision process. Exogenous and endogenous factors were sorted out through several research reports from the Innovation school. Several literature reviews are published in the seventies, in particular Bilkey (1978). However, it is not until the nineties that an increasing number of comparative literature reviews are published, particularly Melin (1992). He finds the presence of more inferential statistics analysis and a more structured research approach. In the mid-nineties, new approaches to the internationalization phenomenon are developed.

1.4.2 The Resource-based Theory

With the resource-based theory (RBT), we shift our attention from transactions as units of analysis towards resources, justifying the existence of the firm (among them the Multinational Company) with a vocation to make profitable use of these resources.

In 1959, Edith T. Penrose catches the attention of scholar communities with her writings on the growth of the firm in which she defines the firm as “more than an administrative unit, *a collection of productive resources* the disposal of which, between different uses and over time, is determined by administrative decision. (...) Resources consist of *a bundle of potential services* and can, for the most part, be defined independently for their use.” (Penrose, 1959, pp. 24-25).

Akin to the idea of continuous disequilibrium and innovative recombination of resources (Schumpeter, 1934), her observations on *productive opportunity* describe

productive activities of the firm are governed by productive opportunity, which comprises all of the productive possibilities that its 'entrepreneurs' see and can take advantage of.

During the fifties and the sixties, Andrews (1971) leads a group of Harvard Business School professors, who, in his words, were "proposing a simple practitioner's theory of corporate strategy". He suggests to identify corporate resources and competences as:

- a) Extending or constraining opportunity;
- b) Strengths and weaknesses, the powers of a company constituting resources for...
- c) Growth and diversification accrued primarily from experience in making and marketing a product line or providing a service;
- d) Programs for increasing capability.

Birger Wernerfelt (1984) first catches the attention of the scholar community with his observations that resources and products are two sides of the same coin. That is particularly fortunate, but building the theoretical foundations of Resource-based Theory was a role that corresponds to Jay Barney.

Barney (1991) is responsible for researching sources of sustained competitive advantage and transforming them into a major scholarly research subject. As a result, research efforts shift from cost-saving to capability identification and exploitation. This author examines the link between a firm's internal characteristics and performance, assuming that:

- a) Firms within an industry (or group of firms) may be heterogeneous with respect to the strategic resources they control; and
- b) These resources may not be perfectly mobile across firms and thus heterogeneity can be long lasting.

Resources may be defined as comprising "all assets, capabilities, organizational processes, firm attributes, information, knowledge, etc., controlled by a firm that enables this firm to conceive and implement strategies that improve its efficiency and effectiveness"

(Barney, 1991, p. 102). The search for competitive advantages, an evolving construct out of strategic resources as described by Barney, applies to any size of firm, but becomes critical in the case of small and medium-sized firms, which are 'always' resources-hungry.

Another distinction of (strategic) resources is made by Ray et al. (2004), between competitive advantage and sustained competitive advantage. Competitive advantage occurs when a firm is able to implement a value creating strategy not simultaneously being implemented by current and potential competitors. Sustained competitive advantage requires the same conditions, and also, that current and potential competitors be unable to duplicate *the benefits* of such strategy.

- a) The assumption that firm resources may be heterogeneous and immobile is central to the resource-based theory. But, this does not occur unless these very same resources show the following four characteristics:
- b) They must be valuable;
- c) They must be rare;
- d) They must be imperfectly imitable; and
- e) They must not have 'strategic' substitutes (Ray et al, 2004).
- f) Only large firms, however, seem more inclined to behave in such a way as assumed by the RBT.

RBT scholars have left an extensive legacy insofar as the RBT does have relevance to all researchers interested in the strategic management impact on internationalization. A group of scholars have also developed theoretical work around the *Diversified Multinational Company*. These authors have picked up much of the central themes of Resource Based Theory, and adapted them to the challenges posed by complex 'global' markets, but they have neglected entirely the potential role of the internationalizing small and medium-sized firms in 'global' markets (see Ghoshal, 1987; Bartlett and Ghoshal, 1999; Hamel and Prahalad, 1985; Tallman and Fladmoe-Linquist, 2002).

1.4.3 The Knowledge-based Theory (KBT) school

In 1994, William S. Schulze writes about the controversy surrounding the perception of many scholars that, from the very beginning, there are two, not one RBT schools of thought. He argues that one of them stresses structural issues concerning Resource-Based Theory. Here, RBT authors focus on identifying resources that could generate sustainable competitive advantages, and over-normal rents. The other school, which he calls the *Process school*, focuses on behavioural issues behind the creation of competitive advantages, and the resulting quasi and efficiency rents. Schulze concludes on the merits of developing a 'middle-range' resource-based theory which could integrate the features of what he calls the *Structural* and the *Process* schools of thought, and although a debate takes place in his time (Schulze, 1994; Peteraf, 1993), his point is right about a development of a new school known as *Knowledge-based Theory* (Schulze, 1994).

Nelson and Winter (1982) adopt a new methodology for dealing with dynamics in economics. They introduce the concept of change due to innovation in all fields of knowledge. For years, Schumpeter's (1934) ideas on innovation impress many scholars, but his theory's uninterrupted disequilibrium result is considered not implementable until Nelson and Winter's biological analogy to economic change.

We owe Polanyi (1966) the conception of tacit knowledge as the building block of *skills* (at the individual level) and *routines* (at the organizational level). Routines keep knowledge, and consequentially capabilities, stored and organized. "The behaviour of firms can be explained by the routines that they employ" (Nelson and Winter, 1982, p. 128) and it lies at the heart of their theoretical behavior. True and valuable as this school's contribution could be, the preeminence of evolutionary economics in the knowledge-based theory has been contested (see Ray et al., 2004).

Nonaka (1988, 1991, 1994) and Takeuchi (1995) at Hitotsubashi University in Japan look beyond to revolving capabilities through *creative chaos* which strives towards the *knowledge-creating* company. This current of thought departs not only from Taylorism, but also from Simon's insistence on the firm being an information-processing machine.

In essence, knowledge to Knowledge-based Theory is “inputs, outputs, and moderating factors of the knowledge-creation process” (Nonaka, 1991). Knowledge-based Theory stands alone as a dynamic and non-optimizing oriented school. It has gained preeminence in dealing with technology oriented issues, insisting that the strategic condition of knowledge allow theorists to deal with the Multinational Company as a ‘knowledge transfer institution’. With Knowledge-based Theory, knowledge is created and transferred across borders, in a strategizing approach versus an economizing one (Kogut and Zander, 1993; Tallman, 1991; Tallman and Fladmoe-Linquist, 2002). Consequently, the unit of analysis is now knowledge, as a capability-building resource, but with a neo-Schumpeterian approach, not necessarily looking for equilibrium, nor environmentally constrained, due to a greater role given to a creative organization.

Another important new construct brought in by the knowledge-based theory is *absorptive capacity* which developed in the area of technological innovation; it has only recently been subject to evaluation for application potential in other management areas, including the internationalization of firms. While research and development generate innovations, absorptive capacity also develops a firm’s learning, namely the firm’s ability to identify, assimilate, and exploit knowledge from the environment (Cohen and Levinthal, 1989, p. 569). “The capacity to ‘exploit’ outside knowledge is comprised of the set of closely related abilities to evaluate the technological and commercial potential of knowledge in a particular domain, assimilate it, and apply it to commercial ends” (Cohen and Levinthal, 1994, p. 227). The use of the Internet and other information technology tools, as competencies critical to the resource-scarce small and medium-sized firm, has been remarked as means to internationalize the firm (Rhee, 2002; Mahnke et al., 2005). This construct is of great interest to countries and firms with a drive for innovating inside and outside their organization, particularly if the interested firm is must face technology driven rival domestically and abroad.

1.4.4 The International Entrepreneurial school

This school, grown out of three streams of theoretical research: entrepreneurship, international business, and business strategy (Oviatt and McDougal, 1994), represents

perhaps the most promising of the theoretical developments of the internationalization of the firm of the nineties. It has contributed to the construct of a *born global* firm defined as an SME which skips the incremental and sequential internationalizing process as outlined by Johanson and Wiedersheim-Paul (1975) and Johanson and Vahlne (1977), and instead designs a preliminary theory to explain how it increases the number of small and medium-sized firms, particularly 'high-tech' firms, which internationalize sometimes from the very first moment they are established. New alternatives to explain internationalization among transplanted and internationally seasoned executives are responsible for this 'fast-track' internationalization. What today is known as the "born global" firm is defined as a new international venture as "a business organization that, from inception, seeks to derive significant competitive advantage from the use of resources and the sale of outputs in multiple countries" (Oviatt and McDougal, 1994, pp. 49). Although these academic pioneers build a theoretical framework based on transaction cost economics (TCE), it is clear from the very start, that this type of venture does not fit in the theoretical straightjacket of TCE; in fact, it is argued that this kind of new venture owns or controls a smaller percentage of assets as do mature firms. Therefore, they must involve in network structures, where lack of ownership rights limits control, and instead of opportunistic containment, new ventures must trust their partners, something where the Organizational Economics paradigm and their supporters fall to pieces (Goshal, 2006). The elements of the *entrepreneurial orientation* construct are clearly illustrated by Lumpkin and Dess (1996) and defined as "the result of various combinations of individual, organizational, or organizational factors that influence how and why entrepreneurship occurs as it does" (p. 135). They insist that "an entrepreneurship act is new entry" (p. 136), while entrepreneurial orientations refer to the process that produces such new entry.

In figure 1.2, we can observe that the only controllable variables involve entrepreneurial orientation, but environmental and also organizational influence is beyond the control of management. Therefore, entrepreneurship orientation must be linked to performance, should decisions be made concerning a firm's improvement.

The internal (organizational) and external (environmental) factors interact with the entrepreneurial orientation and performance of the firm. Particularly interesting is the inclusion of five dimensions or elements of entrepreneurial orientation: autonomy, innovativeness, risk taking, pro-activeness, and competitive aggressiveness. In the last ten to twelve years, a plethora of scholars (Harveston, 2000; Hitt et al., 2001; Rhee, 2002; Young et al., 2003; Marcotte, 2004; Zahra, 1993, 2005) have come to produce a voluminous amount of research on international entrepreneurship. However, it has become urgent to either design a sounder theoretical body of knowledge or risk theoretical fragmentation, as has happened with other schools of thought.

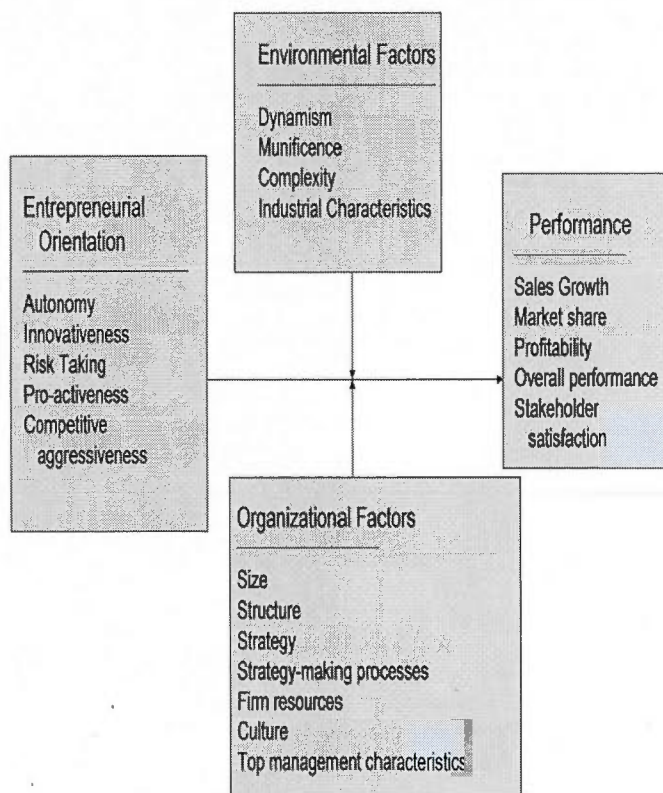


Figure 1.2 Conceptual framework of entrepreneurial orientation

Sources: Lumpkin, G.T. and Gregory G. Dess (1996) "Clarifying the Entrepreneurial Orientation Construct and Linking it to Performance". *The Academy of Management Review*, Vol.21, No.1

1.4.5 Institutional School of Strategy

Sociologists have proposed explanations for business strategy choices based on what is commonly called *institutionalism*, but which in general terms is born from Selznick's (1957) *leadership theory*, later expanded and qualified as 'new' institutionalism by DiMaggio and Powell (1983). What these scholars propose is to have a look at what makes management so similar among companies, particularly those pertaining to the same industry. This school has observed how strong institutional structure and functions, inside and outside the

organization, are either alone or in interaction with other firms in the same industry. To explain these phenomena, these scholars developed constructs like *isomorphism* (see David et al., 2000) and *legitimacy*. Another concept in the internationalization of firms involves a mimetic behaviour in the industry that compels participants to joining others in their going out of the country, once competitors, clients or suppliers go abroad. A few institutional scholars like Oliver (1991, 1997) have offered an institutional perspective which converges with the Resource-based Theory perspective. This author observes that Resource-based Theory literature lacks in explicit attention to “the strategic behaviours that organizations employ in direct response to the institutional processes that affect them”. (1991, p. 145) Unfortunately, this school has promised more than what it has thus far delivered and its contribution to the internationalization theory has been rather scarce.

1.4.6 Comments on the relevance of the Strategy school to our dissertation

The Strategy school is probably the one with the highest potential to explain how internationalization occurs in the firm. However, it is also the least developed theoretically, and the one with the most fragmentation in the theoretical explanation of the internationalization process.

The resource-based theory presents the most familiarity to any business school student, and its diligence in researching competitive advantages is worth its inclusion in our list of alternative theoretical explanations of internationalization. In addition, the resource-based theory may be combined with international entrepreneurship to promote insightful reflection on how and why internationalization decisions are taken by owner-managers and managers of internationalizing firms.

The Resource-based and the Knowledge-based theories represent both relevant theories to build our conceptual framework, due to the potential explanatory of constructs like competitive capability, innovation, absorptive capability, in our research of the internationalization process of Mexican manufacturing firms.

1.5 Mexican research of the internationalization of the firm

Research on the internationalization of Mexican firms is relatively new and scarce; adding up to only a very few studies published; this may explain an internationalization process of less than half of one percent of inventoried firms (see Salas-Porras, 1998; Leroy-Beltran, 2003; Young, 1993; Casanueva, 2001; Thomas, 2001, 2006; Carrillo-Rivera, 2003; Vasquez-Parraga, 2004; ; Salas-Porras, 2007; Jiménez-Martínez, 2007; Casanova, 2009; Vargas-Hernández, 2011). Very few references may be found in articles and, to our knowledge, none in fully authored books or collections of readings and articles.

Young's (1993) research work focus on the organizational and strategic shock that the opening of Mexican markets to foreign competition caused among firms in the city of Monterrey, Mexico. The signing of the NAFTA treaty by the Mexican government and its near enactment at the time of Young's field research work only added to the shock.

Fewer than ten large firms' executives were interviewed for Young's research, in strict confidentiality, which decontextualized much of the valuable information that was gathered. Young's research work reports how some large Monterrey firms had prepared well for the NAFTA enactment, through almost every conceivable means, including international consulting and recapitalization of interviewed firms. Still, Young's study includes only a tiny minority of the internationalized Mexican firms; it remains, however, the best insight into this complex phenomenon, complete with primary data and a rigorous research design.

Work on Strategic Alliances and Networking has produced some interesting results, with a cross cultural large project that included among other countries Mexico. Two parallel projects worked with a five and seven countries collective samples, using as background the theoretical constructs by Hofstede (1980, 1991, 2003), and two research teams, with an semi-structured interview data collection sub-contract approach in Mexico, which rendered a high sample of 366 independent entrepreneurs (Steensma et al, 2000; Steensma et al, 2000). , Carrillo-Rivera (2004) researched collaborative arrangements among Mexico City's firms whose executives were attending a Carrillo-Rivera's seminar sponsored by the Tecnológico de Monterrey (Mexico City campus). The seminar used as a gathering tool for potential interviews and it was a solution to the low response rates of his previous mail survey.

Eventually, Carrillo-Rivera obtained approximately 140 valid answered questionnaires. He produced a typology of collaborative arrangements as they happened among interviewed Mexico City's firms. He relied on the resource-based theory, looking for competitive advantages from the technological point of view, if any, as well as on the relationship network resource as leverage in formal and informal collaborative arrangement. Through the interviews, he found that personal contacts count significantly in the success of networks. Also, in the area of networking, Casas et al ((2000) describe two sponsored research large projects in central Mexico. One of them is a Public Research Centre sponsored by SEP-CONACYT, and located in Guanajuato. The other one, sponsored by the Instituto Politecnico Nacional, is a CINVESTAV located in Querétaro. Their article asserts that the Bajío region, in central Mexico has become a knowledge space, with 35% of the country's R&D resources available to public and private institutions in an area encompassing the states of Guanajuato and Querétaro..

Thomas's (2001 Axin, C. N. and Matthyssens, P. Axin, C. N. and Matthyssens, P.) studies focus on international performance, producing a database out of published data from practitioner journals: *Expansión* and *América-Economía*. It should be noted that the firms in his database are large and they are listed in the Mexican Stock Exchange, an elitist 300 firms group, which includes foreign subsidiaries and no more than 150 Mexican-owned firms. Unfortunately, Thomas does not exclude foreign subsidiaries from his 'Mexican' database and his results should be used with caution. In any event, his results show that the behaviour of his internationalization indicator takes on a U-shape curve (Thomas, 2001).

It should be emphasized that secondary sources like the practitioner journals that Thomas used for his database are plagued by errors and distortions. Therefore, precaution should be taken by researchers and readers of research reports based on these data.

Other works include that of Leroy-Beltran (2003) whose research focuses on the strategies of large internationalized Mexican firms. She includes only Mexican firms and makes a remarkable work using dubious data sources such as interviews reported in practitioner journals, annual reports and other kind of journalistic material. These secondary data sources were gathered from self-interviews by the researcher who answered the questions in place of her potential interviewees. The job that followed was that of reliability

building and statistical analysis, which rendered her data usable for building a framework of the internationalization process, as the researcher interpreted how the firms would proceed in four different contexts.

More recently, we find the case study research of VITRO the largest Mexican manufacturer of glass. VITRO was particularly active in mergers, acquisitions and strategic alliances, in order to foster an aggressive Technology Strategy, which relied on fast development of technological capabilities by this large firm (Casanueva, 2001). Also, in the area of Technological Innovation we have the work on the new subject of absorptive capabilities, where SMEs benefit among other things of spillovers of large companies. This large project is sponsored by the Universidad Autónoma Metropolitana en Xochimilco (UAM-X), and a statistical analysis work of the absorption capacities development of 110 SMEs Mexican firms was presented at a MERIT conference (De Fuentes and Dutrénit, 2007).

The federal government sponsors work on the internationalization process of Mexican firms, as perceived by SMEs' entrepreneurs. An interim report got published, but it should be mentioned that it scarcely describe its research design, which contains a very small sample of firms (Jiménez-Martínez, 2007). It should be noticed that government surveys, difficultly obtain reliable data from firms, except the regulated firms, like firms listed in the Mexican Stock Exchange. Otherwise, researchers face resistance to reveal internal information from the authorities.

Worthwhile mentioning, some research work is being done in the West of Mexico, particularly researching public data of large national firms. A descriptive study of internationalization of firms listed in the Mexican Stock Exchange was presented at the Annual Southwest Chapter conference in Houston (Vargas-Hernández, 2011). The same year, this author teamed with an Iranian researcher to publish an article on three large Mexican firms, with data from public sources (Vargas-Hernández and Noruzi, 2011).

Finally, there researchers that produce work on Latin American firms' internationalization efforts and results, but their interest is only partially centered on Mexican firms, and only large firms (see Grosse, 1989; Casanova, 2009).

1.5.1 Comments on the research of Mexican firms

We found that research produces uneven results, due to not uniformly rigorous research work. At times, there is simply a matter of having difficulty in obtaining reliable and valid data to feed the research process. Secondary data sources were scarce and unreliable, and personal contacts through interviews or similar instruments found resistance from potential sources of data. This was a reality that we also faced yet fed into a research design that would be as flexible and reliable as circumstances allowed us. As we have commented, some promising work is being done, and its results start to produce a useful reference for later research, nevertheless, given the economic importance of Mexico and its economic systems, the job lags behind badly.

This research study is aimed at contributing to the understanding of the reality and prospects of Mexican firms while in their internationalization endeavors.

1.6 Conclusions from the literature review

The literature review offers an essential, albeit fragmentary, account of insightful research. Nevertheless, Stages Process, Resource-based and Knowledge-based theories represent three currents of thought that provide material to our building of the conceptual framework as well as to the research framework of this research project.

More indirectly, other schools of thought influence our research (see chapter II). They have helped and still help better understand strategic leverage in the international business environment. Furthermore, international entrepreneurship represents a novel and promising current of thought for theorizing the internationalizing of the manufacturing firm, although culturally-bounded research and cross-cultural research could also explain this approach in new ways. Undisputedly, research on firms in the non-developed countries is practically nonexistent. We have already mentioned this limitation; however, contributing directly to research on firms is not the purpose of this literature review. This thesis presents an effort in the direction of testing the relevancy of knowledge on the internationalization of the firm, produced in developed countries and/or in other environments, such as Mexico. We endeavor to offer a conceptual framework designed with the knowledge and the insight of

what we believe is relevant to understanding the internationalization process, as it takes place among Mexican manufacturing firms.

Unfortunately enough, research of Mexican firms going through a process of internationalization is of insufficient amount and uneven scientific value. Also, not only institutional and cultural constraints but methodology choices result in relatively low levels of validity, which renders such research sometimes useless. Nevertheless, it should be acknowledged that most research on Mexican internationalizing firms faces the enormous challenge of reluctance and distrust of outsiders by most entrepreneurs, which has mounted with the security problems that Mexico and its economic institutions have gone through the last five years. But, this research work, and hopefully, many others in this area of interest, should contribute substantially to interested stakeholders.

CHAPTER II

THEORETICAL FRAMEWORK AND HYPOTHESES

2.1 Overview

In the previous chapter, we comment on certain approaches of the literature which we find relevant, particularly the stages or behaviourist theory, the resource-based theory, the knowledge-based theory of the internationalization of the firm, and to a small extent, the research targeted towards the Mexican firm. In the present chapter, we integrate these and extend them into a conceptual framework, which serves as a general reference and outline for our research effort. This conceptual framework (see figure 2.1) asserts that the internationalization of the firm is conceptualized and managed by internationally-oriented management and entrepreneurs. The process starts prior to any export activity and extends beyond its undertaking of foreign direct investment, with the performance of the whole process measured in several dimensions.

We assume that, contrary to what is a common argument among international marketing and business textbook writers (e.g., Czinkota and Ronkainen, 1993; Daniels and Radebaugh, 1998; Cateora and Graham, 2005; Foglio, 2006), we are still far away from a systematically tested theory of the internationalization of the firm. Also, for discussion purposes, our conceptual framework is divided, from top to bottom, into three sections: a sustained capabilities development section, which represents precisely the partially opened management box; an internationalization process section, which reflects a partially linear process; and a balance and feedback performance section, which pretends to portray internationalization performance (see figure 2.1).

2.2 The theoretical framework

The theoretical framework is our vehicle for identifying the relevant variables in the internationalization of the firm and the links among the variables interacting in such process. We present a detailed illustration of our theoretical framework in figure 2.1. In the present chapter, we discuss the variables involved, their relationships, and whenever possible, the elements which were succinctly incorporated as well as, within our limited knowledge, those not included in our framework. In our approach, the internationalization of the firm is, at least partially, a sequential process into which explicit choices of the owner-manager and the management team of the firm were also incorporated.

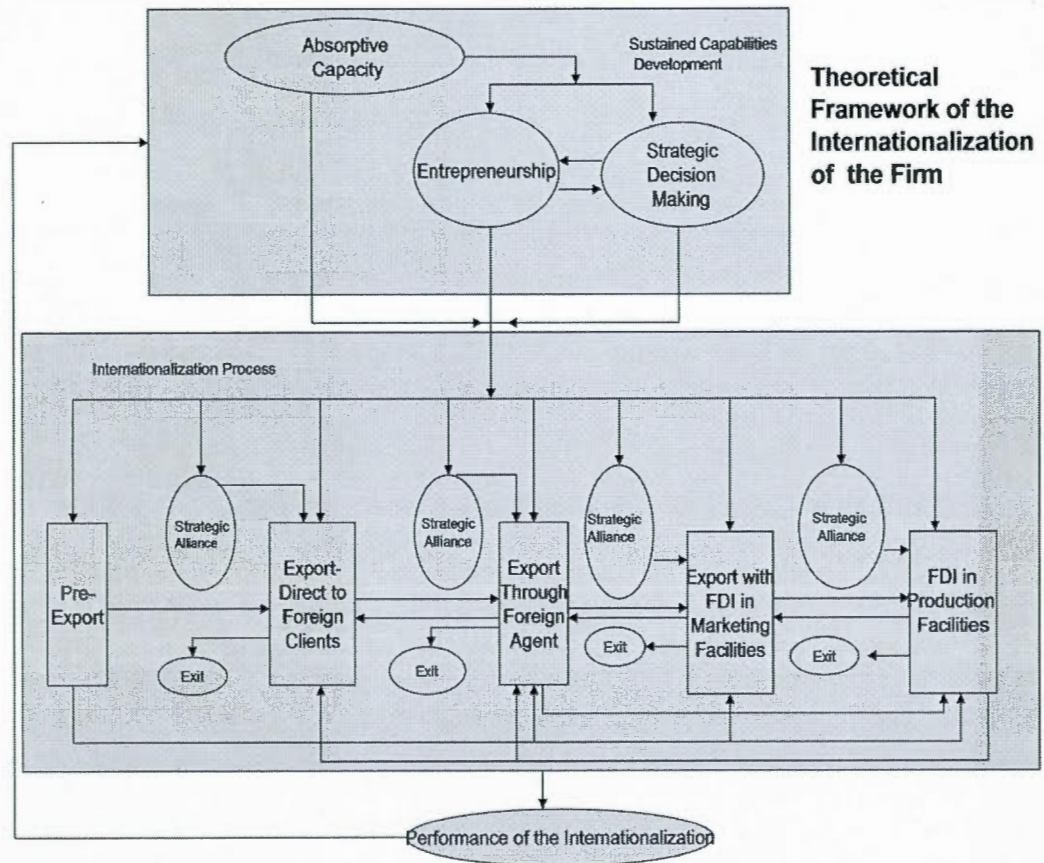


Figure 2.1 Internationalization of the firm

In the conceptual framework (see figure 2.1), we may distinguish three sections or modules:

a) On top, in a *sustained capacities development* module, we isolate the international orientation of management and entrepreneurs and their interactions, which have been founded as influencing drivers of the internationalization process (see Teece, David J., G. Pisano, and A. Shuen, 1997). Here, we identify that both these managerial, entrepreneurial, and their interaction elements are influenced by *absorptive capability*, a learning process that decisively helps produce the dynamic competitive advantages of the firm and makes a difference when facing competition in international markets. Strategizing, leading, and innovating are three participating functions present during the development of the capabilities which will allow the firm to endure its internationalization process;

b) The middle part of figure 2.1 shows the internationalization process itself and describes a partially sequential process, where we introduce the contingencies of collaborative management and exit from the foreign market(s) (see Pauwels, Pieter and Paul Mattysens, 2001); and

c) The bottom part of figure 2.1 presents a performance module where success or failure is visualized in one or several dimensions, as feasible.

2.2.1 The Development of competitive capabilities module

This module is the most endogenous part of our theoretical framework because the controllable environment of managers and entrepreneurs alike is displayed this section. We approach an inner organizational world where outside interactions and influences are perceived and designed, when possible. This module is the core of decision-making, including strategic decision-making on internationalization involvement.

We regard the internationalizing manager and entrepreneur as pro-active actors, whose intervention produces disequilibrium in their environment (Schumpeter, 1934; Nelson and Winter, 1982). In addition to them, we introduce the concept of *absorptive capacity* whose role as a major organizational influence which permeates the whole internationalization process is bigger than that of some technological driving force. As a

result of interaction among these elements, sustained dynamic capabilities are developed and innovation transforms the whole internationalization process (Cohen, Wesley M. and Daniel A. Levinthal, 1989)

Finally, our dependent or exit variable is *performance*—in its various dimensions—*of the internationalization process*, which should feedback into previous elements of the internationalization of the firm. It should be noted that we have relied on Sullivan (1994) and Geringer and Hebert (1991) in our evaluation of different approaches to conceive the dependent or exit variable of the framework.

2.2.2 The Process of internationalization of the firm module

The internationalization starts with a pre-exporting stage after expanding in the domestic market and experimenting with importing; the information it acquires may potentially open new foreign markets. Management of the firm decides to investigate these options available and pre-internationalization can start. This information gathering should lead to a choice among the various possible foreign-entry modes. Other elements might also ignite the process of internationalization itself.

In our framework, a back and forth ‘movement’ is feasible in the internationalization process. Also, as mentioned before, there is room for exit from a foreign market. And that is expected to happen even to successful firms. In addition, by-passing and acceleration are expected to happen eventually, among several possible contingencies.

The central block of figure 2.1, named *Internationalization Process*, identifies four main internationalization stages:

- 1) The passage from being a non-exporter firm to becoming a direct supplier to a client(s) in the foreign market, where a return to the condition of pre-export is simply not possible, but where a shift to a temporary or permanent non-active exporter is possible.

- 2) The passage from simply being a direct supplier to hiring a foreign sales agent, which may take different organizational arrangements.

3) The passage from having a foreign sales agent to investing in and running its own foreign sales or marketing subsidiary.

4) The passage from having a sales or marketing operation to starting up a foreign production facility.

From left to right, a series of flow lines signals the possibility of bypassing the strictly linear process to an accelerated pace of internationalization, allowing for the simultaneous employment of several modes or methods of servicing the foreign market. Also, the use of networks or collaborative arrangements might help or hinder the path to internationalization; in fact, network alliances play a moderating role in advancing and detouring of the 'establishment-chain' as originally exposed by the Process school of internationalization (see Johanson and Vahlne, 1977). This network activity is expected to be of the non-contractual kind, due to informality prevalent in most firms (Thomas, 2001; Vasquez-Parraga and Felix, 2004). It allows the contact between internationalization players at several phases and levels of the trust-based cooperative arrangement. Flexibility is enhanced by experiencing a score of successes and failures, where successfully foreign markets entered are alternated with foreign markets exited, in a progression towards internationalization of the firm.

2.2.3 The Performance module of the theoretical framework

Performance reflects how well or badly a system functions and to what extent the internationalization process, as depicted, may succeed or fail from the standpoint of different stakeholders. The performance module is both connected to the internationalization process and the competitive competencies development modules. However, it only reflects the results of the internationalization process module insofar as it only reports if performance is positive or negative and to what extent, yet does not directly feedback into internationalization process module. On the other hand, the performance module does feedback into the competitive capabilities development module, which is in control of the development function and impacts on the on-going internationalization process itself.

For this module, we first opted for a single performance construct, but still having to address the issue of the kind of performance we are examining. We subsequently explored several alternative constructs of performance and finally settled for a *multiple construct approach*, but not a mixed one (see Sullivan, 1994). At this stage, performance still means success or failure in the process, but the construct remains ambiguous to the extent that success or failure are not, generally, absolute terms. That is why we decided to explore the performance construct from both an objective and a subjective perspective.

2.3 The development of hypotheses

Our conceptual framework of the internationalization of the firm, as depicted in figure 2.1, is just an interim step in the specific description of the reason that internationalization occurs in a Mexican context and whether it does in the same way as it does in developed countries. The whole conceptual framework is not to be tested, only some portions of it. Some arguments or propositions, which are logically derived from the theoretical or conceptual framework, are to be tested as well according to the rules of falsification (Popper, 1934), thus indirectly evaluating the quality of the conceptual framework. Testing these propositions involves only some aspects of the research questions which, although clear and concise, also involve some complexity, making them worth researching.

Based on the overwhelming importance attached by academicians and practitioners to the performance of the internationalization of the firm, we conceived all of our eight propositions in direct dependent relationship with elements (variables) out of the performance module. As observed in table 2.1, our first five propositions revolve around independent elements (variables) out of the internationalization process module. The other three propositions revolve around elements (variables) out of the sustained capabilities development module.

In the following sections, we give an explanation of the origin of or a theoretical justification for each of our eight hypotheses as well as a brief explanation for the variables and relationships identified, as well as their relevancy to our research on the internationalization of the firm.

Table 2.1

List of hypotheses

Hypothesis	Researched Independent Element or Variable
1	Pre-internationalization activity
2	Early entry into a foreign market
3	Additional foreign market entries
4	Additional foreign entry methods
5	International networking activity
6	Absorptive capability
7	International orientation of management
8	International orientation of entrepreneurs

2.3.1 Hypothesis 1: Pre-internationalization activity

The Mexican manufacturing firm that undertakes relatively more pro-active pre-internationalization activities will have a better performance in its internationalization.

We believe that being involved in some kind of international business or personal activity or experience contributes with a relevant antecedent to the involvement of firms in the internationalization of the firm. Case research in European countries (Johanson and

Widersheim-Paul, 1975; Dicht et al., 1990) has shown that incremental and experiential knowledge acquisition is a successful way to deal with uncertainty in foreign markets, even before starting to service a foreign market. This involves mostly a collection of intelligence information (foreign market relevant characteristics, business and personal contacts, etc.), which should raise the probabilities of success when first entering the specific foreign market; it becomes an even easier task when the firm has already been involved in import activities and in technology licensing. The commitment by top management is implicit in a positive involvement in pre-internationalization activities, which may take a variety of forms, including import of goods and services, as well as the licensing of technology, the participation in international meetings, congresses, and trade-shows. Pro-activity in such activities may make a difference in the personal involvement of managers and entrepreneurs at the start of the internationalization process. This hypothesis emphasizes the importance of inquiring the factors facilitating or impeding the success of international activities. A timing element is present throughout the whole pre-internationalization phase; this phase may start on the very same day of foundation or may take years or decades to evolve into an active pre-condition of the internationalization process.

In the experimentation phase of our work, we explore and test the relationship between pro-active pre-export activities and performance of the internationalization process, as proposed above.

2.3.2 Hypothesis 2: Early entry into a foreign market

The Mexican manufacturing firm that started internationalization relatively earlier will have a better performance in its internationalization.

The timing element is also present in this hypothesis that states that the firm augments its chances of success when it starts internationalization relatively, i.e. in as few years after foundation as possible, before the competition steps in (Johanson and Vahlne, 1977; Coviello and McAuley, 1999; Lamb and Leisch, 2002; Wickramasekera and Otkowski, 2004). The resource-based theory school argues that early market entry develops a competitive advantage. A debate has taken place in the marketing literature concerning

pioneers and followers (Lieberman and Montgomery, 1988; Schoenecker and Cooper, 1998), but this aspect of early market entry is beyond the scope of this research. We choose to emphasize the fact that first experiences in foreign market entry, if not forgotten, constitute experiential knowledge relevant to other aspects of the internationalization process and it might favourably impact performance.

It is important to emphasize that this hypothesis does not include explicitly the geographical or psychological dimensions of market entry. Timing is what interests us, and this aspect of our inquiry is not drawable. Therefore, this construct cannot be located directly in figure 2.1.

2.3.3 Hypothesis 3: Additional foreign market entries

The Mexican manufacturing firm that has continued entering into additional foreign market relatively earlier will have a better performance in its internationalization.

Although the Process school has developed its models around the idea that the internationalizing firm accumulates knowledge and commitment as it engages in more foreign markets, this concept is grounded in the geographic and psychological dimension of the repeated entries into foreign markets before the competition, if possible (Johanson and Vahlne, 1977). This hypothesis also takes a timing dimension into account. The development of the argument and its testing is more complex than that found in hypotheses 1 and 2. Also, it has been reported that some firms skip steps; and once a firm has accumulated enough experience, it continues entering into additional foreign markets without delay, reflecting the success it experiences in its internationalization process. This hypothesis is also related to a (geographic) diversification strategy as advised to all kinds of firms (see Ansoff, 1965), but takes the argument across borders. The resource-based and the knowledge-based theories emphasize that accumulated international experience produces not only tacit knowledge, but also sustainable competencies (Barney, 1991; Nelson and Winter, 1982).

Figure 2.1 fails to show multiple foreign market entries, but the possibility of multiple entries abroad remains a hidden third dimension, as a practical solution. Of course, multiple frameworks could be included in the figure to reflect the multiplicity of foreign

markets, but our effort is also to keep the number of our abstractions under control. Nevertheless, the point of hidden dimensions in our framework should serve as a reminder that there will always be unexplored or 'under-explored' aspects of the internationalization phenomenon.

2.3.4 Hypothesis 4: Additional foreign entry methods

The Mexican manufacturing firm that involves engages in relatively more foreign entry modes or methods of servicing foreign markets will have a better performance in its internationalization.

Calof (1991) believes, after studying 139 modes of entry changes in 38 Canadian firms, that "mode change and choice are complex, multifaceted phenomena generally requiring the presence of several precipitating factors." (p. iv) Similarly to entering additional foreign markets, the internationalizing firm gains experience and accumulates knowledge and commitment as it changes into different foreign entry modes (Johanson and Vahlne, 1977). Interestingly enough, the fact of changing to another foreign market entry mode does not necessarily imply that the firm has to relinquish former modes of entry. This dimension of the internationalization generates experience gain as the firm tries different approaches of servicing the market (see Evans, 2000). A timing dimension is also present in this hypothesis, but in a much lesser degree than the first three hypotheses; in fact, the changes of mode may overlap with other methods of entry to a much greater degree when dealing with multiplicity of foreign markets entered. Calof (1991) found a significant coincidence of perceived augmented sales in each alternative mode of entry. In this hypothesis, we propose that the adoption of new methods of foreign market entry positively contributes to performance in the internationalization process.

2.3.5 Hypothesis 5: International networking activity

The Mexican manufacturing firm that is relatively more international networks oriented will have a better performance in its internationalization. It will perceive

internationalization performance as more important, and/or it will be more satisfied with the internationalization performance attained.

Networking has been identified as a commonly used vehicle for moderating the financial, technological, and human requirements of the internationalization of the manufacturing firm, as a consequence of its easy accommodation to resource-hungry organizations (Coviello and McAuley, 1999; Coviello and Munro, 1999; 2002; Oliver, 1991; Bitar, 2006; Depperu, 2004). Trust is a component of networking that prove difficult to the scholars advocating a straightforward cost calculation of networking activity, and eventually gave way to alternative research (see Zaheer and Zaheer, 2006). In our conceptual framework, we have drawn contingent networking activity as a moderator function, potentially present in each of the five phases explicitly included in our theoretical framework. However, there is no explicit distinction of various types of networks, like formal and informal collaborations or alliances.

2.3.6 Hypothesis 6: Absorptive capability

The Mexican manufacturing firm relatively more absorptive capability oriented will have a better performance in its internationalization. It will perceive internationalization performance as more important, and/or it will be more satisfied with the internationalization performance attained.

A relatively more R and D intense activity reveals a reinforcement of new product and process improvements, adaptations, and introductions ahead of the competition. This in turn leads to a more profitable strategy and reduces risks of rejection of the manufacturing firm line of products and services (Buzzel et al., 1968; Levitt, 1983; Czinkota and Raikomen, 1993).

We expect all these innovation sponsoring activities to interrelate so that R and D activity should at least partly relate to innovations resulting in new products and process developments and adaptations.

As mentioned previously, the firm which engages in R and D and marketing intensity is apt to generate new developments. Thanks to a knowledge base, firms develop the potential to spot profitable opportunities to research and the capacity to assimilate 'external' knowledge available through 'spill-over' in the relevant industry (Cohen and Levinthal, 1989, 1990, 1994).

This potential absorptive capacity should go through transformation phases that allow producing innovation. A hands-on try-out experience should proceed for the potential absorptive capacity to become a full-fledged realized competitive advantage (Zahra and George, 2002). Also, it can be assumed that the marketing intensity of a firm allows it to translate innovation into profitable ventures quicker than the competition.

The research and development (R and D) process remains an elusive subject, but scholarly research has explored the possibility that R and D enhances the ability to discern technological trends and increase the chance of exploiting spill-over from the R and D of the competition, as well as to acquire the potential to understand and exploit commercially available technology (Cohen and Levinthal, 1989, 1990; Zahra and George, 2002; Oliver, 1997; Bitar, 2006). As seen in the upper block of figure 2.1, a more R and D intense activity reinforces new product and process development, ahead of the competition (see Dominguez and Brown, 2004). This in turn leads to a more profitable strategy and reduces risks of rejection of the manufacturing firm line of products and services (Buzzel et al., 1968; Levitt, 1983; Czinkota and Raikomen, 1993). About all these innovation sponsoring activities are expected to link to the R and D activity, and should help result in new products and process development.

As mentioned previously, a firm that is involved in R and D and marketing-intense activities is apt to generate new developments. It seems that knowledge-based firms more ably develop the potential to identify profitable opportunities for research, and the capacity to assimilate 'external' knowledge available through 'spill-over' in the relevant industry (Cohen and Levinthal, (1989, 1990, 1994).

This potential absorptive capacity should go through transformation phases that allow producing innovation. A hands-on try-out experience should proceed for the potential

absorptive capacity to become a full-fledged realized competitive advantage (Zahra and George, 2002). Also, it can be assumed that the marketing intensity of a firm allows it to translate innovation into profitable ventures quicker than the competition. It should be remarked that this topic is new to the internationalization phenomenon research, and not much evidence has been raised even in the developed countries; however, this may be quickly overcome since the Absorptive capability can be assumed to have strong links with a successful innovation effort (see Zahra and George, 2002).

A study on internationalization explicitly relates absorptive capability to the internationalization process (Fletcher, 2009). It is a three-year longitudinal study of 12 small Scottish firms. The Fletcher study relies on knowledge-based theory and adopts an interpretative case-study approach. Based on these developments, we propose Hypothesis 6, with *absorptive capability* as the independent variable that directly contributes to each of three dimensions of performance of the internationalization process.

2.3.7 Hypothesis 7: International orientation of management

The Mexican manufacturing firm with a relatively more internationally oriented top management team will show better performance in its internationalization. It will perceive internationalization performance as more important, and/or it will be more satisfied with the internationalization performance attained.

This proposition is relatively poor in quantitative data form because of the limitations that standardization imposes on phenomena related to decision-making environments, particularly the data related to the various motivations of managers with respect to internationalization decisions. An internationally oriented management team has been emphasized since the earlier nineties as an exceptionally useful attribute to enter new foreign markets, even at an earlier time as previewed in models from the Process school (Dicht et al., 1990; Oviatt and McDougall, 1994; Rhee, 2002; Young et al., 2003; Johnson, 2004; Nummela, 2004; Allali, 2005). Several aspects of the international top management team have been identified, among them: foreign based education, foreign languages skills, and foreign based work experience. A relevant aspect of the internationalization phenomenon that

we considered when conceiving this proposition is the common practice that top management members are the sole source of collected data. The relevance of consulting/interviewing/surveying managers as sources of strategic related data is extensively discussed by Eden and Ackermann (1998) who find no other reliable source of information for unpublished issues, like the detection of emergent strategizing. In hypothesis 7, we emphasize the requirement of a stronger international orientation of the management team for a relatively better performance of the internationalization process, across the ^{three} dimensions researched: foreign sales intensity is the standard objective dependent variable; the satisfaction with the performance attained; and the importance perceived of the performance of the internalization process.

