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## THE ROLE OF COUNTRY SPECIFIC VARIABLES ON THE INTERNATIONALIZATION-PERFORMANCE RELATIONSHIP

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# Abstract

The aim of this dissertation is to analyze the internationalization process with a particular focus on the nature of the internationalization-performance relationship and its determinants.

More precisely we argue that, in spite of the growing trend toward globalization, the national characteristics of a country's economy still widely influence firm behaviour and performance when it decides to expand internationally. In particular we find that country of origin is one of the key determinants of the shape of I-P relationship.

Chapter 1 provides the theoretical foundations for this research project by reviewing the main theories on corporate internationalization. Our objective is to allow readers to understand what the word 'multinationality' really means and which tools a company can use for growing abroad. In order to introduce the concept, we have proposed at first, different points of view from which a company can be defined as multinational and then a selection of definitions from previous researchers. Afterwards we have compared two schools of thought, representing two different approaches to internationalization: 'economic school' and 'behavioural school'.

The first one focuses on the firm as unit of analysis and views internationalization as an evolutionary process, during which the firm increases its international involvement not only with references to the geographic size of its ray of action but mainly in terms of organizational, strategic and financial involvement (Cf. Onetti 2005). Along with the 'behavioural school', the Uppsala Model is the most important one and postulates that firms

internationalize through sequential stages increasing gradually their knowledge and commitment in foreign markets.

The second one, instead, approaches the phenomenon of international activity from a pure economic perspective, viewing internationalization as engagement in cross border activities motivated by rational economic considerations. Firms select their foreign market-servicing mode by choosing the one that guarantees the profit maximization. Along with the 'economic school', Dunning's eclectic paradigm specifies conditions which must be satisfied for firms to engage in cross-border production.

It emerges an opposition between the two school of thought. The 'behavioural school' offers a dynamic view of the internationalization process based on learning concepts that lead firms to a gradual investment abroad. Whereas the 'economic school' proposes a more static vision, built on the optimization of costs related to the foreign servicing modes. However, we think that both research streams have to be considered in order to deeply comprehend why and how firms internationalize.

Chapter 2 focuses on the core of this dissertation: the influence of country specific variables on the internationalization-performance relationship.

The question of whether and how internationalization impacts firm performance is one of the most addressed research problem in the international management field. However, empirical studies of the past 30 years have only shown mixed and contradictory results, which appear to put into question the entire sub-field of multinationality-performance studies and the theory underlying them. Nevertheless we argue that these apparently contradictory results can be easily conciliated by taking into account the impact of country-based factors on the I-P link.

In order to test our hypothesis, we have used a sample of 1,183 quoted firms coming from fifteen European countries: Austria (37), Belgium (23), Denmark (32), Finland (62), France (223), Germany (187), Ireland (21), Italy (57), Netherlands (59), Norway (29), Portugal (16), Spain (44), Sweden (68), Switzerland(88) and UK (237). We collected firms data from *Worldscope* database over a six years period from 2001 to 2006, so that our final dataset included 7,098 observations.

The degree of internationalization (DOI) is expressed by the ratio of foreign sales to total sales (FSTS) and corporate performance by three accounting measures, specifically return on sales (ROS), return on equity (ROE) and return on assets (ROA).

We decided to use a two-steps regression model. In the first step we have sorted our sample by country and by year in order to run single-country and single-year cross-sectional OLS regressions with the performance measure as the dependent variable (i.e we have ran three different OLS regressions for each of the chosen performance measure: ROS, ROE and ROA) and the degree of internationalization as the independent one. In this first phase, we have decided to test the cubic model (i.e. we have considered not only the linear term for DOI but also the quadratic and the cubic one), because we found it to be the most complete. In addition we have introduced three firms-specific variables which could have an impact on firms performance: size, industry and leverage. The outcome of this first step are the estimated coefficients for  $DOI$ ,  $DOI^2$  and  $DOI^3$  for each country, each year and each performance measures over the period of study (i.e. 90 observations for each coefficient and performance measure).