2.3.8 Hypothesis 8: International orientation of entrepreneurship

The Mexican manufacturing firm with a relatively more internationally oriented entrepreneurship will have a better performance in its internationalization. It will perceive internationalization performance as more important, and/or it will be more satisfied with the internationalization performance attained.

In this thesis, we adopt Lumpkin and Dess's (1996) concept of entrepreneurship as the pursuit of (international) opportunities. They believe that "the essential act of entrepreneurship is new entry" (p. 136), and still more relevant to us, they define entrepreneurial orientation as "the processes, practices, and decision-making activities that lead to new entry" (p. 136), i.e. the activities leading to an entrepreneurial act. We rely heavily on Lumpkin and Dess's contributions to research on the entrepreneurial orientation construct, selecting risk taking and competitive aggressiveness as key components, among others, in our interpretation of the entrepreneurial dimension of the internationalization process (see figure 2.1).

Also, we bear the remarks of Penrose (1959) in mind; he reminds us that is quite usual that managers and entrepreneurs are the same person, only performing different functions in different time periods. The study of role multiplicity is beyond this project, but it is nevertheless a worthwhile issue to explore.

Finally, we emphasize, as in the previous hypothesis, that an international orientation of entrepreneurship (leadership of the firm) is directly related to a relatively better performance in their three dimensions of: foreign sales intensity, satisfaction with performance, and importance perceived of such performance.

2.4 On the relationship of hypothesis testing and research questions

We have, as a research objective, to contribute to an understanding of the internationalization process of the firm through a systematic treatment of Mexican data. Using Mexican data presents certain limitations unknown to most researchers from the so-called developed countries. However, to us, there is no shortcut to building our own databases directly from field sources, and we must be prepared to face some of the difficulties that other researchers have encountered when dealing with Mexican data (see Carrillo-Rivera, 2003). Statistical analysis has proved a powerful tool to the scientific community and we intend to make use of it when trying to explain how internationalization works in the Mexican manufacturing firm; nevertheless, we believe that we might lack statistical power due to weak points in our statistical database, and statistical power is eventually required when we want to show results well beyond description of the researched phenomenon.

The eight hypotheses proposed, after being tested, should enlighten us about a significant number of relationships of different elements in the internationalization process, but it would be naive to expect deep understanding out of standardized data. A particularly rich statistical database should allow even causal inferences, but we might need to rely on alternative sources of data, which would produce a complementary deeper database as well as secure explanations of the more unclear elements in our theoretical framework.

Therefore, in our effort to answer our research questions, we adopt a cautious, but optimistic approach. We definitely assume that our hypothesis testing will produce advancement in our research objective, as explained in the introduction of this document. However, the answers to the research questions will require a more ambitious and complex research design than simply an inferential statistical analysis alone.

The next chapter elaborates on the operational transformation of our conceptual framework into a feasible research framework, which, in turn, allows us to structure field research data and the analysis of results into an explicative mechanism.

CHAPTER III

RESEARCH METHODOLOGY

3.1 Overview

Our research methodology involves a quantitative, a qualitative, and a mixed approach. Data characteristics play a major role as determinant of the analytical and interpretative work throughout this research project.

3.2 The empirical research framework

Figure 3.1 shows how each of our alternative research tools reflects one dimension of the internationalization phenomenon. First, in the top left block: the overall set of independent variables are tested against three different dependent variables—financial, satisfaction, and importance—representing a performance perspective (see lower block in figure 3.1). On the left hand, a second and a third block indicate, respectively, the qualitative (interviews) and the quantitative (survey) research done in order to ascertain the profile of internationalizing firms; finally, on the bottom left side, a fourth block indicates the quantitative research done through testing eight hypotheses, which should reveal selected aspects of the internationalization process. All four blocks are connected to the conceptual framework, because we must confront our initial theoretical stance with empirical findings. Therefore, as we may see on the right side of the diagram, we address our research questions with a confirmed or revised theoretical framework, after the description (chapter IV) and the analysis (chapter V) of the internationalization of the Mexican firm phenomenon.

Finally, the *research framework* in figure 3.1 suggests that research work done with both the quantitative and the qualitative approaches should facilitate finding answers to our research questions.

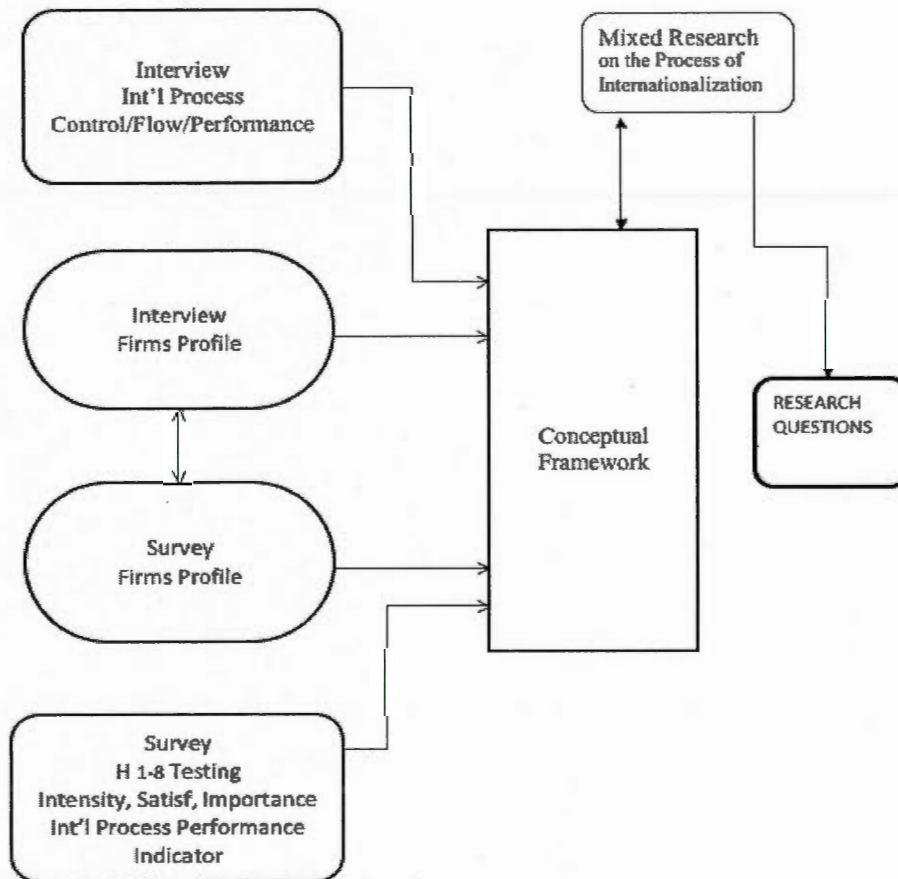


Figure 3.1 Research framework

3.3 Research design

Following our research framework, we will deal first with the quantitative approach, as represented in the two bottom left blocks of the diagram in figure 3.1 and then, with the

qualitative approach, as represented in the two top left blocks of the same diagram in figure 3.1.

After the descriptive and analytic research work, the confrontation of results with the conceptual framework should inevitably lead to a triangulation exercise (not shown in the diagram in figure 3.1).

3.4 Survey research methodology

In order to proceed to the data collection, we follow Ellis (1994) who advises to turn the conceptual definitions of variables into operational definitions of the same variables. In fact, measurements cannot be performed directly on conceptual definitions of variables, rather they should be defined operationally using indicators.

In this chapter, we transform the originally proposed conceptual definitions of the aspects of the phenomenon and its relationships into operational definitions or indicators that allow statistical and logical manipulation. As it happens, only the components of the operational definitions of variables have found their way into the research instrument (questionnaire). Sampling was also used to select the firms to be inquired for their participation in the Internet survey. After submitting a collaboration agreement to the participants, field data were collected from cooperating individuals (owners and senior executives representing their firms). These cooperating individuals were inquired about the internationalization of their firms and their answers were integrated into a corresponding database. There was no database produced from the mixed method approach.

Upon completion of the data collection phase, we were supplied with the materials to test the propositions about the Mexican internationalization phenomenon. Some statistics collected by government agencies suggested that we were to expect the large manufacturing firm to be asymmetrically represented in the internationalization effort nationwide, that is we should expect very few, if any, cases of large firms (INEGI, 2005; OECD, 2005).

As previously mentioned, our conceptual framework incorporates some assumptions, descriptions, and predictions derived from the relevant literature on the internationalization of

the firm phenomenon, but we expected to test whether in fact such factors impacted performance, and to what extent.

Also, only a few dimensions of the internationalization were identified and measured, and as a consequence, our research efforts were concentrated on them.

Our design does not include experimental manipulation of data and the settings for the study were not contrived, so that our data collection was done in 'natural' organizational settings. As in most social science studies, our approach is cross-sectional, but the surveying and questioning of the cooperating firms' executives was looking for retrospective behaviour of the subjects, which constituted a poor man's longitudinal simile. This is consistent with other scholarly work on the phenomenon of internationalization (Sekaran, 2003).

The unit of analysis is the firm, specifically the Mexican manufacturing firm, but we did not expect to deal with more than one or two persons in each firm, due to the strategic nature of the subject, where only the owner-manager and a few managers are acquainted with internationalization decisions in depth. It was not surprising to find that the information concerning the internationalization of the firm was classified as *restricted access*.

We now describe the specifics of the quantitative design.

Through quantitative research techniques, we were looking forward to the advantages of applying statistical techniques to our data. An Internet survey was chosen as the data collection technique, along with the application of a structured data collection instrument. This allowed us to inspect large quantities of standardized data from our surveyed firms. The standardization of collected data presents both advantages and disadvantages: its advantages outweigh its disadvantages with higher response rates. This methodology involves some detachment on the part of the respondents, which should also involve an objective stance of the researcher on the internationalization of the firm phenomenon.

3.4.1 Sampling

Our approach to researching into the internationalization of Mexican manufacturing firms included the use of a sample, based on specialized directories and covering a large part of national exporters. As previously mentioned, the Mexican manufacturing firm was expected to be asymmetrically represented by a majority of small and medium-sized firms in the sampled population. However, there is statistical documentation of the overwhelming impact of large firms (Abarca, 2006; Alvarez, 2004). If we were to aim at a national industrial population, assumptions and observations based solely on large Mexican manufacturing firm might no longer hold.

We used two large frames or specialized industrial directories: the *Mercametrica Industridata* directory, a 5800 large and medium-sized firm database, together with the *Bancomext exporter* directory, an 8500 firm database. We merged both databases after discarding firms that did not meet the criteria of being both national firms and exporters, and being accessible through an electronic address. Another large specialized directory was the *Altex* database of the Secretary of the Treasury, but it did not include an electronic address; in other words, it was useless for an online survey.

Our target population included the manufacturing firms belonging to the 'formal' economy with more than 30 employees and up (Zevallos, 2003). Our databases did not include FDI information, but export-related data. In the first chapter, we justified our choice of studying the manufacturing firm, which implies filtering out service firms. Another filtering criterion was applied to the selection of firms able to make their own internationalization decisions. This translated into the exclusion of foreign owned and controlled subsidiaries, as well as state firms. However, this was not entirely the case with interviews since three foreign subsidiaries and one domestic subsidiary manager were interviewed before the autonomy criterion was enforced.

3.4.2 Internet or World Wide Web survey

We employed an electronic questionnaire as an online data collection instrument. This instrument was e-mailed through the *Survey Monkey* Internet system along with an

introductory letter (see appendices A-2 and A-4) to each internationalized Mexican manufacturing firm selected from our computerized industrial databases.

Inspired by Dillman (2007), the Internet or www survey utilization involved a two parallel system of data collection: First, we sent the Spanish version of our introductory letter and a questionnaire to the industrial population included in our directories (frames) that met our criteria (e.g. firms with more than 50 percent in the hands of nationals, exporting firms, and firms with an electronic address). The introductory letter explained our research objectives and invited the addressees to fill out the accompanying questionnaire. An executive summary was offered to all cooperating firms. Second, a webpage was developed which invited to cooperate in our survey. A brief introduction informed the target population about the research project and the project team. An online follow-up was used to raise the response rate and in-site interviews (covered later in the qualitative section of this chapter) helped triangulate selected aspects of the data collection process.

3.4.3 The questionnaire

The introduction letter and the questionnaire were created first in English and presented to the non-Spanish speakers of our research committee (see appendices 2 and 3). After our doctoral research committee approved our dissertation proposal, including the research instruments as shown in appendices 2 and 3, a Spanish version of both instruments was produced. These translated instruments were the ones used as field data collection instruments (see appendices 4 and 5).

The final online version of the questionnaire varied slightly from the originally designed version due to the peculiar interactive answering process. This required very little format requirements, including the cancellation of interviewee identification data, which the online survey system suppressed, as a confidentiality safeguard.

3.5 Survey measurement issues

When dealing with quantitative data, the action of measuring or assigning numbers as a way of counting the characteristics or dimensions of phenomena seems appropriate. This renders our measurements more accurate and replicable by other scientists.

Although our measures are expected to provide good empirical estimates of the researched phenomenon (Brewer and Hunter, 1989), such acts of measurement and the instruments used for measuring remain imperfect and the quality of the resulting information suffers. Although the problems inherent in the measuring act differ when we are dealing with quantitative versus qualitative data, that is not resolved by simply assigning the terms of quantifying or measuring (in a limited meaning of the term) and qualifying or evaluating, when dealing with quantitative versus qualitative methodologies of research. In this dissertation, the measuring act applies to both quantitative and qualitative data, but the specifics of such actions must differ in order to suit the intrinsic characteristic of each kind of data and in order to extract more appropriate conclusions in each case.

No matter what type of measurement we are dealing with, a distinction must be made between two possible phases of the measuring process: the building of the measurement instrument itself, where we are looking for the appropriate measures for the characteristics at hand; and the validation of such a measurement instrument which evaluates just how much precision and accuracy the instrument affords (see Pedhazur and Schmelkin, 1991).

3.5.1 Survey measurements

Quantitative measurements allow finer distinctions than qualitative measurements, either by rank ordering each unit or by numerically arraying individual units along a scale representative of the quantity (or degree) of whatever characteristic we try to measure (see Brewer and Hunter, 1989).

The first phase of the measurement process entailed operationalizing our variables, and so, our theoretical propositions incorporated variables which in the first four hypotheses

were straightforward measures linked to our empirical research framework. In the four last hypotheses, the variables incorporated were basically proxies. Behavioural constructs like orientation and capabilities were approximated by their observable equivalents (Kerlinger and Lee, 2000). In our research on the internationalization phenomena as undertaken by Mexican manufacturing firms, we opted for a cross-sectional approach due to the difficulty of a longitudinal research (with the exception of three double interviews) in unfunded projects like ours.

The nature of the observed phenomenon is dynamic and therefore longitudinal. However, when possible, we tried to collect longitudinal data based on a questioning about events as remembered by the acting managers and owner-managers of the firm. So, starting with the verbal statement from each theoretical proposition, we derived the dependent (one overall dependent variable) and the independent variables. Except for the demographic and socio-economic data, attitudinal data were measured on a 5-point Likert-type scale, which is standard among social scientists.

3.5.2 The questionnaire as data collection instrument

The survey questionnaire consists of eleven sections, labelled A through K, and asks respondents for the following data:

Section A: Firm profile, which screens out foreign subsidiaries from the surveyed Mexican manufacturing companies, e.g. what is the date of the foundation of your firm? (Year)

Sections B and C: The start of the internationalization process, e.g. when did your company make the decision to sell its product abroad? (Year)

Section D: Geographical expansion into foreign markets, e.g. how many years did it take your company to enter a second foreign market (please answer 0 if not at all, or the approximate number of years? _____.)

Section E: Networking or collaborative arrangements, e.g. in how many informal alliances has your company joined in the last five years? (Number)

Section F: R and D activities, e.g. how many successful product developments has your company had in the last five years? (Number)

Section G: Change of method of servicing foreign markets, e.g. If you changed to other mode(s) of entry or servicing the foreign market, where you first sold your products, to which did you change?

Section H: Profile of the top management team, e.g. how many executives are part of the top management team that makes international decisions? (Number)

Section I: Critical quantitative indicators of performance and size, e.g. (what) is the % of foreign sales to total sales? (Year 2006)

Section J: Attitudinal questions were asked concerning networks, absorptive capability, top management international orientation, and entrepreneur's international orientation, e.g. (what is your opinion concerning whether) you are satisfied with the profit performance of your networking activity (please, select an intensity of opinion from +2 to -2)?

Section K: Perceived importance of performance achieved, and satisfaction with performance attained, e.g. how important is your foreign market share (please, select an intensity of opinion from +2 to -2)?

Our design includes multiple-choice five choice Likert-type questions throughout most of the questionnaire; the measurement of the subject's opinion or attitude was obtained by (algebraically) adding the point assigned to each answer (see Mayer and Quellet, 1991).

This scale contemplates five options:

- 2 most unsatisfactory feeling or attitude concerning the issue at hand
- 1 a simple unsatisfactory feeling or attitude concerning the issue at hand
- 0 a neuter non-compromising attitude towards the issue at hand
- +1 a simple satisfactory feeling or attitude concerning the issue at hand

+2 a most satisfactory feeling or attitude concerning the issue at hand

The bulk of these questions may be found in sections G, J, and K. Questions directed at picking up data related to hypothesis 5 through 8 were placed in sections E, F, H, and J; and questions related to hypothesis 1 through 4 were placed in sections A, B, C, and G.

Also, our questionnaire dealt mostly with non-financial information (section I), but consideration was given to make them suitable to statistical manipulation. As a result, data contents were 'forced' to a numerical representation when possible.

3.5.3 Dependent variables

Our dependent variables were conceived to test three different dimensions of the internationalization of the firm: The first one is *financial performance* or foreign sales intensity, which is measured by the ratio of foreign sales divided by total sales (Sullivan, 1994). The two non-financial dependent variables—*importance perceived of performance goals* and *satisfaction with achieved performance*—were derived from a factor analysis of two sets of questions: 45.1 through 45.4; and 46.1 through 46.4, which measured attitude towards performance of internationalization. *Intensity of internationalization* is sometimes mentioned as the *degree of internationalization*, has been adopted by many scholars (Sullivan, 1994). As we were not able to find a viable composite internationalization index, we adopted a compromise measure in approaching the success of the internationalization process using three separate indicators of internationalization: the ratio of foreign sales divided by total sales of the firm or internationalization intensity (POI), and the two attitudinal indicators previously mentioned (see Geringer and Hebert, 1991; Zahra, 1996). We will use this set of three dependent variables to test eight independent aspects of the internationalization of the Mexican manufacturing firm.

3.5.4 Independent Variables

Each research construct demands a set of independent variables to translate them to operational terms. Therefore, we explain in the following section why and how each construct transforms into a set of independent variables.

3.5.4.1 Hypothesis 1

The Mexican manufacturing firm that undertakes relatively more pro-active pre-internationalization activities will have a better performance (represented by foreign sales intensity) in its internationalization.

The construct of *pre-internationalization* demands inquiring into resources and capabilities acquired before internationalization, like inward internationalization (e.g. import and technology licensing activities).

In hypothesis testing, we use whatever interval-scaled variables are related to the pre-internationalization construct. In this way, out of our questionnaire we find:

Question 4: Age of the firm (years since foundation)

Question 4 minus 7: Time to decide to internationalize

Question 18: Contacts among suppliers, before internationalization

Factor 1-3: Synergetic Management Team

If we look at table 3.1, we observe that the literature relevant to this construct emphasizes motivational factors among managers, as well as a proclivity for international orientation and the reasons why firms start internationalization at all (Dicht et al., 1990). In this research, we emphasize the when, where, and how internationalization starts and evolves, and if at all.

The *activities of importation*, before internationalization (question 18), represents a categorical variable. Therefore, the answer to this specific issue will help describe, not explain, the context of the firm, before internationalization.

Wiedershein-Paul et al.'s (1978) work argues that active pre-internationalization leads to success in later stages of the process, which is why we picked up Factor 1-3 as an indicator with apparent explicative potential.

3.5.4.2 Hypothesis 2

The Mexican manufacturing firm that started internationalization relatively earlier will have a better performance (represented by foreign sales intensity) in its internationalization.

The construct of *foreign market entry* involves several concepts: First, the specific mode or method of entry the firm chooses; second, the place the firm enters; and third, the time the firm enters, relative to the competition.

We have selected the following indicators to help explain the entry construct:

Question 4 minus 9: How many years it took the firm to make a foreign sale?

Question 39: Total sales for year 2006 (Mexican \$000)

Question 40: Number of employees at year end (2006)

Again, a number of categorical variables were assembled around this construct to help describe, not explain, the how (question 11: mode of entry used) and the where (question 10: first foreign country entered to make a sale abroad). Also, related indicators were categorical variables collected through answers to question 12 (activity status as importer, today) and to question 13 (size of domestic market to the firm).

Relevant literature emphasizes either the incremental nature of the internationalization process (Johanson and Vahlne, 1977; Cavusgil and Zou, 1994), or the competitive environment that the firm faces when starting an internationalization process;

therefore, a look at available resources is advised either at the start or at the end of the process, in a cyclical fashion. Geringer et al. (1989) revise what happens when a multinational firm undertakes an FDI, and the capabilities which are acquired from partners, competitors and from the process of internationalization itself. Then, Dhanaraj and Beamish (2003) show how a Resource-based Theory model can help ascertain internationalization strategies to follow. They identify three main kinds of resources: size, enterprise, and technological acumen.

3.5.4.3 Hypothesis 3

The Mexican manufacturing firm that continued entering into additional foreign markets relatively earlier will have a better performance (represented by foreign sales intensity) in its internationalization.

The *additional foreign markets* construct amounts to (geographical) market diversification. Geringer et al. (1989) observe that both geographical diversification and degree of internationalization (foreign sales intensity) influence the performance of the multinational firm. Also, they advise that degree of internationalization should be kept as a valuable dependent variable due to its stability compared to other indicators (pp. 117-118).

The indicators that we have selected to explain the additional foreign markets construct are as follows:

Question 14: Number of countries where foreign sales are made

Question 16: Years, since foundation, it took the firm to enter a second market.

Question 17: Years, since foundation, it took the firm to enter a third market.

Factor 8-3: Firm became more competitive in Mexico

We can observe that question 14 collects critical data concerning geographical diversification. Also, questions 16 and 17 collect geographical diversification data, but in a timing perspective. Through factor 8-3, we expected to collect data concerning one potential advantage of the internationalization process.

For a description of relevant data concerning geographical diversification, we developed questions 15.1, 15.2, and 15.3 related to first, second, and third best foreign market to the firm, according to the interviewees' information.

3.5.4.4 Hypothesis 4

The Mexican manufacturing firm that involves in relatively more foreign market entry methods will have a better performance (represented by foreign sales intensity) in its internationalization.

The construct *change of approach or method* is less evident to most people due to its technical nature. Calof (1991), representing the main reference, mentions that according to interviewed executives, mode choice is determined in more than eighty percent of times by: their view regarding potential sales volume, their belief that each mode could generate a certain sales volume and mode costs; and the existence of constraints like organizational resources. However, in the case of Calof's interviewees, most mode decisions were devoid of formal study (p. iv).

We have no interval variable that serves as an operational definition of the construct of change of mode or method of foreign market. However, we do have a categorical variable that serves to describe the change of mode of entry construct, but not to explain its contribution to internationalization performance. Hence question 24 (Have you changed the method of servicing the foreign market?).

3.5.4.5 Hypothesis 5

The Mexican manufacturing firm that is relatively more internationally network oriented will have a better performance (represented by foreign sales intensity) in its internationalization. It will perceive internationalization performance as more important, and/or it will be more satisfied with internationalization performance achieved.

This construct looks for international business relationships as strategic assets to the firm (Johanson and Mattsson, 1988). The Stages theory was revised by its authors to include

trust as a concept that expands into the network construct (Johanson and Vahlne, 1990); and once trust is gained over the years, it is advisable to treat it as a key asset that allows the existence of much collaborative arrangement. This is particularly important when there are no explicit contracts enforcing relationships inside the network (Barney and Clark, 2007).

We have several interval variables that help create an operational definition of network:

Question 19: How many contacts among foreign suppliers, today?

Question 20: How many contacts among foreign clients, today?

Question 21: Are foreign contacts trustworthy?

Question 22: How many formal alliances has the firm joined, in the last five years?

Question 23: How many informal alliances has the firm joined...?

Factor 2-3: General Satisfaction with networks?

Factor 3-3: Limited Satisfaction with networks?

Factor 10-3: Trust and Duration in nets?

3.5.4.6 Hypothesis 6

The Mexican manufacturing firm with relatively more absorptive capability will have a better performance (represented by foreign sales intensity) in its internationalization. It will perceive internationalization performance as more important, and/or it will be more satisfied with internationalization performance achieved.

In the absorptive capability construct we look into is learning and innovation, two elements which reinforce spill over absorption; that is, R and D which produces new knowledge like new products and processes, serves as ground for a more thorough assimilation of spill over, i.e. knowledge produced by other firms. This also works for purchase of technology, when the firm is also engaged in related R and D work (Cohen and

Levinthal, 1989, 1990). Seminal work by Nelson and Winter (1982) uncovered the value of routines embedded into the firm, as tacit or implied knowledge. Later authors have refined the elements that go into this construct (see Lane, 1996; and Zahra et al., 2002).

Interval variables that go into an operational definition of the absorptive capability include:

Question 25: How many successful product developments... the last 5 years?

Question 26: How many successful processes developments... the last 5 years?

Question 30: How many employees are committed... to R and D activities?

Question 31.1 how do R and D employees allocate their time to prod. develop...?

Question 31.2 how do R and D employees allocate their time to prod. develop...?

Question 31.3 how do R and D employees allocate their time to other. develop...?

Factor 4_3: Expert engineers

Factor 5_3: Computer skills and R and D help absorptive capability

Factor 9_3: Key to competitiveness not in R and D

Factor 11_3: Need of new products

A couple of categorical variables still help describe the surrounding environment of the absorptive capability construct. These are question 27 (Who does the market research work?) and question 28 (Do you have R and D facilities?).

3.5.4.7 Hypothesis 7

The Mexican manufacturing firm with a relatively more internationally oriented top management team will have a better performance (represented by foreign sales intensity) in its internationalization. It will perceive internationalization performance as more important, and/or it will be more satisfied with internationalization performance achieved.

We look for the decision-making managers regarding internationalization. These people possess certain traits that we are incorporating into an operational definition of the international orientation of the top management team construct.

The interval variables that go into this operational definition are as follows:

Question 32: How many executives are part of the international team?

Question 33: How many of these executives are foreign-born?

Question 34: How many of these executives speak more than one language?

Question 35: How many of these executives have work experience abroad?

Question 36: How many of these executives have done graduate studies abroad?

Question 37: How many specialties are represented by these executives?

Factor 1_3: Synergetic Management Team

Factor 7_3: Internationally Oriented Team

Two categorical variables helping describe, not explain, this construct are question 3 (What is your participation in the capital of the firm?) and question 5 (Do you have a formal structure for international activities?).

3.5.4.8 Hypothesis 8

The Mexican manufacturing firm with a relatively more internationally oriented entrepreneurship will have a better performance (represented by foreign sales intensity) in its internationalization. It will perceive internationalization performance as more important, and/or it will be more satisfied with internationalization performance achieved.

This construct presents a certain difficulty in its operational definition with a set of interval variables, due to its overlapping with the constructs of international orientation of top management and absorptive capability. The international orientation of entrepreneurs is about

risk taking and innovation. Penrose (1959) warns about the fact that managers and entrepreneurs are sometimes role models and stop being ordinary people.

We have picked the following interval variables for developing an operational definition of international orientation of entrepreneurs, as follows:

Question 3: What is your participation in the capital of the firm?

Question 4 minus 7: When was decided to internationalize since foundation?

Question 14: In how many countries does the firm sell its products?

Question 25: How many successful new products?

Question 26: How many successful new processes?

Factor 6_3: R and D is sometimes a luxury

Factor 9_3: Key to competitiveness not in R and D

Table 3.1

Operationalization of constructs

Hypothesis	Construct	Operational definition	Source of data
One	Pre-internationalization	Resources and capabilities acquired before internationalization, like inward internationalization (e.g. import and technology licensing activities)	Wiedersheim-Paul et al. (1978), Dichtl et al. (1990),
Two	Foreign market entry	Where (location), how (mode) and when (timing) the firm entered foreign	Johanson and Vahlne (1977), Geringer et al. (1989), Cavusgil and Zou (1994), Dhanaraj

		markets.	and Beamish (2003)
Three	Additional foreign market entries	Having entered a foreign market, where else? How much geographically diversified became the firm?	Johanson and Vahlne (1977), Geringer et al. (1989, Kutschker and Schmid (2006)
Four	Additional modes of foreign market entries	Having used a mode of entry, learning advices on a diversification of modes of entries (within or across markets)	Calof (1991), Axinn and Matthysens (2001)
Five	Networks	Informal and formal networks work, in the form of non-contractual or contractual relationships, with suppliers, clients, competitors and personal contacts	Johanson and Mattsson (1988), Geringer and Hebert (1989, 1991), Johanson and Vahlne (1990), Carrillo-Rivera (2003)
Six	Absorptive capability	Knowledge development produces the capability to better learn from others' knowledge production (voluntary and involuntary spillover).	Nelson and Winter (1982), Cohen and Levinthal (1989, 1990), Lane (1996), Ramangalahy (2001), Zahra et al. (2002)
Seven	International orientation of top management team	Top management profile might help improve internationalization performance	Young, C. B. (1993), Zucchella and Maccarini (1999)
Eight	International orientation of entrepreneur(s)	Innovative R and D and capability development are at the core of sustained international growth	Penrose (1959), Oviatt and Douglas (1994), Allali (2005)

3.5.5 Survey tests of the theoretical propositions

The theoretical propositions or hypotheses are construed so as to give us an empirically based picture or profile of the *internationalizing Mexican manufacturing firm*, and therefore are designed to address research question number one: How does the internationalization process of Mexican manufacturing firm take place? An overall correlation analysis identifies the relevant inter-variable relationships. The first four hypotheses deal with straightforward variables' influence on dependent variables, as well as with internationalization pro-activity, market entry speed, extent and scope, and changes in method of market entry.

The items contained in our survey instruments are divided into: Sections A through L, in which socio-demographic and socio-economic data are factual and structured around the first four hypotheses; Sections K and L contain attitudinal sets of questions along the spectrum of a (five points) Likert-type scale for subjective judgements, which addresses the last four hypotheses.

The sensitive data gathered from the questionnaire were kept at a minimum, but nevertheless we were requiring of the respondents a few specific issues regarding the internationalization process (see appendices 3 and 5).

3.5.6 Reliability and validity issues of survey measurements

Reliability of measures, as consistency between measurement events, was to be enforced by multidimensional treatment of complex constructs related to the internationalization of the firm. This was not the case of relatively straightforward constructs like pre-internationalization, early internationalization, additional market entries, and additional market entry methods. However, it was the case with the existence of networks, absorptive capability, international orientation of top management, and international orientation of entrepreneurs. The same went with the two attitudinal dependent variables: Satisfaction of internationalization performance and performance as an important issue. These six constructs were factor analyzed, and re-dimensionalized along eleven potential factors (see tables A-1 and A-2 in appendix 11). We limited inconsistencies along the

research, not only during the design of the research instrument, but also during field work, when we were faced with deficiencies in our frames, which in turn showed deficiencies in the updating procedures of the electronic databases; in any case, the fact remains that if firms enter and exit international markets without being properly accounted for, that presents a problem due to the unknown variation of birth and mortality rates of firms. A limited repair work was done on our databases, due to the varying quality of databases integration. We systematically minimized errors of measurement at the base of the issue of reliability (Pedhazur and Schmelkin, 1991).

Construct and criterion-related validation work was directly inaccessible due to our low statistical power, which in turn prevented us from applying confirmatory validation. However, we did rely on previous validation work on the attitudinal constructs which we used to test hypotheses 5, 6, 7, and 8, as well as in the integration and manipulation of our attitudinal dependent variables. The validity is not to be assessed by content analysis (see Weber, 1990), and because "validation refers to inferences made about scores, not about the assessment of the content of an instrument" (Pedhazur and Schmelkin, 1991, p. 79); nevertheless, we consulted with current literature as well as with experts whose analysis lead to suggestions of modifications to our methodology and research instruments, in particular: a search for relevancy and completeness of the quantitative data collection instrument (our Internet questionnaire). Again, we did limited validation relying on previous research, particularly Zahra (1996), Geringer and Hebert (1991), Reuber and Fischer (1997), and Allali (2005).

3.6 Interview methodology

In order to reinforce the internal validity of our results, a supporting qualitative methodology was incorporated into the research process. A guideline (see appendices 6 and 7) serves as a focalization instrument, but when the bulk of the field work consists of person-focused interviews, the researcher must deal with the advantages and the disadvantages inherent in this data collection instrument. Therefore, the narrative element of personal interviews imposes some difficulty and an inconvenience when standardizing the content of

each interview, but the quality of information is conceived and measured differently in qualitative methodology.

3.6.1 Theoretical sampling

Following Yin's (1994) model, we built our sample with theoretical functionality in mind. We used background lists of Mexican manufacturing firms published by Mercametrica and Banco de Comercio Exterior (Bancomext), all the while remaining attentive to relevancy to our research questions, as well as concerned with the need to understand the internationalization process of the Mexican manufacturing firm, and the differences in the way this happens to national firms from Mexico, if any. Cases were chosen so as to provide the richness and the variety necessary to research material; it is actually needed to extract useful and insightful observations from the internationalization process and theorize on this subject.

The quality of the information provided through the cases (firm executives interviewed) allowed not so much statistical generalization as it did a thorough description and, when possible, theoretical build-up (Eisenhardt, 1989). Therefore, cases were not selected randomly, but purposefully so as to fulfill a 'thick' observation. We should emphasize that we selected multiple cases, regardless of how thick and relevant the information provided. We chose multiple case studies because we were looking for triangulation when possible. In other words, we confronted findings from one source of evidence with those of another in order to upgrade the quality of our conclusions.

Case studies made around the information provided by multiple means, including personal interviews, are particularly appropriate research strategies when dealing with 'how' and 'why' questions, where the researcher has no control of the phenomena under study (Yin, 1994).

3.6.2 The personal interview as data collection instrument

Although in-depth non-structured interviews are particularly popular among qualitative researchers, we have chosen a focused semi-structured type of interview whose

main characteristic is the fact that the interviewee is known to have had certain kinds of experiences we are looking for, and which are closely related to the phenomenon under study (Merton et al., 1990).

In order to stay focused, we designed a personal interview guideline which consisted of a set of general questions to be used as fit during the course of the interview; this allows the researcher not to lose sight of crucial information to be picked up at the proper moment (see appendix 6).

Two sets of personal interviews were included in the sample. The first set was assembled from ten interviews conducted in the northeast and southeast of Mexico in August 2003 (see Rodriguez Valle, 2003); it was initially envisaged as an exploratory study. The second set was assembled from fifteen interviews made in West, Central, and Southeast Mexico in November 2007, and envisaged a larger objective than the exploration of the elements of the internationalization phenomenon. Joining both sets of compatible sets of interviews, it also looked for a more thorough description and for joining forces even with quantitative analysis in a mixed testing of our theoretical propositions. All firms, with the exception of three, are included in the directories (frames) used for survey purposes (see section 4.2.1.1). Six interviews consisting of three pairs of double interviews were conducted at the same location four years apart (2003 and 2007), thereby including a limited longitudinal dimension. In total, the interviews took place in eleven cities within five states of the Mexican Republic. All firms were either small or medium-size, and the executives interviewed belonged to the top management team. Eleven out of the twenty-five interviews were made with owner-managers or top managers with stock ownership, and the rest with salaried top managers. Three women and twenty-two men were interviewed. Interviewees' ages ranged from thirty to seventy years, with an average around fifty years old. We were looking for diversity of geographic location, industry, and size within an accessible population of internationalizing manufacturing firms. Unfortunately, access to large firms was rather limited and public relations officers were the only potential interviewees. As a result, we decided to reject this source of data, which tends to produce public relations 'garbage packages' of inflated and unreliable information (see Salas Porrás, 1998).

Furthermore, since the first set of ten interviews was made in 2003, screening out foreign affiliates did not apply, and two of such foreign firms were included in the sample.

3.7 Interview measurements

Qualitative measurements were derived from qualitative data which, in turn, were comprised mainly of sentences and phrases expressed during the focused semi-structured interviews with high-ranking executives and owners of internationalizing manufacturing Mexican firms (see appendix 10). Interviews were conducted, taped, and transcribed into computerized files. Also, instead of numbers derived from selections posed by questionnaire questions in our survey, the interviews produced series of words, arranged according to grammatical rules and expressed both by the interviewer and his/her interviewees.

3.7.1 The focused personal interview

An interview guide was used to interview international top managers and owner-managers whose firm's characteristics were, at least partially, known in advance, which made this a focused type of interview (Merton et al., 1990). The guide consisted of eleven questions made of twenty-eight researched items. The items were grouped around the first ten questions of the interview guide. The administered data collection instrument was written in Spanish (see appendix 7).

3.7.2 The collection of interview data and the multi-case research method

All the interviews took place at the firms' locations, either at their headquarters beside manufacturing facilities or at a separate location. With no exception, the interviews were conducted in Spanish and tape-recorded with the interviewees' authorization. The time allowed us for each interview was between twenty-five and sixty-five minutes, with an average of forty-five minutes. A copy of the interview guide was handed to each interviewee at the start of the interview, and the order of the questions and the items in them slightly varied so as to pick up unforeseen information. After a few days, each interview was transcribed, filed in a computer file, and then reviewed and re-written for reading purposes.

However, original transcriptions became lengthy documents, and although an interview guide was used at all times, questions and sub-questions were not all answered by all the interviewees. In other sense, unforeseen information was collected, which either introduced new themes or provided greater depth or a wider scope of observation of previous themes.

3.7.3 The analysis of interview data

Data from interviews are words and sentences built around ideas which, if properly transmitted and received, make sense. Although subjected to grammatical rules, it is the role of the researcher to capture the presence of key ideas and their links between them. If interviews lack a certain freedom from all structure, the job of analyzing qualitative data is made easier, and this was our case. When we chose to stay close to our initial research questions and the eight theoretical propositions, we distanced ourselves from a freehand approach like the development of grounded theory. We based our sampling more on theoretical grounds than statistical ones, although interviewees were finally chosen out of the same frame used for sampling survey recipients. Because personal interviews took place, we had to make physical contact with our collaborators. In our methodological approach, we were looking for some convergence with quantitative analysis (see Bryman, 1988; and Miles and Huberman, 1994). Therefore, we developed a coding scheme suitable to classify and afterward evaluate selected pieces of speech, extracted from our twenty-five transcribed personal interviews (see Appendix 9). Spreadsheets were developed, codified, classified, and evaluated according to whether the sentence in question supported or contradicted the hypothesis around which the sentences had been previously ordered. The coding and evaluation functions produced two sets of spreadsheets: one set ordered by interviewees and the other set ordered by hypotheses (code and groups of code) (see Appendices 10 and 11).

Other dimensions of the analysis involved extracting relevant selected phrases and classifying them according to a coding schema. To evaluate phrases according to whether they supported or contradicted hypotheses (on a five-point Likert-type scale) was probably the most ambitious part of the analysis of qualitative data, due to the fact that qualitative data are implicitly non-numeric data. We compared data, as well as counted and weighted quotations, so as to conclude at supportive, contradictory or neutral attitude towards

hypotheses. A coding scheme was pivotal to perform the evaluation of such diverse material under the same code as a weight to the analysis of summarized figures (see Appendices 9 and 11).

3.7.4 The quality of qualitative research.

In order to deal practically with the quality of our qualitative methodology, we first re-tested our interview guideline (see appendices 6 and 7) with three Spanish-speaking doctoral candidates deemed expert in personal interviewing. In 2007, we revised our guideline test, but adjustments were minimal.

3.8 On triangulation in research

The use of multiple research methods to better accomplish the task of exploring, explaining or predicting phenomena has received various names: *mixed-method*, *pragmatic method*, *multi-method* or simply *triangulation*. The objective here is to avoid the bias inherent in single methods, and at the same time to augment the convergent and discriminate capability of the research process.

The main demand posed by a multi-method approach is to take care of comparability of data, which in no way equates to incorporating an inherent methodology bias; it does allow, however, to reinforce the exploring, testing, and explicative-predictive potential of the scientific work (see Burke and Ownuegbuzied, 2004).

We have used qualitative methodology extensively when the first set of ten interviews took place in 2003, helped by an unstructured focus interview guideline. At that time, only a sketchy literature review was undertaken, but a thorough analysis remained undone due to lack of a proper theoretical framework as background. In 2006, with more extensive literature and proper research questions, the theoretical structure was in place, and with subsequent databases acquisition, a quantitative methodology was placed at the center of the research project. Then, after the measurement instrument and a webpage, as well as a

letter of introduction and an Internet version of the measurement instrument were designed, an Internet survey was run which yielded limited results.

Eventually, we decided to reinforce the quantitative research methodology with a qualitative approach based on personal interviews in the field. A previous 2003 interview guideline was used, unchanged, in order to control for comparability of the two sets of interviews: ten interviews in 2003 and fifteen interviews in 2007; a total of twenty-five interviews conducted in eleven cities. Three of these interviews implied re-visiting firms, where top managers had been previously interviewed. This allowed for a limited longitudinal analysis.

Using a mixed design offered one advantage: each time a hypothesis was tested through different methods, the 'survival' to such a confrontation of methods produced more valid results than through one method testing (Hernandez Sampieri et al., 2006).

CHAPTER IV

DESCRIPTIVE RESULTS

In this chapter, we present the descriptive results from our field work: Internet survey (descriptive) results from the data collected in 2007, using UQAM facilities in Montreal, QC; and interview (descriptive) results from the data collected in personal interviews in 2003 and 2007. These descriptive results were produced according to our research framework (see figure 3.1) where we had scheduled the profiles of the internationalizing Mexican manufacturing firm (see the two left middle blocks), which were to be confronted with the theoretical framework, and eventually help answer our research questions.

The descriptive results give a first raw answer to our research questions and should be interpreted as only a step to understanding the what and the why of the performance of the internationalization process of Mexican manufacturing firms, as it takes place and the extent to which this process compares to that of firms from developed countries. As a reminder, our research questions are as follows:

Question One: How does the internationalization process of the Mexican manufacturing firm take place?

Question Two: Does the performance of the internationalization process of the Mexican manufacturing firm conform to prevalent theory on the performance of the manufacturing firm from developed countries?

The first part of this chapter deals with the descriptive results obtained from personal interviews, starting with a short description of each of the twenty-two firms where interviews took place; then, a set of three tables is presented and a short profile closes this section. In the second part of this chapter, we cover the descriptive results derived from the data collected with the questionnaire form in our Internet survey. A set of ten tables is presented along with a profile of each of the participating firm surveyed. Finally, we elaborate a tentative composite profile of the internationalizing Mexican manufacturing firm.

4.1 Personal interviews on the internationalization of the firm

Each interview was conducted according to a semi-structured guide (see appendix 6); also, all conversations were taped and transcribed (see appendices 8, 8a, 8b, and 8c for a complete list of the firms and of the interviewed executives).

4.1.1 ACENA (2007)

In *Nahuatl Steel Works* (ACENA), which belongs into the 331 SIC code, we interviewed Mr. NBS, the chief executive officer, in his headquarters in downtown Mexico City, sometime in November 2007. The office decor is modern, but that is already a standard in the leased facilities of the luxurious Polanco area. This firm was founded approximately 50 years ago, but it took it 34 years since foundation to start its international sales activities. Its line of business is defined as iron and steel commodities, with an overall 22.6 million tons of annual capacity. Its production facilities are on the outskirts of Mexico City, in the neighbouring state of Mexico.

ACENA has developed some of its iron and steel production technology. A quality development and control function handles process development. A few years ago, it became involved in some specialty steel products program, but that was eventually abandoned. Its CEO expressed his belief that it is precisely its low costs and quality commodity products that represented its main competitive advantage. No international alliances had been used before.

ACENA exports between one and two percent of its total production. Its markets are Argentina, Brazil, Chile, Colombia, the Dominican Republic, India, Peru, Spain, Uruguay, and Venezuela. It was mentioned that their import and export activities are independent of each other.

A few months before the interview with Mr. NBS, ACENA was bought by CARIOCA, a large Brazilian iron and steel producer. Management ranks CARIOCA as one of the world's largest producers of steel products. The sale of ACENA to CARIOCA was the result of a previous proposal from NBS to the Board of Directors, which was eventually accepted. NBS has been retained by the new owners as provisional CEO. The denomination of ACENA in the business spectrum of CARIOCA is that of an *usina*, i.e. a factory. This means that ACENA did not retain the whole spectrum of business functions in this transition. As a result, it is not a firm anymore. Further acquisitions were in process in the Mexican market at the time of the interview and a different organizational arrangement was not foreseen at the time of the interview.

4.1.2 AGORNI (2007)

Aguacates Orgánicos (AGORNI), only recently, started producing guacamole and other food products, which place it in the 311 SIC group code. We interviewed Mr. ILGR, general manager and family member of this family business located in Uruapan, Mich., close to the world's largest Mexican quality avocado fields where raw material for guacamole sauce is abundant, sometime in November 2007.

AGORNI keeps its broker function of avocado product abroad, but its diversification into manufactured products was already a necessity, due to the drastic fluctuations in the world markets of agricultural products. AGORNI owners had already gone bankrupt in the early nineties, barely escaping total disaster, due to their diversification away from agricultural merchandising.

The antecedents of AGORNI initiated international activities between 1981 and 1982, and had kept the business afloat until 1994 when a financial crunch throughout Mexico put an end to the first cycle of the family business. From 1994 to 2003 was a time out for the

avocado merchandising activities. Family members kept busy in the textile business and in the family agricultural fields. Then, the family became interested in growing organic avocado crops and other products like lemons and mangoes.

AGORNI established a sales office in Bern, Switzerland, in alliance with a former Swiss business associate of Mr. ILGR's. From that base, foreign operations in Europe have been growing fast. Also, several alliances in South America and in Argentina have widened AGORNI's product offering with exportable products from these regions.

4.1.3 BEBITI (2003)

Bebidas Típicas (BEBITI) manufactures fruit syrups, which places the firm in the 311 SIC group code. We interviewed Mr. CGLJ, general manager and family member of this family business, sometime in August 2003, in the headquarters next to the production and warehousing facilities in a popular neighborhood of Veracruz, Ver., a port city in Southeast Mexico.

The firm was founded in 1963, although it was not formalized until 1974. For some years, the business was run out of the family house, at the time headed by Mr. CGLJ's father. BEBITI survived and prospered to develop into a regional business. In 1988, Mr. CGLJ was involved in its first international sale to some Colombian businessmen based in Chicago, IL. The merchandise was sent, but the clients simply disappeared. The product was eventually recovered, and this experience showed some of the risk involved in operating across borders.

Then, in 1990 BEBITI started supplying HEB in the state of Texas, but this time it became evident that its lack of production capacity and management should retrace its steps. Also, distribution of the merchandise proved a nightmare. Finally, in 1991, the family decided to risk the establishment of a sales subsidiary with warehousing facilities in San Antonio, TX. A member of the family was commissioned to move to the new location.

According to Mr. CGLJ, it took much time, money, and ingenuity to get to know the market and to penetrate it, in the face of a more intense and demanding market.

In 1995, a financial crisis in Mexico took a heavy toll on the financial stability of the firm, but fortunately for BEBITI, foreign sales started rising precisely when BEBITI market was plunging back home.

At the time of the interview, fifty percent of total sales were foreign, and new production facilities were under way in an effort to match an increasing foreign demand.

Mr. CGLJ commented that, throughout the process, it had helped them to have family relatives in the USA. Not only had this been an opportunity to travel and visit central Texas, but also to count on someone's support so far away from home. Furthermore, the family had enlarged its circle of contacts over the years, although most of them were of a personal nature.

With time, they had learned to comply with American FDA rules, which, in turn, made Mexican business look uncomplicated.

4.1.4 BLOTTERM (2003)

Blotermico (BLOTERM) manufactures non-metallic mineral products based on mineral pearls; it qualifies as a 327 SIC group code firm. We interviewed Mr. LBMI, the international sales manager, in the headquarters in Santa-Catarina, NL, sometime in August 2003. The firm mines for the primary raw material, mineral pearls, in the Mexican state of Durango. Its processing plant is next to the headquarters where the interview with Mr. LBMI took place.

The firm was founded in 1970 and its exporting operations started in 1983, selling to a former American client. BLOTERM has foreign textile clients in the Dominican Republic, the USA, and Chile; foundry clients in Brazil; sugar cane clients in Cuba; and ceramic clients in Venezuela.

The textile segment of the business represented more than fifty percent of domestic and foreign sales, but it eventually leveled off.

All the production technology is imported because of the firm's failures to develop its own international standards.

4.1.5 BOTANOR (2003)

Botana Norteña (BOTANOR) is a manufacturer of canned and packaged food products, which qualifies as a 311 SIC group code firm. We interviewed Mr. EQG, the international sales manager of the firm, sometime in August 2003. BOTANOR is located in Monterrey, NL. BOTANOR was originally founded in 1984, in San Diego, CA, by a retired Mexican executive. It was still a family business when a decision was taken to establish a subsidiary in Monterrey, NL. But in the late nineties, BOTANOR majority stock was sold to an American investment fund. Then, it was decided that the Monterrey plant would take care of BOTANOR's Mexican market and the San Diego plant would take care of the American market. The Monterrey plant kept charge of a small twelve percent share of foreign sales to the USA. Eventually in 2001, the whole BOTANOR firm was bought by Heinz and the Monterrey plant was given responsibility of the Heinz's Mexican operation, import and export business included. Export potential was cut due to the territorial coverage of the Costa Rican subsidiary throughout all Central America, as well as of the Miami office, which controls the Caribbean market. BOTANOR Mexico controls larger operations than ever, but it is cut from territories surrounding Mexico, except for a small percentage of its production.

4.1.6 CASUAVE (2007)

Calzado Suave (CASUAVE) is a footwear manufacturer which classifies as a 313 SIC group code firm. We interviewed Mr. FCRO, the international trade manager, in the headquarters located in downtown León, Gto., next to its factory and warehouse, sometime in November 2007.

CASUAVE was founded approximately thirty years ago and it is a third generation family business. Exports started fifteen years ago with the sale of orthopedic footwear to the USA. Later on, in 2000, a sales office was opened which stopped working after a short while.

Since, some business has been done with El Salvador, gradually turning into an alliance with somebody in the role of distributor for all Central America.

Foreign sales represent twenty percent of total sales, mostly to American clients.

Production technology used for CASUAVE's latest shoe models includes a Japanese scanning interface in the diagnostic phase of size and model selection. Other production technology is of American origin.

4.1.7 CEMUR (2007)

Cerámica Mural (CEMUR) is a ceramics manufacturer, classified as belonging to the 327 SIC group, located in Dolores-Hidalgo, Guanajuato, in Central Mexico. We interviewed Mr. CGN, the general manager and son of the semi-retired founder of the firm, sometime in November 2007. CEMUR was founded 32 years ago and it started export activities five years later. Its first sale was to a client in San Antonio, Texas. It sells directly to foreign clients, located in Canada, El Salvador, the USA, Holland, the UK, and Japan. CEMUR's foreign sales—of more than US\$ 5,500,000—typically represents forty percent of its total sales, which management believes is due to their quality control, their adaptation to customer demands, as well as their ability to offer not only a resistant and durable product, but also different designs and colors. Mr. CGN told us that CEMUR international sales are more profitable than national ones.

CEMUR started international operations without any experience in international management, and still today, it does not have a formal structure for handling exports, nor foreign representatives.

Most product development has been the responsibility of the founder, who is recognized by management and workers alike as an expert and innovator in their line of business, for which ceramic walls are best known on the market, according to Mr. CGN.

Nevertheless, the bulk of CEMUR's products has been the same for the last fifteen years and the method of entering and servicing foreign markets has not changed.

4.1.8 CECABA (2007)

Cerámica Caballero (CECABA) is a ceramics manufacturer, like CEMUR, classified also as a 327 SIC group firm; it is located in Dolores-Hidalgo, Guanajuato, in Central Mexico. We interview Miss VAR, the sales manager of the firm, which was founded 23 years ago. However, it was only seven years after foundation that CECABA started exports, which today amounts to approximately US\$ 10 million. Its line of business is made of traditional artisanal talavera ceramic products.

CECABA sells to Canada, the USA, Europe, New Zealand, and Puerto Rico. Its international sales amount to approximately forty percent of its total sales. Also, it has no formal structure to handle exports, nor foreign representatives.

Management is responsible for Mexican citizens who have been living in the USA for several years and it is periodically visited by these owners. There are no foreign facilities

4.1.9 CONEX (2007)

Conexiones (CONEX) is a manufacturer of electrical components, placed in the 333 SIC group code. We interviewed Mr. GTB, the general manager, in his office next to the CONEX plant located in Celaya, sometime in November 2007.

CONEX was founded in 1995, but it was only in 2002 that the firm made its first foreign sale to a Colombian client. It took the firm another two years to enter its second foreign market, and yet another year to enter its third market.

At the time of the interview, CONEX was exporting to Colombia, Costa Rica, and Guatemala.

Mr. GTB told us that the firm relied on five suppliers as valuable contacts, even before CONEX started to sell abroad. Today, it relies only on three suppliers and three clients, as reliable contacts abroad.

Although no formal alliance has been made, CONEX has had three informal alliances in the past.

Concerning R and D activities, CONEX has added three new successful products and two new successful processes over the last five years. In fact, the firm has no R and D facilities, although one employee is devoted to R and D activities, for at least half of his working hours.

CONEX counts three members in its international management team, out of which two speak more than languages and have some foreign work experience. Only two specialties are represented in the international management team.

4.1.10 CONVEGE (2003, 2007)

Conservas Vegetales (CONVEGE) is a canned food manufacturer, placed in the 311 SIC group code. We interviewed Mr. STDDR, the marketing manager, and Mr. STJA, the general manager, both family members of this family firm, in their headquarters office next to CONVEGE's plant, located in Veracruz, Ver., in Southeast Mexico. The interviews took place sometime in August 2003 and November 2007.

The firm was created in 1940 and international operations started sometime between 1967 and 1968. These operations had increased over time, so much so that, as of interview time, foreign sales represented between 51 and 52 percent of total sales. Foreign sales started in Southeastern USA, through a broker. Sales in the USA are still made through a broker, which is not the case with other markets. Convege used to sell through brokers in other places, but switched to direct selling with clients in Europe: England, Spain, and France. It sells products in Australia, and has started sending products to South Korea.

CONVEGE has been contemplating setting up an office or a warehouse in the USA, but that has not yet materialized. Its competition, La Costena, has already a distribution system in place. But CONVEGE is smaller in size and and has chosen to be prudent regarding its resources and collaborative arrangements. CONVEGE has not yet found any reliable partner in the USA, hence its being cautious.

CONVEGE had already had a hard time building a new plant in Veracruz, Ver., as banks had not backed up the investment, forcing the project to slow down. Eventually, it was completed, without any outside help and at its own pace.

The new plant has allowed to comply with FDA standards easily. Nowadays, CONVEGE is a model of quality standards in the food industry, in the region.

4.1.11 CONLIGUE (2003, 2007)

Construcción Ligera (CONLIGUE) is a housing material manufacturer, classified in the 327 SIC group code. We interviewed Mrs. SHDM, the administrative manager of CONLIGUE, in her office located in Veracruz, Ver., sometime in August 2003 and again in November 2007.

CONLIGUE was founded in 1982 as a venture operation of the Sugar cane workers' union (SCWU), with a base in Mexico, DF. The objective of founding CONLIGUE was to build houses for SCWU members. Then, a technology license was obtained from an American manufacturer and allowed to build cheap houses made of ultra-light walls. The housing project was eventually completed, leaving no more justification for the existence of CONLIGUE.

Meanwhile, a Central American citizen approached CONLIGUE with the intention of buying cheap walls and the first foreign sale was made in 1984 for the Costa Rican market.

All sales were direct exports, without any agents nor distributors. One year later, a second foreign market was entered (Guatemala), and then a third (Belize). Eventually, up to eighty percent of total sales were foreign sales.

With time, more licenses were granted by the same American builder, that originally gave the license to CONLIGUE, and by the year 2000, a Central American firm obtained the same license as CONLIGUE and put it out of the Central American market in just a few months.

4.1.12 CORRON (2003, 2007)

Comercial de Rones (CORRON) manufactures alcohol and spirited beverages, and classifies as a 311 SIC group code firm. We interviewed Mr. SMEM, its general manager and one of the owners of this family business. The interviews took place in August 2004 and November 2007 at the company's headquarters in Veracruz, Ver., where office, factory, and main warehouse are located. Veracruz is a port city surrounded by sugar cane fields, where the main raw material alcohol for the production of several spirited beverages, like rum, is abundant.

CORRON was founded in 1946 and has been exporting for fifteen years. Its first foreign market was Germany thanks to a younger brother's connection. The method of entry to Germany (and other European markets) was a German broker. However, CORRON suffered from a lack of transparency on the part of the German market. Mr. SMEM believes that his broker missed several opportunities. CORRON's international activities have experimented waves, where some opportunities (and markets) have closed, while others opened.

CORRON's foreign markets are Germany, the USA and the Dominican Republic. Although it only had one reliable foreign contact when the firm first internationalized, today the firm counts three reliable foreign contacts. It is through one of these contacts that Mr. SMEM intends to penetrate, again, the American market; in fact, he has developed new products for this highly profitable niche. Mr. SMEM also expressed that financing is one of his most acute problems, due to the long period of time that it takes to prospect markets and develop products. Nevertheless, he now counts seven successful new products developed by CORRON.

4.1.13 CUELIBA (2007)

Cueros Libaneses (CUELIBA) manufactures leather materials for the footwear industry, and classifies in the 313 SIC group code of manufacturing firms. We interviewed Mr. MRV, the finance manager of CUELIBA, sometime in November 2007, at the headquarters of the firm next to its only factory, in Orizaba, Ver., Southeast Mexico.

The firm was founded in 1984, although it is the offspring of two former legal entities which ran the same facilities under different name and related ownership. Nevertheless, two years after its most recent foundation, CUELIBA started its international activities, exporting out of the request of an American business acquaintance. It was a direct sale.

CUELIBA makes eighty-five percent of its total sales abroad. In the USA, it has an exclusive distributor who sells exclusively in the USA and Canada, but in Europe and Asia, the firm sells direct. In total, CUELIBA sells in six or seven countries, but its products reach other markets through redistribution.

Although CUELIBA deals extensively with Italian suppliers, it has no alliance whatsoever with them or with Italian clients. In fact, it has no alliances at all.

Everyone in the management team (two family members, among them) has done undergraduate and graduate studies abroad. Some of them have had work experience abroad.

Also, some of the production, finance, and sales staff travel abroad. Finally, the firm is present at every important fair of its trade, domestically and abroad.

4.1.14 DULMA (2007)

Dulces Magicos (DULMA) manufactures traditional milk and cheese derived candies. The line of business of DULMA is classified as belonging to the 311 SIC group code. DULMA is located in Zamora, Mich., in Central Mexico. We interviewed Mr. RAJT, the owner manager and his son, the production manager. DULMA was founded in 1958, but it was not until 1996 that it started international activities. It has foreign sales of less than one million dollars; twenty percent of these sales are made to American firms, but also in the Caribbean area, Spain, and Bolivia.

Previously, DULMA had imported some machinery, but most of its machinery and equipment is homemade, due to the peculiarities of this line of products.

DULMA has prospered, increasing its production and distribution facilities, as well as its work force. It sells directly to foreign clients who were located and contacted by Mr. RAJT; However, over the past four years, the Internet have been used to deal with a former personal contact.

While Mr. RAJT is in charge of foreign sales, his son is in charge of not only production activities, but also of product development. New canning and packaging methods are presently being developed.

DULMA is a family business; various family members work in the firm, mainly in accounting, personnel, and warehousing functions.

4.1.15 FICATA (2003)

Fibras Catalina (FICATA) is a manufacturer of vegetable fibres products, which places this firm in the 313 SIC group code. We interviewed Mr. SMM, the general manager and head of the family which owns FICATA. The interview took place at the Santa-Catarina, NL headquarters of the firm, next to the production plant and warehouse facilities, sometime in August 2003.

FICATA was bought by Mr. SMM's father in 1951. Since then, it has remained in his family. When his father died, Mr. SMM took charge of the firm and immediately emphasized its international activities; as a result, exports boomed for FICATA.

Mr. SMM attributes some of the firm's success to the fact that his father spoke several languages, and so does he. In addition, his father travelled and worked in several countries, and he himself studied in the USA. Also, the management of FICASA has always considered Europe as a single market zone, rather than different countries and markets. In many countries, FICASA does not have any distributors because the market does not justify such arrangement; it has agents instead. For direct sales, FICASA uses the Internet and its own web page.

When FICATA became internationalized in the 1960s, it first started exporting, and did so through the 1980s. However, its presence in the market required an office, which was

set up under SMM's father's direction. A first office was set up in Europe, then in the USA. FICATA has already its own subsidiary selling its products in the USA.

4.1.16 LIMORA (2007)

Morales Publishers (LIMORA) is a book publisher firm, which belongs into the 321 SIC group. Mr. ORE, the finance manager, was interviewed sometime in November 2007. The interview was held at LIMORA's downtown headquarters, its 1950s decor probably dating back to its foundation days. LIMORA is a 48-year-old company, publishing Spanish books, mostly of the textbook genre. When NAFTA was enacted (1994), the firm had already been present in foreign markets for 24 years. It had taken it eight years, since foundation, to start its internationalization through export activities.

LIMORA has a foreign presence in several Spanish-speaking countries, with between twenty and twenty-five percent of its workforce residing in Spain, Venezuela, Colombia, Peru, Chile, El Salvador, Costa Rica, and Ecuador. It is also present in the USA where an alliance is under way between LIMORA and John Wiley and Sons, Inc. Some years ago, this American firm had bought stock in LIMORA; it had eventually sold it back.

The Mexican editors working at the headquarters periodically visit foreign promoters in their home countries, as well as coordinate operations with LIMORA representatives abroad.

LIMORA does not sell the same line of products abroad as it does in Mexico, and our interviewee did not remember any of such instances, nor does he believe that LIMORA's business practices in Mexico have been altered due to its presence abroad. This firm sells its books and other printed material in one of six broad lines or labels, and has a fully operational Internet-based merchandising activity.

New foreign business is sought out on the Internet (spotting prospects for representing the company, among others), through participation in expositions and bids, and through its developing network of representatives and promoters.

4.1.17 MURREP (2007)

Muebles Replicados (MURREP) is an antique wooden furniture manufacturing firm, which qualifies as a 321 SIC group code. We interviewed Mr. VSA, the owner-manager of MURREP, at his exhibition building in San-Miguel-Allende, Gto., a touristic city in Central Mexico, sometime in November 2007.

MURREP was founded in 1974 and started manufacturing and exports of antique wooden furniture in 1980. Between 1990 and 1992, MURREP exported to Switzerland, and from 1995 to 2000 it exported to the USA through large furniture stores. Then, it started exporting to Italy, but the business ended the moment the Italian buyer came to visit Mexico, and decided to stay.

Today, foreign business is slow and does not represent more than ten percent of total sales. This came as a disappointment after experiencing years of sixty percent in foreign sales.

MURREP publishes an online catalog, but clients usually ask for accommodations to their special needs; in catering and adjusting to their clients' needs, MURREP always close sales successfully.

4.1.18 PALOMITA (2007)

Palomitas a Granel (PALOMITA) is a manufacturer of paper bags for the entertainment industry and classifies in the 321 SIC group code. We interviewed Mrs. AMB, the marketing manager of PALOMITA at her Morelia, Mich. office, sometime in November 2007.

PALOMITA is a partner of EMPAQUES's, a large paper packaging manufacturer located in Monterrey, NL. However, PALOMITA has been running its own operation since it was founded in 1992. The firm started operating internationally in 2001. Management had envisaged entering the American market, but found it beyond reach in the short term. As a result, they started developing alternatives and finally detected some opportunities in Central America.

PALOMITA was advised by a client to contact an affiliated company in El Salvador, and was able to make a presentation and close a deal. Subsequently, it started selling in Guatemala and Ecuador.

PALOMITA is currently searching for distributors for a popcorn machine in Central America, but has not yet found any. The rest of the foreign business, the usual line of business (paper bags), already represents thirty percent of the total sales of PALOMITA. Today, a lot of the renewal and refill of inventories is made online.

4.1.19 PETROPER (2003)

Petro Perforation (PETROPER) is, at the time of the interview, a subsidiary of PETROPER-USA, based in Houston, TX, and classifies as a 333 SIC group code. We interviewed Mr. AAD, the general manager, in his office next to the Veracruz, Ver. plant sometime in August 2003.

PETROPER is heavily involved in the oil drilling business in Mexico and often abroad. Exports had been considered from the very start of this affiliated company. But, the justification for its foundation in 1980 was that it could take advantage of Mexican deals, being close to the market, and specifically PEMEX, the Mexican oil firm. In fact, according to PETROPER, it was PEMEX officials who asked PETROPER-USA to set up an affiliate.

For many years, the Mexican market was not that big for PETROPER; it sold most of its production in markets like Nigeria, Canada, and the USA, among others. As for deals with Saudi Arabia, they come hand in hand with TAMSA, the oil pipe manufacturer. So it is with the Venezuelan market.

4.1.20 PETROMIN (2003)

Petrominerales (PETROMIN) is a producer of non-metallic minerals, specifically clays for oil-drilling operations; it classifies as a 327 SIC group code firm. We interviewed Mr. IAA, the administrative manager of PETROMIN, at the headquarters in Monterrey, NL, sometime in August 2003.

The firm is part of a larger industrial group located in Monterrey, NL and was founded in 1960. PETROMIN extracts and prepares barite as well as other non-metallic minerals for use in the oil industry.

As a consequence of a slump in the Mexican oil industry in the early 1980s, PETROMIN started operating internationally in alliance with a Texan firm, also a supplier of oil companies. Technology was not a problem and marketing difficulties were dealt with by PETROMIN's partner. At the time, some sales were also made to Cuba.

Eventually, the American partner was bought and merged into the Mexican industrial group, making things easier for PETROMIN. Mr. IAA comments that learning accelerated, and whatever technology advantage coming with the Texan firm was assimilated into PETROMIN, and vice versa.

4.1.21 SIBLOCK (2003)

Siller-block (SIBLOCK) is a concrete block manufacturer and classifies as a 327 SIC group code. We interviewed Mr. TGC, the general manager and stockholder, in his Santa-Catarina, NL office next to the largest production plant and warehouse facilities of the firm, sometime in August 2003.

SIBLOCK was founded in 1978, but it was not until 1995 that it started exporting to the USA, due to a slump in the construction industry throughout northeastern Mexico. Mr. TGC mentioned a drop of up to sixty percent in sales before looking into foreign markets.

Due to the weight factor of SIBLOCK products, geographical distance is a critical variable in the distribution costs of its products. As a result, the production of the Monterrey plants is limited in its market potential. However, the drop in the value of the Mexican *peso* helped compensate for the intrinsic disadvantages of the Mexican construction products.

For some time, the export market reached thirty to forty percent of total sales. Soon after that, a marketing and production program was implemented so as to learn how to penetrate and hold the American border market. It required adaptation to different standards, but for SIBLOCK it was not that difficult due to its already strict quality standards.

At the time of the interview, exports sales did not represented more than ten percent of total sales, but management had determined that some significant market share should be kept for any future eventuality. Also, an alliance to build a plant on American soil was considered, but, so far cost/benefit considerations and lack of a reliable partner in sight have prevented any action in that direction.

4.1.22 ZADUR (2007)

Zapatos Duros (ZADUR) is a leather footwear manufacturer classified as a 313 SIC group code firm. We interviewed Mr. VRLM, the sales manager of ZADUR, in his office in Leon, Gto. This firm is 40 years old and it became a wholly-owned subsidiary of BISSEA in 1990. Two years later, ZADUR started exporting to the USA, which now accounts for approximately 10 percent of its total sales. BISSEA is also a leather footwear manufacturer located in Mexico, DF, but its clients are mainly government agencies and its line of business includes other leather products.

ZADUR has only large American clients which specialize in Orthodox Jewish products. ZADUR participates in industry exhibitions, but it discovered during one of these expos that its commercial name had already been registered in Europe by a firm from another line of business. That firm refused to negotiate a deal that would let ZADUR use its brand name abroad, particularly in Europe.

ZADUR has a restricted R and D budget and its product development technology is outdated. As a result, its reliance on BISSEA funds seems to limit its international activities potential. Recently, it has been faced with strong competition from Brazil manufacturers, even in its home market. For this reason, ZADUR and its parent company have already explored the possibility of subcontracting a certain line of products in order to compete domestically and abroad.

4.2 Descriptive interview results

In this section, we elaborate a profile of the participant firms and the senior executives interviewed based on 22 semi-structured personal interviews conducted in eleven

Mexican cities scattered across five Mexican provinces. As previewed in our research framework (figure 3.1), we elaborate a profile from personal interviews conducted in 2003 and 2007.

The survey results have yielded data with which we may identify the portrait or profile of the internationalizing manufacturing firm we are studying. Therefore we present some of the most prominent characteristics of our surveyed firms, and most importantly, those characteristics which we compare against the ones used in elaborating a profile from the Internet survey results descriptive data, as we see in the section following this chapter.

4.2.1 Profile of the interviewed internationalizing Mexican manufacturing firms

This profile elaboration follows from the research design framework that we introduced in the last chapter and the objective is to enhance the understanding of the internationalization of the firm phenomenon.

It is important to observe that during the interviewing process, we were always able to identify our target firms. This made for a substantial difference between the Internet survey and the semi-structured personal interviews, because many pieces of information have come together with the identification of our subjects. This point will serve us when we discuss triangulation of research approaches, as well as the impact of the cross-validation of results.

In this section, in order to cross-validate our profile, we limit ourselves to eleven characteristics of the interviewed senior managers and their firms, as follows

4.2.1.1 Standard industry code, grouped into seven types of business

In table 4.1, we can see that more than half of our interviewed firms fall into two types of economic activity: food and beverage (311); or construction, nonmetallic minerals, and miscellaneous manufacturing (327). Then, with textiles and leather products (313), it all adds up to almost three-quarters of the 22 interviewed firms. These types of economic

activities are over-represented among internationalizing manufacturing firms and they belong into a relatively traditional part of the manufacturing industry.

No firm in the chemical and related industry (326) was among our interviewees; the more dynamic machine, equipment, and metal products manufacturing (333) as well as traditional wood, furniture, and related products (321) had a minor presence in international markets.

Nothing close to bio-tech and other high-tech industries were present among our interviewed firms, which might be explained by the low degree of R and D investment among Mexican manufacturers in general, and among internationalizing Mexican manufacturing firms in particular (OECD, 2005)

Table 4.1
Standard industrial code among internationalizing firms

SIC	Frequency	Percent ($n=22$)
311	6	27.27
313	4	18.18
321	3	13.64
326	0	0.00
327	6	27.27
331	1	4.55
333	2	9.09
Total	22	100.00

4.2.1.2 Jobs held by the interviewed executives, grouped into four classes of job

More than half of the 22 informant executives were CEOs, i.e. the highest authority figures and probably the best informed individuals among top management executives of the internationalizing firm.

Two other jobs, which together represented 40 percent of the executives interviewed, included marketing or sales managers (23%) and finance or administrative managers (18%). No specialist manager in international business could be found in our sample of interviewed internationalizing firms and barely one executive from the production and logistics functions was among the interviewed executives.

Table 4.2

Job of informant executives

Job of executive	Frequency	Percent ($n=22$)
CEO	12	54.55
INTM	0	0.00
MKTG	5	22.73
OPS	1	4.55
FCO	4	18.18
OTHER	0	0.00
	22	100.00

4.2.1.3 Age of the firm, in years, since foundation

Ten out of 22 (45%) of interviewed firms were between 21 and 40 years old. Then, 19 out of 22 interviewed firms were 21 years or older at the time of the interview (94%).

These results show that the majority of the interviewed firms are mature and even plainly old firms at the time of the interview.

Table 4.3

Distribution of age of interviewed firms

Age of firm	Frequency	Percent ($n=22$)
0 – 20	3	13.64
21 – 40	10	45.45
41 – 60	5	22.73
61 - ∞	4	18.18
Total	22	100.00

4.2.1.4 Formalization of international activities, grouped in two categories

The majority of interviewed firms do not have their international activities formalized, in the form of a specialized section or similar organizational unit. Even though, almost 23 percent of our sample of interviewed firm did formally recognized and organized themselves for international activities, as a specialized function.

Table 4.4

Formalization of international activities

Formalization of structure	Frequency	Percent ($n=22$)
No	17	77.27
Yes	5	22.73
Total	22	100

4.2.1.5 R and D facilities, grouped into two categories

In table 4.5 below, we may observe that more than two-thirds (68%) of the interviewed firms affirmed that they did not have any R and D facilities, meaning that they did not have any specialized facilities for developing new products and processes and for adapting and conforming their products and processes to foreign markets. On the other hand, almost a third of interviewed firms affirmed having specialized R and D facilities.

R and D facilities and personnel are convenient resources and sometimes indispensable resources to compete in certain industries, and this might be more the case of firms present in international markets (OECD, 2005).

R and D activities are still done in non-specialized facilities, but the extent of such activities might suffer in efficiency and effectiveness. Also, difficulty in financing projects, in general, was mentioned.

Table 4.5

Possession of R and D facilities

R and D facilities	Frequency	Percent (<i>n</i> =22)
No	15	68.18
Yes	7	31.82
Total	22	100.00

4.2.1.6 Size

Size is a concept that at first seems simple, but it may be statistically expressed in several ways. In this work, we have kept two ways to express size, both included in the survey data base (see next section) and in the interviews data base, and which we describe here. In subsection 4.2.1.6.1, we deal with size as expressed by employees working in the firm at the end of 2006; and in subsection 4.2.1.6.2, we deal with size as expressed by how large the Mexican market is for the firm being described.

4.2.1.6.1 Size, in terms of employees

As we can see in table 4.6, most interviewed firms are either small (1 to 100 employees) or medium-sized (201 to 600 employees). Nineteen out of 22 (86%) interviewed firms fall into these two size classes. Another bare 3 out of 22 (14%) represents small firms becoming medium-sized. Not a single interviewed firm rated as a large firm.

The issue of *representativeness* comes handy while ascertaining how large or small our interviewed firms are. The fact remains that large firms are around 1 percent of the population of manufacturers (INEGI, 2005). Therefore, the absence of large firms among our interviewed sample is acceptable.

Table 4.6a

Size in terms of employees working in the firm

Size	Frequency	Percent ($n=22$)
1 - 100	9	40.91
101 - 200	3	13.64
201 - 600	10	45.45
601 - 1000	0	0.00
1001 - ∞	0	0.00
Total	22	100.00

4.2.1.6.2 Size in terms of presence in the Mexican market

As we can see in table 5-4b, the size of the Mexican market in terms of the presence of each interviewed firm is divided in local, regional and national firms. Local firms number 6 among our 22 sample and represent somewhat above a quarter of the total (27.3%). Regional firms are somewhat even local firms and number 5 firms (22.7%). Finally, firms with national presence number 11 firms (50%), half of the sample of interviewed firms.

Table 4.6b

Size in terms of the firm's presence in the Mexican market

Size (Mexican market)	Frequency	Percentage
Local	6	27.3
Regional	5	22.7
National	11	50.0
Total		100.0

4.2.1.7 Facilities abroad

In table 4.7, we can observe that most interviewed firms do not have any facilities abroad (73%) and out of the interviewed firms that do have facilities abroad (27%), half of them do not have but one single facility abroad

Table 4.7

Number of facilities abroad

Number of facilities abroad	Frequency	Percent ($n=22$)
0	16	72.72
1	3	13.63
2	1	4.54
8	1	4.54
10	1	4.54
Total	22	100

4.2.1.8 Foreign countries entered, in number of countries

When we look at table 4.8, we can observe that 13 out of 22 interviewed firms entered the markets of up to 5 countries (59%). Also, 6 out of 22 interviewed firms entered between 6 and 10 countries (27%). This means that approximately 86% of interviewed firms entered the markets of up to 10 countries and only approximately 14% of interviewed firms entered more than 10 countries.

These figures are distant from entering a very large portion of the whole world.

Table 4.8

Number of countries entered

Number of countries entered	Frequency	Percent ($n=22$)
1 – 5	13	59.09
6 – 10	6	27.27
11 – 20	2	9.09
21 - ∞	1	4.55
Total	22	100.00

4.2.1.9 Executives speaking at least two languages, measured in number of executives in the team

In table 4.9, we observe 9 interviewed firms out of 22 reporting having up to 2 multilingual top managers (41%). Then, a substantial set of 6 interviewed firms out of 22 reported having between 5 and 6 multilingual top managers (27%). Therefore, a total of approximately 82% of interviewed firms reported having up to six multilingual top managers. Also, it should be noticed that all interviewed firms reported having at least one multilingual top manager.

Table 4.9

Number of multilingual executives

Multilingual executives	Frequency	Percent ($n=22$)
0 – 2	9	40.91
3 – 4	3	13.64
5 – 6	6	27.27
7 – 8	2	9.09
9 - ∞	2	9.09
Total	22	100.00

4.2.1.10 Executives having studied abroad, measured in number of executives in the team

In table 4.10, the highest frequency of number of top managers graduating from a foreign university is 10 out of 22, for interviewed firms not having a single foreign graduated top manager (45%). The interviewed firms that do have foreign graduated top managers divide into two general sets: 7 out of 22 interviewed firms reporting up to three foreign graduated top managers (32%); and a smaller set of 5 out of 22 interviewed firms reporting between 4 and 6 foreign graduated top managers (23%).

Table 4.10

Foreign graduated top managers

Graduated abroad	Frequency	Percent ($n=22$)
0	10	45.45
1	3	13.64
2	3	13.64
3	1	4.55
4	4	18.18
6	1	4.55
Total	22	100

4.2.1.11 Executives in the top management team

In table 4.11, we can see that no interviewed firm had less than two top managers in their team, but 17 out of 22 interviewed firms (75%) had team of 4, 5 or 6 top managers. Four out of 22 interviewed firms (18%) had top management teams of less than 4 top managers and only 1 out of 22 interviewed firms (5%) had more than 6 top managers in their teams.

Table 4.11

Executives in the top management team

# of executives	Frequency	Percent ($n=22$)
1	0	0.00
2	1	4.55
3	3	13.64
4	6	27.27
5	6	27.27
6	5	22.73
7	0	0.00
8	1	4.55
Total	22	100

4.2.1.12 An interview-based profile of internationalizing firms and executives

Based on results from our 22 interviewed firms described in sections 4.2.1.1 through

4.2.1.11, we can elaborate the following profile of the Mexican manufacturers firm:

Most probably, a manufacturer of the 311, 313 or 327 SIC codes;

Most probably, a firm aged 21 or older;

Most probably, international activities are not formalized;

Most probably, R and D activities are done in non-specialized facilities;

Most probably, the firm has between 100 and 600 employees;

Most probably, the firm has no facilities abroad;

Most probably, the firm has entered no more than ten countries;

Most probably, the firm has at least one multilingual top manager, but not more than 6;

It is as probable, that either the firm has no top manager with foreign graduate studies, or that it has no more than four top managers with foreign studies; and

The firm has at least three, but no more than six top managers.

4.3 Descriptive survey results

The results of the survey comprise data from 142 firms, from which we can elaborate a portrait or profile of the internationalizing manufacturing firm we are studying. Therefore we will present some of the results of the descriptive characteristics of our surveyed firms. As we have commented before, profiling the surveyed executives and their firms does allow a contextualized narrative of the internationalization phenomenon.

4.3.1 Profile of the surveyed internationalizing Mexican manufacturing firms

A profile, based on survey data, follows from our research design framework introduced in the last chapter; the objective is to enhance the understanding of the internationalization of the firm phenomenon.

In order to cross-validate our profile, we limit ourselves to the same eleven characteristics of the interviewed senior managers and their firms, as follows:

4.3.1.1 Standard industry codes, grouped in seven types of businesses

In table 4.12, we can see that 88 out of 142 surveyed firms (62%) belong in the food, beverage, and tobacco industry (311); the construction, nonmetallic mineral, and miscellaneous manufacturing (327); or the metallic products manufacturing (331). We notice a wider spread of firms across the spectrum of seven standard industrial code groups.

Table 4.12

Standard industrial code among internationalizing firms

SIC	Frequency	Percent ($n=142$)
311	37	26.06
313	15	10.56
321	14	9.86
326	10	7.04
327	28	19.72
331	23	16.20
333	15	10.56
Total	142	100.00

4.3.1.2 Job held by the interviewed executives, grouped in four classes of jobs

In table 4.13, we can observe that more than half of the informant executives, 76 out of the 142, were CEOs (54%). Also, 123 out 142 surveyed firms were represented either by CEOs (54%), international managers (22%), and marketing managers (11%), for a total of 91% of the surveyed firms.

Table 4.13

Job of informant executive

Job of executive	Frequency	Percent ($n=142$)
President-General Manager	76	53.52
International Manager-Export Manager	31	21.83
Marketing-Sales Manager	16	11.27
Production Manager	5	3.52
Finance Manager /General Accountant	7	4.93
Others	7	4.93
	142	100

4.3.1.3 Age of the firm, in years, since foundation

Looking at table 4.14, survey results indicate that 70 out of the 142 firms (49%) started operations up to twenty years ago. One hundred fourteen out of the 142 surveyed firms (80%) are up to 40 years old. The age data distribution, although widely spread between 1 and 84 years old, is also strongly skewed to the right. That is, the median of 21 years is probably the most representative measure for *age of the firm*. From all this, we can conclude that most of our surveyed firms are somewhat mature.

Table 4.14

Distribution of age of the surveyed firms

Age of firm	Frequency	Percent ($n=142$)
0 – 20	70	49.30
21 – 40	44	30.99
41 – 60	17	11.97
61 - ∞	11	7.75
Total	142	100.00

4.3.1.4 Formalization of international activities, grouped in two categories

We found a formalization of international activities basically through the creation of specialized departments in charge of exports and other international activities. We can observe in table 4.15 that 57 out of the 142 surveyed firms (40%) have formalized their international activities, through the creation of an export or international affairs department.

Table 4.15

Formalization of international activities

Formalization of structure	Frequency	Percent ($n=142$)
No	84	59.15
Yes	57	40.14
Total	141	99.30

4.3.1.5. R and D facilities, grouped in two categories

In table 4.16, we can observe that 19 out of the 62 surveyed firms (31%) reported having R and D facilities. This figure, in percentage, should be further reduced by less than half (14%), if we consider a total sample of 142 firms.

Table 4.16

Possession of R and D facilities

R and D facilities	Frequency	Percent ($n=142$)
Yes	19	30.65
No	43	69.35
Total	62	100

4.3.1.6 Size, in terms of employees

The size of the surveyed firms was measured in annual sales in number of employees by the end of 2006. Data were skewed to the right, meaning that the number of employees as represented by arithmetic averages was overestimated. We can look at the median of 65 employees at the end of 2006 as being more representative of the size dimension of our surveyed firms.

In table 4.17, we can observe that 84 out of the 142 surveyed firms (62%) reported having no more than 100 employees. Also, 123 out of 142 surveyed firms (91%) have up to 600 employees. We can notice that 3 out of the 142 surveyed firms (2%) represent large manufacturing firms, much in accordance with industrial census (INEGI, 2005).

Table 4.17

Size of firms (in number of employees)

Size	Frequency	Percent ($n=135$)
1 – 100	84	62.22
101 - 200	20	14.81
201 - 600	19	14.07
601 - 1000	9	6.67
1001 - ∞	3	2.22
Total	135	100

4.3.1.7 Facilities abroad

In table 4.18, we can observe that 47 out of the 142 surveyed firms (33%) reported having facilities abroad. Facilities abroad include sales offices and warehouses, and imply hiring employees. This issue was explored in question 38.2 of the questionnaire (see appendix 3).

Table 4.18

Facilities abroad

Firms with facilities abroad	Frequency	Percent ($n=142$)
Yes	47	33.10
No	95	66.90
Total	142	100

Note: Data was obtained from answers to questions 11 and 29.5.

4.3.1.8 Countries entered, in number of countries

In table 4.19, we can observe that 125 out of the 141 surveyed firms (89%) reported having entered the market of up to 10 countries, which is represented by only 16 out the 141 surveyed firms (11%).

Table 4.19

Number of countries entered

Number of countries entered	Frequency	Percent ($n=141$)
1 - 5	96	68.08
6 - 10	29	20.56
11 - 20	10	7.09
21 - ∞	6	4.25
Total	141	100

Note: One questionnaire answer to question 14 is missing.4.3.1.9 Executives speaking at least two languages, measured in number of executives in the team

In table 4.20, we can observe that 135 out of the 142 surveyed firms (95%) reported having up to six multilingual top managers. In fact, six surveyed firms reported not having a single multilingual top manager.

Table 4.20

Number of multilingual executives

Multilingual executives	Frequency	Percent ($n=142$)
0 - 2	68	47.88
3 - 4	54	38.02
5 - 6	13	9.15
7 - 8	4	2.81
9 - ∞	3	2.11
Total	142	100

4.3.1.10 Executives having studied abroad, measured in number of executives in the team

In table 4.21, we can observe that 56 out of the 142 surveyed firms (40%) reported not having a single top manager with a foreign degree. Also, 83 out of the 142 surveyed firms (59%) reported having up to three top managers with a foreign degree.

Table 4.21

Foreign graduated executives

Graduated abroad	Frequency	Percent ($n=141$)
0	56	39.72
1	46	32.62
2	28	19.86
3	9	6.38
4	1	0.71
5	1	0.71
Total	141	100.00

4.3.1.11 Executives in the top management team

In table 4.22, we observe that 127 out of the 142 surveyed firms (89%) reported having up to four executives in their top management team. Also, only 15 out of the 142 surveyed firms (11%) reported having five or more executives in their top management teams.