In the second step we have ran pooled cross-section/time-series regressions, one for *DOI* estimated betas, one for *DOI*<sup>2</sup> estimated betas and one for *DOI*<sup>3</sup> estimated betas, on country's specific variables. Specifically we chose to take into consideration five country specific variables: GDP (as a proxy of the domestic market's size), Trade (as a proxy of the openness of the domestic economy), development of the stock market and bank system, and the country rating.

We found evidence for a significant influence of GDP, Trade and Country Rating on the shape of the internationalization-performance relationship. Specifically we found all these variables to influence positively the I-P relationship in the first and in the third stage of the internationalization process. While these variables have a negative impact in the second stage. These results may have important implications, especially regarding the policies that regulators should implement at country level.

Chapter 3 concludes this dissertation.

# Introduzione

L'obiettivo di questo lavoro è analizzare il processo d'internazionalizzazione, più nello specifico la natura della relazione tra grado di internazionalizzazione e performance e le possibili determinanti di tale legame. In particolare pensiamo che, nonostante la crescente spinta verso la globalizzazione, le caratteristiche dell'economia domestica possano influenzare ampiamente il comportamento e le performance delle imprese che intendono espandersi oltre i confini nazionali.

Nel primo capitolo presentiamo, attraverso un'ampia revisione della letteratura, le fondamenta teoriche del nostro lavoro. L'obiettivo è quello di permettere al lettore di comprendere approfonditamente il significato del termine 'multinationality' e quali mezzi hanno a disposizione le imprese per crescere all'estero.

Inizialmente, al fine di introdurre il concetto abbiamo proposto i diversi criteri secondo cui un'impresa può essere definita 'multinazionale' ed una selezione delle diverse definizioni date da precedenti studiosi. Successivamente abbiamo messo a confronto due scuole di pensiero rappresentative di due approcci diversi all'internazionalizzazione: 'behavioural school' ed 'economic school'.

La prima guarda all'internazionalizzazione come un processo evolutivo, durante il quale l'impresa aumenta il proprio coinvolgimento nell'attività internazionale non solo in termini di ampiezza del raggio d'azione, ma principalmente in riferimento alla strategia e all'organizzazione. Il modello di Uppsala rappresenta il modello di riferimento all'interno della 'behavioural school'. Il processo di internazionalizzazione delle imprese è un processo di graduale acquisizione, integrazione ed utilizzo di conoscenza relativa ai mercati serviti e

alle operazioni estere effettuate, che crea una sorta di “circolo virtuoso” dell'internazionalizzazione. L'internazionalizzazione è un processo che inizia e si sviluppa per gradi, in modo incrementale, caratterizzato nella sua fase iniziale da operazioni di esportazione dirette per lo più verso i mercati fisicamente e culturalmente più vicini, seguite poi, nelle fasi successive, da forme più impegnative e costose.

La seconda scuola di pensiero, invece, analizza il fenomeno dell'internazionalizzazione da una prospettiva puramente economica, guardandolo come conseguenza di considerazioni totalmente razionali: le imprese sceglieranno se e come servire il mercato estero in modo tale da minimizzare i costi e massimizzare i profitti. Il modello di riferimento è il paradigma eclettico di Dunning o anche detto paradigma OLI, che prescrive quali debbano essere i vantaggi posseduti dall'impresa affinché sia profittevole effettuare investimenti all'estero.

Dall'analisi della letteratura emerge una forte differenza tra le due scuole di pensiero. La 'behavioural school' offre una visione dinamica del processo d'internazionalizzazione caratterizzato dalla graduale acquisizione e integrazione della conoscenza dei mercati serviti e delle attività internazionali. Al contrario la scuola economica, offre una visione più statica basata sull'ottimizzazione dei costi legati alle modalità di servizio del mercato estero. Tuttavia, al fine di comprendere approfonditamente le motivazioni e le conseguenze legate al processo di internazionalizzazione è necessario guardare i due approcci non come alternativi, bensì complementari.