Table 4.22

Number of executives in top management teams

# of executives	Frequency	Percent ($n=142$)
1	22	15.49
2	38	26.76
3	50	35.21
4	17	11.97
5	8	5.63
6	4	2.82
7	3	2.11
8	0	0.00
Total	142	100.00

4.3.1.12 A survey-based profile of internationalizing firms and executives

Based on the results from our 142 surveyed firms described in sections 4.3.1.1 through 4.3.1.11, we can elaborate the following profile of the Mexican manufacturing firm:

Most probably, a manufacturer will be classified with the 311, 327 or 331 SIC codes;

Most probably, a firm is aged 40 years or older;

Most probably, international activities are not formalized, although six out of ten are;

Most probably, R and D activities are done in non-specialized facilities;

Most probably, the firm has between 1 and 100 employees, then up to 600 employees is also highly probable;

Most probably, the firm has no facilities abroad, but one in three firms will eventually have facilities (sales and distribution) abroad;

Most probably, the firm has entered no more than ten countries;

Most probably, the firm has at least one multilingual top manager, but not more than 6;

It is probable that either the firm has no top manager with foreign graduate studies, or it has no more than four top managers with foreign studies; and

The firm has at least two, but no more than four top managers.

4.4 Triangulation of descriptive results

We can learn new elements on the phenomenon under study using alternative methodologies and even more so if we adopt such alternatives concurrently, so that we may be able to cross-validate findings from different perspectives.

Thanks to the Internet survey, we have had access to a large number of answers to different themes related to the internationalization of the firm; in fact, we have 142 completed

questionnaires. However, we were unable to identify who was either the executive or the firm he or she was working for, or where they were located.

With the interviews, we had access to a stock of information from 22 firms which we were able to identify and locate. Also, much of the information gathered provided greater detail than the questionnaires. The use of semi-structured guides to each interview allowed us to gather some unexpected data, not always closely related to our theme, but obtaining data regarding contextualization, for instance, was indeed an added value for each interview.

4.4.1 Composite profile of the internationalizing Mexican manufacturing firm

In this section, we contrast the descriptive results from both the survey and the interviews, and we synthesize a profile of the internationalizing Mexican manufacturing firm, which we expect will gain in depth and variety of description.

Again, we concentrate our attention to the eleven characteristics described in the last two sections of this chapter (5.2 and 5.3), as follows:

4.4.1.1 Standard industry codes, grouped into seven types of businesses

In table 4.23, we notice that SIC codes 311 and 327 continue being dominant internationalizing firms. Then, CIC code 331 emerges as alternative.

Table 4.23

Comparative SIC distribution

SIC	Frequency	Percent interview (<i>n</i> =22)	Frequency	Percent survey (<i>n</i> =142)
311	6	27.27	37	26.06
313	4	18.18	15	10.56
321	3	13.64	14	9.86
326	0	0.00	10	7.04
327	6	27.27	28	19.72
331	1	4.55	23	16.20
333	2	9.09	15	10.56
Total	22	100.00	142	100.00

4.4.1.2 Jobs held by the interviewed executives, grouped into four classes of jobs

As we can see in table 4.24, CEOs continue to dominate as informants concerning internationalization, followed by international business managers and marketing managers.

Table 4.24

Job of informant executives

Job of executive	Frequency	Percent interview (<i>n</i> =22)	Frequency	Percent survey (<i>n</i> =142)
CEO	12	54.55	76	53.52
INTM	0	0.00	31	21.83
MKTG	5	22.73	16	11.27
OPS	1	4.55	5	3.52
FCO	4	18.18	7	4.93
OTHER	0	0.00	7	4.93
	22	100.00	142	100.00

4.4.1.3 Age of the firms, in years, since foundation

In table 4.25, we can observe that relatively mature firms (21 to 40 years old) continue to dominate, but with a larger surveying sample, younger firms emerge as the dominant class. Therefore, firms 0 to 40 years old are an overall class to observe, from relatively young to relatively mature.

Table 4.25

Age of firm

Age of firm	Frequency	Percent interview (<i>n</i> =22)	Frequency	Percent survey (<i>n</i> =142)
0 - 20	3	13.64	70	49.03
21 - 40	10	45.45	44	30.99
41 - 60	5	22.73	17	11.97
61 - ∞	4	18.18	11	7.75
Total	22	100.00	142	100.00

4.4.1.4 Formalization of international activities, grouped in two categories

As observed in table 4.26, with a larger surveying sample, *formalization of international activities* becomes the rule with 84 out of 141 (59%).

Table 4.26

Formalization of international activities

Formalization of structure	Frequency	Percent interview (n=22)	Frequency	Percent survey (n=142)
No	17	77.27	84	59.15
Yes	5	22.73	57	40.14
Total	22	100	141	99.30

4.4.1.5 R and D facilities, grouped in two categories

As observed in table 4.27, *possession of R and D facilities* becomes the rule with a larger surveying sample. In fact, 43 out of 62 surveyed firms possess R and D facilities, in contrast with only 7 out of 22 interviews firms (32%).

Table 4.27

Possession of R and D facilities

R and D facilities	Frequency	Percent interview (n=22)	Frequency	Percent survey (n=142)
No	15	68.18	19	30.65
Yes	7	31.82	43	69.35
Total	22	100.00	62	100

4.4.1.6 Size, in terms of employees

Size is expressed in two ways, as follows:

- a) Size, in number of employees, which is relatively easy to collect from interviewees and surveyed companies. This dimension of size combines favorably with other statistics, when available, to ascertain efficiency indicators of the firm. In table 4.28 we are able to summarize the collection of size data, in terms of employees, in five broad categories, for both surveyed and interviewed firms. Interviewed firms are not present in the larger (600-1000 employees and more than 1000 employees) categories. Surveyed firms, on the contrary, are present in all five categories.
- b) Size, in terms of presence in the domestic market, allows to add an important element in our data collection and analysis. In the case of this dimension of size, both surveyed and interviewed firms have presence in all three categories of size, in terms of presence in the domestic market. In table 4-28b we have the categorization of size, broken in local, regional and national firms, for both surveyed and interviewed firms.

4.4.1.6.1 Size, in terms of employees

As we can see in table 4.28, with a larger surveying sample, a smaller size of firms (71% versus 54%) dominates the profile, instead of more medium-sized firms (14% versus 45%), as in the interviewing sample of firms.

Table 4.28

Size of firm (in number of employees)

Size	Frequency	Percent interview (<i>n</i> =22)	Frequency	Percent survey (<i>n</i> =135)
0 - 100	9	40.91	84	55.63
101 - 200	3	13.64	20	16.20
201 - 600	10	45.45	19	14.08
601 - 1000	0	0.00	9	5.63
1001 - ∞	0	0.00	3	3.52
Total	22	100.00	135	95.07

4.4.1.6.2 Size in terms of presence in the Mexican market

In table 4.28b, we can observe that the figures for the regional firms are quite similar in percentage (22.7% and 23.9%). The figures for the local firms are again small compared to the total (27.3% and 15.6%), which might mean that our sample is more representative of the population, with small and medium-sized firms representing the largest segment of the industrial firms's population.

Table 4.28b

Size, in terms of the domestic market

Size (Mexican market)	Mex market Frequency	Percentage	Mex market Frequency	Percentage
Local	6	27.3	22	15.6
Regional	5	22.7	34	23.9
National	11	50.0	83	50.5
Total	22	100.0	139	100.0

4.4.1.7 Facilities abroad

As we see in table 4.29, the results from the 20 interviewed firms sample coincide with those of the 142 surveyed firms sample. In fact, 6 interviewed firms out 22 (27%) report having facilities abroad; and so do 47 out of the 142 surveyed firms (27%).

With a triangulated result like this, we may provisionally accept that we have measured the same phenomenon, and that both samples seem to belong in the same population.

Table 4.29

Facilities Abroad

Firms with facilities abroad	Frequency	Percent (n=22)	Frequency	Percent (n=142)
Yes	6	27.27	47	27.46
No	16	72.73	95	72.54
Total	21	100	142	100

4.4.1.8 Foreign countries entered, in number of countries

In table 4.30, we can observe that a larger surveyed sample does not change the dominance of the group of firms that have entered up to 5 countries. First, this group represents 59% of a total of 22 interviewed firms; in addition, in the larger sample of 142 surveyed firms, 0 to 5 countries entered represents 68% of the total. The order of all four classes remains the same, although the relative weight somewhat changes.

Table 4.30

Countries entered

Number of countries entered	Frequency	Percent interview (<i>n</i> =22)	Frequency	Percent survey (<i>n</i> =141)
0 - 5	13	59.09	96	68.09
6 - 10	6	27.27	29	20.57
11 - 20	2	9.09	10	7.09
21 - ∞	1	4.55	6	4.26
Total	22	100.00	141	100

4.4.1.9 Executives speaking at least two languages, measured in number of executives in the team

In table 4.31, we can observe that the *3 to 4 multilingual executives* group changes from third place (13.64%) in the smaller sample of interviewed firms to second place (38,1) in the larger sample. The opposite happens with the *5 to 6 multilingual executives* group, which changes from a second place (27.27%) in the smaller sample to third place (9.1%) in the larger surveyed firms sample. The other groups remain in the same order of importance.

Table 4.31

Multilingual Executives

Multilingual executives	Frequency	Percent interview (n=22)	Frequency	Percent survey (n=142)
0 - 2	9	40.91	68	47.9
3 - 4	3	13.64	54	38.1
5 - 6	6	27.27	13	9.1
7 - 8	2	9.09	4	2.8
9 - ∞	2	9.09	3	2.1
	22	100.00	142	100.00

4.4.1.10 Executives having studied abroad, measured in number of executives in the team

As we can see in table 4.32, the first three groups—including the one representing firms with not a single executive with foreign studies, the group representing firms with just one executive with foreign studies and the third group representing firms with two executives with foreign studies—remain first, second, and third in order of greater relative percentage. Firms with four executives with foreign studies practically disappear with the larger surveyed firms sample. .

Table 4.32

Executives with Foreign Studies

Graduated abroad	Frequency	Percent interview (<i>n</i> =22)	Frequency	Percent survey (<i>n</i> =141)
0	10	45.45	56	39.72
1	3	13.64	46	32.62
2	3	13.64	28	19.86
3	1	4.55	9	6.38
4	4	18.18	1	0.71
6	1	4.55	1	0.71
Total	22	100	141	100.00

4.4.1.11 Number of executives in top management teams

In table 4.33, the first three groups representing the teams with the least members (1, 2, and 3 executives) increase in the larger surveyed firms sample; and the contrary is true for the groups representing teams with 4, 5, and 5 members: these groups rank lower in frequency in the larger sample.

Table 4.33

Executives in the top management team

# of executives	Frequency	Percent interview (n=22)	Frequency	Percent survey (n=142)
1	0	0.00	22	15.49
2	1	4.55	38	26.76
3	3	13.64	50	35.21
4	6	27.27	17	11.97
5	6	27.27	8	5.63
6	5	22.73	4	2.82
7	0	0.00	3	2.11
8	1	4.55	0	0.00
Total	22	100	142	100.00

4.4.1.12. A composite profile of internationalizing firms and executives

Based on the results from our 22 interviewed and 142 surveyed firms described in sections 4.2.1.1 through 4.3.1.11, we can elaborate the following profile of the Mexican manufacturing firm:

Most probably, a manufacturer will be classified with the 311, 327 or 331 SIC codes;

Most probably, a firm aged up to 20 years will occur as frequently as more mature firms, like the group between 21 years old and 40 years old;

Most probably, international activities are not formalized (less than 50% of the time), although more formalization will occur with 40% of the firms;

Most probably, R and D activities are done in non-specialized facilities;

Most probably, the firm has between 1 and 100 employees (it will occur more often);

Most probably, the firm has no facilities abroad, but one in three firms will eventually have facilities (sales and distribution) abroad;

Most probably, the firm has entered no more than ten countries;

Most probably, the firm has at least one multilingual top manager, but not more than 6;

It is as probable that either the firm has no top manager with foreign graduate studies, or that it has no more than four top managers with foreign studies; and The firm has at least two but no more than four top managers.

4.5. An extended descriptive profile

A more systematic way to develop a profile of subjects from a sample is to use classification techniques. In the following sections, we present four classification tables built from a cluster and applying discrimination of variables. Both these techniques are based on similarities or homogenization of groups.

4.5.1 A general descriptive extended profile

In table 4.34, 13 bundled variables generally describe different characteristics of the 22 interviewed firms. All of them gave us information that allowed to build our 2003-2007 SPSS database.

This general description includes a central and a dispersion measure for each variable included in table 4.34. Note that figures were rounded to the next higher integer, so as to ease the reading of the information.

4.5.2 Profile of “worst” interviewed firms

In order to characterize a more specific extended profile of the interviewed firm, we obtained a statistically derived K-Quick cluster classificatory description and a discriminative grouping of our interviewed firms.

Table 4.35 shows that both classification techniques obtained 14 firms as belonging to the lowest or “worst” foreign sales intensity group.

The small number of interviewed makes this calculation exercise somewhat weak, but an approximation to a refinement of the general extended profile is obtained.

4.5.3 Profile of “best” interviewed firms

Similarly to the results in section 4.5.2, we obtain here a statistically derived K-Quick cluster classificatory description and a discriminative grouping of our interviewed variables.

In this instance, table 4.37 shows that 8 interviewed firms, for both methodologies, fall into the group of more successful firms.

In addition, we can compare tables 4.5 and 5.36; we observe that: *countries entered* are definitively more numerous amongst internationalizing countries (13 countries versus 3

countries entered); *multilingual executives*, *foreign graduated*, and *present in the management team*; and *employees* are in larger quantity in “best” firms.

5.4.4 Which firms classify as “best” versus “worst” firms

With the interviewed firms database, we are able to identify each firm. In table 4.37, not only can we ascertain that 8 firms classify as successful or unsuccessful, but also we can relate each firm to its story, brief or less, and we may go deeper into each story, as necessary.

In table 4.37, we note that ACENA, BLOTTERM, BOTANOR, CEMUR, CECABA, CONEX, CONLIGUE, CORRON, MURREP, PALOMITA, PETROMIN, PETROPER, SIBLOCK, and ZADUR belong in the “worst” firms list.

We can ask what makes AGORNI, BEBITI, CEMUR, CONVEGE, CUELIBA, FICATA, DULMA and LIMORA.

We used non-hierarchical clustering, specifically K-Means method, which allows us to define the number of cluster before any calculation starts, and even get a “seed” or starting values as provided by the program itself. We decided on this method due to the limited number of elements in our sample (22) and it remains that the calculations provide a clear cut internal consistency of each cluster.

Technically, the K-Means method involves an the MacQueen algorithm that assigns each item in the cluster having the nearest centroid (Johnson and Wichern, 2002; Daughfous, 2006; Hair et al, 1995).

Table 4.35 shows the “worst” firms’ cluster, with a FSI less than 30%. This is the largest cluster with 14 elements in it.

Table 4.36 shows the “best” firms’ cluster, with a FSI more than 30%. This cluster has 8 elements in it, making it the smaller of the two.

Finally, table 4.37 brings together both cluster to help compare them on their variable composition.

Table 4.34

Extended general profile of interviewed firms

Variable	Total Sample (n=22)	
	Mean	Standard Deviation
Age of firm	38	19
Years before first sale	14	14
Countries entered	7	8
New products developed	3	3
New processes developed	4	4
Informal networks	3	2
Formal networks	3	4
Multilingual executives	4	3
Foreign graduated executives	2	2
Sales facilities established	1	3
Employees	190	148
Executives in team	5	1
Foreign sales intensity	32	29

Note: Simple discrimination used success as cut-off point $\geq 30\%$ FSI

Used K-Quick clustering technique.

Source: Personal interview database

Table 4.35

Specific profile of "worst" interviewed firms FSI <30%

	WORST Discriminated	<i>n</i> =14	Cluster 2 <i>n</i> =14
Variable	Mean	Standard Deviation	Final Center
Age of firm	39	20	37
Years before first sale	18	14	15
Countries entered	3	3	6
New products developed	4	4	4
New processes developed	3	4	4
Informal networks	2	2	3
Formal networks	2	2	3
Multilingual executives	4	3	3
Foreign graduated executives	1	2	1
Sales facilities established	1	2	0
Employees	196	146	96
Executives in team	5	1	4
Foreign sales intensity	14	8	30

Note: Simple discrimination used success as cut-off point $\geq 30\%$ FSI

Used K-Quick clustering technique.

Source: Personal Interview Database

Table 4.36

Specific profile of the "best" interviewed firms (FSI \geq 30%)

	BEST Discriminated	<i>n</i> =8	Cluster 2 <i>n</i> =8
Variable	Mean	Standard deviation	Final center
Age of firm	36	18	40
Years before first sale	8	13	14
Countries entered	13	9	8
New products developed	3	2	3
New processes developed	5	3	4
Informal networks	4	3	3
Formal networks	6	7	4
Multilingual executives	6	3	7
Foreign graduated executives	2	2	3
Sales facilities established	2	3	3
Employees	183	159	356
Executives in team	5	1	6
Foreign sales intensity	63	22	35

Note: Simple discrimination used success as cut-off point \geq 30% FSI

Clustering technique used K-Quick.

Source: Personal Interview Database

Table 4.37

"Worst" versus "best" interviewed firms

"WORST" Interviewed Firms (Cluster 2)	"BEST" Interviewed Firms (Cluster 1)
ACENA	
	AGORNI
	BEBITI
	BLOTTERM
BOTANOR	
CASUAVE	
CEMUR	
CECABA	
CONEX	
CONVEGE	
CONLIGUE	
CORRON	
	CUELIBA
	DULMA
	FICATA
	LIMORA
MURREP	
PALOMITA	
PETROPER	
SIBLOCK	PETROMIN
ZADUR	
<i>n</i> =14	<i>n</i> =8

Note: The classification is hardly an accurate description of success. Average foreign sales intensity is practically even for cluster 1 and 2 (35% versus 30%)

CHAPTER V

ANALYTICAL RESULTS

5.1 Analytical results from our Internet survey

In July and August 2007, we ran a quantitatively oriented Internet survey in order to obtain standardized data, as well as further our empirically-based descriptions and analysis of different aspects of the internationalization process, as presented in our theoretical framework (Dillman, 2007).

This data collection involved issuing a letter inviting the collaboration of prospect firms selected from specialized industrial directories. In order to improve the response rate, an introductory letter inviting to answer our questionnaire—accessible on the web page of the research project—was sent a week later. Two other reminders were also sent over the following eight weeks. Out of approximately 5000 electronic mails sent, 400 responses were received, making only 142 questionnaires usable. Because of inherent confidentiality mechanisms, we were unable to identify the firms by their names nor their geographical locations.

The research instrument, the questionnaire, was composed of approximately 90 items, out of which 38 comprised concepts susceptible to be measured as continuous variables; table 5.1 shows a list of such items. Also, in this table, we notice that we use three dependent variables, in first three rows: *intensity*, *satisfaction*, and *importance*. The rest of the items are 35 independent variables starting with a transformed item (q4_7: How many years did it take you to decide to enter a foreign market, since the firm was founded?) and ending with a factorized item (F11_3: Need of new products).

Table 5.1

Interval-scaled variables

Abbreviation codes	LIST OF INTERVAL-SCALED VARIABLES
(1)Intensity	FSI Foreign Sales INTENSITY ... DEPENDENT VARIABLE
(2)Satisfaction	SATISFACTION with the performance ... DEPENDENT VARIABLE
(3)Importance	Perceived IMPORTANCE of Performance achieved ... DEPENDENT VARIABLE
(4)q4_q7	How many years did it take you to decide to enter a foreign market, since the firm was founded?
(5)q4_q9	How many years did it take you to make your first foreign sale, since the firm was founded?
(6)q14	In HOW MANY COUNTRIES do you sell your products today?
(7)q16	How many years did it take your company to enter A SECOND FOREIGN MARKET?
(8)q17	How many years did it take your company to enter A THIRD FOREIGN MARKET?
(9)q18	How many valuable contacts did your company have among its foreign suppliers, BEFORE starting to sell its products abroad?
(10)q19	How many valuable contacts does your firm have among its foreign suppliers TODAY?
(11)q20	How many valuable contacts among its foreign clients does your company have TODAY?

(12)q22	In how many formal (contractual) alliances has your company joined in the last five years?
(13)q23	In how many informal alliances has your company joined in the last five years?
(14)q25	How many successful product developments has your company had in the last five years?
(15)q26	How many successful process developments has your company had in the last five years?
(16)q30	How many employees are committed, at least 50% of their time, to R and D activities?
(17)q31.1	How do R and D employees allocate their working time within their projects? (Product development)
(18)q31.2	How do R and D employees allocate their working time within their projects? (Process development)
(19)q31.3	How do R and D employees allocate their working time within their projects? (Other projects)
(20)q32	How many executives are part of the top management team that makes international decisions?
(21)q33	How many members of this 'international management team' are foreign-born?
(22)q34	How many members of this 'international management team' speak more than one language?
(23)q35	How many members of this 'international management team' have work experience in a foreign country?

(24)q36	How many members of this 'international management team' have done graduate studies in a foreign country?
(25)q37	How many specialties (finance, marketing, production, etc.) are there in the 'international management team'?
(26)q39	As of 2006, what were your total sales?
(27)q40	At the end of 2006, how many employees worked for the firm?
(28)Fac1_3	SYNERGETIC MANAGEMENT TEAM
(29)Fac2_3	GENERAL SATISFACTION WITH NETWORKS
(30)Fac3_3	LIMITED SATISFACTION WITH NETWORKS
(31)Fac4_3	EXPERT ENGINEERS
(32)Fac5_3	COMPUTER SKILLS AND R and D HELP ABSORPTIVE CAPACITY
(33)Fac6_3	R and D SOMETIMES LUXURY
(34)Fac7_3	INTERNATIONALLY ORIENTED TEAM
(35)Fac8_3	MORE COMPETITIVITY IN MEXICO
(36)Fac9_3	KEY TO COMPETITIVITY NOT IN R and D D
(37)Fac10_3	TRUST and DURATION IN NETS
(38)Fac11_3	NEED OF NEW PRODUCTS

The financial performance of the internationalization process has been overwhelmingly preferred among internationalization experts as the dependent variable, as mentioned by Sullivan (1994). Alternatively and following the advice of Prof. N. Daughfous, we explored two additional dimensions of an attitudinal nature: *Process* and *Satisfaction with the performance attained in the internationalization*.

The dimensions *process* and the *importance perceived of the performance attained* in the internationalization process were not possible to obtain directly from the questionnaire, but they were operationalized as the results of factor analyzing questions 45 and 46, and their sub-items 45.1 through 46.4.

We also obtained new operational definitions for items of an attitudinal nature, including items related to network activity, absorptive capability, international orientation of top managers, and international orientation of entrepreneurs.

Because these constructs involve latent factors, they were identified through a factor analysis procedure whose results are shown in appendix 11. Eleven factors were extracted from 38 independent variables, applying a principal components procedure. These factors although they reduce the number crunching task, when testing these theoretical propositions 5, 6, 7, and 8, labelled H5, H6, H7, and H8. Following Geringer and Hebert (1991, p. 251) who argue "that financial and objective measures may fail to adequately reflect the extent an international joint venture has achieved its short- and long-term objectives", we included subjective performance measures in questions 44.1 through 45.4. Then, we factor analyzed the answers to these questions and extracted two factors to be used as subjective dependent variables, and which we labelled: a) *the satisfaction with internationalization performance* and b) *the importance attached to performance goals* (see appendix 11).

Table 5.2

Summary of hypotheses multiple regressions results

Hypo. Tested	Concept Tested	Dependent variable	N	Squared R	Significance of F Change	D-W Test	Condit. Index(2)	Test Result
H1	Pre-Int'l	Intensity	87	0.049	0.384	2.5	5.1	Rejected
H2	Early Int'l	Intensity	128	0.027	0.335	2.1	2.4	Rejected
H3	Add. Markets	Intensity	85	0.069	0.216	2.3	3.6	Rejected
H4 (1)	Add. Methods	Intensity	-	-	-	-	-	-
H5	Networking	Intensity	83	0.15	0.131	2.4	33.8	Rejected
H5	Networking	Satisfaction	77	0.277	0.003	1.6	33.3	Rejected
H5	Networking	Importance	77	0.177	0.088	2.0	33.2	Rejected
H6	Abs. Capacity	Intensity	20	0.574	0.391	1.3	10.4	Rejected
H6	Abs. Capacity	Satisfaction	17	0.715	0.319	1.2	9.4	Rejected
H6	Abs. Capacity	Importance	17	0.72	0.308	2.0	9.4	Rejected
H7	Mgmt. Team	Intensity	90	0.088	0.460	2.4	8.6	Rejected
H7	Mgmt. Team	Satisfaction	81	0.164	0.099	1.9	9.3	Rejected
H7	Mgmt. Team	Importance	81	0.157	0.120	2.0	9.3	Rejected
H8	Entrepreneurship	Intensity	30	0.631	0.000	1.5	8.3	Accepted
H8	Entrepreneurship	Satisfaction	28	0.366	0.109	1.5	4.7	Rejected
H8	Entrepreneurship	Importance	28	0.076	0.936	1.9	4.7	Rejected

(1) Not feasible test (2) Maximum amount

5.2 Results concerning our theoretical hypotheses

Each of our theoretical propositions, H1 through H8, was statistically tested via the multiple regression procedure. Hypotheses 1 through 4 were tested against FSI, the financial performance dependent variable. Ultimately, hypothesis 4 (Change of method) was not

tested, due to lack of independent variables that could make sense, after the test was run. Additionally, hypotheses 5, 6, 7, and 8 were tested against FSI, the financial performance dependent variable, but also, against *the satisfaction with internationalization performance goals* and *perceived importance of the internationalization process* constructs, as dependent variables.

As shown in table 5.2, a total of 15 multiple regression models were originally produced against the mentioned dependent variables. Also in table 5.2, a set of stringent criteria was applied to elicit the hypotheses that confirmed what was expressed concerning a specific aspect of the internationalization, as follows:

- R-squared, the determination coefficient that gives us the variation that the set of independent variables (Xs) explains concerning the dependent variable Y. In our evaluation of the quality of the regression model and following Daghfous (2006), we set the minimum acceptable value of R-squared at 0.30 or more.
- The Significance of F Value Change, that measures whether the values presented have a certain probability to occur again. This Significance Value has been strictly set at a maximum 0.05.
- The Durbin-Watson, a test that measures the correlation between errors (adjacent residuals) that are expected to be independent, has been set between 1.5 and 2.5, with a reliable value at close to 2.0 (Field, 2000).

The Condition Index is an indicator of colinearity (or multicollinearity) which is the undesirable situation where the correlations among the independent variables are strong. The maximum value that this index can assume is 30 (SPSS ® online help).

As we can see in table 5.2, the violation of any of these criteria was reason enough to reject any hypothesis being tested. Only hypothesis 8, when tested against FSI (Foreign sales intensity) was able to pass the quality tests.

As a consequence of this general rejection of our theoretical hypotheses, except the one on International orientation of entrepreneurship against FSI, we have limited showing the

specifics of the analytical results of hypotheses testing to just the one that passed all criteria, as commented.

In table 5.3, we show the details of the independent variables that make up the single multiple regression model for testing hypothesis eight. First, we notice six main components of the *international orientation of entrepreneurs*' construct, as it relates to the foreign sales intensity performance indicator: the number of countries entered, the number of informal networks, successful products, and successful processes, contacts among suppliers and contacts among clients. Second, we have the strongest component in the number of countries entered variable, with a t of 4.038, and a significance level of 0.000. This variable has already been considered as an indicator of internationalization diversification, and therefore, as a performance indicator itself. We believe that the more countries entered a more knowledgeable internationalizing firm and facilitates risk taking.

Table 5.3

International orientation entrepreneurship mr model

PREDICTORS	BETA	T	SIGNIFICANCE
Constant		4.997	0.000
COUNTRIES	0.357	2.561	0.017**
SUCCESSFUL PROCESS	0.438	3.255	0.003**
INFORMAL NETWORKS	-0.323	-1.951	0.063*
CONTACTS AMONG SUPP. TODAY	-0.026	-0.209	0.835
CONTACTS A. CLIENTS TODAY	0.379	2.350	0.028**
KEY TO COMPETITIVITY NOT R AND D	0.520	3.814	0.001**
PARTICIPATION IN FIRM 'S CAPITAL	-0.363	-2.635	0.015**

Dependent variable: FSI-Foreign sales intensity (Ratio of foreign sales to total sales)

R-squared = 0.631

Significance of F change = 0.000**

Durbin-Watson Test = 1.6

Condition Index = 8.3

n = 30

Note: * means a significance level of up to 10%, and ** means a significance level of up to 5%.

It is important to signal the coherence of the results out of this multiple regression. We will go over the more relevant results:

- a) The number of countries entered revealed a lever in this variable that eases risk-taking involved in the internationalization of firms, and the impact on the whole model is measured with a student t of 2.561, well above 2.0 as important and the significance reveals a level well below 0.05.
- b) The successful processes reveal a facilitating activity to innovate and absorb spillovers, which revolves around developing sustained capabilities, thus impacting the intensity that reveals a more successful internationalization of firms. The strong impact on the whole model is measured with a student t of 3.255, well above -2.0, which reminds us of the difficult commitment that internationalizing firms have, particularly in terms of the investment of additional resources.
- c) The number of informal networks resulted as important to the model, with a student t of -1.951, although not below -2.0. Personal contacts and informal collaborative arrangements resulted in an augmented risk upon foreign sales intensity, because
- d) informality and trust may turn a liability, at least in the short term, when dealing with foreign business associates. This variable resulted a significance at 0.063.
- e) Valuable contacts among clients resulted in an impact on the model of 2.350 and significant at 0.028.
- f) Key to competitiveness not lying in R and D showed the strongest impact on this regression model of 3.814 and a significance of 0.001. This variable is linked to tacit knowledge and untransferable routines.
- g) Participation of interviewees in the capital of the firm resulted inversely in relation to performance, showing that the less capital related top managers are, the better. Its contribution to the model was shown in a t of -2.635 and was significant at 0.15.

5.3 On the quality of survey results

The quality of results was examined particularly for constructs like networks, absorptive capability, management team, and entrepreneurship, because of the complexity of these constructs. In contrast, pre-internationalization activities, first foreign market entry, additional entries into more markets, and change of method adopted are related to straightforward data, which renders analysis and interpretation relatively easier.

5.3.1 Reliability of survey results

Reliability measures the degree of consistency between several measurements of a composite variable. We used Cronbach's Alpha to test for 'loading' of the extracted factors from the *principal components* procedure. As shown in appendix 11, only factor 9 (*Clave de competitividad no en I and D*) and factor 11 (*Necesidad de nuevos productos*) show extreme weakness in consistency.

Reliability measures not only the consistency of different measurement events by the same researcher, but also of the measurements events by different researchers. Had we been able to obtain genuine longitudinal data or to re-test our subjects, we would have been able to raise the reliability of data. Instead, what we got were the memories of key actors, however weak or distorted, which arose from our survey questioning.

5.3.2 Validity of survey results

To measure what we intended to measure, that is what validity is all about. In operational terms, validity relates scores to the research instrument. What should make a difference is the rigor with which our work includes the provisions necessary to assure that the final results are at least internally valid.

We dealt with quantitative validity in a rather crude way, but nevertheless we looked at being systematic, and when possible exhaustive. Statistically derived validity was not possible to obtain due to lack of statistical power (enough response rate), which prevented, among other things, the application of confirmatory statistical techniques. We worked with so many variables, and with so limited a number of responses, that our aim of collecting,

analyzing, and interpreting national data must be qualified due to the severe quality of the Mexican frames (industrial directories) which we had corrected and updated when possible. Both public and private frames produced a majority of wrong, if not obsolete data, which reduced drastically our response rate (only 400 responses out of which 142 were usable).

We researched and were inspired by several sources: the *international networking* construct was based initially on Forsgren and Johanson's (1992) and Geringer and Hebert's (1991) concepts, but the work of Carrillo-Rivera (2003) influenced our final version of Networks more. The *absorptive capability* construct was based mainly on the work of Zahra and George (2002), although the idea to integrate it into internationalization was ours, only to eventually find out that it was already used by other researchers like Fletcher (2009). The *international orientation of the management team* construct was based on Reuber and Fischer (1997), and the *international orientation of the entrepreneurship* construct on Lumpkin and Dess (1996). If further research on these constructs might render them confirmable through statistical analysis, alternative ways like mixed methodology may prove useful.

5.3.2.1 Content analysis

Content analysis, a demanding method to make the content of research instruments and procedures discernable was extensively used to scrutinize and systematize our research procedures. Therefore, our search concentrated for the most part on text content analysis (see Weber, 1990). The search for coherence and completeness is the key to this research method.

Here is where we emphasized the collection of experts' opinions in the research design phase of our project. The literature review (see chapter II) of this dissertation was a valuable input to the design and data collection phases of our project. Also, we first distributed our questionnaire, then our interview guide to six researchers at the Institute of Administrative Sciences Research Unit in Xalapa (state of Veracruz), and to four other researchers at the Engineering Institute Research Unit in Veracruz (state of Veracruz). All these researchers are qualified members of the above mentioned research units of the State University of Veracruz, and some of them are actively working in research projects sponsored by the National Council of Science and Technology (CONACYT). All of those

who received our research instruments were asked to evaluate them regarding structure, organization, completeness, and clarity. We received these researchers' evaluations in 2007, prior to the beginning of our fieldwork.

Content analysis is not a validation method (Pedhazur and Schmelkin, 1991), because validation refers to inferences about scores, relating them to the measuring instrument. Content analysis is concerned with the content of measuring instruments. Validation was done indirectly when we concern with previous validation of instruments and its adoption by us.

5.4 Analysis of interview data

Qualitative data in this research consisted of taped personal interviews with collaborating executives who shared with us the internationalization experience in their firms (see appendix 8). Sometimes the experience was firsthand, particularly in the case of owner-managers and of general managers. In other instances, although the executive narration concerned a secondhand experience, the content of the narrative was guided by an interview schedule which helped standardize the collected material. The taped interviews were transcribed using a word processor, and selectively transferred to a spreadsheet program. Once on the spreadsheet, the selected phrases from the interviews were codified according to whichever hypothesis related issue they fall into (see appendix 9 for the code list used to classify data), and the analysis of data was under way. Even though all of the collaborating interviewees were busy persons, the length of the interview was usually more extended in the case of owner-managers, whose interests and international experience were more in line with that of the firm.

5.4.1 Codification of selected interview phrases

We devised a list of codes to consistently classify data gathered during the interview process. As previously mentioned, appendix 9 shows the codes that were created to classify data in one of approximately sixty classes, clustered around our eight hypotheses. The codification of the selected phrases tried to systematize a subjective judgemental process. The

systematization process had in fact started well before the data analysis, when we had used an interview guide for our interviews. This guide was adopted for both our 2003 and our 2007 interviews, and helped homogenize the sequence and general content of the collected data (see appendices 6 and 7). Afterwards, we classified the selection of phrases that seemed relevant to our hypotheses; then, we evaluated the extent to which the selected phrase(s) confirmed or rejected the hypothesis in question.

5.4.2 Evaluation of selected interview phrases

For this evaluation process, we adopted a Likert-like scoring system, where:

- a) -2 is an evaluation that strongly rejects that the selected transcript material conforms with the hypothesis that we find relevant to this empirical evidence;
- b) -1 is an evaluation that simply rejects that the selected transcript material conforms with the hypothesis that we find relevant to this empirical evidence;
- c) 0 is a neuter evaluation, where there is no clear confirmation or rejection that the selected transcript material conforms with the hypothesis that we find relevant to this empirical evidence;
- d) +1 is an evaluation that the selected transcript material conforms with the hypothesis that we find relevant to this empirical evidence; and
- e) +2 was an evaluation that the selected transcript material conforms with the hypothesis that we find relevant to this empirical evidence.

Once again, we were aware of the subjectivity involved in this evaluation system, but it was nonetheless another procedure to produce coherence within the limits imposed by the variety of narrative content. appendix 10 lists selected phrases, all classified by hypotheses relevant to the content of the selected interview material. Also in appendix 11, thirteen summary tables of evaluated material are presented, classified by hypotheses.

5.5 Results of coded interviews analysis

A total of 25 interviews in 22 different internationalizing Mexican manufacturing firms took place. A first set of ten executives were interviewed in 2003, and then another set of fifteen executives in 2007. Interviews took place in eleven cities throughout Mexico. With the interviewees' consent, interviews were tape-recorded on site and transcribed using Word©, in Canada.

Phrases from the transcript material were selected according to their relevancy to our eight hypotheses and codified using a list of codes (see appendix 9). Each classified phrase was assigned a score representing a perception of its coincidence or divergence with the text of the specific code and the hypothesis relevant to the selected phrase. The score, in a Likert-like scale, was one of five algebraic numbers: -2, -1, 0, +1 and +2.

Once the selected phrases were pasted into a pre-formatted Excel© spreadsheet, we used quantitative indicators of contribution to confirming hypotheses where a simple algebraic evaluation was assigned; evaluations were then algebraically added and divided by the number of citations, code by code, interviewee by interviewee.

Scored data were summarized in tables A-3 through A-15 (see appendix 11). Then, these data were employed to test once more our eight hypotheses. Some caution should be introduced: the coding remains highly subjective, and although we were able to cross-evaluate with the help from academics at the Universidad Veracruzana, in Xalapa, Ver. and Veracruz, Ver., this work was brief. In fact, we did not obtain the support of full-time research assistants available in better funded research projects (see Leroy-Beltran, 2003). Nevertheless, we did put together a rich and voluminous resource of voluntarily shared information, which is scarce when doing research in Mexico.

In the following sections, we explain some of the details involved in the evaluation of the confirmed hypotheses based on the information from the coded interviews. We would like to emphasize that the main criterion involved in these evaluations is *repetition* or *times a phrase was related to the specific hypothesis and code*, notwithstanding that such a phrase is assigned a grade on the Likert-like scale we have adopted. Besides, the codification of the

identified variables differs slightly from the list of variables that were originally included in the operational definitions of the eight hypotheses and their predictors, because this activity was performed several months before the survey started. The hypotheses derive from the theoretical framework which, although central to our work, derives in turn from the literature review. The fieldwork must reveal incongruences in the theoretical frameworks and their constructs. The alignment of the survey with the interviews predictors took place, but was incremental and partial. Finally, the list of survey variables in table 5.1 may be contrasted with the list of codes for interview variables in appendix 9.

5.5.1 Hypothesis 1: Pre-internationalization proactivity

The Mexican manufacturing firm that undertakes relatively more proactive pre-internationalization activities will have a better performance in its internationalization.

A subtotal of 123 quotations or phrases were selected, codified, and evaluated in the context of hypothesis 1. Selected phrases coded as PRE.3 (years since foundation), PRE.4 (domestic coverage), PRE.5 (main economic activity of the firm) and PRE.6 (size of the firm), were quoted twenty times or more. See appendix 9 (code list for data analysis and evaluation) and table 11.3 in appendix 11 (cross case analysis of interviews, hypothesis 1).

Our evaluation of the selected narrative, related to this hypothesis, shows an overall score of approximately 0.95, which represents a simple confirmation of hypothesis 1.

Based on empirical evidence, which emphasizes a positive perception of internationalization as an important issue, we find that hypothesis 1, as stated above, is supported by such evidence. This confirms that hypothesis 1 explains the influence of the pre-internationalization of proactive activities on the success of the internationalization process of the Mexican manufacturing firm.

5.5.2 Hypothesis 2: Early internationalization

The Mexican manufacturing firm that started internationalization relatively earlier will have a better performance in its internationalization

One hundred and twenty-eight phrases are related to the proposition that a relatively earlier internationalization drives a more successful internationalization. Three components of this construct were quoted twenty or more times: EARLY.1 (initial attractiveness to internationalization), EARLY.2 (initial environment of internationalization, including the domestic background environment), and EARLY.5 (foreign market entry method used first time).

The most frequently mentioned, and particularly relevant, issues concerned what attracts firms to enter foreign markets, the environment initially faced, and what foreign market entry method the internationalizing firm uses the first time. A few phrases illustrate this point (for more details, see appendix 9 and table A.4 in appendix 10).

The motivation or (positive or negative) incentives to enter foreign markets are diverse. Some of them are exogenous to the firm and the top management team, like a sudden fall in the demand of products and services provided by firms in certain industries, a particularly serious national or international financial crisis, or a change in the economic policy of the Mexican government, etc. Other incentives are endogenous and have more relation with the personal events of top managers, including the owner-manager of the firm, the intervention of relatives or ex-classmates living abroad, etc. Another set of quotations relates to the environment initially encountered by the firm in question. Sometimes, customers and potential customers expressed a certain skepticism, distrust, and other prejudices against Mexican products. In fact, a bad image of the products or the services of the products and services of a certain country could be difficult to overcome, although far from impossible. Other issues about the environment initially encountered concern foreign customs and other regulatory agencies (see appendix 10).

The narratives of interviewees concern different issues surrounding the relative earlier foreign market entry which is seen as advantageous to the success of the internationalization process of the firm. Although simply positive with approximately 0.90 of weighted score, the number and scoring of the narratives is rich in illustration of the factors identified with the internationalization success.

Based on empirical evidence emphasizing the perception of internationalization as an important issue, we find that hypothesis 2, as stated above, is supported by such evidence. This confirms that hypothesis 2 explains the influence of an early start in the internationalization process which is influential on the success of the internationalization process of the Mexican manufacturing firm.

5.5.3 Hypothesis 5: International network activities

The Mexican manufacturing firm that is relatively more internationally network oriented will have a better performance in its internationalization. It will perceive internationalization performance as more important, and/or it will be more satisfied with internationalization performance achieved.

The subject of *collaborative arrangements*, otherwise known as networks or alliances, matches only sixty-five relevant related phrases to analyze and evaluate. *Informal collaborative arrangements or informal alliances* (NET.5) is quoted more than twenty times. *Formal collaborative arrangements* (NET.6) and *attitude towards collaborative arrangements* (NET.8) are quoted more than ten times.

The overall weighted score is of 0.61, which is definitely positive, but nevertheless a low score. Below, we cite some of the selected phrases from the most relevant classes (see appendix 10 for a selection of quotations taken from the interview transcripts):

Formal collaborative arrangements, or informal alliances, was quoted only thirteen times out of sixty-five cases, which makes for a small (positive) weighted score of 0.61. Even though we only have a small quantity of narrative material (sixty-five selected phrases), it identifies the issues providing the most potential for additional understanding of internationalization.

A weighted score of 0.61 largely confirms hypothesis 5 as an empirically based explanation of the influence of international networks on the success of the internationalization process of the Mexican manufacturing firm in gaining relatively more success in the internationalization process of the firm.

5.5.4 Hypothesis 6: Absorptive capability

The Mexican manufacturing firm with relatively more absorptive capability will have a better performance in its internationalization. It will perceive internationalization performance as more important, and/or it will be more satisfied with internationalization performance achieved.

The subject of *absorptive capability* provides one hundred and sixty-seven quotations. In fact, these illustrations are particularly conducive to shedding light on the relationships between specific and prolifically quoted issues of absorptive capability and the success of the internationalization process of the firm. *Influence of technology on internationalization* (ACA.1) is quoted forty-two times; *learning from the initial internationalization involvement* (ACA.2) twenty-eight times; *learning from later internationalization involvement* (ACA.3) thirty-four times; and *culture, as suitable to learning and innovation* (ACA.7) thirty-one times.

The technology issue provided a somewhat large provision of narrative material. Numerous phrases are negative and sound critical, thereby expressing particular areas of concern to firms and governmental agencies in a technologically dependent country like Mexico (Mexico 2004 –OECD, 2005).

Below are a few examples of *influence of technology on internationalization* (ACA.1):

Learning from the initial and later internationalization involvement (ACA.2 and ACA.3) provided narrative materials on organizational as well as technological factors. These involved learning at the very start of, and later, during the internationalization process of the firm. Below is a quotation from our interviewees:

“Cultural factors are difficult to capture, to evaluate and to isolate from other issues.”

Following, we show a few quotations of the cultural background of Absorptive Capability:

We have one hundred and sixty-seven phrases; they have generated four identified specific issues that illustrate, through copious narrative material, how absorptive capability becomes an influencing variable impacting on the success of the internationalization process.

The overall weighted score of absorptive capability is a weak 0.637. Nevertheless, everything seems to support hypothesis 6, as stated below, in being a valid explicative indicator of the success of the internationalization process of the Mexican manufacturing firm.

5.5.5 Hypothesis 7: International orientation of top management

The Mexican manufacturing firm with a relatively more internationally oriented top management team will have a better performance in its internationalization. It will perceive internationalization performance as more important, and/or it will be more satisfied with internationalization performance achieved.

The analysis of the qualitative data produced a selection of one hundred and eighty-five quotations related to the influence of the international orientation of the executive team (IOTM) on the success of the internationalization of the Mexican manufacturing firm. Two issues were copiously quoted as a partial explanation of how this international orientation of top management influences successful internationalization.

It should be noted that, with counted exceptions, top managers and owner-managers express a certain skepticism with respect to technology, qualifying internationalizing Mexican manufacturing firms as, for the most part, 'low-tech' firms. Yet, Mexican engineers are usually known for their ingenuity and how they excel when faced with more sophisticated and resource-rich competitors.

Thanks to the large number of quotations (187), we were able to identify critical issues in understanding the way the international orientation of top management influences the internationalization process of the Mexican manufacturing firm. Moreover, considering that the evaluation system produced a weighted positive score of 0.55, we found limited support for hypothesis 7 as a valid explanation of the role of international orientation in the success of the internationalization of the Mexican manufacturing firm.

We decided on an interim rejection of the hypotheses that were confirmed by only one out of the four tests available. which is against (foreign sales) *intensity*, *satisfaction*, and *importance* in the case of the survey data, and against *importance*, in the case of the interview data.

In table 5.4, we can see that the interview data (against *importance*) confirmed hypotheses 1, 2, 5, 6, and 7. The criteria applied was *number of quotations*, which ranged from 61 (H5) to 185 (H7). Then, a pondered weight was obtained for grading using the Likert-like scale (-2 to 2); for confirmed hypotheses, it ranges from 0.55 (H7) to 0.95 (H1). Notwithstanding, *number of quotations* remains a weak criterion, although a second or third best. Moreover, Likert-like grading is highly subjective and yields fragile results when left in a standalone position.

5.6 Quality of the data from coded interviews

Skepticism should be exercised when using interview data. We believe that these should not be thought of as a standalone research tool. Rather, when that is the case, the evaluation logic needs to be adjusted. In other words, we cannot use survey analysis standards when analyzing interview data. The same reasoning applies for experiment data.

5.6.1 Saturation of the results from coded interviews

In multi-case research, a question always arises eventually: When to stop the research effort? This is a tricky question, because time and money constraints usually take care of bringing things to a halt. Otherwise, when financial resources and time are available to carry out the research job, the question becomes more relevant; and it is convenient to be able to stop before resources drain unnecessarily.

Saturation is the relevant concept that applies in multi-case funded research, insofar as additional funded time and money should be invested only so long as they contribute to furthering knowledge.

Table 5.4

Interview-based hypotheses testing

Tested Hypotheses	# Quotations	Weighted Score	Decision
H1 (Pre-internationalization)	123	0.95	Confirmed
H2 (Early First Foreign Market)	128	0.90	Confirmed
H3 (Early Additional Markets)	98	0.00	Rejected
H4 (Additional Entry Methods)	37	0.00	Rejected
H5 (Foreign Networking)	65	0.61	Confirmed
H6 (Absorptive Capability)	167	0.64	Confirmed
H7 (Int'l. Oriented Management)	185	0.55	Confirmed
H8 (Int'l. Oriented Entrepreneurs)	170	0.00	Rejected

Dependent Variable: Internationalization Performance perceived as Important
 Source: Personal Tran scripted Interviews. See appendix 8.

5.6.2 Reliability of the results from coded interviews

Reliability is about consistency. We should aim at obtaining the same results across researchers' interventions and across research methods. The objective is to maintain consistency in our measurements, no matter who measures the phenomenon under study. Our interviews were conducted by a single interviewer. Therefore, the replication of results could not be done directly from interview notes. Still, we were able to replicate interviews in the case of CORRON, CONVEGE, and CONLIGUE, thus conducting a second series of interviews four years apart. The results from the three couples of interviews are shown in table A.15 in appendix 10.

The overall internationalization panorama was consistent in each case: CONLIGUE had just been out of international markets and top management had ceased to believe they

could return to foreign markets. In the case of CORRON, it had conducted little foreign business, but two extensive programs planned to re-enter the American and the European markets. CORRON had gradually designed a new line of products for the American market, and some European collaborative arrangements had been made.

The approach of CORRON's top management to the European market seemed less innovative, but nevertheless they were still betting on re-entering their first foreign market. Finally, in the case of CONVEGE, the approach had remained almost intact, with only small improvements. It kept selling abroad and its foreign operations were similar at the time of each interview, that is already profitable in the USA and Europe.

5.6.3 Validity of the results from coded interviews

Validity makes sure that we measure what we were trying to measure in the first place. Like the validity of quantitative data, the validity of qualitative data centers on correctly classifying and assessing the 'true' dimension of the phenomenon under study. To this end, the coding system is tried to remain the same for both kinds of data and the content of the research materials is handled in a way that guarantees its validity. We revised the literature and consulted research specialists during the design and test phases of both the interview guide and the coding system. The latter had already been content analyzed when the quantitative data was validated.

In the case of the interview guide, the validation procedure was repeated in 2007, except that the literature reviewed was updated and the experts consulted in Mexico instead of Quebec in 2003.

5.7 On triangulation for hypothesis testing

As mentioned above, triangulation is used in order to enhance confidence in the findings of a research project. In this project, triangulation was made possible when two concurrent research methodologies were used: an Internet survey and personal interviews. Survey data went directly through an inferential statistical analysis. With the interview data,

numbers represented either a quantifiable characteristic or a coded attitudinal response. Our methodology involved extracting narrative material out of transcribed personal interviews. Afterwards, selected quotations were codified, evaluated, and graded in order to reach a conclusion on the importance attached to each dimension of the internationalization process as captured by each hypothesis.

We cannot ignore that *importance* represents the weakest of the three dependent variables used to represent the performance of the internationalization process. *Foreign sales intensity* is a particularly flexible dimension of internationalization insofar as it helps develop models for the eight constructs addressed by the hypotheses we derived from the theoretical framework. Finally, *Satisfaction* comes in as a significant dimension in research.

As a consequence of the former arguments, we decided that the hypotheses confirmed solely with interview-based data required a cautious approach. We were looking for a very strong confirmation, i.e. a weighted average closer to 2.0 than 2.0, without which the triangulated evaluation demanded that the test be rejected. Hypotheses 1, 2, 5, 6, and 7 confirmed their respective construct, but each of them had a weighted average of less than one on the Likert-like scale. As a result, with the confirmation from the other tests, all these confirmations were rejected. However, the case of hypothesis 8 turned out to be different. In fact, we had also a standalone confirmation, but the multiple regression model was

5.7.1 Hypothesis 8: International orientation of entrepreneurship, interpreted by triangulation

We were able to build a relatively strong MR model for *international orientation of entrepreneurs*, as shown in table 5.3. Indeed, we were able to obtain a specific MR model with an R-squared of 0.631 and a significance of 0.000. This goes to confirm hypothesis 8:

The Mexican manufacturing firm with a relatively more internationally oriented entrepreneurship will have a better performance in its internationalization. It will perceive internationalization performance as more important, and/or it will be more satisfied with the internationalization performance attained.

This result is good, excellent even, but not sufficient for a full-scale research project.

Hypothesis 8, which was confirmed solely through *intensity of foreign sales*, still had strong arguments to be confirmed since the results from the multiple regression model were definitely good (Daughfous, 2006). This proves that the whole exercise of triangulation requires judgement, should ambiguity ever prevail. Yet again, if there is firm ground for decision-making, then the question is not up for vote; for in the end, we are only looking for scientific truth. Triangulation work should reveal most relevant issues, which would be absent should a single methodology take over.

Table 5.5

Triangulated explanation of theoretical hypotheses

COLLECTION INSTRUMENT	Survey	Survey	Survey	Interview	Triangulation
Hypotheses / Dependent Var.	INTENSITY	SAT	IMP	IMP	All
H1 (Pre internationalization)	Rejected (R)	R	R	C	Rejected
H2 (Early First Foreign Market)	Rejected (R)	R	R	C	Rejected
H3 (Early Additional Markets)	Rejected (R)	R	R	R	Rejected
H4 (Additional Entry Methods)	- (R)	R	R	R	Rejected
H5 (Foreign Networking)	Rejected (R)	R	R	C	Rejected
H6 (Absorptive Capability)	Rejected (R)	R	R	C	Rejected
H7 (Int'l. Oriented Management)	Rejected (R)	R	R	C	Rejected
H8 (Int'l. Oriented Entrepreneurs)	Accepted (C)	R	R	R	Confirmed

5.7 Results concerning the internationalization process

We have concluded that a relatively higher or intense international entrepreneurial orientation cannot be rejected as having a causal relationship, specifically a directional association; this brings us a step closer to our objective which is to understand and explain the reasons behind the internationalization of the manufacturing firm in Mexico and how they may compare with those in other more developed countries.

Still, we have relied on a set of hypotheses on each researched construct and on how each impacts the performance of the internationalization process. This does not contradict our understanding of the process of internationalization itself. It is insufficient to test our eight chosen constructs (*pre-internationalization, early entry, additional entries, additional*

methods, change of method of entry, networks, absorptive capability, international orientation of the management team, and international orientation of the firm's entrepreneurship) against performance dimensions. That approach provides information on what contributes to a better performance of the process of internationalization, which is a residual of international activity.

The research activity to approach the process of internationalization itself requires a detachment from the phenomenon of internationalization; the starting point is the development of multiple regression models, with no specific construct in mind, to go into the predictor set, that is the independent variables of the regression models. Also, we use the same three dependent variables from former analyses, but the objective is to obtain additional insights into the mechanism(s) of the process of internationalization.

5.7.1 Models using interval-scaled predictors

In summary, we have a set of models, but this time these address no specific construct. Also, we include a regression model extracted from a database that we developed out of the 22 interviewed firms and we include a number of variables intended to be able to triangulate our work with interview data and survey data.

Table 5.11 summarizes the findings regarding the predictors with a greater impact in the four global models that we built:

- a) First, the models built can be ranked in strength with *survey-intensity* and *interview-intensity* on top, with an R-squared of 0.622 and 0.705 respectively.
- b) Then, although the weakest of all four models, the *survey-importance* model with an R-squared only required ten independent variables or predictors versus fifteen for *survey-satisfaction*, which required 15 predictors.
- c) Second, we emphasized the independent variables with greater influence. These factors, twelve in total with nine stronger ones, were marked with an XX and three more predictors, somewhat less strong, were marked with a single X.

- d) Also, only two predictors can be identified with physically grounded actions, that is to say, Q14 (*countries entered*) and (*establishment of sales facilities*) can be traced geographically.
- e) Only two models had four strong predictors (*interview-intensity* and *survey-importance*). Then, the *survey-satisfaction* model included only one strong predictor (*computer skills* and *R and D can help absorptive capability*).
- f) Four predictors can be assimilated to the innovation theme (Q31.3, FAC5_3, FAC9_3, and FAC11_3). Three predictors can be related to the top management theme (Q34, Q35 FAC1_3).
- g) Two predictors (Q23 and FAC10_3) can be related to *network/strategic alliances*.

In order to properly design and evaluate the multiple regression models, a correlation matrix (see appendix 12) was developed for the survey models and another correlation matrix was developed for the interview model (see table 5.11).

Table 5.6

Global multiple regression of foreign sales intensity

PREDICTOR	BETA	t	SIGNIFICANCE
Constant	-----	5.069	0.000
In how many countries sell products	0.243	1.267	0.219
Successful product developments	-.126	-.896	0.380
Years it took to decide into foreign markets	-.160	-1.084	0.291
Members of team with work experience	-.385	-1.880	0.074*
Members of team with foreign studies	.176	0.867	0.396
General satisfaction with networks	.168	1.094	0.287
Comp. skills and R and D can help abs. cap.	.054	0.337	0.739
Key to competitiveness not in R and D	.418	2.402	0.026**
R and D sometimes luxury	.141	0.821	0.421
Trust and duration in nets	.460	3.007	0.007**

Dependent variable: FSI- Foreign Sales Intensity (ratio of foreign sales to total sales)

R-squared = 0.622

Significance of F of change = 0.008**

Durbin-Watson test = 2.0

Condition index = 4.4

n = 32

Note: * means a significance level of up to 10%, and ** means a significance level of up to 5%.

Table 5.7

Overall multiple regression of satisfaction with performance

PREDICTOR	BETA	T	SIGNIFICANCE
Constant	-----	-1.025	0.311
Date of foundation (age of firm)	-.122	0.371	0.713
Formal alliances (networks)	-.136	0.993	0.326
Employees committed to R and D 50%	-.002	-0.011	0.991
How many employees (size of the firm)	.075	0.297	0.768
Need of new products	.176	-3.372	0.396
In how many countries sell products	.052	0.387	0.701
Members of team with work experience	.211	1.527	0.134
Comp. skills and R and D can help abs. cap.	.274	2.298	0.027**
Synergistic management team	.232	1.950	0.058
Years to first sale abroad	.391	1.258	0.215
Years to second market abroad	.097	0.702	0.487
How R and D employees allocate (other)	-.172	-1.355	0.183
Key to competitiveness not in R and D	.078	0.654	0.516
Contacts among suppliers before	.055	0.127	0.900
Contacts among suppliers today	-.268	-0.576	0.568

Dependent variable: Satisfaction with performance attained

R-squared = 0.510

Significance of F of change = 0.003**

Durbin-Watson test = 1.6

Condition index = 7.4

 n = 58

Note: * means a significance level of up to 10%, and ** means a significance level of up to 5%.

Table 5.8

Overall multiple regression of importance

PREDICTOR	BETA	t	SIGNIFICANCE
Model			
Constant	-----	-2.348	0.000
Contacts among foreign clients today	0.243	-.0807	0.219
Employees committed to R and D 50%	-.157	-1.320	0.193
How R and D employees allocate (products)	0.253	0.049	0.049**
How R and D employees allocate (other)	0.276	2.301	0.026**
Members of team multilingual	0.241	1.740	0.088*
Synergistic management team	.248	2.101	0.041**
More competitiveness in Mexico	.054	0.260	0.739
Need of new products	.341	2.792	0.007**
R and D sometimes luxury	-.194	-1.599	0.116
Contacts among suppliers before	0.031	0.264	0.793

Dependent variable: Perceived importance of performance attained

R-squared = 0.407

Significance of F of change = 0.002**

Durbin-Watson test = 2.0

Condition index = 7.4

n = 60

Note: * means a significance level of up to 10%, and ** means a significance level of up to 5%

Table 5.9

Database correlation matrix for the interviews

	Mean	Std. Dev	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) Foreign sales intensity	0.316	0.285	1							
(2) Years since first sale	14.318	14.294	.414**	1						
(3) Number of countries entered	6.682	7.593	.735**	-.344*	1					
(4) Number of new prods. last 5 yrs.	3.273	3.165	-.276	.116	-.274	1				
(5) Number informal networks	3.091	2.408	.405**	-.013	.400**	.109	1			
(6) Multilingual executives	4.409	2.806	.414**	-.380**	.556**	-.094	.093	1		
(7) Number of grad abroad exec.	1.545	1.845	.480**	-.094	.649	-.508**	-.012	.672**	1	
(8) Number of facilities abroad	1.045	2.645	.355*	-.290*	.634**	-.184	.605**	.472**	.307*	1

* means a significance level of up to 10%

** means a significance level of up to 5%

Table 5.10

Global interviews multiple regression model

		Beta	t	Sig.
Model				
	(Constant)		0.894	0.386
	Years first sale since foundation	-0.259	-1.391	0.186
	Number of countries entered	0.660	2.451	0.028**
	Number of new prods. last 5 years	-0.193	-0.943	0.362
	Number informal networks	0.456	2.2193	0.046**
	Multilingual executives	0.123	0.451	0.659
	Number of grad abroad exec.	0.009	0.026	0.979
	Number of facilities abroad	-0.511	-2.077	0.057*

Dependent variable: Foreign sales intensity

* means a significance level of up to 10%

** means a significance level of up to 5%

R-squared = 0.705

Significance F change = 0.006

Durbin-Watson test = 2.277

Condition index = 11.4

n = 22

Table 5.11

Summary of predictors

Global strong and significant predictors		Survey-FSI	Interview-FSI	Survey-satisfaction	Survey-importance
R-squared		0.622	0.705	0.510	0.407
No. predictors		10	7	15	10
N		32	22	58	60
Q14	Foreign countries entered		XX		
Q23	Informal foreign alliances		XX		
Q29.5	Sales facilities abroad		X		
Q31.3	Time (other) R and D allocation				XX
Q34	Multilingual executives				X
Q35	Foreign work executives	X			
FAC1_3	Synergistic top team				XX
FAC5_3	Computer skills and R and D help			XX	
FAC9_3	Competitiveness not in R and D	XX	XX		
FAC10_3	Trust and duration of networks	XX			
FAC11_3	Need new products				XX

XX Predictors with F change significance of 0.05 or less.

X Predictors with F change significance of 0.10 or less.

Table 5.12

Categorical variables

Abbreviation codes	LIST OF CATEGORICAL VARIABLES
(1)q2	Which of these positions describe best your job?
(2)q4_q9	How many years did it take you to make your first foreign sale, since the firm was founded?
(3)q3	What is your participation in the capital of the firm?
(4)q5	Do you have a formal structure...for international activities?
(5)SICOPTIO	Standard Industrial Code OPTIOns.
(6)q8	Was your company an active importer before it started to internationalize?
(7)q10	What was the first foreign country where you sold your products?
(8)q11	What was the first entry method you used when you first sold your products abroad?
(9)q12	Is your company an active importer of components and/or products today?
(10)q13	How large is the Mexican market you service?.
(11)q15.1	What is your best foreign market?
(12)q15.2	What is second best foreign market?
(13)q15.3	What is your third best market?
(14)q21	Are your foreign contacts trustworthy?
(15)24	Did you change the entry method that you used when first entered a foreign market?
(16)q27	If you indeed engaged in doing market research, who did the job?
(17)q28	Do you have Research and Development facilities?
(18)q29.1	(When we changed method) we actively imported components and

	products?
(19)q29.2	(When we changed method) we licensed the production of our products
(20)q29.3	(When we changed method) we sold directly, through our sales office
(21)q29.4	(When we changed method) we sold indirectly through a sales agent or broker
(22)q29.5	(When we changed method) we established a sales office abroad
(23)q29.6	(When we changed method) we sold direct through a subcontractor abroad
(24)q29.7	(When we changed method) we sold direct through our own subsidiary abroad

Table 5.13

Countries more often entered by Mexican manufacturing firms

	First entered Question 10	Best market Question 15.1	Second best market Question 15.2	Third best market Question 15.3
First Place	USA (90)	USA (93)	Guatemala (15)	Canada (9) USA (9)
Second place	Guatemala (10)	Germany (6) Guatemala (6)	Canada (11)	El Salvador (7)
Third place	Costa Rica (4) France (4)	Canada (5) Colombia (5)	Costa Rica (10)	Germany (6) Guatemala (6)
Fourth place	Canada (3) Colombia (3) Spain (3)	CostaRica (3) France (3)	United States (9)	China (5) Costa Rica (5) France (5) Venezuela (5)
Fifth place	Brazil (2) Cuba (2) Italy (2)	Brazil (2) Cuba (2) Nicaragua (2) Venezuela (2)	Germany (7)	Japan (3) Puerto Rico (3)
	142 countries	142 countries	142 countries	142 countries

In parenthesis, the number of firms that chose the country

5.7.2 Models using categorical predictors

Although most of the analysis done to understand the internationalization process was based on a statistical analysis, there remained a substantial volume of data not equally suitable for standard inferential analysis. Similarly, categorical data have to be treated with a certain deference, because they are in a certain way akin to qualitative data, which in fact come in textual or graphical form most of the time.

In order to have a reference to our categorical data, we developed a list (see table 5.12) of variables labeled in a code-like way (left-hand column) as well as described in their longer version (right-hand column). There are nineteen categorical predictors.

Using this table, we designed another table to compare the contents of the answers to the questions related to the countries first entered and those where the first, second, and third best markets are. This table provides a clue to the *psychic distance* construct, based on our survey data. Basically, we can observe that the United States are most of the time mentioned as the first and the first best market for surveyed firms. However, there is also a second best and a third best, which is all about what the Swedish school (also named Stages or Behaviourist school) insists on with an order or sequence of entering (psychologically) close markets. We remarked that Guatemala, on Mexico's southern border, presents itself as that second best choice, which is in accordance with the Swedish school (see Wiedersheim-Paul and Johanson, 1975; Johanson and Vahlne, 1977).

Also, building *general linear* models requires categorical variables as predictors, with interval-scaled dependent variables, similar to the ones used in this research project (*foreign sales intensity, satisfaction with performance attained, and importance perceived of the performance attained*). In this line of endeavour, we did run a series of tests to reach a better understanding of the process of internationalization, particularly of the theme of interactions between predictors, effects, and comparisons.

Table 5.14 summarizes the test that approached success, that is, several criteria must be met in order to qualify for a successful two-way ANOVA test (another name for these

statistical methods). The Levine test of equality of error variances must be significant—in fact, it must be above the usual criteria, the alpha or p-value.

We included four cases which show, at least partially, a significance of F change higher than (in our case) 0.05. As a result, the model developed to detect and evaluate the interactions of predictors should also qualify. The R-squared of the *general linear* model (GLM) must meet the 0.030 minimum values in order to qualify at least as passable. Finally, if these criteria are met in sequence, the interaction term and its components can separately qualify as significant or not. At this point, we are able to choose our analysis method and move on to understanding the model in all its intricacies.

Judging from figure 5.1, it appears that the interactions between Q6 (SICIPTIO), on the horizontal axis, and Q13 (size of the firm's Mexican market) do exist at least on paper, that is visually. However, after subjecting them to statistical analysis, the expert may deem them irrelevant and not worthy of attention; and statistically, this is a valid argument. Still, managerially it is dangerous to discard what common sense calls otherwise. Therefore, it is advisable to understand the reason why an analysis result might be false or rejectable when many data still need revision. Subsequently, we advise to revise the descriptive statistics to verify whether they contain valuable insights into what is being presented. This exercise might lead us to learn from the very same data that we have collected.

In table 5.14, we observe that none of the four cases (out of a couple of dozens that we had previously rejected at the Levine test stage) survived the criteria cut-off points. Unfortunately, we were not able to obtain a feasible set of data to analyze. Following table 5.14 is the example of a data set, shown in graphical form, and which did not succeed for the complete analysis.

Table 5.14

Summary of Two Way ANOVA Simulations

Dependent variable	Pred1*Pred2 Interaction effect	Predictor 1 Effect	Predictor 2 effect	Levene test	R- squared
Survey-FSI	Q13*Q29.5 (Not Sig)	Q13 (Sig)	Q29.5 (Not Sig)	0.137*	0.506**
Survey-FSI	Q13*SICOPTIO (Not Significant)	Q13 (Not Significant)	SICOPTIO (Not Sig.)	0.000	0.257
Interviews-FSI	MxSz*FirstMeth (Significant)	MxSz (Significant)	FirstMeth (Not Sig.)	0.577**	0.444*
Interviews-FSI	MxsZ*Forstruc (not Significant)	MxsZ (Not Sig)	Forstrc (Not Sig)	0.689**	0.070
Interviews-FSI	MxsZ*R and Dfac (Not Computable)	MxsZ (Not Sig)	R and Dfac (Not Sig)	0.607**	0.119
Survey- SATISFACTION	Q11*Q24 (Not Sig)	Q11 (Not Sig)	Q24 Not Sig	0.707**	0.027
Survey- SATISFACTION	Q21*Q24 (Not Sig)	Q21 (Sig)	Q24 (Not Sig)	0.167*	0.106
Survey- IMPORTANCE	Q13*Q24 (Not Sig)	Q13 (Not Sig)	Q24 (Not Sig)	0.752**	0.054

(2) Significant interaction is present when the Levene test is significant and simultaneously R-squared is at least somewhat strong (was more than 0.30).

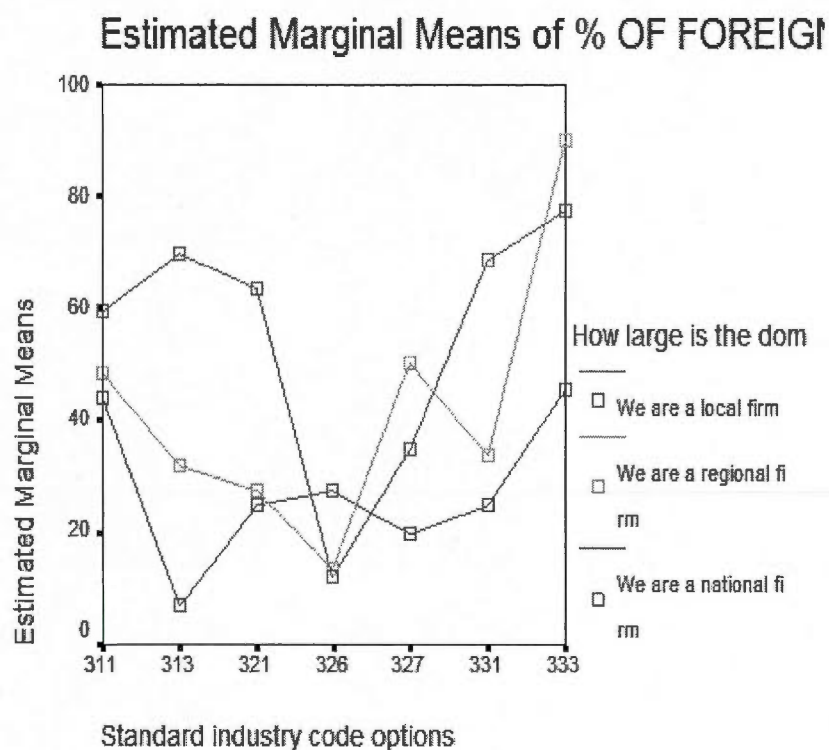


Figure 5.1 Interaction of Q6 (SICOPTIO) by Q13 - Dependent variable: FSI (Intensity)

Levene's test of equality of error variances

Dependent Variable: % of foreign sales to total sales

F	Df1	Df2	Significance
2.840	20	116	0.000

The Levene test is not significant. It tests the null hypothesis that the error variance of the dependent variable is equal across groups. R-squared of 0.257 is weak (less than 0.30)

Design: Intercept+Q13+SICOPTIO+Q13 * SICOPTIO

The interaction effect on the dependent variable is a priori significant, although *statistically* it is not significant. Then, Q6 and Q13 effects on the dependent variable are both significant.

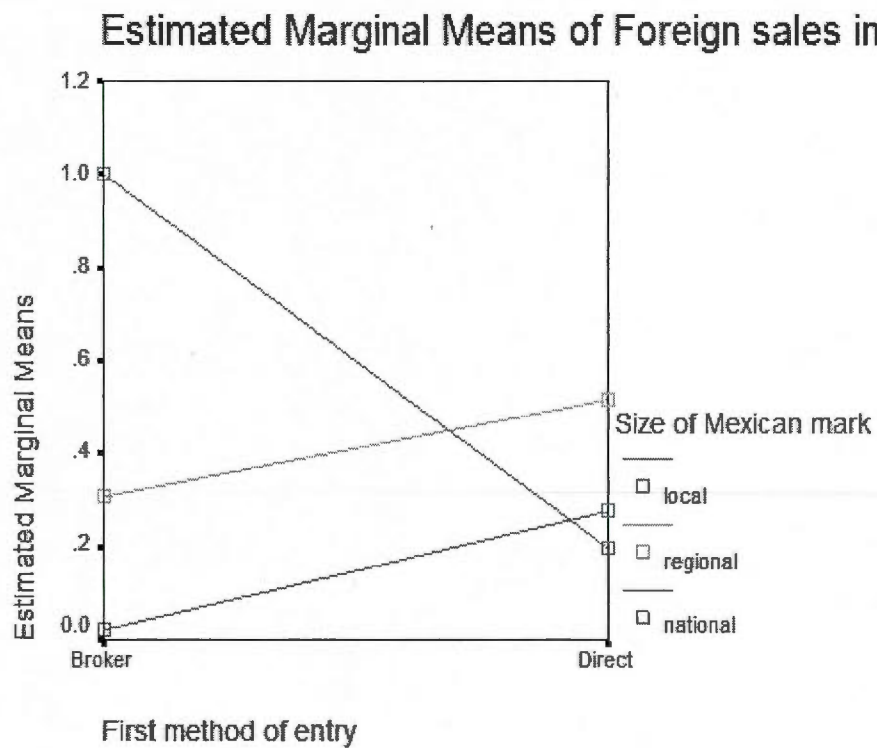


Figure 5.2 Interaction of Q11 by Q13 - Dependent variable: FSI (Intensity)

Levene's test of equality of error variances

Dependent variable: % of foreign sales to total sales

F	Df1	Df2	Significance
0.783	5	16	0.577

The Levene test was not significant. It tests the null hypothesis that the error variance of the dependent variable is equal across groups. R-squared of 0.444 was strong (more than 0.30)

Design: Intercept+Q13+Q11+Q13 * Q11

The interaction is statistically and visually significant, but the (main) effect on FSI is not significant.

Table 5.15

GLM survey-based Q13 and Q5 descriptive statistics

Dependent variable: Foreign sales intensity (FSI)

Q13 Size of Firm	Q5 Formalization	FSI Mean	FSI Std. dev.	<i>n</i>
Local firm	Yes	63	41	10
Local firm	No	48	41	12
Regional firm	Yes	60	36	16
Regional firm	No	25	29	16
National firm	Yes	35	28	55
National firm	No	18	24	27
All firms	Yes	44	34	81
All firms	No	26	31	55
Total		37	34	136

Table 5.16

GLM Interview-based Q13 and Q5 Descriptive Statistics

Dependent Variable: Foreign Sales Intensity (FSI)

Q13*	Q5*	FSI	FSI	<i>n</i>
Size of firm	Formalization	Mean	Std. dev.	
Local firm	Yes			
Local firm	No	.33	.37	6
Regional firm	Yes			
Regional firm	No	.43	.30	5
National firm	Yes	.23	.20	6
National firm	No	.28	.30	5
All firms	Yes	.33	.29	17
All firms	No	.28	.30	5
Total		.32	.29	22

* Predictors codes are equivalent to survey-based codes.

Table 5.17

GLM survey-based Q13 and Q28 descriptive statistics

Dependent variable: Foreign sales intensity (FSI)

13* Size of firm	Q28* R and D facilities	FSI Mean	FSI Std. dev.	<i>n</i>
Local firm	Yes	16	30	5
Local firm	No	57	48	5
Regional firm	Yes	53	44	4
Regional firm	No	34	31	9
National firm	Yes	38	36	10
National firm	No	22	25	27
All firms	Yes	35	37	19
All firms	No	29	31	41
Total		31	33	60

Table 5.18

GLM interview-based Q13 and Q28 descriptive statistics

Dependent variable: Foreign sales intensity (FSI)

13* Size of firm	Q28* R and D facilities	FSI Mean	FSI Std. dev.	<i>n</i>
Local firm	Yes	.	.	1
Local firm	No	.38	.39	5
Regional firm	Yes	.	.	1
Regional firm	No	.42	.34	4
National firm	Yes	.29	.26	6
National firm	No	.28	.30	5
All firms	Yes	.21	.23	5
All firms	No	.21	.23	6
Total		.32	.29	22

* Predictors codes are equivalent to survey-based codes.

Table 5.19

GLM survey-based Q13 and Q28 descriptive statistics

Dependent variable: Foreign sales intensity (FSI)

Q13 Size of firm	Q6 R and D facilities	FSI Mean	FSI Std. dev.	<i>n</i>
Local firm	311	.60	.43	5
	313	.	.	1
	321	.64	.55	3
	326	.	.	1
	327	.35	.40	6
	331	.69	.47	4
	333	.78	.25	2
Regional firm	311	.49	.38	10
	313	.32	.34	6
	321	.28	.11	2
	326	.14	.16	2
	327	.50	.47	5
	331	.34	.38	5
	333	.90	.14	2
National firm	311	.44	.34	19
	313	.07	.05	7
	321	.25	.29	9
	326	.28	.12	7
	327	.20	.15	16
	331	.25	.29	14
	333	.45	.28	11
Total		.37	.34	137

Table 5.20

GLM interview-based Q13* and Q6* descriptive statistics

Dependent variable: Foreign sales intensity (FSI)

Q13*	Q6*	FSI	FSI	<i>n</i>
Size of firm	R and D Facilities	Mean	Std. dev.	
Local firm	311			1
	321			1
	327	.23	.21	4
Regional firm	311	.33	.21	4
	313	.	.	1
National firm	311	.	.	1
	313	.37	.38	3
	321	.28	.35	2
	327	.15	.07	2
	331	.	.	1
	333	.35	.36	2
Total		.32	.29	22

* Predictors codes are equivalent to survey-based codes

Table 5.21

GLM survey-based Q13 and Q24 descriptive statistics

Dependent variable: Foreign sales intensity (FSI)

Q13	Q24	FSI	FSI	<i>n</i>
Size of firm	Changed method	Mean	Std. dev.	
Local firm	Yes	70	33	12
Local firm	No	37	44	10
Regional firm	Yes	44	38	20
Regional firm	No	34	31	12
National firm	Yes	32	27	46
National firm	No	27	29	37
All firms	Yes	35	37	19
All firms	No	29	31	41
Total		37	34	137

Table 5.22

GLM interview-based Q13 and Q28 descriptive statistics

Dependent variable: Foreign sales intensity (FSI)

Q13*	Q24*	FSI	FSI	<i>n</i>
Size of firm	Changed method	Mean	Std. dev.	
Local firm	Yes	55	64	2
Local firm	No	23	21	4
Regional firm	Yes	49	31	4
Regional firm	No	20	.	1
National firm	Yes	36	27	6
National firm	No	13	29	5
All firms	Yes	35	37	12
All firms	No	29	31	10
Total		32	29	22

* Predictors codes are equivalent to survey-based codes

Table 5.23

GLM survey-based Q13 and Q11 descriptive statistics

Dependent variable: Foreign sales intensity (FSI)

Q13 Size of firm	Q11 First mode of entry	FSI Mean	FSI Std. dev.	<i>n</i>
Local firm	Import parts and products	-	-	-
	Direct	58	38	14
	Agent or bróker	49	45	4
	Sales facility abroad	-	-	-
	Directly from assembler	50	58	4
	Directly from subsidiary	-	-	-
Regional firm	Import parts and products	-	-	-
	Direct	39	37	20
	Agent or bróker	52	37	7
	Sales facility abroad	-	-	1
	Directly from Assembler	90	14	2
	Directly from subsidiary	05	06	2
National firm	Import parts and products	-	-	1
	Direct	32	30	58
	Agent or bróker	28	23	14
	Sales facility abroad	21	10	6
	Directly from assembler	03	03	2
	Directly from subsidiary	-	-	1
Total		37	34	136

Table 5.24

GLM survey-based Q13 and Q29.5 descriptive statistics

Dependent variable: Foreign sales intensity (FSI)

Q13- Size of Mexican market	Q29.5- Number of sales and marketing facilities (<i>n</i>)	FSI intensity- Mean	Standard deviation - FSI Intensity
Firms without facilities	103		-
Local	4	97	5
Regional	6	59	39
National	29	35	35
All surveyed firms	39	45	35

Table 5.25

Interviewed-based Q29.5 descriptive statistics

Dependent variable: Foreign sales intensity (FSI)

Q29.5 (equiv.) Number of sales facilities	Frequency	Percent
0	16	72.7%
1	3	13.6%
2	1	4.5%
8	1	4.5%
10	1	4.5%
Total (22)	22	100%

5.8 A comment

We have collected and analyzed a voluminous set of survey and interview data, which represents various essays at understanding the nature and the mechanics of internationalization of the Mexican manufacturing firm. Many of the pieces of this research puzzle do not fit what is expected because we did not foresee all the components at the start of this research and we did not include every reasonable piece of evidence at the end of the project. We would say that this research project is severely unfinished because it has raised new questions not included when we did not know the little we have learned.

A few issues that our theoretical framework definitely does not accommodate are the following:

- a) *Exiting of the market* does not have a clear link to other parts of the framework.
- b) *Participation of the international top management team* does not show consistency among the different constructs employed. However, being foreign born does not definitely appear relevant in most cases. Foreign born residents represent less than 1% of the population for the last two hundred years.
- c) *Entrepreneurship* does appear to influence other constructs that the theoretical framework includes. But, it is clear that entrepreneurship interacts with the absorptive capability generated throughout the organization.
- d) *Absorptive capability* has come up as a stronger issue, impacting the internationalization process in a much stronger way than it did at first.
- e) *Change of method*, which did not have any statistical test, nevertheless shows a more impacting construct; however, the elements that must be incorporated remain to be analyzed. This concept tends to get confused with *first foreign entry method*, sometimes because of the time elapsed.

- f) *Networking* presents itself as a highly mentioned and trusted method to facilitate international activities, but the place in the strategy-making environment was not clear. *Informal networks* was not a clear winner when ranking formal and informal alliances, although it appeared at first.

In the next chapter, we bring our research process to completion, accounting for any residual questions; furthermore, we provide a description of the apparent contribution of our work, as well as of the limitations and the scope of our project.

CONCLUSIONS

This concluding chapter presents a brief interpretation of what was accomplished through this research effort. We believe to have made a few useful contributions concerning knowledge of the internationalization process as it happens in Mexico, and knowledge of coincidences and divergences of the internationalization of the firm as it happens in Mexico versus 'developed' countries.

Findings

In this research project, we conducted a series of activities designed to meet research objectives which were born out of an interrelated set of problems with the internationalization of the Mexican manufacturing firms.

The research objective, which is to challenge prevalent scientific explanation about the mechanisms and consequences of the internationalization process of Mexican firms, was pragmatically downsized to two research questions, which guided this dissertation. Subsequently, core and peripheral literature on the subject, as published by the academic community, was summarized and interpreted in a conceptual or theoretical framework of the phenomenon to be researched. This theoretical framework eventually yielded a series of eight interrelated hypotheses whose operational definitions translated into a set of testable argumentations.

Based on the operational definitions of the hypotheses, we designed our research project with the answers to the research questions in mind. However, due to the variety of methods, researched issues, and actors involved, our findings, *Con lo siguiente:* were mixed concerning both of our research questions. We were able to explain a few elements of our conceptual framework, but a large part of the whole process remained unexplained due to a variety of reasons, which will be commented later, in this chapter. Also, we were able to

ascertain some elements of our conceptual framework which show some consistency with prevalent theory, although much of the tests remained either rejected or inconclusive. This, also, will be commented later, in this chapter. Finally, we obtained a few collateral insights, that is, unexpected results which were definitely not envisioned by our conceptual framework. This will also be commented later, in this chapter.

Findings relating to the actors of the internationalization process

We had difficulty in keeping this dissertation focused on the subject and on the actors most relevant to the internationalization phenomenon. The unit of research was the Mexican manufacturing firm and its closest environment, therefore our approach was endogenous insofar as the selected actors were members of the international top management teams, preferably the general manager or the owner-managers. As we can see in tables 4.2 and 4.13, the percentage of general managers, owner-managers or their equivalent was of 54% for both the interviewed firms and the surveyed firms.

The firms selected for either the interviews (22) or the internet survey (142) were concentrated in a few industrial classifications or codes (SIC), mostly in the food and beverage industry; the construction and non-metallic minerals industries; textiles and leather; and wood and paper manufacturing (86% for the interviewed firms and 67% for the surveyed firms) (see tables 4.1 and 4.12).

We studied small and medium-sized firms, and just occasionally large firms. We measured their size by the number of employees and by the presence of the firm in the Mexican market. As a result, 55% of the interviewed firms and 77% of the surveyed firms have 200 employees or less, but, only 50% of the interviewed firms and 40% of the surveyed firms are either local or regional firms (see tables 4.6a, 4.6b, 4.17a, and 4.17b).

Age and formalization of international activities contrast because, on the one hand, interviewed firms 20 years old or less represent 14% whereas surveyed firms represent 49%, but formalization of international activities for interviewed firms represents 23% and a much higher 40% for surveyed firms.

On the other hand, in the case of the 22 interviewed firms, either small or middle-sized firms, that is, 600 employees or less, even when 50% of the interviewed firms had a national presence in the Mexican market (see tables 4.6 and 4.6b); and in the case of the 142 surveyed firms, although almost all of them are 600 employees or less, still 9% of these firms are larger than 600 employees, even when a national presence in the Mexican market is practically the same (50.5%) as the interviewed firms (see tables 4.17a and 4.17b).

This shows that practically half of Mexican manufacturing firms are not national in scope, even when they already started their internationalization process. This shows, on the other hand, that in our samples being regional or even local firms does not prevent a Mexican manufacturing firm, in at least half of the cases.

Top management teams are small among our surveyed sample with 3 or less members in 77% of the cases of the 142 surveyed firms (see table 4.22), but out of our 22 interviewed firms, this figure drops to 18% of the sample, meaning that among the interviewed firms we find more staffed firms (see table 4.11). The samples show more similarities in the case of number of executives with foreign studies in the team, because the interviewed firms do not count any foreign trained executive in 45% of the cases (see table 4.10) and the surveyed firms with no foreign trained executives show a still high 40% of the sample (see table 4.21). As to foreign language skills, all firms among both samples show at least one multilingual executive among its top management team (see table 4.9 and 4.20). The number of foreign-born executives proved an irrelevant element in this project (see correlation matrix of both samples in table 5.9 and appendix 12), which is not surprising in the Mexican context, given that the country had less than 1% of foreign nationals throughout its history (see INEGI, 2005).