Nel secondo capitolo ci concentriamo sull'obiettivo della nostra analisi: capire quale impatto possano avere le caratteristiche del paese di origine sulla relazione tra grado d'internazionalizzazione e performance.

La questione di se e come il grado di internazionalizzazione influisca sulle performance di un'impresa è stata una delle più dibattute nel campo dell'international management. Tuttavia, gli innumerevoli studi empirici degli ultimi anni hanno portato risultati fortemente contrastanti circa la forma di tale relazione. A nostro avviso, tali risultati apparentemente contraddittori possono essere riconciliati tenendo conto dell'impatto di variabili specifiche al livello di paese.

Per testare la nostra ipotesi abbiamo utilizzato un campione di 1.183 imprese appartenenti a 15 paesi europei: Austria (37), Belgio (23), Danimarca (32), Finlandia (62), Francia (223), Germany (187), Irlanda (21), Italia (57), Olanda (59), Norvegia (29), Portogallo (16), Spagna (44), Svezia (68), Svizzera (88) and Regno Unito (237).

Il grado di internazionalizzazione è espresso dal rapporto tra vendite estere e vendite totali (foreign sales/total sales), mentre per quanto riguarda la performance si sono presi in considerazione tre indicatori: ROS (return on sales), ROE (return on equity) e ROA (return on assets). I dati sono stati reperiti usando Worldscope database e coprono un periodo di sei anni (dal 2001 al 2006), per un totale di 7.098 osservazioni.

Per quanto riguarda la metodologia seguita, abbiamo implementato una procedura in due step. Nella prima fase abbiamo effettuato delle regressioni cross-section OLS per singolo paese e per ogni anno, utilizzando come variabile dipendente la misura di performance e come variabile indipendente la misura del grado d'internazionalizzazione (i.e. abbiamo quindi lanciato tre regressioni cross-section, una per ogni indice di performance). In questa prima fase abbiamo deciso di testare il modello cubico (nell'equazione sono presenti tre termini per il grado di internazionalizzazione: il lineare, il quadratico e il cubico) in quanto è quello che, a nostro avviso, tiene conto in maniera più dettagliata dei costi e dei benefici derivanti dall'internazionalizzazione. Inoltre abbiamo introdotto nel modello delle variabili al



livello d'impresa che possono influire sul livello di performance: la dimensione, misurata come il logaritmo naturale del numero di dipendenti, il leverage, misurato come il rapporto tra debito e assets totali, e il settore di appartenenza.

L'output della prima fase è costituito dai coefficienti stimati per il termine lineare, quadratico e cubico del grado d'internazionalizzazione, in ogni anno per ogni paese (i.e. 90 osservazioni per ogni coefficiente), ripetendo l'analisi per ogni misura di performance. Nel secondo step abbiamo utilizzato tecniche di tipo pooled, sfruttando le potenzialità legate ad una struttura di dati panel, per comprendere l'impatto che le variabili individuate al livello paese possono esercitare sui coefficienti individuati nella prima fase e quindi sulla forma della relazione tra internazionalizzazione e performance. In particolare abbiamo deciso di considerare cinque variabili al livello di paese: il GDP (come proxy della dimensione del mercato interno), il Trade (come misura dell'intensità degli scambi), il grado di sviluppo del sistema bancario e del mercato borsistico, ed il rating del paese.

I risultati indicano una significativa influenza delle variabili GDP, Trade e country rating sulla forma della relazione che lega il livello d'internazionalizzazione e le performance. In particolare tutte e tre le variabili influenzano positivamente le performance nella prima e nella terza fase del processo d'internazionalizzazione, mentre nella seconda fase si registra un impatto negativo.

Quanto trovato può avere importanti risvolti, soprattutto in relazione alle politiche attuabili al livello di paese.

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# 1. Theoretical Foundations: Definitions and Theories

The potential benefits and costs associated with corporate internationalization build the underpinning for analyzing the internationalization-performance relationship, which is the principal argument of this thesis. Consequently, this chapter offers a broad picture of the significant international business literature concerning corporate internationalization thereby outlining the major types and sources of advantages as well as disadvantages that may accrue to multinational corporations (MNCs).

The framework used for reviewing the economic literature will be the following: in the first paragraph a brief explanation on the historical development of multinationality concept will be presented, afterwards we will deepen internationalization by a strategic standpoint, by ranking the different types of approaches to the internationalization process (behavioral school vs economic school).

## 1.1 Multinationality

Multinationality refers to the extent to which firms operate internationally by investing in assets and/or controlling activities outside their home country (Cf. Cantwell/Sanna-Randaccio 1992, Teece 1981). There are several way in which an organization can be defined as a multinational. According to Annavarjula and Beldona these can be broadly defined as operations, ownership and orientation (Cf. Annavarjula/Beldona 2000).

## **Operations**

A firm may acquire its physical and intellectual inputs overseas (Cf. Maisonrouge 1974), it could locate its production functions overseas (Cf. Dunning 1971, Maisonrouge 1974), or it could place its sales/services activities abroad (Cf. Rolfe 1970). These activities are called “value activities” (Cf. Porter 1985, p.92). Consequently, MNCs conceptualization can be made in terms of the ‘content’ of these value-adding activities. For example, the proportion of overseas sales to total sales, overseas subsidiaries to total subsidiaries, overseas employees to total employees etc.

Therefore, while consumer goods conglomerate Procter & Gamble is a multinational that has significant foreign production capabilities, petroleum giant Royal-Dutch-Shell is a multinational with large foreign sales generated by its numerous foreign subsidiaries. While pharmaceutical firms are multinationals that conduct most of their R&D and sales activities abroad, automobile giants (e.g. Honda, Toyota, Mitsubishi) are multinationals known for their great foreign assets, in addition to their manufacturing and sales activities abroad.

## **Ownership**

Ownership refers to the extent to which a company’s owns value-generating assets abroad, as well as the extent to which it is controlled/owned by institutions or individual abroad. A multinational corporation may own assets abroad (e.g. land, real estate) or detain stock in a foreign company with controlling interests. On the other hand, individuals or institutional investors may control an MNC because its stocks may be traded in multiple stock exchanges both at home and abroad.

## **Orientation**

Orientation indicates the attitudinal posturing or ‘intent’ of the multinational company and its management in terms of its vision, strategy and structure. Perlmutter (1969)

classifies such posturing as ethnocentric, polycentric, regiocentric or geocentric according to the relative importance that an MNC attaches to its strategy . This, thus sets the tone for the decision making of the firm. In Table 1.1 are summarized the main features of each type of company.

	ETHNOCENTRIC	POLICENTRIC	GLOBAL
BASIS OF INTERNATIONAL STRATEGIES	Firm-specific advantages	Economies of scale and local adaptation	Economies of scale
MANAGEMENT	Centralized	Decentralized	Widespread
ALLOCATION OF RESOURCES	Head Quarter	Subsidiaries	Head Quarter/Subsidiaries
MECHANISMS OF COMMUNICATION	One-directional Hierarchical	Poor	Vertical e lateral
ROLE OF SUBSIDIARIES	Operating	Local strategic	Global strategic
CORPORATE CULTURE	Home Country	Host Country	Global
STRUCTURE	Hierarchical for divisions/products with international division	Hierarchical for geographic area	Network

Table 1.1: Ethnocentrism, Polycentrism and Globalism in comparison [Source: Onetti 2005]

Geocentric company. The domestic entrepreneurial formula is suggested again on international scale (*home-country oriented*) (Cf. Perlmutter 1969).

- Management’s nationality: country of origin.
- Concentration of the decision-making power is devolved upon the head office (centralized management).
- One-directional communication system (from head offices to subsidiaries).

- Costs:
- Ineffective planning due to poor feedback due to poor feedback.
  - Subsidiary 'valuable' executive flight.
  - fewer innovations.
  - Inability to build a high caliber local organization.
  - Lack of flexibility and responsiveness.