Findings in relation to our theoretical framework

Our results are surprisingly consistent with our interviewed firms sample, particularly in the flow that each firm follows from a pre-internationalization stage, which in most cases presents a collaboration from contacts available before internationalization becomes a reality. This is shown in our theoretical framework (see figure 2.1) with alliances or networks

working as assisting elements throughout the internationalization process. Also, exits at different stages of the process were observed among the interviewed firms like Agorni, Bebiti, Conex, Conligue, Corron, Dulma, and Murrep (see section 4.1).

On the other hand, the *capabilities development* module contrasts with prevalent theory among several of the interviewed firms. We observed firms that could not face the challenge of technological development requirements when competing in foreign (and national) markets, due to an ignorance of the absorptive capability element in the new product and new process development issue. We observed how a firm like Conligue (see section 4.1.11) can lose the whole of its foreign markets due to a lack of a technology alternative. The disdain for technological challenges are simply omnipresent in our interviewed firms sample, with a very few exceptions (see the case of Ficata, in section 4.1.15). Absorptive capability proves functional in several cases, but it certainly belongs with other constructs for which we lacked data to work statistically valid conclusions. Nevertheless, we can argue that prevalent theory does not help explaining how Mexican manufacturing firms face their technological innovation challenge.

The leadership construct proves a valid contributor throughout the whole internationalization process, as assumed in the capabilities development module, on top of figure 2.1. An internationally oriented entrepreneurship show a statistically valid construct (see table 5.2), as it is already accepted as a common sense element of good management practice.

We advise that further research be undertaken with our conceptual framework extended beyond the establishment of foreign production facilities. Such might include the buying of marketing facilities, production facilities and whole firms from foreign hands. This should involve the buying of foreign interests, but mergers might have to be analyzed in order to ascertain which party becomes the dominant one, which in turn normally will define who the buyer is and who the seller is, and where (in which country) internationalization strategy decision-making will take place. These extension elements would be accompanied by the complexities of networking and exiting at several points along the path of internationalization.

Findings that lie outside our theoretical framework

The specifics of the internationalization process, particularly the *first method of foreign entry* and the *change of method of entry* constructs, were not all drawable, at least not directly within our statistical testing of hypotheses of surveyed firms (see table 5.2); however, in later analysis it became relevant when studied from a different univariate perspective. As a result, we obtained some strong association with other constructs of our framework when looking for interaction of variables (see figure 5.2 and tables 5.21 and 5.23).

We also found elements of new products and new process development issues, not directly included in our theoretical framework, and which showed a promising association in several cases of the interviewed firms (again, see Ficata in 4.1.15) and in our search for interaction among researched variables (see tables 5.17 and 5.18), where R and D activities show a certain pattern that should be further investigated.

An unexpected element in our research project was *autonomy* or lack thereof as an active contributor or detractor of performance of the internationalization process and how the process enrolls itself in business, with mergers, acquisitions, and the establishment of subsidiaries as more elements in the firm's environment.

This construct is to be associated with the parent-subsidiary relationship and to the international networking activity by internationalized and internationalizing manufacturing firms. Also, there is room for a discussion of change in the internationalization process of firms being bought by foreigners in Mexico, due to changes in autonomy in international strategy decision-making, after being bought and integrated into the new owner's organization.

We collected data on a particularly acute lack of financing by the private and public banking system. This generated in several cases delays in the internationalization process with some serious consequences for several interviewed firms.

How our findings help answer our research questions our research questions were as stated below:

Question One. How does the internationalization process of the Mexican manufacturing firm take place?

Question Two. Does the performance of the internationalization process of the Mexican manufacturing firm conform to prevalent theory on the performance of the manufacturing firm from developed countries?

In the next section, we show the way we addressed our research questions and the findings we obtained.

How does the internationalization of the Mexican manufacturing firm occur?

Although only the international orientation of entrepreneurship hypothesis was statistically confirmed (see section 5.2), explaining that a combination of risk-taking, innovation, contacts, and leadership account for a better performance and the international diversification of the firm, a voluminous material from both samples pointed in several directions for additional analysis of the internationalization process of the firm phenomenon.

We gathered descriptive information from the online survey and from the personal interviews which we processed and whose results are presented in chapter four. Besides census-like data, were able to develop a series of complementary profiles of the internationalizing firm, in fact the main actor of the internationalization process of the firm phenomenon. Even if a large part of the data was related to our eight hypotheses, the results revealed dimensions definitely not covered by statistically oriented hypotheses of the internationalization process.

Still, a description of different dimensions of internationalization is not inferential per se. It just describes something, and as the description becomes richer, we are forced to classify data according to a theme. Here are two anecdotic pieces of information: internationalizing Mexican firms are rather old when going into foreign markets for the first

time; also, foreignness (of origin, of studies, of work experience, of speech) accounts for the success of the internationalization process.

When handling descriptive data from the personal interviews, we are not free from the risk of saturation of information. In this regard, we decided to stay focused on the conceptual framework and its derived hypotheses, thus making choices which limited analysis to its relevance to the explanation of one specified dimension of internationalization. This focus on the complementarities of survey- and interview-based data was somewhat derailed in our search for hypothesis testing. The few statistically valid results call for our more attention on additional avenues to answer the research questions (see figure 4.1).

In regard to answering the first research question (How does internationalization take place?), we can summarize the results of hypothesis testing: tables 5.2 through 5.5 are certainly priceless in assembling a picture of what we know of internationalization. However, there is more to obtain from such a varied source of data than statistical judgement.

We surely know that international networking (strategic alliances), absorptive capability (learning capacity), and the international orientation of the management team can be statistically associated to other dimensions and constructs of the internationalization process (see tables 5.6 through 5.11 and appendix 12). Table 5.11 summarizes what elements of the internationalization process impact on the process itself; this is present even in the summary stories of the 22 interviewed firms.

It is certain that we have shown some evidence of the subjacent themes that worry Mexican international managers: creating and keeping enduring (and profitable) international relationships has become a must for Mexican international managers. Trust seems relevant, but must be accompanied by other factors. Stories of cheating and fraud by foreigners are numerous. Also, insecurity in the domestic market seems to be a concern as well as a strong incentive to exit the country, albeit for international business (e.g. export into the US, establish a sales office in Vancouver).

The anecdotic material on the unfortunate stories experienced in foreign market entry is rather enlightening as to the sometimes candid approach to internationalization. It should

be remarked that the data tends to confirm the relative lack of technological sophistication of the internationalizing Mexican manufacturing firm. What remains inconclusive is the impact on the success of the internationalization process. Although scarce data is available, some narratives point to a rather passive and underground role of the 'working class' of the internationalizing Mexican manufacturing firm.

The performance of the internationalization process of the Mexican manufacturing firm, does it conform to prevalent theory on the performance of the manufacturing firm from developed countries?

The performance of internationalization process of the Mexican manufacturing firm conforms with the performance of successfully internationalized firms according to the Stages model, that emphasizes on a sequential process of internationalization. This can be explained by the fact that the majority of Mexican firms, including internationalizing Mexican manufacturing firms are small and medium-sized at most, which renders that such firms characterize themselves by their scarcity of financial, marketing, technological and managerial resources, which tends to limit the scope and speed of the internationalization process, which demands ample availability of resources. Also, an experiential learning element seems to work in Mexico as well as in the 'developed' countries. Finally, the concept of *psychic distance* seems to work, at least partially, for Mexico and 'developed' countries (e.g. Canada), whereby geographical closeness and a certain cultural affinity make this aspect of the Stages model work for any two neighboring countries. The Mexican 'case', if we could generalize among our respondents, epitomizes this rather intuitive approach which lacks in preparedness before foreign market entry, with frustrating and costly consequences, particularly for the smaller companies.

The internationalizing Mexican manufacturing firms might be older than their 'developed countries' counterparts. This might be the result of the stratification of the Mexican economy, where privileges, including market privileges, tend to persist longer than in the 'developed world'. We would need more data to confirm such an assertion, because there is not such research activity nowadays.

Additionally, data show an extraordinarily high percentage of 'low tech' firms. That might only be the symptom of another problem (technology handicap as a consequence of education handicap, among others). There is still much research to do concerning innovation, but we are behind in understanding innovation drivers everywhere. However, this might be changing in the form of early start-ups; besides, it may be another critical difference between Mexico and other 'developed world' regarding the internationalization of firms. What is empirically based is the assertion that Mexico is technologically dependent and that Mexican 'high tech' firms are a rarity not only in the internationalization literature, but also in the Mexican environment (see OECD, 2005; CONACYT, 2005).

In a negative sense *additional foreign market entries* (hypothesis 3) and *additional methods for entering foreign market* (hypothesis 4) were definitely rejected based on the Mexican empirical evidence. These two relationships seem common among firms from developed countries. And although no statistical tests are really conclusive, this contradiction accounts for a clear difference with firms from 'developed' countries.

Also, the way international entrepreneurship works for the firm in 'developed' countries seems to differ from Mexican manufacturing firms; hypothesis 8 (entrepreneurship) confirms this rejecting it in three out of four test (see table 5.45)

We cannot conclude that the latter does not influence internationalization in the Mexican case, as presented; in fact, we could not confirm the significance of these indicators with the available data (see Popper, 1934; Kerlinger and Lee, 2000). This could be compensated for with further research on the subject.

Our Contribution to the literature on internationalization

We have shown a partial representation of the internationalization as it occurs in Mexico, from our samples of Mexican manufacturing firms. This often departs from most studies on internationalization insofar as its ethnocentrism pays almost exclusive attention to foreign-based subsidiaries doing business with and in Mexico (see Wells, 1981, 1983; Thomas, 2001).

Most of the few research projects concerning Mexican international firms are focused on big business (see Leroy-Beltran, 2003; Vazquez-Parraga and Felix, 2004; Vargas-Hernández, 2011) and their data sources are biased secondary data, which altogether avoids the entanglement of interviewing reluctant executives. This project combined first hand data and narrative materials from approximately 160 Mexican manufacturing firms. This should signal a direction to take in future research; moreover, whatever achievements we may claim lie more in sharing our insight into the peculiarities of conducting scientific research on internationalization in Mexico than in the mere confirmation of our theoretical propositions.

We obtained positive results concerning relevant variables/indicators to investigate, and these analyses were sometimes triangulated in such a way that they could be cross-checked and confirmed either partially or strongly. We identified more than twenty relevant indicators to further investigate.

As already mentioned, the autonomy of the international management team results in an influential factor that hints at greater importance than what was caught in the past.

Abundant literature refers to decentralization and autonomy as it were common in the international arena, but our scarce data show otherwise: autonomy, or more precisely lack thereof, might be causing catastrophic losses in initiative, drive, motivation, and competitiveness to the Mexican firm in particular, and possibly to firms everywhere. We emphasize the urgency to take heed of this relevant factor of success or failure of the internationalization effort.

Limits of our results

Probably the greatest shortcoming of our research lies in the lack of statistical power and insufficient response rate in our online survey. This severely limits our aim to confirm the validity of our instruments and results. We must acknowledge that although data drawn with the objective of developing theory must originate from different sources, our data set of interviewees was, in a way, forced to serve the purpose of testing prevalent theory. It might be argued that other objectives could have been satisfied with some additional collection work. But, that was not the case, and some potential insights might have been wasted.

We conducted further descriptive and analytical work, as envisaged in our research framework (see figure 4.1); also, we believe that although not enough statistical proofs were apportioned to drastically modify such conceptual framework, we were able to advance any necessary modifications in the interaction between the *capabilities development* and the *internationalization process* modules in order to accommodate what happens in the Mexican case. The online survey and the personal interviews converge in several profiles of an internationalizing Mexican manufacturing firm which is weak in technological sophistication; and whatever competitive advantage it attained was linked to a certain uniqueness of its products, thereby limiting direct competition in foreign markets. Answers to new product and process development were scarce; in addition, it was not possible to distinguish refusal to answer from lack of a formal structure of new product and process development.

We definitely left some research areas, which deserve attention. Among them, it must be mentioned:

- 1) The Adaptation versus the Standardization strategic options, constitutes an unsolved topic, but we had not conclusive results, in this subject.
- 2) We introduced the subject of Exiting or Withdrawal from a foreign market, but the fact remains that it is a sensible area, which could be further researched, and we had several incidents of deliberate, but most of the time, of forced withdrawal, which could be ascertained, with respect to its probable causality.
- 3) The perception of the value of governmental support in terms of financial resources, institutional availability of support domestically and abroad. This subject was not thoroughly explored, but it should have been further researched.
- 4) There is need for further refinement of the performance construct elaboration. This can be dealt, starting with pre-internationalization and early internationalization stages of the process of internationalization.
- 5) We did not deal with early internationalization, and even when the instances of its happening should be scarce compared with more developed environments, it is also a fact that given the size and complexity of the Mexican economy, there might be a potential for research in the area.

- 6) We did not get far in our conceptual framework. We stopped short of other forms of increasing commitment to foreign markets. This could have been the case with acquisitions and the relocation of the new products and processes development functions. This might relate closely with the adaptation-standarization debate, but remains an autonomous area of study.
- 7) Autonomy, as a construct, is worth further research, due to the implications for the innovation and oraganizational flexibility versus rigidity issue.

Finals words and recommendations

We can conclude that the internationalization process could be better understood through more empirical research and more contributions to the literature from 'developed' countries. We also recommend to research into the barriers to internationalization that pose the three of the most pressing problems of Mexican manufacturing firms, that is: the lack of financing of international activities by the banking system, today mostly in foreign hands, the minimization of the Government Export Bank and the serious security challenge that face Mexican internationalized and internationalizing manufacturing firms.

The case of Mexico is particularly interesting, because regardless of how economically close and tied to the US it is, it does not cease to diversify its presence elsewhere. In any event, our lack of systematic study of the internationalization phenomenon limits our experiences to be capitalized by Mexican manufacturing firms.

Therefore, we recommend additional fundings for research on this subject, with government and private support. Particular attention should be paid to the firm's absorptive capability (learning) development, and to raise its positive impact on the performance of the internationalization of Mexican firms.

APPENDIX ONE

SELECTED LITERATURE LINKED TO VARIABLES IN OUR THEORETICAL FRAMEWORK

Variable: *Pre-Internationalization Activity*

References	Type of Study	Findings
Dicht et al (1990)	Empirical Cross-country sample of 353 firms	Developed a Foreign Market Orientation of Managers as indicator of Export Inclination and their results suggest that as many as a third of SME could be turned into successful exporters.
Wiedersheim (1978)	Theoretical	Developed model of factors affecting the pre-export activities of the firm, suggesting that it is quite probable that firms demonstrating dominantly active pre-export activity will have less difficulty in starting to internationalize.
Blomstermo et al (2004)	Empirical Sample of 206 Swedish service firms	Authors found that a longer domestic duration leads to a greater perceived lack of internationalization knowledge. Also, results indicate significant indirect effects from domestic duration. Nevertheless, domestic duration does not explain much of the variation in internationalization knowledge.

Variable: *Internationalization Start*

References	Type of Study	Findings
French (2006)	Empirical 60 US firms from equip. mfg. in food and telecoms.	On the one hand, results provide no support for the hypothesized mediating effects of export experience and environmental turbulence factors, on the other hand, a firm's speed of entry into export activity does appear to relate positively to both a firm's level of export market orientation activity and its overall level of export performance.
Kogut et al (1993)	Empirical 85 instances of knowledge transfer in 16 US firms	Test the claim that international firms (exist to) specialize in the internal transfer of tacit knowledge, by observing the transfer of capabilities to manufacture new products to newly formed subsidiaries abroad.
Nitsch (1999)	Empirical 91 Japanese subsidiaries surveyed	Responses were analyzed for ownership and make/buy decisions. Out management, technical and financial criteria, management criteria were more aligned to actual decisions made.
Autio et al (2000)	Empirical. 59 Finnish electronics firms	Found that early internationalizers held more positive attitudes towards nondomestic markets than did late internationalizers.

Variable: *Foreign Markets Extension or Depth*

References	Type of Study	Findings
Peterson et al (2002)	Theoretical	Introduces the construct of mode of entry packages as concerted operation modes.
Chen (2006)	Empirical. Three cases of Taiwanese firms	Taiwanese firms established wholly owned subsidiaries in order to build local response capability under their own control.
Zhou (2007)	Empirical 775 young Chinese firms	It was found that foreign market knowledge leads to early and rapid internationalization, and this effect is driven by entrepreneurial proclivity.
Wagner (2004)	Empirical. 83 large international german firms	Internationalization speed and cost efficiency exhibits an inverted U-form. This means that low and modest expansion speeds generate cost efficiency gains, but extreme speeds cause value destruction.

Variable: *Foreign Market Diversification or Scope*

References	Type of Study	Findings
Johanson (1975,77)	Empirical 4 Swedish case longitudinal study.	Seminal study of incremental internationalization with emphasis on learning as pivotal variable to advance through internationalization stages. Uses Psychic distance construct to predict what foreign markets will be entered and when.
Young (1993)	Empirical Case study of eight Mexican firms.	Leading Mexican firms are adopting Vernon-Wortzel-like 'globalizing' strategies to achieve competitive advantages, leaving behind small volume plants and few branded products.
Calof (1991)	Empirical Canadian sample of 38 firms (mostly electric and electronics).	Mode change and choice require the presence of several precipitating factors, largely determined by executives' belief that each mode could generate a certain volume, taking into account mode change costs and tightness of resources.

Variable: *Networking Activity*

References	Type of Study	Findings
Carrillo (2003)	Empirical 140 Mexican firms	Cross sectional data revealed that sustaining a collaborative venture requires the development of complex organizational capabilities, which support the interaction processes by focusing on preventing outcome discrepancies by working on the collaborative process discrepancies.
Fernhaber (2006)	Empirical 213 US high technology new ventures	Although it was expected that new ventures (firms) with higher level of international knowledge would develop the ACA to more effectively exploit and benefit from the resources available externally, the opposite was found.
Geringer et al (1989)	Theoretical	Propose a framework to conceptualize control of international joint ventures
Johanson (90)	Theoretical Extension of model to firm's networks	Revises Stages model and after accepting some critics, offers the network construct as mediator to allow knowledge transfer and learning to occur in the 90s (and later).
Madhok (06)	Theoretical	It criticizes the fact that there has been an overemphasis on joint venture outcomes in a neglect of the social processes underlying the outcome.
Musteen (06)	Empirical 187 Czech	Results indicate that the embedded ness of international networks affect the level of foreign market knowledge that young firms accumulate prior to their first international venture. Also,

	ventures	foreign market knowledge affects scale and speed of internationalization of the venture.
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Variable: Absorptive Capacity (ACA)

References	Type of Study	Findings
Blalock (2002)	Empirical	Found it is local vendors that sell to MNC entrants who benefit the most from technological transfer rather than local competitors.
Cohen et al (1989)	Theoretical	Seminal article on ACA construct and model. Consider that R and D activity spill-over is to be grasped by other R and D active developers mostly.
Cohen et al (1990)	Theoretical	Seminal article on ACA (practitioner's version)
Kim et al (2005)	Empirical 348 collaboration by 79 firms from Japan, US and Europe	Technology learning was higher when firms were quick to adopt new technologies and when they have accumulated experience via alliances. By including R and D intensity as a control, the authors were able to better assess the learning effects from external technology sourcing activities.
Armstrong C.E. (2006)	Empirical 67 US university bid suppliers	The study found that an organization's use of cross-functional teams and brainstorming positively and significantly relates to its ACA.
Kim (2001)	One Korean case	Modelled ACA based on one (Samsung) case
Lane (1996)	Empirical 70 US alliances	Redefines ACA as dyadic construct, extending Cohen and Levinthal (89, 90) definition.

Minbaeva et al(2003)	Empirical	Developed and tested ACA as being comprised of both employees' ability and motivation.
Nemanich (2005)	Empirical 96 US firms in computer manufacturing	Redefines ACA at the team level. 4 dimensions. Supports value dimension positively related to share and assimilate dim. Tested impact on innovation.
Ramangalahy(2001)	Empirical 115 Quebec SME	Found that exporting SME performance is determined by its competitiveness, which in turn is determined by their information's ACA.
Zahra et al (2002)	Theoretical	Extends ACA to include potential and realized.

Variable: Internationally Oriented Management Team

References	Type of Study	Findings
Black (1997)	Empirical 65 US firms 1983-1992 longitudinal study	Confirms that management teams that have greater international orientation, as measured by nationality, international education, and international professional experience, are more apt to engage in international activities.
Cady (2000)	Empirical 58 US SME	Found decision orientation, R and D intensity, marketing intensity, and ability in strategy planning as highly correlated with DOI.
Carpenter (1997)	Empirical 206 US firms	Found that average Top Management Team (TMT) tenure, TMT educational heterogeneity, and the percentage of non-US executives on the TMT are positively related to a propensity to expand globally.
Matta (2004)	Empirical 293 US firms longitudinal	Overall findings indicate that the Chief Executive Officer (CEO) nearing retirement avoids internationalization and risky entry modes. The longer the career horizon the higher DOI.
Molina (2004)	Empirical 168 Colombian SME	Results show that Colombian SME is more reactive than pro-active, against both domestic and international competitors, when threats to current market share are revealed.
Mullane (1995)	Empirical 217 US firms	Results indicated that manager's mental models, specifically cultural familiarity and perceptions of foreign country risk, affect internationalization decisions.
Reuber et al (1997)	Empirical. 37 Canadian software product firms.	Found that internationally experienced management teams have greater propensity to develop foreign strategic partners and to delay less in obtaining foreign sales after start-up, implying a higher DOI.

Variable: Internationally Oriented Entrepreneurship

References	Type of Study	Findings
Allali (2005)	Empirical 15 cases (8 Canada and 7 Morocco firms)	The clear vision is associated to pro-activity in the internationalization decision. When this is done under stable environments, it does allow planning, otherwise management must improvise. In Morocco foreign market commitment is irreversible, contrary to Canada.
Harveston (2000)	Empirical 206 US firms (60 born global)	The pattern of group level results indicates that the differences of internationalization between born global and gradual globalizing firms are primarily vested in the effects of risk tolerance, technology intensity and state uncertainty. Therefore there is strong evidence that they are different.
Oviatt et al (1994)	Theoretical	Present a framework which integrates international business, entrepreneurship and strategic management theory. It explains the existence and functioning of born-global firms or early internationalization for the first time, conceding that internationalization is not what drives these firms.
Waldron (2004)	Empirical 37 US SME firms	Results found that dimensions of entrepreneurial orientation act independently. Because of this, its dimensions do not have a relationship to export intensity. The only dimension with a strong correlation was proactive ness.

Variable: *Performance of the Internationalization Activity/Process/Dimension*

References	Type of Study	Findings
Sullivan (1994)	Theoretical Meta analysis of performance measures	Proposes a multidimensional indicator that goes beyond the usually found one-dimensional index of % of foreign sales to total sales.
Palumbo (1995)	Empirical 131 firms from US electronic industry	The experience factor or years in the electronics industry appeared to have the most impact in fostering export expansion and extending the firm's international product life cycle.
Daughfous and Gauvin (1997)	Empirical. 624 US and 988 Canadian firms	Measured the impact of market globalization on financial performance measured by the ensemble of Return on Investment, Return on Equity, % of Foreign Sales and % of Foreign Assets.
Hsu (2003)	Empirical 254 pharmaceutical firms from 17 countries	It is the heterogeneity of the MNC that creates superior performance, not internationalization into foreign markets per se. Internationalization serves as a mediator in the relationship between the heterogeneity of the MNC and performance.
Capon et al (1990)	Metanalysis of 320 studies on performance conceptualization and determination	Environmental variables include industry concentration and growth, and Strategy variables the most influential on financial performance were growth, low capirtal investment and market share. With firm size not significant.

APPENDIX TWO

INTRODUCTION LETTER (ENGLISH VERSION)

Alejandro Rodriguez-Valle

Université du Québec a Montréal (UQAM)

École des Sciences de la Gestion (ESG), Département de Stratégie

Case postale 8888, succursale Centre-ville

Montréal (Québec) Canada H3C 3P8

May 30th, 2007

Dear Sirs/Madams:

The attached survey is one of the first national studies about the internationalization of the Mexican manufacturing firm (MMF), that is, about their commitment to business activities across borders. Although a growing number of MMF are selling abroad through foreign agents, selling abroad through their own foreign selling subsidiaries, and even producing and selling abroad from their own fully fledged foreign subsidiary, little is known about the international experiences of these firms. This doctoral research project will provide new understanding about the opportunities, problems and key factors to success for the Mexican firm like yours.

I am inviting you to participate in this international business project that is conducted under the direction of Dr. Cataldo Zuccaro, professor of the School of Business Sciences (ESG) at the University of Quebec in Montreal (UQAM); Dr. Naoufel Daughfous, a professor of ESG at UQAM, and a member of my Doctoral Research Committee; and Dr. Louis Hebert,

professor at the School of Higher Commercial Studies (HEC), affiliated to the University of Montreal, and also a member of my Doctoral Research Committee.

Attached to this letter is a questionnaire which is downloadable, and designed to be answered, if possible, by all members of the management team that have been actively involved in the internationalization process of your firm. Your responses are appreciated and they will be kept strictly confidential. This survey is subjected to the Ethics Research Standards of the Canadian scholarly community. Therefore, all results will be aggregated so that individual or company responses will remain unidentifiable to any reader of our final report.

Your participation and the information provided by your international experience are very important to this unique research project. Please submit your responses before May 15th, this year, and I will be sending you a personalized version of our final report, in which your company's data are compared to your industry composite data. This I will send you by mid-November, this year.

Thank you for your help and participation in this project.

Alejandro Rodríguez Valle, MBA

Doctoral candidate

ENCLOSURE

APPENDIX THREE .

QUESTIONNAIRE (ENGLISH VERSION)

UNIVERSITÉ DU QUÉBEC A MONTRÉAL

NATIONAL SURVEY on the Internationalization

of the Mexican Manufacturing Firm

INSTRUCTIONS

This national survey should be completed by a member(s) of the management team or the owner-manager who was involved with the firm when its products were first sold abroad. You should be assured that your responses will remain COMPLETELY ANONYMOUS. In this survey, internationalization occurs when the firm expands its selling, production, or other business activities into international markets. The filling-in of this questionnaire might in itself represent an exercise in strategic thinking of value to your firm. In any case, I am assuming the compromise to supply you with a personalized summary of this study's finding. Thank you very much for your time and collaboration.

1. Is your firm a foreign affiliate or subsidiary?

Yes

No

SECTION A

THE PROFILE OF THE FIRM

1. Which of these positions describes best your job? (Choose one)

- _____ President/CEO/General Manager
- _____ International Manager/Export Manager
- _____ Marketing Manager/Sales Manager
- _____ Production Manager
- _____ Financial Manager/General Accountant
- _____ Other

2. What is your participation in the capital of the firm? (Choose one)

- _____ More than 50%
- _____ Less than 50%
- _____ I do not own capital stock

3. What is the date of the foundation of your firm? _____(year).

4. Do you have a formal structure like an export department, international business department, or the equivalent in charge of the international activities of the firm?

Yes ____ No ____ . If your answer was yes, please proceed to next question, otherwise, skip it and go directly to question 9.

5. What is the SIC or Industry code that best identifies your business?

_____ SIC or Industry code.

THE INTERNATIONALIZATION PROCESS (Internationalizing firms)

SECTION B

1. When did your company make the decision to sell its products abroad? _____ (year).
2. Was your company an active importer of components and finished goods BEFORE it first sold your products abroad? Yes _____ No _____.

SECTION C

3. When did your company actually make its first sale abroad? _____ (year).
4. What was the FIRST FOREIGN COUNTRY in which your products were sold?
_____ (name of the country).
5. What MODE OF ENTRY or METHOD OF SERVICING THE MARKET did your company use WHEN IT FIRST SOLD its products abroad? Choose one option only.
_____ a) licensed the manufacturing of your products to foreign firms,
_____ b) exported directly to foreign clients, through a domestic sales/marketing office
_____ c) exported indirectly through a foreign agent or broker,
_____ d) established a foreign sales/marketing office, which coordinated your exports,

_____ e) exported directly to clients (through a domestic or foreign sales/marketing department or indirectly (through a foreign agent or broker) from a third country (foreign) sub-contracting manufacturing firm,

_____ f) exported directly to clients (through a domestic or foreign-owned sales/marketing organization) or indirectly (through a foreign agent or broker) from a foreign-owned manufacturing subsidiary.

SECTION D

1. Is your company an active importer of components and/or finished products TODAY?

Yes _____ No _____.

2. How large is the domestic (Mexican) market you service?

_____ You are a local company (you service one or a few neighbour cities)

_____ You are a regional company (you service one or a few neighbour states)

_____ You are a national company (you service most of the Mexican market)

3. In HOW MANY COUNTRIES do you sell your products today? _____.

4. What are your three main foreign markets today (in decreasing order of importance)?

1st Main market (country) _____ % of Foreign Sales _____

2nd Main market (country) _____ % of Foreign Sales _____

3d Main market (country) _____ % of Foreign Sales _____

5. How many years did it take your company to enter A SECOND FOREIGN MARKET
(answer 0 if not at all, or the approximate number of years? _____.

6. How many years did it take your company to enter A THIRD FOREIGN MARKET
(answer 0 if not at all, or the approximate number of years? _____.

SECTION E

1. How many valuable contacts did your company have among its foreign suppliers,
BEFORE starting to sell its products abroad? _____ (Number)

2. How many valuable contacts does your firm have among its foreign suppliers TODAY?
_____ (number)

3. How many valuable contacts among its foreign clients does your company have
TODAY? _____ (number)

4. Are your company's foreign contacts trustworthy? (Choose one)

___ Not at all ___ Little ___ Somehow ___ Trustworthy ___ Very much

5. In how many informal alliances has your company joined in the last five years?
_____ (number)

6. In how many formal (contractual) alliances has your company joined in the last five years?
 _____ (number).

SECTION F

1. Have you changed THE METHOD OF SERVICING the FOREIGN MARKET where you FIRST sold your product(s)? Yes _____. No _____. If you answered yes, please proceed to next question, otherwise skip to question 19.

2. If you changed to other mode(s) of entry or SERVICING THE MARKET in the FOREIGN MARKET where you FIRST sold your product(s), to which one did you change? If you adopted more options, please state in order of importance (1, 2, 3...).

- _____ a) licensed the manufacturing of your products to foreign firms,
- _____ b) exported directly to foreign clients, through a domestic sales/marketing office
- _____ c) exported indirectly through a foreign agent or broker,
- _____ d) established a foreign sales/marketing office to coordinate your exports,
- _____ e) exported directly to clients (through a domestic or foreign sales/marketing department) or indirectly (through a foreign agent or broker) from a foreign sub-contracting manufacturing firm,
- _____ f) exported directly to clients (through a domestic or foreign-owned sales/marketing organization) or indirectly (through a foreign agent or broker)

from a foreign-owned manufacturing subsidiary.

3. How many successful product developments has your company had in the last five years?
_____ (number).

4. How many successful process developments has your company had in the last five years?
_____ (number).

5. If you indeed engage in foreign market research, who does the job?

_____ In-house specialists

_____ Management team

_____ Owner-Manager

_____ Sub-contract

_____ Banco de Comercio Exterior (Bancomext)

_____ Other.

6. Do you have Research and Development (R and D) facilities? Yes ____ No ____.

If your answer was yes, please proceed to next question, otherwise, skip it and go

directly to question 1 of section H).

SECTION G

1. How many employees are committed, at least 50% of their time, to R and D activities?

_____ (Number. of employees)

2. How do R and D employees allocate their working time within their projects?

Product Development _____ %

Process Development _____ %

Other Projects _____ %

100 %

SECTION H

1. How many executives is part of the top management team that makes international decisions? _____ (number)

2. How many members of this 'international management team' are foreign-born?

_____ (number)

3. How many members of this 'international management team' speak more than one language? _____ (number).

4. How many members of this 'international management team' have work experience in a foreign country? _____ (number).
5. How many members of this 'international management team' have done graduate studies in a foreign country? _____ (number).
6. How many different specialities (finance, marketing, production, etc) are present in this 'international international team'? _____ (number).

SECTION I

a) Following, we are asking you to provide us with percentage data, which are critical assessing relationships in the internationalization of the firm. Please do not hesitate to use approximate figures, in case you do not have the precise ones at hand.

	Critical Variable Relationships	Year 2006
1	% of Foreign sales to Total sales.	
2	% of employees working abroad to total employees working for the firm.	
3	% of Foreign assets to Total assets	

b) As of 2006, what were your total sales? _____ (\$ million)

c) At the end of 2006, how many employees worked for the firm? _____ (number).

SECTION J

THE INTERNACIONALIZATION PROCESS (Internationalizing firms)

The following section contains questions which ask YOUR OPINION concerning the process of internationalization throughout which your firm has dealt with numerous events, decisions, and influences. Please, choose and highlight the answer for each statement that best reflects your agreement as to whether each factor or element is important to the process of internationalization (1 = Very much in disagreement; 2 = somewhat in disagreement; 3 = neither in disagreement or in agreement; 4 = somewhat in agreement; 5 = Very much in agreement).

PERFORMANCE OF NETWORKING ACTIVITY						
1	We are satisfied with the profit performance of our networking activity	1	2	3	4	5
2	We are satisfied with the foreign sales achieved through our networking activity	1	2	3	4	5
3	We are satisfied with the foreign market achieved through our networking activity					
4	We are satisfied with the foreign market knowledge acquired through our networking activity	1	2	3	4	5
5	We are satisfied with international experience gained through our networking activity	1	2	3	4	5
6	Our partners in international networks are satisfied with the results of working with us	1	2	3	4	5

7	We are satisfied with technology development achieved through our international networking activity	1	2	3	4	5
8	We are satisfied with the reputation acquired through our international networking activity	1	2	3	4	5
9	We are satisfied with duration of our international networking activity	1	2	3	4	5
10	Our strategic objectives were achieved in our international networking activity	1	2	3	4	5
ABSORPTIVE CAPABILITY						
11	. There is the constant need of introducing new products in foreign markets	1	2	3	4	5
12	Our engineering personnel has experience in adapting new manufacturing technology	1	2	3	4	5
13	Research and development activities help succeed in foreign markets	1	2	3	4	5
14	Research and development activities are not affordable by the small and medium-sized firm	1	2	3	4	5
15	. Constant improvement of manufacturing processes is the best way to keep foreign markets	1	2	3	4	5
16	Research and development activities requires technical and scientific talent and investment that we can not afford	1	2	3	4	5
17	. It is a better decision to license technology than to develop ours	1	2	3	4	5
18	Our engineering personnel has experience in adapting new manufacturing technology	1	2	3	4	5

19	Our engineering staff has experience in producing new manufacturing technology e.g. new machinery, machinery improvement, new processes	1	2	3	4	5
20	Marketing expenses is all that is needed to keep foreign markets	1	2	3	4	5
21	. We have gained insights into international marketing unknown to our competition	1	2	3	4	5
22	The experience gained in competing foreign markets makes the company even more competitive in the Mexican market	1	2	3	4	5
23	Entering foreign markets has made our company more efficient	1	2	3	4	5
24	Overall, our personnel is computer proficient	1	2	3	4	5
25	In this firm, we keep being competitive in foreign markets, but our 'secrets' will ever be found in an operating manual or in any formula	1	2	3	4	5
26	The internationalization of the firm has increased the commitment of the personnel to involve more actively in training and development of expertise	1	2	3	4	5
	INTERNATIONALLY ORIENTED MANAGEMENT TEAM					
27	Management talent is what allows the small and medium-sized firm to compete in foreign markets	1	2	3	4	5
28	We have seen the opportunity to enter foreign markets and that has been possible thanks to an effective management team	1	2	3	4	5
29	Our management team was internationally oriented from the very start of entering foreign markets	1	2	3	4	5

30	Our management team includes people with professional studies in foreign universities	1	2	3	4	5
31	Our management team includes people with international work experience	1	2	3	4	5
32	The entering into foreign markets have increased our commitment to become a fully internationalized firm	1	2	3	4	5
	INTERNATIONALLY ORIENTED ENTREPRENEURSHIP					
33	. The leader vision of this firm is what has made the difference for entering foreign markets in this firm	1	2	3	4	5
34	The leader vision of this firm is what has made the difference for entering foreign markets	1	2	3	4	5
35	Risk taking due to international operations of your firm has been in harmony with the values held by our leaders	1	2	3	4	5
36	Internationalization of the firm has been reinforced by its leadership vision	1	2	3	4	5
37	The internationalization of the firm allows us to take higher risks	1	2	3	4	5

SECTION K

Please state your opinion of the importance of the following goals to your company (1=not important at all; 2=somewhat important; 3=neither unimportant or important; 4=somewhat important; 5=very important)

IMPORTANCE PERCEIVED OF PERFORMANCE GOALS						
1	How important is foreign sales growth?	1	2	3	4	5
2	How important is net profit margin on foreign sales?	1	2	3	4	5
3	How important is foreign market share?	1	2	3	4	5
4	How important is return on foreign assets?	1	2	3	4	5

SECTION L

Please state your opinion of the satisfaction with the following goals of your company (1=very dissatisfied; 2=somewhat dissatisfied; 3=neither dissatisfied or satisfied; 4=somewhat satisfied; 5=very satisfied)

SATISFACTION WITH PERFORMANCE GOALS						
1	How satisfied are you with your foreign sales growth?	1	2	3	4	5
2	How satisfied are you with your net profit margin on foreign sales?	1	2	3	4	5
3	How satisfied are you with your foreign market share?	1	2	3	4	5
4	How satisfied are you with your return on foreign assets?	1	2	3	4	5

SECTION M

a) Are you interested in receiving a personalized summary of results from this research project when it is available (mid-November, 2007)?

Yes No

b) Are you interested in being contacted by the research team, at a later time, and at your convenience, to conduct further research on the internationalization of your firm?

Yes No

THANK YOU VERY MUCH FOR YOUR COLLABORATION!

APPENDIX FOUR

INTRODUCTION LETTER (SPANISH VERSION)

Alejandro Rodríguez Valle

Universidad de Quebec en Montreal (UQAM)

Escuela de Ciencias Administrativas (ESG), Departamento de Estrategia

Montreal (Quebec) Canadá H3C 3P8

30 de mayo del 2007

Estimados Señoras y Señores:

El cuestionario adjunto es parte de una de las primeras investigaciones nacionales sobre la internacionalización de *la compañía manufacturera mexicana (CMM)*, esto es, acerca del comprometerse a realizar actividades de negocios fuera de nuestras fronteras. Hay un número creciente de CMM que están vendiendo en el extranjero, ya sea a través de representantes foráneos; vendiendo a través de sus propias sucursales de ventas en el extranjero; o aun más, primero produciendo y después vendiendo dicha producción a partir de su(s) sucursal(es) ubicada(s) fuera de nuestras fronteras. Aun así, poco es lo que se conoce sobre las experiencias internacionales de la CMM. Este proyecto de investigación doctoral proveerá de una mejor comprensión acerca de los factores claves para el éxito de una CMM como la suya.

Lo(s) estamos invitando a Usted(es) a participar en este proyecto de negocios internacional realizado por un servidor, y supervisado por un comité bajo la dirección del Doctor Cataldo Zuccaro, profesor del departamento de estrategia de la ESG de UQAM. Los otros miembros del comité de investigación son el Doctor Naoufel Daghfous, también

profesor de la ESG de UQAM, y el Doctor Louis Hébert, profesor de la Escuela de Altos Estudios Comerciales (HEC) de la Universidad de Montreal.

Adjunto a esta carta se encuentra un cuestionario que se ‘baja’ de la red (Internet), y que está diseñado para contestarse por uno o varios miembros del equipo de la alta administración que estén interesados en el proceso de internacionalización de su empresa. Por un lado, el carácter objetivo de algunos datos supone su apoyo en departamentos funcionales como contabilidad, producción, ventas, o sus equivalentes. Por otro lado, la gran parte de los datos que se solicitan implican solo su conocimiento personal y opinión de los eventos y factores que han estado presentes en su propia experiencia de internacionalización. Apreciamos sus respuestas y estas serán mantenidas en la más alta confidencialidad conforme a los estándares de ética en investigación de la comunidad académica de Canadá. Por lo mismo, los datos suministrados por ustedes y todos los colaboradores en esta investigación permanecen inidentificables en nuestro reporte nacional e industrial personalizado (a distribuirse entre las empresas colaboradoras). Estos ‘candados’ son similares a los empleados por otros investigadores de instituciones académicas canadienses, cuyo sistema nacional de estadísticas económicas e industriales gozan de un gran prestigio desde hace más de medio siglo.

Su participación y la información que suministre sobre su experiencia internacional son extremadamente importantes para este proyecto de investigación. Por favor, envíe sus respuestas antes del 30 de mayo de este 2007, y le estaremos enviando, a mediados de noviembre de este mismo año, una versión personalizada del reporte final, en el cual los datos de su compañía se comparan con los datos de su industria. El beneficio que le puede proporcionar dicho reporte ajustado a sus intereses, debe superar con creces el tiempo y cualesquiera molestias que implique su colaboración para esta investigación. .

Gracias por su ayuda y participación en este proyecto.

Alejandro Rodríguez Valle, MBA

Candidato Doctoral

Documento-cuestionario-adjunto.

APPENDIX FIVE

QUESTIONNAIRE (SPANISH VERSION)

UNIVERSIDAD DE QUEBEC EN MONTREAL

ENCUESTA NACIONAL sobre la Internacionalización de
la Empresa Manufacturera Mexicana

INSTRUCCIONES

Esta encuesta nacional debe ser contestada por un miembro(s) del equipo gerencial o por el gerente-propietario que ha(n) estado involucrado(s) con la empresa desde que esta vendió sus productos en el extranjero por primera vez, o al menos que este(n) enterado(s) de cómo ocurrió esto. Puede estar Usted seguro de que sus respuestas permanecerán en el más COMPLETO ANONIMATO. En esta encuesta, la internacionalización ocurre cuando la empresa expande sus ventas, producción, u otras actividades a los mercados internacionales. El llenado de este cuestionario puede representar en si mismo un ejercicio de pensamiento estratégico de gran valor para su empresa, y puede requerir el apoyo de especialistas y departamentos funcionales como contabilidad, ventas o producción. Por su participación, estoy asumiendo el compromiso de proporcionarle a Usted(es) un resumen personalizado de los resultados de este estudio. Muchas gracias por su tiempo y colaboración.

2. ¿ Es su empresa filial o sucursal de una empresa extranjera (no mexicana)?

___ Si

___ No

SECCIÓN A**EL PERFIL DE LA EMPRESA**

1. ¿Cuál de estos puestos describe mejor su trabajo? (Seleccione solo una opción)

- _____ Presidente/Gerente General
- _____ Gerente Internacional /Gerente de Exportaciones
- _____ Gerente de Mercadotecnia /Gerente de Ventas
- _____ Gerente de Producción
- _____ Gerente de Finanzas /Contador General
- _____ Otros

2. ¿Cuál es su participación en el capital de la empresa? (Seleccione solo una opción)

- _____ Más del 50%
- _____ Menos del 50%
- _____ No poseo capital de la empresa

3. ¿Cuál es la fecha de la fundación de la empresa? _____ (año).

4. ¿Tiene su empresa una estructura formal como un departamento de exportaciones, un departamento de negocios internacionales o equivalente, a cargo de actividades internacionales de la empresa?

Si _____ No

5. ¿Cuál es el SIC (Código Industrial Estándar) o código industrial que mejor idéntica su negocio?

_____ SIC o código industrial.

EL PROCESO DE INTERNACIONALIZACION

SECCIÓN B

1. ¿Cuándo se tomó la decisión de vender sus productos en el extranjero? _____ (año).
2. ¿Fue su empresa una importadora activa de componentes y productos terminados ANTES de que realizaran su primera venta en el extranjero? Si _____ No _____.

SECCIÓN C

3. ¿Cuándo realizó su empresa su primera venta en el exterior? _____ (año).
4. ¿Cuál fue el PRIMER PAIS EXTRANJERO en que vendieron sus productos?
_____ (nombre del país).
5. ¿Cuál METODO DE ENTRAR A MERCADOS EXTRANJEROS utilizó CUANDO VENDIO POR PRIMERA VEZ sus productos en el exterior? Seleccione una sola opción:
_____ a) se importan activamente componentes y artículos terminados,
_____ b) se otorga licencia para fabricar productos a empresas extranjeras,
_____ c) se exporta directamente a clientes extranjeros, a través del departamento local de ventas
_____ d) se exporta indirectamente a través de agente extranjero o 'broker',

_____ e) se estableció una oficina extranjera de ventas o mercadotecnia,

_____ f) se exporta directamente a clientes lo producido localmente; o indirectamente desde un tercer país, donde se maquila o sub-contrata la fabricación de lo exportado,

_____ g) se exporta directamente a clientes lo producido localmente; o indirectamente desde una fábrica propia (una filial) ubicada en un tercer país.

SECCIÓN D

1. ¿Es su compañía una activa importadora de componentes y/o productos terminados HOY EN DIA? Si _____ No _____.

- ¿Qué tan grande es el Mercado doméstico (en México) al que Ustedes dan servicio?

_____ Son una compañía local (le dan servicio a una o pocas ciudades vecinas)

_____ Son compañía regional (le dan servicio a uno o pocos estados vecinos)

_____ Son una compañía nacional (sirven a gran parte del mercado Mexicano)

- ¿En CUANTOS PAISÉS vende productos su empresa? _____ (número).

- ¿Cuáles son sus tres principales mercados HOY (en orden decreciente de importancia)?

1er Mercado (país) _____ % de Ventas Foráneas _____

2do Mercado (país) _____ % de Ventas Foráneas _____

3d Mercado (país) _____ % de Ventas Foráneas _____

5. ¿Cuántos años le tomó a su empresa entrar en UN SEGUNDO MERCADO FORANEO (conteste 0 si no lo han hecho, de otra manera el número aproximado de años? _____.

6. ¿Cuántos años le tomó a su empresa entrar en UN TERCER MERCADO FORANEO (conteste 0 si no lo han hecho, de otra manera el número aproximado de años? _____.

SECCIÓN E

1. ¿Cuántos contactos valiosos tenía su empresa dentro de sus proveedores foráneos,

ANTES de comenzar a vender sus productos en el exterior? _____ (número)

2. ¿Cuántos contactos valiosos tiene su empresa dentro sus proveedores foráneos HOY?

_____ (número)

3. ¿Cuántos contactos valiosos tiene su empresa dentro sus clientes foráneos HOY?

_____ (número)

4. ¿Son confiables los contactos de su empresa? (Seleccione solo una respuesta)

____ Nada confiables ____ Poco ____ Algo ____ Confiables ____ Muy confiables

5. ¿A cuántas alianzas formales (contractuales) se ha adherido su empresa en los últimos cinco

años? _____ (número)

6. ¿A cuántas alianzas informales se ha adherido su empresa en los últimos cinco años?

_____ (número).

SECCIÓN F

1. ¿Cambió su empresa el METODO DE SERVIR EL MERCADO donde su empresa vendió por la PRIMERA VEZ sus productos en el extranjero? Si _____. No _____. Si Usted contesto Si, por favor proceda a la próxima pregunta, de otra manera pase a la pregunta 3.

2. Si su empresa cambió a otro modo de entrar o SERVIR AL MERCADO donde su empresa vendió por la PRIMERA VEZ sus productos en el extranjero, ¿a cuál modo cambió? Si su empresa adoptó más opciones, por favor ordénelas por orden de importancia (1, 2, 3...).

_____ a) se importan activamente componentes y artículos terminados,

_____ b) se otorga licencia para fabricar productos a empresas extranjeras,

_____ c) se exporta directamente a clientes extranjeros, a través del departamento local de ventas

_____ d) se exporta indirectamente a través de agente extranjero o 'broker',

_____ e) se estableció una oficina extranjera de ventas o mercadotecnia,

_____ f) se exporta directamente a clientes lo producido localmente; o indirectamente desde un tercer país, donde se maquila o sub-contrata la fabricación de lo exportado,

_____ g) se exporta directamente a clientes lo producido localmente; o indirectamente desde una fábrica propia (una filial) ubicada en un tercer país.

3. ¿Cuántos desarrollos de productos exitosos ha tenido su compañía en los últimos cinco años? _____ (número).

4. ¿Cuántos desarrollos de procesos exitosos ha tenido su compañía en los últimos cinco años? _____ (número).

5. ¿Si Ustedes realizan investigación de mercados internacionales, quien hace el trabajo?

_____ Especialistas de la propia empres

_____ El equipo gerencial

_____ El propietario-administrador

_____ Sub-contratación

_____ Banco de Comercio Exterior (Bancomext)

_____ Otros.

6 ¿Tiene su empresa instalaciones de investigación y desarrollo (I and D)?

Si _____ No _____.

SECCIÓN G

- ¿Cuántos empleados están comprometidos, al menos el 50% de su tiempo, a actividades de investigación y desarrollo (I and D)? _____ (número de empleados)
- ¿Cómo es que los empleados de I and D empleados distribuyen su tiempo dentro de sus proyectos?

Desarrollo de Productos _____ %

Desarrollo de Procesos _____ %

Otros proyectos _____ %

Total de tiempo comprometido 100 %

SECCIÓN H

1. ¿Cuántos ejecutivos son parte del equipo de alta dirección que toma decisiones de naturaleza internacional? _____ (número)
2. ¿Cuántos miembros del equipo de alta dirección internacional nacieron fuera del país? _____ (número)
3. ¿Cuántos miembros del equipo de alta dirección internacional hablan más de un idioma? _____ (número).
4. ¿Cuántos miembros del equipo de alta dirección internacional tienen experiencia de trabajo internacional? _____ (número).

5. ¿Cuántos miembros del equipo de alta dirección internacional han hecho estudios en el extranjero? _____ (número).
6. ¿Cuántas diferentes especialidades (finanzas, mercadotecnia, producción, etc.) hay en el equipo de alta dirección internacional?
_____ (número).

SECCIÓN I

A continuación le solicitamos que, utilizando datos en porcentaje, nos facilite la información relativa a las relaciones críticas en materia de internacionalización de la empresa. Por favor no dude en utilizar cifras aproximadas, cuando no cuente a la mano de números con toda exactitud.

	Relaciones Críticas entre Variables	Año 2006
1	% de ventas foráneas con respecto a ventas totales.	
2	% de empleados trabajando en el exterior con respecto al total de empleados de la empresa.	

3	% de activos foráneos con respecto a activos totales	
---	--	--

b. En 2006, ¿de cuánto fueron sus ventas totales? _____ (Mex\$ millones)

c. Al final de 2006, ¿cuántos empleados trabajaban para su empresa? _____ (número).

SECCION J

EL PROCESO DE INTERNACIONALIZACION

La siguiente sección contiene preguntas que solicitan SU OPINION respecto del proceso de internacionalización a través del cual su compañía ha lidiado con numerosos eventos, decisiones, e influencias. Por favor, seleccione y marque la respuesta-para cada declaración numerada del 1 al 37-que mejor refleje su acuerdo u opinión sobre la importancia de cada factor en el éxito de la internacionalización (1 = muy en desacuerdo; 2 = algo en desacuerdo; 3 = ni en desacuerdo ni en acuerdo; 4 = algo de en acuerdo; 5 = muy en acuerdo).

DESEMPEÑO DE LA ACTIVIDAD DE REDES DE COLABORACION						
1	Estamos satisfechos con el desempeño en utilidades de nuestra actividad de redes	1	2	3	4	5
2	Estamos satisfechos con las ventas generadas por nuestra actividad de redes	1	2	3	4	5
3	Estamos satisfechos con los mercados foráneos obtenidos con ayuda de redes	1	2	3	4	5
4	Estamos satisfechos con el conocimiento adquirido a través de actividad de redes	1	2	3	4	5

5	Estamos satisfechos con la experiencia internacional adquirida	1	2	3	4	5
6	Nuestros socios internacionales están satisfechos con los resultados de trabajar con nosotros en nuestra(s) red(es) de colaboración internacional(es)	1	2	3	4	5
7	Estamos satisfechos con el desarrollo de tecnología logrado a través de nuestra actividad de red(es) internacional(es)	1	2	3	4	5
8	Estamos satisfechos con la reputación adquirida a través de nuestra actividad de red(es) internacional(es)	1	2	3	4	5
9	Estamos satisfechos con la duración de la actividad de red(es) internacional(es)	1	2	3	4	5
10	Nuestros objetivos estratégicos fueron logrados en nuestra actividad de redes	1	2	3	4	5
	CAPACIDAD DE ABSORCION					
11	Hay una constante necesidad de introducir nuevos productos en mercados foráneos	1	2	3	4	5
12	Nuestro personal de ingeniería tiene experiencia en adaptar nueva tecnología de fabricación	1	2	3	4	5
13	Actividades de Investigación y Desarrollo (I and D) han ayudado en mercados foráneos	1	2	3	4	5
14	Actividades de I and D son un lujo que no se puede permitir la pequeña y mediana empresa	1	2	3	4	5
15	La constante mejora de procesos de manufactura es la mejor manera de mantener la participación en mercados foráneos	1	2	3	4	5

16	Las actividades de I and D requieren de talento técnico y científico que no podemos costear	1	2	3	4	5
17	Es mejor decisión pagar derechos de uso de tecnología que desarrollar la propia	1	2	3	4	5
18	Nuestro personal de ingeniería tiene experiencia en adaptar nueva tecnología de fabricación	1	2	3	4	5
19	Nuestro personal de ingeniería tiene experiencia en producir nueva tecnología de fabricación propia e.g., nueva maquinaria, nuevos procesos, etc.	1	2	3	4	5
20	No hay necesidad de gastar más que en Mercadotecnia para mantener mercados foráneos	1	2	3	4	5
21	Comprendemos los mercados internacionales mucho mejor que nuestra competencia	1	2	3	4	5
22	La experiencia que hemos adquirido al competir en mercados internacionales hace a nuestra empresa aun más competitiva en el mercado Mexicano	1	2	3	4	5
23	Entrar a mercados foráneos ha hecho a nuestra compañía más eficiente	1	2	3	4	5
24	En general nuestro personal es competente en tecnologías de información	1	2	3	4	5
25	En esta empresa, la clave de nuestra competitividad en mercados internacionales nadie la va encontrar en un manual de operaciones, en alguna fórmula, o en una patente	1	2	3	4	5
26	La internacionalización de esta empresa ha aumentado nuestro compromiso para entrenar más activamente a nuestro personal, así como en desarrollar sus capacidades	1	2	3	4	5

	EQUIPO DE GERENCIA ORIENTADO INTERNACIONALMENTE					
27	El talento es lo que permite a la pequeña y mediana empresa competir en mercados internacionales	1	2	3	4	5
28	Hemos visto la oportunidad de entrar a mercados foráneos, pero esto ha sido posible gracias a contar con un efectivo equipo gerencial	1	2	3	4	5
29	Nuestro equipo gerencial ha estado orientado internacionalmente desde el inicio de nuestra entrada a mercados internacionales	1	2	3	4	5
30	Nuestro equipo gerencial incluye personas con estudios profesionales en el extranjero	1	2	3	4	5
31	Nuestro equipo gerencial incluye personas con experiencia de trabajo internacional	1	2	3	4	5
32	El entrar a mercados internacionales ha incrementado nuestro compromiso para llegar a ser una empresa plenamente internacionalizada	1	2	3	4	5
	EMPRESARIADO ORIENTADO INTERNACIONALMENTE					
33	La visión del(los) líder(es) de esta empresa es lo que ha hecho posible la entrada exitosa a mercados internacionales	1	2	3	4	5
34	La visión del(los) líder(es) de esta empresa es lo que ha hecho posible mantener y aun avanzar en la penetración de los mercados internacionales	1	2	3	4	5

35	La toma de riesgos debida a operaciones internacionales de esta empresa ha estado en armonía con los valores de nuestro(s) líder(es)	1	2	3	4	5
36	La internacionalización de esta empresa se ha visto reforzada por nuestro(s) líder(es)	1	2	3	4	5
37	La internacionalización de esta empresa nos ha permitido tomar mayores riesgos	1	2	3	4	5

SECCIÓN K

Por favor exprese su opinión sobre la importancia de las siguientes metas para su empresa (1= no importante del todo; 2= cierta falta de importancia; 3= ni importante ni falta de importancia; 4= algo importante; 5= muy importante)

IMPORTANCIA PERCIBIDA DE METAS DE DESEMPEÑO						
1	¿Qué tan importante es el crecimiento de ventas foráneas?	1	2	3	4	5
2	¿Qué tan importante es el margen de utilidad neta sobre ventas foráneas?	1	2	3	4	5
3	¿Qué tan importante es la participación en el Mercado extranjero?	1	2	3	4	5
4	¿Qué tan importante es el margen de utilidad neta sobre activos foráneos?	1	2	3	4	5

SECCIÓN L

Por favor exprese su opinión sobre la satisfacción de las siguientes metas para su empresa (1= no es satisfactorio del todo; 2= algo falta de satisfacción; 3= ni satisfactorio ni insatisfactorio; 4= algo satisfactorio; 5= muy satisfactorio)

SATISFACCION CON LAS METAS DE DESEMPEÑO						
1	¿Qué tan satisfecho está Usted con el crecimiento de sus ventas foráneas?	1	2	3	4	5
2	¿Qué tan satisfecho está Usted con el margen de utilidad neta sobre ventas foráneas?	1	2	3	4	5
3	¿Qué tan satisfecho está Usted con la participación en el Mercado extranjero?	1	2	3	4	5
4	¿Qué tan satisfecho está Usted con el margen de utilidad neta sobre activos foráneos?	1	2	3	4	5

SECCIÓN M

a) ¿Está su empresa interesada en recibir un resumen personalizado de los resultados de este proyecto de investigación cuando esté disponible? Si No

b) ¿Está su empresa interesada en ser contactada, en un futuro, y a su conveniencia, para ampliar nuestra investigación sobre la internacionalización de la empresa? Si
 No

¡MUCHAS GRACIAS POR SU COLABORACION!

APPENDIX SIX

SEMI-STRUCTURED INTERVIEW GUIDE (ENGLISH VERSION)

This interview is being conducted as a part of a doctoral research to help us understand the Internationalization process of the Mexican manufacturing firm. The interview will be recorded.

1. We'd be interested in knowing how your firm became involved in internationalization activities?
 - a) What is it that attracted you to become involved in such activities?
 - b) What previous experiences have you had in the international scene?

Note : This question is an introduction to the subject, posed in a non threatening way, dealing with description of behaviour

2. What does it mean for your firm to internationalize?
 - c) What was the meaning of internationalization when you started international activities?
 - d) How do you see your evolution in arriving at your present meaning of internationalizing your firm?

Note : This question poses a demand for giving a clarification of the interviewee's meaning of the concept internationalization, without imposing one. It is an opinion/sensory versus a factual type of question.

- 3) How is it that you started international activities?
 - e) Tell us about the circumstances that surrounded your starting in international activities?
 - f) How did you arrive at the decision to internationalize?
 - g) What role did your local and national environment play in your decision to internationalize?
 - h) What role did the international environment play in your decision to internationalize?

Note : This is a factual question, mixed with opinion about those facts. But we used singular questions, so that issues are taken one by one. We ask first for the history (a and b), and then their opinion of the role of the environment (c and d).

- 4) What difficulties were the most important when first undertook international activities?
 - i) What cultural elements did you find the most challenging when undertaking international activities?
 - j) How did you find language as a facilitator versus an obstacle in undertaking international activities?
 - k) How did you find technology issues as facilitator versus obstacle in undertaking international activities?
- 5) How did internal elements, like production/operations, marketing, finance, etc. influence your firm in its internationalization process?

l) How is it that internal elements helped...?

m) How is it that internal elements hindered...?

Note: Although this question appears a factual (knowledge) question, it is more an opinion type one.

6) What stages or phases do you see as going through in the internationalization process, from your firm's perspective?

n) How do you see the transition to a higher involvement in internationalization, in your firm's experience?

o) What other stages or phases have you been involved, after your first stage or phase was completed?

p) What other stages or phases do you foresee to be involved in the future?

Note: This question looks for a discernment of the interviewee 'theory' of the internationalization process. We are only assuming the interviewee will be able to discern steps or phases, but always in his own words. In this question we have introduced the future dimension, which will be used more, history issues have been dealt with previously.

7) What do you think about the learning your firm has been through in its own internationalization experience?

q) What kind of learning do you think your firm acquired during the first phase or step it undertook in internationalization?

r) What kind of learning do you think your firm acquired during later in the internationalization process it has undertaken?

s) What kind of learning do you think your firm has still to acquire necessary or just useful, in its internationalization?

t) why?

Note : This is a question mostly of an opinion type, where we have introduced a new subject- learning- but which involves a reflex ion from the interviewee, from the whole time dimension perspective, that is past, present and future.

- 8) What do think has made your firm successful, in its internationalization?
- u) What differences do you find in your competitive behaviour in comparison to other local and national firms, which allow to better compete internationally?
 - v) What similarities do you find in competitive terms, between your firm and other foreign firms, dealing in international activities?
 - w) why?

Note : Another type of opinion type of question (the knowledge element is not prevalent, due to the subjectivity of the issue) , but the why framing of last sub-question is definitely a risky one, but we are in the final stage of the interview, so that it might be a reasonable risk.

- 9) How do you find the way your firm internationalized, different from the way another firm in foreign markets might have done it?
- x) Do you see the circumstances surrounding your firm much different and influential, as no other firm trying to internationalize, but in another region of NAFTA (USA, English-Canada, or French-Canada)?
 - y) why?

Note : I find this question, a short but loaded of reflex ion demands on the interviewee. I find this loaded enough, so as to just ask for why, after a first 're-phrasing' (in a).

- 10) What decisions you would have done differently during your firm's internationalization, if you had the chance of doing it again?
- z) What do you see as the hard lessons you have learnt during your firm's internationalization?

aa) How do you see your firm doing things differently along the steps in the internationalization process you have gone through?

bb) why?

Note : This a highly speculative question, which are only answerable at the end of the interview, if at all. Why not take the risk?

11. Do you have any insight you would like to share with us, concerning your firm's involvement in international activities?

Note : This is a closing question, looking for the extra mile!

Thank you for your cooperation...you will hear from us soon.

APPENDIX SEVEN

SEMI-STRUCTURED INTERVIEW GUIDE (SPANISH VERSION)

Esta entrevista se conduce como parte una investigación de carácter doctoral para ayudarnos a entender el proceso de internacionalización de la empresa manufacturera mexicana. Esta entrevista será grabada.

- 1) Estoy interesado en saber cómo se involucró su compañía en actividades internacionales.
 - a) ¿Qué fue lo que les atrajo para involucrarse en tales actividades?
 - b) ¿Qué actividades previas habían tenido en el terreno internacional?

Nota. Esta pregunta será introducida de una manera amigable, tratándose de una descripción de conducta.

- 2) ¿Qué es lo que significa para su firma el internacionalizarse?
 - c) ¿Cuál era el significado de internacionalizarse al comienzo de sus actividades internacionales?
 - d) ¿Cómo ve su evolución para llegar a lo que significa hoy, para ustedes, lo que es internacionalizarse?

Nota: Esta pregunta requiere una aclaración del significado del término para el entrevistado, sin imponer uno propio. Por tanto esta es una pregunta sobre la opinión más que sobre hechos.

3) ¿Cómo es que ustedes comenzaron sus actividades internacionales?

cc) ¿Dígame sobre las circunstancias que rodearon el comienzo de sus actividades internacionales?

dd) ¿Cómo llegaron a la decisión de internacionalizarse?

ee) ¿Qué papel jugó el medio ambiente local y nacional en su decisión de internacionalizarse?

ff) ¿Qué papel jugó el medio ambiente internacional en su decisión de internacionalizarse?

Nota: Esta es una pregunta sobre hechos mezclada con opiniones respecto de esos hechos. Pero se están utilizando preguntas individuales, de tal manera que la materia es tomada parte por parte. Se pregunta primero por aspectos históricos (a y b) y después se pregunta por la opinión sobre el papel del medio ambiente (c y d).

4) ¿Qué dificultades fueron particularmente importantes cuando ustedes comenzaron a emprender actividades internacionales?

gg) ¿Qué elementos culturales piensa usted que representan el mayor desafío cuando se comienza a emprender actividades internacionales?

hh) ¿Encontraron ustedes que el idioma representa un facilitador, o por el contrario, que representa un obstáculo para emprender actividades internacionales?

ii) ¿Encontraron ustedes que la tecnología representa un facilitador, o por el contrario, que representa un obstáculo para emprender actividades internacionales?

5) ¿Cómo fue que elementos internos como producción/operaciones, mercadotecnia, finanzas, etc. influenciaron al proceso de Internacionalización de su compañía?

jj) ¿Cómo fue que elementos internos ayudaron...?

kk) ¿Cómo fue que elementos internos obstaculizaron...?

Nota: Aunque esta pregunta parece una pregunta sobre hechos, es más bien una pregunta que pide la opinión u opiniones de los entrevistados.

6) ¿Qué etapas o fases vieron ustedes que formaban parte del proceso de Internacionalización, desde la perspectiva de su compañía?

ll) ¿Cómo ven ustedes la transición a un mayor involucramiento en la Internacionalización, de acuerdo a la experiencia de su compañía?

mm) ¿Qué otras etapas o fases ven ustedes para involucrarse, después de haber completado una primera fase o etapa?

nn) ¿Qué otras etapas o fases ven ustedes para involucrarse en el futuro?

Nota: Esta pregunta busca discernir la 'teoría' personal del entrevistado, respecto de lo que es el proceso de internacionalización. Estoy suponiendo que el entrevistado es capaz de discernir las etapas o fases, pero siempre expresadas en sus propias palabras. Aquí he introducido aspectos sobre el futuro, esta dimensión será más usado a lo largo del cuestionario. De ahora en adelante, esta dimensión será más usada, y en cambio, el aspecto histórico, las situaciones históricas ya fueron tratadas en otra parte.

7) ¿Qué opina del aprendizaje que han experimentado en su compañía, como consecuencia del proceso de Internacionalización?

oo) ¿Qué tipo de aprendizaje cree que su firma adquirió durante los inicios en su proceso de internacionalización?

pp) ¿Qué tipo de aprendizaje cree que su firma adquirió en etapas posteriores, en su proceso de internacionalización?

qq) ¿Qué tipo de aprendizaje cree que su firma aun tiene por aprender, como consecuencia de su proceso de internacionalización?

rr) ¿Por qué?

Nota: Esta es una pregunta del tipo de búsqueda de la opinión, donde habiendo introducido un Nuevo tema, se solicita al entrevistado que medite sobre la dimensión tiempo, esto es, sobre el pasado, presente y futuro de sus experiencias en el proceso de internacionalización.

8) ¿Qué factores cree que hayan sido causantes de sus éxitos y fracasos en el proceso de Internacionalización de su firma?

ss) ¿Qué particularidades ve usted en la conducta competitiva de su compañía, que los ubique con una ventaja competitiva internacional?

tt) ¿Qué similitudes encuentra usted, en términos competitivos, entre su firma y los competidores internacionales que ha enfrentado en su proceso de internacionalización?

uu) ¿Por qué?

Nota: Este es otra pregunta de solicitud de opinión (el elemento conocimiento no juega un gran papel aquí, dado el predominio de la subjetividad).

9) ¿De qué manera piensa que la experiencia de su firma en materia de internacionalización ha sido diferente de otras firmas, en el contexto del Tratado de Libre Comercio de Norteamérica (TLC)?

vv) ¿Que circunstancias encuentra usted similares entre aquellas en que su firma ha estado inmersa, y sus competidores internacionales, en su proceso de internacionalización?

ww) ¿Por qué?

10) ¿Si ustedes tuvieran la oportunidad de recomenzar su proceso de Internacionalización, que decisiones tomarían de manera diferente?

xx) ¿Cuales considera que sean las lecciones más amargas en su proceso de internacionalización?

yy) ¿Qué cosas estarían haciendo de manera diferente, si tuvieran la oportunidad de comenzar de cero?

zz) ¿Por qué?

11. ¿Tiene usted algún comentario que compartir conmigo, sobre el involucramiento de su compañía en actividades internacionales?

Nota: Esta es una pregunta de cierre, que busca una oportunidad de enriquecer las aportaciones del entrevistado.

Gracias por su colaboración...próximamente oirán sobre nosotros.

APPENDIX EIGHT

LIST OF DISGUISED COMPANY AND INTERVIEWEE NAMES AND LOCATIONS

<u>Company Name</u>	<u>Interviewee Abbreviation</u>	<u>Location of Company</u>
Aceros Náhuatl (ACENA)	NB	Aztlán
Aguacates Orgánicos (AGORNI)	RIL	Europa
Bebidas Típicas (BEBITI)	CGLJ	Hamacas
Blotermico (BLOTERM)	LBMI	Sillerías del Norte
Botana Norteña (BOTANOR)	EQG	Sillerías del Norte
Calzado Suave (CASUAVE)	FCRO	Felinos
Cerámica Mural (CEMUR)	CGN	Retortijón
Cerámica Caballero (CECABA)	VAR	Retortijón
Comercial de Ronas (CORRON)	SMEM	Hamacas
Conexiones (CONEX)	GTB	Barajas
Conservas Vegetales (CONVEGE)	STDDR	Hamacas
Construcción Ligera (CONLIGUE)	SHDM	Hamacas
Cueros Libaneses (CUELIBA)	MRV	El Pico
Dulces Mágicos (DULMA)	RAJT	Sacristán
Fibras Catalina (FICATA)	SMM	Sillerías del Norte

Libreros Morales (LIMORA)	ORE	Aztlán
Muebles Replicados (MURREP)	VSA	San Doroteo
Palomitas a Granel (PALOMITA)	AMB	Valladolid
Petro Perforación (PETROPER)	AAD	Hamacas
Petrominerales (PETROMIN)	IAA	Sillerías del Norte
Siller block (SIBLOCK)	TGC	Sillerías del Norte
Zapatos Duros (ZADUR)	VRLM	Felinos

APPENDIX EIGHT A

COMPARISON OF INTERVIEW DESCRIPTIVE INFORMATION

INTERVIEW DESCRIPTIVE INFORMATION (2/3)

FIRMS	JOB OF INTERVIEWEE	SIC	1st COUNTRY ENTERED	YEARS TO 1st SALE	METHOD USED 1st ENTRY	CHANGED METHOD OF ENTRY
ACENA	CEO	331	ARG	34	BROKER	NO
AGORNI	CEO	311	USA	0	BROKER	YES
BEBITI	CEO	311	USA	14	DIR	YES
BLOTTERM	MKTG	327	USA	13	DIR	NO
BOTANOR	OPS	311	USA	0	DIR	NO
CASUAVE	MKTG	313	USA	15	DIR	NO
CEMUR	CEO	327	USA	5	DIR	NO
CECABA	MKTG	327	CAN	7	DIR	NO
CONEX	CEO	333	COL	7	DIR	YES
CONVEGE	CEO (2)	311	USA	37	BROKER	YES
CONLIGUE	FCO (2)	327	CR	2	DIR	NO
CORRON	CEO (2)	311	GER	49	BROKER	YES
CUELIBA	FCO	313	USA	2	DIR	YES
DULMA	CEO	311	USA	36	DIR	NO
FICATA	CEO	313	GER	0	DIR	YES
LIMORA	FCO	321	SPAIN	8	DIR	YES
MURREP	CEO	321	SWIT	16	DIR	YES
PALOMITA	MKTG	321	SALV	9	DIR	YES
PETROPER	CEO	333	VENEZ	0	DIR	YES
PETROMIN	FCO	327	USA	12	DIR	YES
SIBLOCK	CEO	327	USA	17	DIR	NO
ZADUR	MKTG	313	USA	32	DIR	NO

APPENDIX EIGHT B

COMPARISON OF INTERVIEW DESCRIPTIVE INFORMATION

INTERVIEW DESCRIPTIVE INFORMATION (1/3)

FIRMS	COUNTRIES	R and D FACILIT.	ESTIM. NEW PRODS.	IN-FORMAL NETWKS	FORMAL NETWKS	ESTIM. NEW PROC.	HOW LARGE MEX.MKT.
ACENA	10	Yes	1	0	0	10	National
AGORNI	20	No	1	2	5	0	Local
BEBITI	4	Yes	5	5	5	5	Regional
BLOTTERM	1	Yes	2	3	2	10	National
BOTANOR	1	Yes	10	0	1	5	National
CASUAVE	2	No	0	1	3	1	National
CEMUR	6	No	5	5	0	5	Local
CECABA	10	No	2	5	0	2	Local
CONEX	3	No	3	1	2	10	National
CONVEGE	6	No	1	3	2	10	Regional
CONLIGUE	0	No	1	1	0	1	Local
CORRON	3	No	3	5	5	2	Regional
CUELIBA	7	No	2	5	3	5	Regional
DULMA	4	No	5	3	0	3	Regional
FICATA	30	No	2	10	20	10	National
LIMORA	9	No	2	5	5	0	National
MURREP	4	No	10	5	2	1	Local
PALOMITA	4	No	0	2	2	0	National
PETROPER	20	Yes	2	0	10	5	National
PETROMIN	1	No	0	1	1	0	National
SIBLOCK	1	Yes	5	3	1	1	Local
ZADUR	1	Yes	10	3	3	1	National

APPENDIX EIGHT C

COMPARISON OF INTERVIEW DESCRIPTIVE INFORMATION

INTERVIEW DESCRIPTIVE INFORMATION

FIRMS	MULTI LINGUAL EXEC.	EXEC W/ FOREIGN STUDIES	FOREIGN SALES INTENSITY	NUMBER EMPLOY.	FACILIT. ABROAD	NUMBER EXEC.IN TEAM
ACENA	8	6	2%	300	0	8
AGORNI	8	4	100%	50	2	5
BEBITI	4	0	50%	200	1	5
BLOTTERM	6	2	20%	150	0	5
BOTANOR	10	0	12%	500	0	4
CASUAVE	2	1	20%	75	0	6
CEMUR	2	0	40%	75	0	3
CECABA	5	1	40%	50	0	3
CONEX	2	0	10%	150	0	5
CONVEGE	4	2	52%	300	0	6
CONLIGUE	2	0	0%	60	0	4
CORRON	2	1	10%	40	0	3
CUELIBA	6	4	85%	300	0	6
DULMA	1	0	20%	75	0	4
FICATA	10	4	80%	500	10	6
LIMORA	6	2	25%	400	8	5
MURREP	2	0	10%	50	0	2
PALOMITA	1	0	30%	25	1	4
PETROPER	5	4	60%	150	0	4
PETROMIN	6	3	10%	300	1	6
SIBLOCK	3	0	10%	250	0	4
ZADUR	2	0	10	200	0	5

APPENDIX NINE

LIST OF CODES FOR DATA ANALYSIS

CODES FOR DATA ANALYSIS

Hypo/Var.	Code	Hypothesis/Construct
H1		<i>The Mexican manufacturing firm that undertakes more proactive pre-internationalization activities will have a better performance in its internationalization.</i>
		Relatively More Pro-ACTIVE Pre-INTERNATIONALIZATION Activities
	PRE-01	Previous Import Activities
	PRE-02	Other Previous International Activities
	PRE-03	Years since founded
	PRE-04	Domestic coverage
	PRE-05	(Main) Economic activity performed
	PRE-06	Size
H2		<i>The Mexican manufacturing firm that started internationalization earlier will have a better performance in its internationalization.</i>
		STARTED INTERNATIONALIZATION Relatively EARLIER
	EARLY-01	Initial Attractiveness to Internationalization
	EARLY-02	Initial Environment of Internationalization (incl. domestic)
	EARLY-03	Initial meaning of Internationalization
	EARLY-04	Years from foundation to first foreign market entry
	EARLY-05	Foreign market entry method used first time
	EARLY-06	Adapted line of products and characteristics to foreign market

		Foreign market first entered
H3		<i>The Mexican manufacturing firm that continued entering into additional foreign market earlier will have a better performance in its internationalization.</i>
		CONTINUED ENTERING ADDITIONAL FOREIGN MARKETS
	ADDMK1	Addition of New Foreign Markets (countries) Served
	ADDMK2	Foreign Markets (countries) Served
	ADDMK3	Entering a second foreign market
	ADDMK4	Entering a third foreign market
	ADDMK5	Later Environment of Internationalization (incl. domestic)
	ADDMK6	Adapted line of products and characteristics to add . foreign market
	ADDMK7	Exit from a Foreign Market (or part of it)
	ADDMK8	Essayed but failed to enter a Foreign Market (or part of it)
H4		<i>The Mexican manufacturing firm that involves in more foreign entry modes or methods of servicing foreign markets will have a better performance in its internationalization.</i>
		Relatively More FOREIGN MARKET ENTRY METHODS USED
	ADDME1	Change/Addition of Method for Entering Foreign Markets

	ADDME2	Methods In Usage for Entering Foreign Markets
H5		<i>The Mexican manufacturing firm that is more international networks oriented will have a better performance in its internationalization, it will perceive internationalization performance as more important, and/or it will be more satisfied with internationalization performance attained.</i>
		Relatively More NETWORKING ACTIVITIES
	NET-01	Total Past Foreign Contacts (Previous to Internationalization.)
	NET-02	Present Contacts Among Foreign Suppliers
	NET-03	Present Contacts Among Foreign Clients
	NET-04	Present Other Foreign Contacts
	NET-05	Informal Collaborative Arrangements (Alliances)
	NET-06	Formal Collaborative Arrangements (Alliances)
	NET-07	Reliability of Contacts
	NET-08	Attitude towards Collaborative Arrangements (Alliances)
H6		<i>The Mexican manufacturing firm with more absorptive capability oriented will have a better performance in its internationalization, it will perceive internationalization performance as more important, and/or it will be more satisfied with the internationalization performance attained.</i>
		Relatively More ABSORPTIVE CAPABILITY
	ACA-01	Influence of Technology on Internationalization
	ACA-02	Learning from Initial Internationalization Involvement

	ACA-03	Learning from Later Internationalization Involvement
	ACA-04	Learning from Foreseen Internationalization Involvement
	ACA-05	Ownership of R and D Facilities
	ACA-06	Personnel (totally/partially) dedicated to R and D activities
	ACA-07	Culture, suitable to learning and innovation
	ACA-08	R and D of new product(s), brand(s), and processes
	ACA-09	New products developed during the last five years
	ACA-10	New processes developed during the last five years
H7		<i>The Mexican manufacturing firm with a more internationally oriented top management team will have a better performance in its internationalization, it will perceive internationalization performance as more important, and/or it will be more satisfied with the internationalization performance attained.</i>
		Relatively More INTERNATIONALLY ORIENTED TOP MANAGEMENT
	IOTM-01	Ownership of Competitive Advantage(s)
	IOTM-02	Proactive ness in Acquiring Competitive Advantage(s)
	IOTM-03	Influence of Organizational Culture on Internationalization
	IOTM-04	Influence of Spoken Foreign Language(s) on Internationalization
	IOTM-05	Influence of Foreign-Educated Managers on Internationalization
	IOTM-06	Managers in International Top Management Team
	IOTM-07	Specialities in International Top Management Team
	IOTM-08	Formalization of International Management Structure

SATISFACTION		
		SATISFACTION with Internationalization Performance
	SATISF1	Satisfaction with Performance attained
PERFORMANCE		
		Internationalization Relative PERFORMANCE
	PERFOR1	International Sales Intensity

APPENDIX TEN

SELECTION OF INTERVIEWEE QUOTATIONS

HYPOTHESIS 1

- . “After some time of import activities you finally start to lose being afraid that something might go wrong...you develop confidence” (SIBLOCK, 2003)
- . “The partners of this company had relationship with foreign businessmen, particularly in the oil industry, well before we started to sell abroad” (PETROMIN, 2003)
- . “We have imported raw materials, since we started manufacturing special shoes. Our suppliers are in the USA” (CASUAVE, 2007)
- . “I also worked for the foreign company we have been talking about, but I left before it went broke” (CONEX, 2007)
- . “We have already imported, but only machinery and equipment...” (DULMA, 2007)
- . “Our foreign parent company was originally owned by an emigrated Mexican family, which explains our special relationship and the importance of the Mexican subsidiary” (BOTANOR, 2003)
- . “Obviously, we do not have the required size...we are a medium-sized firm” (CONEX, 2007)
- . “We are more like an industrial group” (PETROMIN, 2003)
- . “The number of employees is the wrong indicator, as a competitive factor...the fact is that we hire more employees than strictly required... (CONVEGE, 2007)

HYPOTHESIS 2

. “What helped us in taking the decision to go abroad was the uncertainty in the internal market, so, we started to look for foreign market whenever we had over production” (PETROMIN, 2003)

. “We initially aimed at the US market, but then we met people from Central America, and realized how easier it would be for us to export there” (PALOMITA, 2007)

. “When the internal market is weak, as often happens in Mexico, foreign markets balanced our budget” (CONVEGE, 2003)

. “We have an exclusive distributor for all USA and Canada. We sell directly in Europe and Asia” (CUELIBA, 2007)

“Payments in American dollars are always attractive to a firm like ours. Mostly if you are not depending on that sale for your survival, it is just extra profit” (CONLIGUE, 2003)

“My brother started living in Germany, and then he realized how much Mexican products were demanded...it was 1995” (CORRON, 2003)

“We look at the American market like our natural market...for everything we can manufacture, now or in the future” (BLOTTERM, 2003)

“Internationalization was born from a desire to make more money, to have higher sales, to make us a bigger company” (BEBITI, 2003)

“Tax incentives also counted in our decision to continue exporting our products” (CONLIGUE, 2003)

“Due to our location, it was easier to enter the Texan market, than to expand to Sonora, or Baja California, in Northwest Mexico” (CONVEGE, 2003).

“If we were eventually facing internal market saturation, then for us it was logical to try to enter the Japanese or the European market” (AGORNI, 2007).

“The biggest challenge comes from intricate government regulation, first Mexican regulations, then the American FDA” (BOTANOR, 2003).

“There might be a credibility problem...when you send a Mexican specialist; they just keep questioning his competence” (PETROPER, 2003)

“In the American market there seem to be prejudices about the quality level of the Mexican products...there is a discriminatory factor here” (BLOTTERM, 2003)

HYPOTHESIS 3

. “We have already managed to deal successfully, alone, and for years. Why should we think about a change?” (PALOMITA, 2007)

. “We have more chance of growing in the USA” (ZADUR, 2007)

. “We are selling abroad; in places we would have not dreamed of...Australia, South Africa, South Korea” (CONVEGE, 2007).

. “We have strong competitors in China, Argentina, and Brazil” (CUELIBA, 2007)

. “In Central America it is more complicated to enter into their markets, they do not recognize your trademarks” (CONVEGE, 2003)

. “Transportation by sea has improved dramatically, and it is better coordinated with other ways of transportation, to bring into existence a cheap inter-modal logistic system” (CONVEGE, 2003)

. “The domestic market has absorbed all our production lately” (PETROMIN, 2003)

. “Once we have our new developments market-ready we enter Europe” (CORRON, 2007)

. “The exchange rate has been a disadvantage to Mexican exporters, for a long time”

(CONVEGE, 2007)

. “Mexican alcoholic beverage, even when it is priced competitively, pays too much tax in the USA” (CORRON, 2007)

. “Export markets demand more in terms of quality and service” (ZADUR, 2007)

HYPOTHESIS 4

. “The company that was our USA contact was bought, and became one of our industrial groups of business. Then exports became efficient and fast” (PETROMIN, 2003).

. “There have been a few sales by internet” (MURREP, 2007)

. “In 1991, I established a subsidiary in Texas. Then, we started to send this subsidiary our products, and got an additional impulse for our line of products” (BEBITI, 2003).

“We have a small office in Switzerland...they control sales collection for us. We also do some ‘hedging’” (AGORNI, 2007)

. “In other countries we have no distributing company. It might be simply unnecessary. Being expensive, we prefer having agents” (FICATA 2003)

. “We have always been only exporters” (CECABA, 2007)

. “We used to have a warehouse in Miami...not anymore” (CASUAVE, 2007)

. “We are now in the stage where we do not care from which country comes the product we are going to sell...we just get it, and sell it” (FICATA, 2003)

HYPOTHESIS 5

. “There was no written contract involved, there was some talking, and a promise was made to continue buying the product” (PETROPER, 2003)

- . "In USA we have some kind of distributors, that is, companies with whom we made an agreement to respect a territory" (CONVEGE, 2003)
- . "We are like married to them, because in a very difficult period they sold us raw materials on good faith, even then, their prices were competitive" (CONLIGUE, 2007)
- . "We have Alliance to process dry fruit and guacamole" (AGORNI, 2007)
- . "In Europe we are negotiating to enter 'a pool' where we contribute with our rum" (CORRON, 2007)
- . "It is a collaborative arrangement...we pick up the books we like, then we translate them, we sell the translated books, and finally we pay them royalties. Sometimes we cross pre-established lines, but that is not often nowadays" (LIMORA, 2007)
- . "The Covington technology licence allowed the firm to enter the Central American market" (CONLIGUE, 2007)
- . "Many companies showed interest, but not in alliances with us, or in buying our products, but in buying us" (CONLIGUE, 2007)
- . "We are negotiating with an American company, but there are certain terms and limitations involved..." (BLOTTERM, 2003)
- . "A satisfactory relationship is due to working hard so as not to have complications..." (CEMUR, 2007)
- . "Our suppliers do not ask how much we will pay, nor how much we are buying...they trust us. That is at the core of our firm" (AGORNI, 2007)
- . "We had interested people, but definitely we are not. We do not want to loose control of our firm" (DULMA, 2007)

HYPOTHESIS 6

- . “Our product and process are not complicated at all” (CONEX, 2007)
- . “We have developed capable oil industry engineers. These engineers have made public presentations themselves” (PETROPER, 2003)
- . “Now that Internet is available, a lot of people have made contact with us, but that has not meant a single dollar of exports” (CONLIGUE, 2007)
- . “If you look closely, there are practically no Mexican High Tech products...we are an assembler country, without proprietary technology” (BLOTTERM, 2003)
- . “We have made around 1000 designs in all of our business history” (MURREP, 2007)
- . “We started as a home made industrial firm. Later on, we introduced automation, but this did not mean buying special machinery abroad. We adapted everything ourselves” (DULMA, 2007)
- . “We learnt how to manufacture the same product; the same way our former foreign employer did” (CONEX, 2007)
- . “To compete internationally forces you to develop and adopt new technologies. We must constantly diminish our cost...” (CUELIBA, 2007)
- . “The Mexican manufacturing firm continues to be technologically foreign. Even us, a low technology firm depends on foreign technology...” (BLOTTERM, 2003)
- . “Our level of automation was better conceived and implemented than most of the equivalent American firms (SIBLOCK, 2003)
- . “Computers are used for sales and accounting...there is practically nothing done in design and manufacturing” (CEMUR, 2007).
- . “It is as easy to export as it is to import, but it is the first learning experience that is inevitable, you have to ‘survive’ it” (CONVEGE, 2003).