- Benefits:
- Simple organization.
  - Greater communication and control.

*Policentric company.* Adaptation of the domestic entrepreneurial formula to local conditions of the demand (host country oriented) (Perlmutter 1969).

- National responsive/country centred strategies.
- Associate companies' management is usually local.
- Larger decision-making autonomy of subsidiaries (decentralized management).
- Identification of subsidiaries as local companies.

- Costs:
- Waste due to duplication.
  - Localization costs of "universal" products.
  - Inefficient use of home-country experience.
  - Excessive regard for local traditions at expense of global growth.

- Benefits:
- Intense exploitation of local markets.
  - Better sales due to better-informed local management.
  - More initiative for local products.



- More host government support.
- Good local managers with high morale.

Geocentric company. The entrepreneurial formula and culture do not identify with any rational model (world oriented) (Perlmutter 1969).

- High interdependence and communication between associate companies.

- Costs:
- High communication and travel costs.
  - Educational costs at all levels.
  - Time spent in consensus decision-making.
  - International headquarters bureaucracy.
  - “Too wide” distribution of power.
  - Personnel problems, especially those of international executive reentry.

- Benefits:
- Integrated global outlook.
  - More powerful total company throughout.
  - Better quality of products and services.
  - Worldwide utilization of best resources.
  - Improved local country management.
  - Greater commitment to global objectives.
  - Higher global profits.

To this first categorization another typology of company based on a different entrepreneurial formula was added (*regiocentric company*). It retrieves the polycentric

vision on larger scale, namely not just a single country but the whole region (*host region-oriented*).

As aforementioned, “conceptualization on multinationality can vary in intent, content, and the extent of value-adding activities” (C.f. Annavarjula/Beldona 2000, p. 50). Annavarjula and Beldona report a selection of previous definitions of multinationality which are essential for a complete characterization of this concept viewed as a “combination of ideas of intent, content and extent, representing the orientation, operations, and ownership respectively, of a multinational firm” (Annavarjula/Beldona, 2000, p. 50).

Researchers	Definition
Lilienthal, 1960	Corporations that have their home in one country but operate and live under the laws and costumes of other countries, as well (p.17)
Behrman, 1969	An international company is a closely controlled single enterprise, located in markets separated by national boundaries, and operating under several national governments (p.62)
Kindleberger, 1969	The international corporation has no country to which it owns more loyalty than any other, nor any country where it feels completely at home. It equalizes the returns on its invested capital in every country, after adjustment for risk (p.182).
Perlmutter, 1969	A [multinational] enterprise could be conceptualized in terms of its attitudes or orientations: ethnocentric (or home-country oriented), polycentric (or host-country oriented), or geocentric (world orientation) (p.11).
Brook and Remmers, 1970	An MNC is any firms that performs its main operations, either manufacture or the provision of service, in at least two countries (p.5).

Rolfe, 1970	An international company may be defined as a company with a proportion of foreign sales, investment and production, or employment of at least 25 percent (p.17).
Aharoni, 1971	A multinational corporation is one that controls a group of corporations, each created in the country of operation but all controlled by one headquarters (p.35).
Dunning, 1971	A multinational corporation is one that owns or controls facilities (such as factories, mines, oils refiners, distribution outlets, offices, etc.) in more than one country (p.16).
Mainsonrouge, 1974	For a company to be truly multinational, (a) it must operate in many countries at different levels economic development, (b) its local subsidiaries must be managed by nationals, (c) it must carry out manufacturing and R&D activities in several countries, (d) it must have a multinational central management, and (e) it must have multinational stock ownership (p.8).
Miller and Pras, 1980	Multinational diversification describes foreign investment by the firm in two or more countries (p.794).
Michel and Shaked, 1986	Multinational corporation are those which (a) foreign sales account for at least 20 percent of revenues and (b) direct capital investment exists in at least six countries six countries outside the United States (p.92).
Benvignati, 1987	Multinationality is "ownership and control of income-generating assets" in two or more foreign foreign locations...having a worldwide network of affiliates centrally coordinated by a domestic headquarters and supported by global communications system (p.449).
Cantwell and Sannarandaccio, 1992	[The degree of] multinationality is the value of international production carried out by affiliates in other countries relative to the value of domestic production of the parent company in tis home country (p. 276).
UNCTAD, 1995	Multinational is one that competes in regional and global markets using internationally integrated production methods.

Table 1.2: Definition of Multinationality by Previous Researchers [Source: Annavarjula and Beldona, 2000, pp.51-52].

## 1.2 Internationalization Theories

For a long time, corporate internationalization has been a core issue for lots of researchers from different school of thought and disciplines; decades of study within the field of international business have led to a vast body of knowledge, which consists of various theoretical approaches describing and explaining the behavior of multinational corporations from different perspectives. There are two main streams of theories regarding corporate internationalization: the 'behavioral' and the 'economic' (Cf. Almor/Hashai/Hirsh 2006). These two approaches observe the internationalization process of firms from considerably different angles.

The 'behavioral school' focuses on the firm and views internationalization as an evolutionary process, during which the firm increases its international involvement not only with reference to the geographic size of its ray of action but mainly in terms of organizational, strategic and financial involvement (Cf. Onetti 2005). This approach, also referred to as Uppsala model, postulates that firms internationalize through sequential stages; starting with irregular exports, passing through regular exports and the establishment of sales subsidiaries, and finally engaging foreign production, the firm increases gradually its foreign market commitment and knowledge. Moreover according to this theory, internationalization starts by using arm's length transactions in physically close markets and then, thanks to the learning process, reaches more physically distant markets.

The 'economic school', instead, approaches the phenomenon of international business activity from an economic prospective, viewing internationalization as engagement in cross border activities motivated by rational economic considerations (Cf. Buckley/Casson 1976,

1998, Dunning 1977, 1988, Hirsch 1976, Martin/Salomon 2003, Rugman 1981, 1986). Firms select their foreign market-servicing modes by evaluating economics costs of different transactions and choosing the one that guarantees the cost optimization and the profit maximization. Along with the economic school, Dunning’s eclectic paradigm (Cf. Dunning 1977, 1988) specifies the conditions which must be satisfied for firms to engage in cross-border production. These conditions are related to three different types of advantages: ownership advantages, which are firm specific, locational advantages, which are associated with host-country specific characteristics, and internalization advantages, which are referred to modes of engagement in international business transactions.

Both research streams call attention to the fact that internationalization can be influenced by external as well as internal variables (Seifert/Machadoda-Silva 2007). Table 1.3 summarize the main variables that each approach focuses on.

The main variables that influence the internationalization process	Economic School	Behavioral School
<b>Internal Variables</b>	<ul style="list-style-type: none"> <li>▪ Ownership advantages</li> <li>▪ Tacit knowledge</li> <li>▪ Product characteristics</li> <li>▪ Communication ability</li> </ul>	<ul style="list-style-type: none"> <li>▪ Experiential knowledge</li> <li>▪ Learning</li> </ul>
<b>External Variables</b>	<ul style="list-style-type: none"> <li>▪ Location advantages</li> <li>▪ Comparative advantages</li> <li>▪ Industry characteristics</li> <li>▪ Uncertainty</li> <li>▪ Opportunism</li> </ul>	<ul style="list-style-type: none"> <li>▪ Physic distance</li> <li>▪ Geographic distance</li> <li>▪ Cultural differences</li> <li>▪ Inter-organizational networks</li> </ul>

Table 1.3: The main internal and external variables each approach to internationalization focuses on [Reference: Seifart and Machado-da-Silva 2007, p.42]

It emerges an opposition between the two school of thought. The 'behavioral school', offers a dynamic view of internationalization based on behavior and learning concepts that lead firms to a gradual investment abroad. Whereas the 'economic school' proposes a more static vision, built on the optimization of costs related to the foreign market servicing modes. Moreover, with few exceptions (e.g. Buckley/Casson 1998, Buckley/Hashai 2004, 2005) the 'economic school' treats the firm as a 'black box' and does not differentiate between the motivations to internalize different functions of the firm. Both streams of research will be reviewed below.