. “To date it was not a great experience, but you finally realized how much there is yet to learn” (SIBLOCK, 2003).

. “In that first phase, we started learning about the legal entanglements of the export function” (CORRON, 2003)

. “We first made some modification to imported machinery, but it resulted costly and counterproductive” (CEMUR, 2007)

. “When you are to work with foreigners, we bring their culture with us” (CONEX, 2007)

. “When we bought a whole foreign factory, we brought it to Mexico, piece by piece, we fixed it, modified the machinery, and nowadays we manufacture and export equipment pieces and tools” (FICATA, 2003)

HYPOTHESIS 7

. “The advantages are visible...we are wholly integrated, and in locations very close to each other” (PETROMIN, 2003).

. “Because we were employed by an American company, we learnt and adopted the technology behind the design, manufacturing and logistics involved in this industry” (CONEX, 2007)

. “We have a pesticide control system that foreign authorities impose upon all entrants from abroad. Control systems like these do not exist in Mexico...” (CONVEGE, 2007)

. “Production is highly artisan; every thing turns around the concept of ‘replicas’, a work of artistic imitation” (MURREP, 2007)

. “Capital has been a limitation for a medium-size company like ours. Big business has spare financial and operational resources.” (CONVEGE, 2007)

. “With the passing of time our competition is becoming stronger” (CONLIGUE, 2003)

- . “Paradoxically, it is in the San Antonio (a Latino demographic area) market where our product sells less. It starts getting better when we reach second and third generation Latinos” (BEBITI, 2003)
- . “We take care of shipping and handling. Our merchandise arrives in perfect conditions, always” (CEMUR, 2007)
- . “The job we are doing is not for conventional firms. They have neither the organizational structure nor the vision” (AGORNI, 2007)
- . “There is a disadvantage in Mexico: we have complied with a complex and costly regulation of trade. It is a heavy burden” (FICATA, 2003)
- . “With a family structure, and technical support, our response time used to be fast...” (ACENA, 2007)
- . “I represent the firm in foreign Expos, where I entertain Latin American clients. You should not miss an Expo, which is critical to the new account development function” (PALOMITA, 2007)
- . “People who come here, they have already met us. It might also happen that we have been recommended by some of our clients...that is why it is important to keep your friends and clients happy” (CECABA, 2007)
- . “We have always invested a lot of money in product development, but so does our competition” (BLOTTERM, 2003)
- . “Editors travel to visit promoters, in order to make the decision concerning what specific book is going to be published in foreign markets” (LIMORA, 2007).
- “What I did was to hire a Cuban technician...” (CORRON, 2007)
- . “Clients were always contacted here, in Mexico, in Exhibitions” (DULMA, 2007)

HYPOTHESIS 8

- . “We prefer to deny a product without the required quality level. This is to prevent accidents and malfunction in a risky process” (PETROMIN, 2003)
- . “Only top management travels abroad. That is, only sales and management travel” (CONVEGE, 2007)
- . “We started to compete directly with Americans, but taxes were unbearable.” (CORRON, 2007)
- . “We have been cautious, because our cash flow is limited” (BLOTTERM, 2003).
- . “I have practically zero employee turnovers. We are highly connected. We are a pretty small family business” (MURREP, 2007)
- . “The last few years, exports have diminished a lot (down to a 10% of total sales). Our best times were in 2001” (MURREP, 2007).
- . “This is a family business. There are no more top managers than my father and I. He is now retired” (BEBITI 2003)
- . “We have business in many places and with a variety of products, but at the end of the day, we are family” (FICATA, 2003)
- . “These types of risks we take with our eyes wide open. We take our precautions” (AGORNI, 2007)
- . “We used to react rather quickly to changing market conditions. Particularly when we compare our firm before and after it was bought by Carioca” (ACENA, 2007)
- . “I started prospecting the San Antonio area. I was there for a while: watching, researching, talking, and negotiating” (BEBITI, 2003)
- . “With most clients, when they come we talk and make a deal. Once that is done, the relationship is by telephone” (CEMUR, 2007).

“Our grandfather and father have been of the opinion that whenever a risk must be taken, should involve the smallest necessary amount of money” (CASUAVE, 2007)

APPENDIX ELEVEN- STATISTICAL TABLES

Table A11.1

Items					
SYNERGETIC TOP MGMT. TEAM	Alpha = .9196				
EntraMktExt=Cia>EfiACA		0.457			
Inter>ComprEntrePersACA		0.494			
TalentoPermiteCompetirIOTM		0.627			
EntradaMktExtrXEfectivoIOTM		0.572			
DesdeInicEntraMktExtHayIOTM		0.646			
EntrarMktInt>ComproIntIOTM		0.601			
VisionPermitioEntradaIOENT		0.825			
Vision=Mant&>PenetrIOENT		0.801			
RiesgoIntArmoniaConValorIOENT		0.652			
InternacReforzadaXLideresIOENT		0.828			
Internac=Tomar>RiesgosIOENT		0.656			
GENERAL SATISFACTION WITH NET	Alpha = .8478				
SatisfaccionUtilidadesNET			0.861		
SatisfaccionVentasNET			0.882		
SatisfaccionMercadosNET			0.813		
SatisfaccionConocimientoPorNET			0.7		
SatisfaccionDuracionNET			0.531		
MejorPagarQueDesarrollarACA			0.489		
LIMITED SATISFACTION WITH NET.	Alpha=.8344				
SatisfaccionConExperienciaREDES			0.658		
SociosSatisfechosResultadosREDES			0.698		
SatisfaccionReputacionREDES			0.767		
ObjetivosEstrategicosLogradosPorREDES			0.42		
EXPERT ENGINEERS	Alpha = 0.7432				
PersIngExperACA				0.623	
PersIngExpAdapACA				0.807	
PersIngExpProdACA				0.697	
COMPETENCE IN COMPUTERS & R&D HELP ACA	Alpha=0.6754				
R&D HELPS ACA					0.505
PersCompTecnInfoACA					0.667
EntrarMktInt>ComproIntEQUIPOI					0.492
Eigenvalues		6.151	4.317	2.775	2.55
					2.14

	6	7	8	9	10	11
% of variance explained	16.186	11.361	7.303	6.71	5.631	
Cumulative % of variance explained	16.186	27.547	34.85	41.559	47.19	
ITEMS	FACTOR					
	6	7	8	9	10	11
R&D SOMETIMES LUXURY Alpha = 0.6266						
R&DLujoPimeACA	0.81					
R&DNecIncosTalACA	0.549					
NoNecI&D>MercACA	0.77					
INTERNATIONALLY ORIENTED TEAM Alpha=0.4581						
MejoProceMktACA		0.57				
Personal Con Estudios Extranjeros EnEl EQUIP OI		0.71				
PersonalConExperienciaExtranjeraEnEQUIP OI		0.679				
MORE COMPETITIVITY IN MEXICO Alpha=0.5111						
ExpInt=>CompMktMxACA			0.869			
Inter>ComprEntrePersACA			0.489			
KEY TO COMPETITIVITY NOT IN R&D Alpha=0.2906						
I&DNecIncosTalACA				0.507		
ComprMktExtr>CptACA				0.31		
ClaveCompIntNoManuACA				0.749		
TRUST & DURATION IN NETS Alpha = 0.6009						
ConfiaContactosREDES					0.864	
SatDuracREDES					0.456	
NEED OF NEW PRODUCTS Alpha=0.2907						
NecProdNvosACA						0.832
I&DAyudaACA						0.4
ComprMktExtr>CptACA						-0.4
Eigenvalues	2.122	1.986	1.966	1.795	1.646	1.362
% of variance explained	5.584	5.225	5.173	4.725	4.332	3.583
Cumulative % of variance explained	52.774	57.999	63.172	67.897	72.229	75.812

Table A11.2

ITEMS	FACTOR	
	1	2
SATISFACTION WITH INT'L PERFORMANCE Alpha=0.9034		
Satisfaction Growth in International Sales SATIDSESEM	0.836	
Satisfaction International ROS SATIDSESEM	0.833	
Satisfaction International Market Share SATIDSESEM	0.876	
Satisfaction International ROA SATIDSESEM	0.841	
INT'L PERFORMANCE PERCEIVED AS IMPORTANT Alpha=0.82		
Importance Growth in International Sales IMPERMETA		0.78
Importance International ROS IMPERMETA		0.876
Importance International Market Share IMPERMETA		0.657
Importance International ROA IMPERMETA		0.811
Eigenvalues	3.15	2.709
% of variance explained	39.37	33.857
Cumulative % of variance explained	39.37	73.226

Table A11.3
CROSS CASE ANALYSIS - INTERVIEWS (HYPOTHESIS 1)

Interviewee		PRE-01	PRE-02	PRE-03	PRE-04	PRE-05	PRE-06	H1	#quot
Firm*	Executive								
PETROMIN	IAA-03		2	1	2	1	1.5	1.5	6
MURREP	VSA-07			1	2	1	1	1	3
PALOMITA	AMB-07			1	2	1		1.33	3
CONEX	GTB-07	2	1	1	2	2	1	1.43	6
SIBLOCK	TGCE-03		1.67	2	1	0	2	1.43	3
PETROPER	AAD-03			2	1	2	1	1.6	5
CONVEGE	DRSTD-03				0	2	2	1.2	5
CONVEGE	STAJA-07			2	2	1	1.5	1.5	6
CONLIGUE	SHDM-03			1	2	1	1	1.33	6
CONLIGUE	SHDM-07			1	1	1	1	1	4
LIMORA	ORE-07			2	2	2		2	3
CORRON	SMEM-03			2	2	1	1	1.5	4
CORRON	SMEM-07			2	2	1	1	1.6	5
BOTANOR	EQG-03		0.5	1	1	1	1	0.83	6
BLOTTERM	LBMI-03	0		1	1	1	1	0.8	5
DULMA	RAJT-07		0.5	2	-1	1	1	0.86	7
BEBITI	CGLJ-03			2	1	1	1	1.2	5
ZADUR/ZAGOB	VRLM-07			2	1	1	1	1.25	4
FICATA	SMM-03		1.33	1	2	1	1	1.29	7
CEMUR	CGN-07			1	2	1	1	1.2	4
AGORNI	RIL-07			1.5	1	1	1	1.2	5
CASUAVE	FCRO-07	2		2	2	1.33	1	1.57	7
CECABA	CVR-07		1	-1	1	1		0.5	4
ACENA/CARIOCA	NBS-07	2		1	2	1	2	1.6	5
CUELIBA	VMR-07			1	1	1	2	1.2	5
* Disguised names									
Sum Averages		6	8	32.5	35	28.33	27	31.92	
# quotations		4	13	30	28	26	22	123	123
W. Average			*	***	***	**	**	0.948	

Table A11.4

CROSS CASE ANALYSIS - INTERVIEWS (HYPOTHESIS 2)

Interviewee		EARLY-01	EARLY-02	EARLY-03	EARLY-04	EARLY-05	EARLY-06	EARLY-07	H2	#quot	
Firm*	Executive										
PETROMIN	IAA-03	0.25	1						0.91	11	*
MURREP	VSA-07	1			1			1	1	3	
PALOMITA	AMB-07	1	1	-1	1	2	1		0.83	6	
CONEX	GTB-07			1	1	2	1	1	1.2	5	
SIBLOCK	TGCE-03	2	-1	-1		1			-0.2	10	*
PETROPER	AAD-03	1	-0.33						0	4	
CONVEGE	DRSTD-03	1	0	1	1	0			0.5	6	
CONVEGE	STAJA-07				2	1		1	1.33	3	
CONLIGUE	SHDM-03	0.33		1	1				1	5	
CONLIGUE	SHDM-07	2		1	2	2		1	1.6	5	
LIMORA	ORE-07				2				2	1	
CORRON	SMEM-03	1		0		1.25			0.86	7	*
CORRON	SMEM-07				1	2	1.5	2	1.6	5	
BOTANOR	EQG-03	1	-1	1					0	4	
BLOTERM	LBMI-03	1	-1.2		2				-0.6	7	
DULMA	RAJT-07		-1.5		1	1			-0.25	4	
BEBITI	CGLJ-03	1	1		1	1	1		0.83	12	*
ZADUR/ZAGOB	VRLM-07			1		1		1	1	3	
FICATA	SMM-03	1		1		1			1	3	
CEMUR	CGN-07	1		1		1	1.33		1.57	7	*
AGORNI	RIL-07	2	1						1.5	2	
CASUAVE	FCRO-07	1			2	2		1	1.5	4	
CECABA	CVR-07				1	2	1	2	1.5	4	
ACENA/CARIOCA	NBS-07	1.5	2			1			1.5	4	
CUELIBA	MRV-07			1	1	2			1.3	3	
* Disguised names											
Sum Averages									23.48		
# quotations		27	25	16	17	24	10	9	128	128	
W. Average		**	**	**	**	**	*		0.896		

Table A11.5

CROSS CASE ANALYSIS - INTERVIEWS (HYPOTHESIS 3)

Interviewee Firm*	Executive	ADMK1	ADMK2	ADMK3	ADMK4	ADMK5	ADMK6	ADMK7	ADMK8	H3	#quot
PETROMIN	IAA-03					-1.5		-1		-1.33	3
MURREP	VSA-07	2		2	2			-2		0.8	5
PALOMITA	AMB-07	-0.5	1				1		-1	0	5
CONEX	GTB-07					1			-2	-0.5	2
SIBLOCK	TGCE-03										
PETROPER	AAD-03 DRSTD-03					0			-1	-1	3
CONVEGE	STAIA-07	1	2	2	2	-1.4	1.5	-0.4		0.5	14
CONLIGUE	SHDM-03	1					-2	-1		-0.67	3
CONLIGUE	SHDM-07						-2			-2	1
LIMORA	ORE-07		2				2			1.5	2
CORRON	SMEM-03	1		2	2			-2		0.75	4
CORRON	SMEM-07	1		2	2	0	-2			0.5	12
BOTANOR	EQG-03										
BLOTTERM	LBMI-03		2				2			2	2
DULMA	RAJT-07							-2		-2	1
BEBITI	CGLJ-03	1	1			-1		-2		-0.25	4
ZADUR/ZAGOB	VRLM-07	1				1				1	2
FICATA	SMM-03					-0.83				-0.83	6
CEMUR	CGN-07	1								1	1
AGORNI	RIL-07		1					-2		-0.5	2
CASUAVE	FCRO-07	1		2	2	0	-2	-2		0.29	7
CECABA	CVR-07	1					1	-2		0	3
ACENA/CARIOCA	NBS-07								-2	-2	1
CUELIBA	MRV-07		1			-0.5	1			2	5
* Disguised names											
Sum Averages										-0.14	
# quotations		16	9	6	9	12	10	8		98	
W. Average		**				*	*			0.01	

Table A11.6

CROSS CASE ANALYSIS . INTERVIEWS HYPOTHESIS 4

Interviewee Firm*	Executive	ADDMETH01	ADDMETH02	H4	#quot
PETROMIN	IAA-03	1.5	1	1.33	3
MURREP	VSA-07		1	1	1
PALOMITA	AMB-07				
CONEX	GTB-07	0	1	0.33	3
SIBLOCK	TGCE-03				
PETROPER	AAD-03				
CONVEGE	DRSTD-03	-2		-2	1
CONVEGE	STAJA-07		2	2	1
CONLIGUE	SHDM-03				
CONLIGUE	SHDM-07				
LIMORA	ORE-07				
CORRON	SMEM-03	0.5		0.5	2
CORRON	SMEM-07	2		2	1
BOTANOR	EQG-03				
BLOTERM	LBMI-03		-1	-1	1
DULMA	RAJT-07	-2		-2	1
BEBITI	CGLJ-03	0		0	6
ZADUR/ZAGOB	VRLM-07				
FICATA	SMM-03	0.67	1	0.89	9
CEMUR	CGN-07				
AGORNI	RIL-07	0.67	1	0.75	4
CASUAVE	FCRO-07	1		1	2
CECABA	CVR-07	-1		-1	1
ACENA/CARIOCA	NBS-07				
CUELIBA	MRV-07		-2	-2	1
* Disguised names					
Sum Averages				1.8	
# quotations		25	12	37	37
W. Average		**	*	0.072	

TableA 11.7

CROSS CASE ANALYSIS - INTERVIEWS (HYPOTHESIS 5)

Interviewee											
Firm*	Executive	NET01	NET02	NET03	NET04	NET05	NET06	NET07	NET08	H5	#quot
PETROMIN	IAA-03	1							1	1	2
MURREP	VSA-07	2		1.33	-1			-2			
PALOMITA	AMB-07										
CONEX	GTB-07						2		0.5	1.4	5
SIBLOCK	TGCE-03								0	0	2
PETROPER	AAD-03					1.5			1	1.4	5
CONVEGE	DRSTD-03	2				2			-2	2	3
CONVEGE	STAJA-07					0.67			-1	0	5
CONLIGUE	SHDM-03			2		1			-1	0.67	4
CONLIGUE	SHDM-07					2	0.5				3
LIMORA	ORE-07					1				0.33	3
CORRON	SMEM-03		2			2				2	3
CORRON	SMEM-07					1.5	0			0.75	4
BOTANOR	EQG-03										
BLOTTERM	LBMI-03				2		0		0.5	0.75	4
DULMA	RAJT-07						1		-1	0.33	3
BEBITI	CGLJ-03										
ZADUR/ZAGOB	VRLM-07										
FICATA	SMM-03		2							2	1
CEMUR	CGN-07			2				1		1.5	2
AGORNI	RIL-07					1.14		1.5		0.25	9 *
CASUAVE	FCRO-07		1	2		2	2			1.75	4
CECABA	CVR-07										
ACENA/CARIOCA	NBS-07								-1	-1	1
CUELIBA	MRV-07						2		-2	0	2
* Disguised names											
Sum Averages										15.1	
# quotations		2	4	3	1	24	13	3	15	65	65
W. Average						**	*		**	0.61	
											*

Table A11.8

CROSS CASE ANALYSIS – INTERVIEWS (HYPOTHESIS 6)

Interviewee												
Firm*	Executive	ACA01	ACA02	ACA03	ACA04	ACA05	ACA06	ACA07	ACA08	H6	#quot	
PETROMIN	IAA-03	1	0.8							0.857	6	
MURREP	VSA-07	2		1.33	-1			-2		0.5	5	
PALOMITA	AMB-07	2	1				1	1		1.25	3	
CONEX	GTB-07	1.33	1			1	1	0.33		0.9	9	*
SIBLOCK	TGCE-03	1.75	1.33							1.57	6	
PETROPER	AAD-03	1.5		1	1			1		1	4	
CONVEGE	DRSTD-03	1	1	0.6						0.625	8	*
CONVEGE	STAJA-07	1.5		2		2	-1	0		0.5	8	*
CONLIGUE	SHDM-03	2	-1	1				-2		-0.6	6	
CONLIGUE	SHDM-07	0.67						2		1	4	
LIMORA	ORE-07	2								2	1	
CORRON	SMEM-03	1	0.5	-0.2						0.22	9	*
CORRON	SMEM-07	2		1.67	1		2	1	1.83	1.67	13	*
BOTANOR	EQG-03	2						1		1.5	2	
BLOTTERM	LBMI-03	-1.2		1				-0.5		-0.86	9	*
DULMA	RAJT-07	1.5	1	-1		0.67	1.67	1		1.1	12	*
BEBITI	CGLJ-03	2	1.17	0.6	1		1	1		0.93	16	**
ZADUR/ZAGOB	VRLM-07	1.5					1	1	2	1.2	6	
FICATA	SMM-03	2		1				2		1.67	5	
CEMUR	CGN-07	1	-1					2	1.25	0.64	12	*
AGORNI	RIL-07	2	1	0						0.25	3	
CASUAVE	FCRO-07	0		1						0.25	5	
CECABA	CVR-07	1.5	1				1.5			1.2	6	
ACENA/CARIOCA	NBS-07	1.33				2		1	1	1.2	6	
CUELIBA	MRV-07	2		1				1		1.33	3	
* Disguised names												
Sum Averages										21.902		
# quotations		42	28	34	4	5	15	31	8	167	167	
W. Average		***	**	***			*	***		0.637		**

TableA 11.9

CROSS CASE ANALYSIS - INTERVIEWS (HYPOTHESIS 7)

Interviewee													
Firm*	Executive	IOTM1	IOTM2	IOTM3	IOTM4	IOTM5	IOTM6	IOTM7	IOTM8	H7	#quot		
PETROMIN	IAA-03	1.13	1.5				1			1.18	11	*	
MURREP	VSA-07	0	-1							-0.3	4		
PALOMITA	AMB-07		0.66		-1				1	0.5	6		
CONEX	GTB-07	2	1.33		1					1.4	5		
SIBLOCK	TGCE-03												
PETROPER	AAD-03	1.67	0							1.33	4		
	DRSTD-03												
CONVEGE	03	0.1	-1		1.5					-0.2	19	**	
CONVEGE	STAJA-07	0	0.75	-1	2		1			0.5	15	**	
CONLIGUE	SHDM-03	0	-1	1	0					-0.2	12	*	
CONLIGUE	SHDM-07	-1								-0.3	3		
LIMORA	ORE-07		2						1	1.4	5		
	SMEM-03												
CORRON	03												
CORRON	07	1.5	1.5						1	1.4	5		
BOTANOR	EQG-03		-1.67	-0.8				1	0.5	-0.6	11	*	
BLOTERM	LBMI-03	-0.5	2		1	1			-0.5	0.29	7	*	
DULMA	RAJT-07	1	0.2		1	2			1	0.67	9	*	
BEBITI	CGLI-03	0	0.75	1	1				1	0.86	9	*	
ZADUR/ZAGOB	VRLM-07	-1.5	-0.13							-0.4	10	*	
FICATA	SMM-03	-0.33	2	0.8	1.5	1.5				1	13	*	
CEMUR	CGN-07	1.5	0.67						0	0.83	6		
AGORNI	RIL-07	1.25		1.5						1.2	6		
	FCRO-07												
CASUAVE	07		2		1	1			1	1.17	6		
CECABA	CVR-07		0.2							0.2	5		
ACENA/CARIOCA	NBS-07				2	2	1	2	1	1.14	7	*	
CUELIBA	MRV-07	-0.67	0		2	2				0.29	7	*	
* Disguised names													
Sum Averages										13.4			
# quotations		62	66	13	13	7	5	5	14	185	185		
W. Average		***	***	*	*				*	0.55			
**													

Table A11.10

CROSS CASE ANALYSIS - INTERVIEWS (HYPOTHESIS 8)

Interviewee											
Firm*	Executive	IOENT1	IOENT2	IOENT3	IOENT4	IOENT5	IOENT6	IOENT7	H8	#quot	
PETROMIN	IAA-03	2			2	1	0.5	1.2	1.2	10	*
MURREP	VSA-07	0.66					-1.5		0.2	5	
PALOMITA	AMB-07	0.5	1	1.5			0		0.8	6	
CONEX	GTB-07							1.33	1.3	3	
SIBLOCK	TGCE-03										
PETROPER	AAD-03					1	-1		0	3	
CONVEGE	DRSTD-03	-1	1.5			1	-1.33		0	8	*
CONVEGE	STAJA-07	0			0	1	-2	1	0.1	8	*
CONLIGUE	SHDM-03	0	-0.5		0.33	-1.2	-0.2		0.4	19	**
CONLIGUE	SHDM-07	-1		0.5	-1	-1	-1.5		-2	9	*
LIMORA	ORE-07										
CORRON	SMEM-03		-1				-2		1.5	2	
CORRON	SMEM-07	1.5					-1		0.7	3	
BOTANOR	EQG-03	1	0.5	-2	-2	-2	-1		-1	7	*
BLOTTERM	LBMI-03	-0.33		0			-2	0	0.4	7	*
DULMA	RAJT-07	1		1	0	0.4			0.6	9	*
BEBITI	CGLI-03	0.75		1	2		1.2	-1.14	0.4	23	***
ZADUR/ZAGOB	VRML-07		1				-1.4		-1	6	
FICATA	SMM-03	1		2	1	0	1	-1	0.7	7	*
CEMUR	CGN-07		1						1	1	
AGORNI	RIL-07	1.67	0.67			1.4	-0.67	1	0.9	15	**
CASUAVE	FCRO-07	1.33	1	1	2		-1		0.7	11	*
CECABA	CVR-07			-1			-1		-1	3	
ACENA/CARIOCA	NBS-07	0.5					-1		0.3	4	
CUELIBA	MRV-07	1							1	1	
* Disguised names											
Sum Averages									1.7		
# quotations		37	21	13	12	24	45	18	170	170	
W. Average		***	**	*	*	**	***	**	0.1		

Table A11.11

CROSS CASE ANALYSIS - INTERVIEWS (AUTONOMY)

Interviewee Firm*	Executive	Autonomy1	Autonomy2	Autonomy	#quot.
PETROMIN	IAA-03				
MURREP	VSA-07				
PALOMITA	AMB-07	-2	-1	-1.5	2
CONEX	GTB-07				
SIBLOCK	TGCE-03				
PETROPER	AAD-03	2	-1.5	-0.33	3
CONVEGE	DRSTD-03				
CONVEGE	STAJA-07		2	2	1
CONLIGUE	SHDM-03	-1		-1	2
CONLIGUE	SHDM-07	-1		-1	1
LIMORA	ORE-07				
CORRON	SMEM-03				
CORRON	SMEM-07		-1	-1	1
BOTANOR	EQG-03	2.67	-1.5	-1.83	6 *
BLOTERM	LBMI-03				
DULMA	RAJT-07				
BEBITI	CGLJ-03				
ZADUR/ZAGOB	VRLM-07	-0.5		-0.5	6 *
FICATA	SMM-03				
CEMUR	CGN-07				
AGORNI	RIL-07				
CASUAVE	FCRO-07	-1		-1	1
CECABA	CVR-07				
ACENA/CARIOCA	NBS-07			-0.67	3
CUELIBA	MRV-07				
* Disguised names					
Sum Averages				-6.83	
# quotations		16	10	26	26
W. Average		**	*	-0.273	

Table A11.12
 CROSS CASE ANALYSIS – INTERVIEWS
 Perceived Performance, Satisfaction with Performance and Performance

Interviewee		Perceived		Satisfaction		(Financial)	
Firm *	Executive	Performance	#quot.	w/Performance	#quot.	Performance	#quot.
PETROMIN	IAA-03	0.33	3	1	1		
MURREP	VSA-07	-1	1			1.5	2
PALOMITA	AMB-07	2	1	2	2	2	1
CONEX	GTB-07	2	1	2	2	2	1
SIBLOCK	TGCE-03	1	1	-1	1	1	2
PETROPER	AAD-03			1	1		
CONVEGE	DRSTD-03	0.5	2	-1	1	2	1
CONVEGE	STAJA-07	0	3	0	1	2	1
CONLIGUE	SHDM-03					2	1
CONLIGUE	SHDM-07	-0.67	3	-2	1	0	2
LIMORA	ORE-07						
CORRON	SMEM-03					2	1
CORRON	SMEM-07	0	2	1	1	0.33	3
BOTANOR	EQG-03			-1	3	-1	1
BLOTERM	LBMI-03	0.67	3	1.5	2		
DULMA	RAJT-07	0.8	5 *	1	3	1	1
BEBITI	CGLJ-03	1	4	1.17	6 *	1.2	5
ZADUR/ZAGOB	VRLM-07	0.5	2			1	1
FICATA	SMM-03	1.33	3	1.6	5 *		
CEMUR	CGN-07						
AGORNI	RIL-07					2	1
CASUAVE	FCRO-07	2	1	1	1	0.25	4
CECABA	CVR-07					2	1
ACENA/CARIOCA	NBS-07			2	1		
CUELIBA	MRV-07					1.5	2
* Disguised names							
Sum Averages		10.46		10.27		22.78	
# quotations		35	35	32	32	31	31
W. Average		0.445		0.491		0.831	
		*		*		**	

Table A11.13
CROSS CASE ANALYSIS - INTERVIEWS (ALL HYPOTHESES & VARIABLES)

Interviewee		H1	H2	H3	H4	H5	H6	H7	H8	AUTONOM.	PERCEPCT.	SATISFACT.	PERFORM
Firm*	Executive												
PETROMIN	IAA-03	1.5	0.91	1.33	1.33	1	0.86	1.18	1.2		0.33	1	
MURREP	VSA-07	1	1	0.75	1		0.5	0.25	-0.2		-1		1.5
PALOMITA	AMB-07	1.33	0.83	0			1.25	0.5	0.83	-1.5	2	2	2
CONEX	GTB-07	1.43	1.2	-0.5	0.33	1.4	0.9	1.4	1.33		2	2	2
SIBLOCK	TGCE-03	1.43	-0.2			0	1.57				1	-1	1
PETROPER	AAD-03 DRSTD-	1.6	0	-1		1.4	1	1.33	0	-0.33		1	
CONVEGE	03	1.2	0.5	0.6	-2	2	0.63	0.16	0		0.5	-1	2
CONVEGE	STAJA-07	1.5	1.33	0	2	0	0.5	0.5	0.14	2	0	0	2
CONLIGUE	SHDM-03	1.33	1	0.67		0.67	-0.6	0.17	0.35	-1			2
CONLIGUE	SHDM-07	1	1.6	-2			1		-2	-1	-0.67		
LIMORA	ORE-07 SMEM-	2	2	1.5		0.33	2	1.4					
CORRON	03	1.5	0.86	0.75	0.5	2	0.22		-1.5				2
CORRON	SMEM- 07	1.6	1.6	0.5	2	0.75	1.67	1.4	0.67	-1	0	1	0.33
BOTANOR	EQG-03	0.83	0.75	0			1.5	0.63	-1	-1.83		-1	-1
BLOTTERM	LBMI-03	0.8	0.43	2	-1	0.75	0.86	0.29	0.43		0.67	1.5	
DULMA	RAJT-07	0.86	0.25	-2	-2	0.33	1.1	0.67	0.55		0.8	1	1
BEBITI	CGLJ-03	1.2	0.83	0.25	0		0.93	0.86	0.35		1	1.17	1.2
ZADUR/ZAGOB	VRML-07	1.25	1	1			1.2	-0.4	-1	-0.5	0.5		1
FICATA	SMM-03	1.29	1	0.83	0.89	2	1.67	1	0.71		1.33	1.6	
CEMUR	CGN-07	1.2	1.57	1		1.5	0.64	0.83	1				
AGORNI	RIL-07 FCRO-	1.2	1.5	-0.5	0.75	0.25	0.25	1.2	0.87				
CASUAVE	07	1.57	1.5	0.29	1	1.75	0.25	1.17	0.73	-1	2	1	0.25
CECABA	CVR-07	0.5	1.5	0	-1		1.2	0.2	-1				2
ACENA/CARIOCA	NBS-07	1.6	1.5	-2		-1	1.2	1.14	0.25	-0.67		2	
CUELIBA	MRV-07	1.2	1.3	2	-2	0	1.33	0.29	1				1.5
Sum Averages		31.9	24.4	0.69	1.8	15.1	21.9	13.8	1.65	-6.83	10.46	12.3	20.8
# quotations	1097	123	128	98	37	65	167	185	170	26	35	32	31
W. Average		0.95	0.9	0.01	0.07	0.61	0.64	0.55	0.07	-0.273	0.445	0.49	0.83
		***	***			*	**	**		(*)	*	*	**
**** Disguised names		H1	H2	H3	H4	H5	H6	H7	H8	Auto	Percep	Satisf	Perform
Number of Quotations:		*	Relatively medium				**/*	Relatively high/médium high number of					

quotationsquotations.

Number of Quotations: *** Relatively high weighted average with high number of quotations.

Table A11-14

CROSS CASE ANALYSIS - INTERVIEWS (ALL HYPOTHESES & VARIABLES)

Interviewee Firm*	Executive	Comparison 2003-07								AUTONOM.	PERCEPCT.	SATISFACT.	PERFORM
		H1	H2	H3	H4	H5	H6	H7	H8				
PETROMIN	IAA-03	1.5	0.91	1.3	1.33	1	0.86	1.18	1.2		0.33	1	
SIBLOCK	TGCE-03	1.43	-0.2				0	1.57			1	-1	1
PETROPER	AAD-03	1.6	0	-1		1.4	1	1.33	0	-0.3		1	
CONVEGE	DRSTD-03	1.2	0.5	0.6	-2	2	0.63	0.16	0		0.5	-1	2
CONLIGUE	SHDM-03	1.33	1	0.7		0.67	-0.6	0.17	0.35	-1			2
CORRON	SMEM-03	1.5	0.86	0.8	0.5	2	0.22		-1.5				2
BOTANOR	EQG-03	0.83	0.75	0			1.5	0.63	-1	-1.8		-1	-1
BLOTERM	LBMI-03	0.8	0.43	2	-1	0.75	0.86	0.29	0.43		0.67	1.5	
BEBITI	CGLJ-03	1.2	0.83	0.3	0		0.93	0.86	0.35		1	1.17	1.2
FICATA	SMM-03	1.29	1	0.8	0.89	2	1.67	1	0.71		1.33	1.6	
		-12.7	5.22	0.7	0.28	9.82	6.91	3.7	1.02	-3.2	4.83	3.27	7.2
All	2003	1.3	0.52	0.1	0.03	0.98	0.69	0.37	-0.1	-0.3	0.48	0.33	0.72
MURREP	VSA-07	1	1	0.8	1		0.5	0.25	-0.2		-1		1.5
PALOMITA	AMB-07	1.33	0.83	0			1.25	0.5	0.83	-1.5	2	2	2
CONEX	GTB-07	1.43	1.2	0.5	0.33	1.4	0.9	1.4	1.33		2	2	2
CONVEGE	STAJA-07	1.5	1.33	0	2	0	0.5	0.5	0.14	2	0	0	2
CONLIGUE	SHDM-07	1	1.6	-2			1		-2	-1	-0.67		
LIMORA	ORE-07	2	2	1.5		0.33	2	1.4					
CORRON	SMEM-07	1.6	1.6	0.5	2	0.75	1.67	1.4	0.67	-1	0	1	0.33
DULMA	RAJT-07	0.86	0.25	-2	-2	0.33	1.1	0.67	0.55		0.8	1	1
ZADUR/ZAGOB	VRLM-07	1.25	1	1			1.2	-0.4	-1	-0.5	0.5		1
CEMUR	CGN-07	1.2	1.57	1		1.5	0.64	0.83	1				
AGORNI	RIL-07	1.2	1.5	0.5	0.75	0.25	0.25	1.2	0.87				
CASUAVE	FCRO-07	1.57	1.5	0.3	1	1.75	0.25	1.17	0.73	-1	2	1	0.25
CECABA	CVR-07	0.5	1.5	0	-1		1.2	0.2	-1				2
ACENA/CARIOCA	NBS-07	1.6	1.5	-2		-1	1.2	1.14	0.25	-0.7		2	
CUELIBA	MRV-07	1.2	1.3	2	-2	0	1.33	0.29	1				1.5
	2007	19.2	19.2	0	2.08	5.31	15	10.1	2.67	-3.7	5.63	9	13.6
	03&07	31.9	24.4	0.7	1.8	15.1	21.9	13.8	1.65	-6.8	10.5	12.3	20.8
All	2003	1.3	0.52	0.1	0.03	0.98	0.69	0.37	-0.1	-0.3	0.48	0.33	0.72
All	2007	1.26	1.26	0	0.14	0.35	1	0.68	0.18	-0.3	0.38	0.6	0.93

ALL	03&07	1.28	0.98	-0	0.07	0.61	0.88	0.55	0.07	-0.3	0.42	0.48	0.83
#quot.	03&07	123	128	98	37	65	167	185	170	26	35	32	31

Table A11.15

DOUBLE INTERVIEW

Cross Case Analysis - Interviews (All Hypotheses and Variables)

Interviewee		H1	H2	H3	H4	H5	H6	H7	H8	AUTONOM.	PERCEPCT.	SATISFACT.	PERFORM
Firm*	Executive DRSTD-												
CONVEGE	03	1.2	0.5	0.6	-2	2	0.63	0.16	0		0.5	-1	2
CONVEGE	STAJA-07	1.5	1.33	0	2	0	0.5	0.5	0.14	2	0	0	2
		2.7	1.83	0.6	0	2	1.13	0.34	0.14	2	0.5	-1	4
CONVEGE		1.35	0.92	0.3	0	1	0.57	0.17	0.07	1	0.3	-0.5	2
CONLIGUE	SHDM-03	1.33	1	0.67		0.67	-0.6	0.17	0.35	-1			2
CONLIGUE	SHDM-07	1	1.6	-2			1		-2	-1	-0.7		
		2.33	2.6	2.67		0.67	0.4	0.17	2.35	-2	-0.7		2
CONLIGUE	SHDM-09	1.165	1.3	1.34		0.34	0.2	0.09	1.18	-1	-0.4		1
CORRON	SMEM-03	1.5	0.86	0.75	0.5	2	0.22		-1.5				2
CORRON	SMEM-07	1.6	1.6	0.5	2	0.75	1.67	1.4	0.67	-1	0	1	0.3
		3.1	2.46	1.25	2.5	2.75	1.89	1.4	0.83	-1	0	1	2.3
CORRON	SMEM-09	1.55	1.23	0.65	1.25	1.4	0.95	0.7	-0.4	-0.5	0	0.5	1.2

APPENDIX TWELVE

CORRELATION MATRIX

(1) Intans	(2)	(3)	(4)	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	
(2) Sahaf	154	1																																				
(3) Inpou	551	220	1																																			
(4) p4_g7	327	145	224	1																																		
(5) p4_g9	326	140	234	0.000**	1																																	
(6) p14	0.000**	134	365	242	240	1																																
(7) p16	374	0.99**	265	385	381	469	1																															
(8) p17	480	221	361	477	471	433	0.12**	1																														
(9) p18	254	162	202	228	225	289	445	133	1																													
(10) p19	260	166	202	230	227	296	446	137	0.000**	1																												
(11) p20	225	401	0.73*	461	452	320	213	0.24**	0.04**	0.04**	1																											
(12) p22	217	0.97**	483	276	277	231	0.55*	0.00**	0.42	451	0.75*	1																										
(13) p23	298	213	459	396	389	239	0.06**	0.00**	0.251	251	0.35**	0.00**	1																									
(14) p25	0.93**	284	274	488	499	0.00**	0.256	217	300	300	425	434	343	1																								
(15) p26	374	304	136	127	123	165	489	418	153	153	481	409	317	0.22**	1																							
(16) p30	445	0.81*	0.85*	0.09**	0.09**	342	476	242	477	477	104	166	285	236	341	1																						
(17) p31.1	479	312	0.22**	0.78*	0.93*	306	236	362	139	139	347	295	368	0.75*	1.85	0.93**	1																					
(18) p31.2	135	204	378	249	268	337	476	461	348	348	344	206	273	372	473	299	210	1																				
(19) p31.3	580	0.10**	0.79*	228	230	424	0.19**	0.60*	445	445	244	0.13**	0.23**	416	152	0.94**	469	406	1																			
(20) p32	0.60**	438	352	276	277	0.45**	0.30	416	493	493	393	500	384	116	199	0.31	173	500	101	1																		
(21) p33	415	177	359	146	143	162	227	179	435	435	348	360	100	481	419	382	0.55*	367	500	1																		
(22) p34	210	236	0.68*	141	147	0.60*	0.42	427	490	490	341	282	443	0.64*	377	0.15**	0.15**	404	490	0.20**	0.477	1																
(23) p35	0.29**	122	313	113	114	0.02**	0.163	0.93*	373	373	113	120	0.90**	0.16**	149	139	426	122	268	0.32**	0.76*	0.94*	1															
(24) p36	0.00**	377	444	112	108	0.00**	0.383	417	498	498	463	140	163	0.05**	165	341	445	169	475	137	242	0.67*	0.008**	1														
(25) p37	135	154	400	391	395	0.20**	0.287	385	363	363	183	210	470	0.75*	388	366	119	136	295	437	431	0.12**	0.395	0.27**	1													
(26) p39	330	175	292	110	116	474	0.97*	0.09**	354	354	0.60*	0.01**	0.02**	403	222	0.14**	494	460	0.48**	212	463	0.64*	1.44	475	295	1												
(27) p40	481	0.73*	281	320	329	180	249	105	262	262	0.64*	0.09**	0.40**	158	252	0.65*	395	310	125	357	0.57*	0.32**	0.64*	1.52	0.98*	0.00**	1											
(28) Fac1_3	420	1.10	0.79*	213	205	370	0.86*	0.29	209	209	152	229	289	161	331	186	382	243	135	0.57*	0.325	479	417	377	346	461	348	1										
(29) Fac2_3	404	4.15	345	193	194	398	429	216	429	429	0.47**	0.92*	1.53	548	277	0.62**	0.95*	400	459	124	183	494	201	371	151	0.65*	0.72*	0.67**	1									
(30) Fac3_3	102	2.28	488	477	472	1.03	4.56	353	351	351	108	194	473	317	264	452	422	0.53*	0.68*	1.62	227	172	371	0.76*	0.00**	494	337	158	135	1								
(31) Fac4_3	482	2.26	373	343	344	284	397	493	276	276	0.48**	0.454	483	0.83*	0.65*	285	0.77*	295	372	453	0.37**	0.153	486	225	113	492	357	139	0.68**	303	1							
(32) Fac5_3	136	1.07	364	397	410	442	347	374	474	474	282	442	239	176	158	338	141	436	0.83*	176	158	362	449	206	335	242	228	386	260	458	449	1						
(33) Fac6_3	0.59*	337	101	216	222	0.56*	0.206	349	154	154	104	390	448	234	486	298	0.58*	299	199	120	440	383	124	0.34**	462	343	494	0.72*	131	476	296	0.53*	1					
(34) Fac7_3	0.03**	449	363	158	153	0.21**	1.12	117	268	268	181	0.70**	0.40**	273	481	234	210	168	366	0.28**	0.487	232	0.14**	0.008**	466	209	277	435	0.59*	324	159	0.83*	0.49**	1				
(35) Fac8_3	212	4.65	0.59*	421	441	277	107	337	100	100	169	184	268	305	331	367	193	0.86**	275	321	381	102	490	0.38**	1.64	445	373	0.81**	432	107	367	299	341	154	1			
(36) Fac9_3	330	1.06	316	363	359	292	110	175	356	356	334	319	0.58**	0.265	181	245	247	473	0.68*	293	180	272	162	322	456	266	302	234	265	349	274	0.23**	358	490	0.68**	1		
(37) Fac10_3	0.46**	345	228	299	288	0.68*	470	371	104	104	279	132	169	0.78*	418	322	316	450	428	151	0.51*	241	0.41**	0.06*	361	135	0.52*	318	179	356	310	275	430	0.51	479	333	1	
(38) Fac11_3	487	0.72*	0.95*	245	257	457	479	487	382	382	479	438	339	0.59*	0.97*	265	173	344	568	128	249	243	309	394	139	256	464	0.55*	213	0.92*	0.26**	375	313	399	399	386	106	1

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