### 1.2.1 Economic school

Within the economic school we can distinguish two main streams of research: the industrial/financial economic and the organizational perspective. Scholars of industrial and financial economics approached the phenomenon of international business activity from a pure economic view, focusing on factors located in the firm external environment. Imperfections in international products, factors and financial markets are postulated to benefit firms that internationalize. While scholars in international business and industrial organization economics normally emphasized economies of scale and scope (e.g. Buckley/Casson 1976, Caves 1971), researchers in financial economics stressed portfolio diversification and its effect on companies' risk-return performance (e.g. Lessard 1976, Levy/Sarnat 1970). Adopting a more managerial perspective, theories belonging to the second stream, focus on the organization's internal environment. The main source of benefits from internationalization is not seen in the reactive exploitation of external opportunities, as proposed by FDI theories, but in the proactive induction and exhaustion of

intra-firm comparative advantages. Fayerweather (1978) suggested that international resource transfer and the integration potential of worldwide corporate structures, systems, and processes can provide MNCs with company-specific competencies not available to the domestically operating firm. Similarly, the resource-based view of the firm (Cf. Wernerfelt 1984) proposed that global resources and core competencies promote organizational learning and knowledge development. Finally, the theory of operational flexibility (Cf. Kogut 1985b) proposed arbitrage and leverage opportunities in MNCs, especially those that successfully developed a global network structure. Both strands will be broadly reviewed below.

### 1.2.1.1 Industrial and financial perspective

#### Foreign Trade Theories

Why do nations trade? This question and the equally important proposition of predicting the direction, composition, and volume of goods traded are what international trade theory attempts to answer. Roughly speaking international trade theories seek to explain why trading occurs between the nationals of various countries.

The study of trade emerged in the mercantilism era (roughly the 16th century through the 18th century in Europe) as a simple set of arguments about how a nation should trade. The Mercantilism Theory held that the government could improve the well-being of a nation's people by means of laws and regulations. Specifically exports should be encouraged because when a country exports goods, it receives payments from other countries in gold, which increase the exporting country's wealth and power. Conversely imports should be

discouraged raising import barriers. To summarize, foreign trade arises because countries want to increase their wealth at the expense of other countries. Following theories, that of absolute advantage and comparative advantage, conclude that countries benefit only in the short run from a mercantilism policy, while two-way trade serves to increase the long term benefit (i.e. encouragement of both exports and imports).

### *The Theory of Absolute Advantage*

The concept of absolute advantage is generally attributed to Adam Smith for his 1776 publication “An Inquiry into the Nature and Causes of the Wealth of Nations” in which he countered mercantilist ideas. Smith argued that it was impossible for all nations to become rich simultaneously by following mercantilism because the export of one nation is another nation’s import and instead postulated that, under free trade, all nations simultaneously would gain benefits from import/export activities if they specialize in the production of goods where they have an absolute cost advantage. According to Smith a country has an absolute advantage over another in producing a good, if it can produce that good using fewer resources than another country. Smith affirms that if a foreign country can supply us with a commodity cheaper than we ourselves can make it, better buy it of them with some part of the produce of our own industry, employed in a way in which we have some advantage. The idea here is simple and intuitive. If our country can produce some set of goods at lower cost than a foreign country, and if the foreign country can produce some other set of goods at a lower cost, then clearly it would be best for us to trade our relatively cheaper goods for their relatively cheaper goods. In this way both countries may gain from trade. Smith also stated, in contrast with the mercantilism theory, that the wealth of nations



depends upon the goods and services available to their citizens, rather than their gold reserves.

To better understand the concept of absolute cost advantage let consider the following example. Table 1.4 indicates what the international division of labor should be, as the United States has an absolute advantage in wheat and the U.K. has an absolute advantage in cloth.

Absolute Advantages	U.S.	U.K.
Wheat (bushel/hour)	6	1
Cloth (yards/hour)	4	5

Table 1.4: Theory of absolute advantages.

Smith's theory of absolute advantage predicts that the United States will produce only wheat (W) and the U.K. will produce only cloth (C). Both nations would gain if they have unrestricted trade in wheat and cloth. If they trade 6W for 6C, then the gain of the United States is 1/2 hour's work, which is required to produce the extra 2C that it is getting through trade with the U.K. Because the U.K. stops wheat production, the 6W it gets from the United States will save six hours of labor time with which 30C can be produced. After exchanging 6C out of 30C, the U.K. is left with 24C, which is equivalent to almost five hours' labor time. Nations can produce more quantities of goods in which they have absolute advantage with the labor time they save through international trade. Though Smith successfully established the case for free trade, he did not develop the concept of comparative advantage. Because absolute advantage is determined by a simple comparison of labor productivities, it is

possible for a nation to have absolute advantage in nothing. In Table 2.3, if the labor productivity in cloth production in the United States happened to be 8 instead of 4, then the United States would have absolute advantage in both goods and the U.K. would have absolute advantage in neither.

### *Theory Of Comparative Advantage*

David Ricardo, in 1817, enunciated his refinement of Smith's concept by postulating the principle of comparative advantage (as opposed to Smith's concept of absolute advantage). The theory of comparative advantage states that, even if a country is able to produce all its good at lower costs than another country can, trade still benefits both countries. His writings demonstrated what has become known as 'the principle of comparative advantage': a nation, like a person, gains from the trade by exporting the goods or services in which it has its greatest comparative advantage in productivity and importing those in which it has the least comparative advantage. The key word is comparative, meaning relative and not necessarily absolute. Specifically, according to Ricardo the concept of comparative advantage is determined not by absolute values of labor productivity but by labor productivity ratios. In other words what matters is not the absolute cost of production, but rather the ratio between the two countries can produce different goods: each country should specialize in the production whose opportunity cost is lower with respect to the other country.

Ricardo would have interpreted the numbers in Table 1.4 by pointing out that, whereas U.S. labor in wheat production is 1.5 (= 6/4) times as productive as it is in cloth production, the U.K.'s labor productivity in wheat is only one fifth of its labor productivity in cloth.

Therefore, the United States has comparative advantage in wheat and by inverting these ratios one can show that the U.K. has comparative advantage in cloth. This pattern of comparative advantage will not be affected if the United States has absolute advantage in both wheat and cloth, which will be the case if we raise U.S. labor productivity in cloth from 4 to 8. This is because  $3/4$  will still be greater than  $1/5$ . The rationale of labor productivity ratios comes from Ricardo's labor theory of value. Ricardo treated labor as the only source of value, as all other factors of production (such as capital) are also produced by labor. Thus the price of a good ( $P$ ) is simply equal to the wage rate ( $w$ ) times the labor ( $L$ ) used in production, divided by output ( $Q$ ), as profit is zero in competitive markets:  $P = (w \cdot L) / Q$ . Because the average productivity of labor is  $a = Q / L$ , then  $P = w / a$ . If the labor market is competitive, the wage rate paid in all industries will be the same. Therefore, the ratio between the price of wheat ( $P_w$ ) and the price of cloth ( $P_c$ ) will be equal to the ratio between average productivity of labor in cloth ( $a_c$ ) and average productivity of labor in wheat ( $a_w$ ):  $[P_w / P_c] = [a_c / a_w]$ . This creates a direct link between comparative advantage and relative commodity prices in a competitive economy. If the United States has comparative advantage in wheat production, wheat will be relatively cheaper in the United States than in the U.K., which provides the basis for trade.

Although this theory principally applies to country rather than firms, it is firms that are actually engaged in production and trade, gaining from the comparative advantages of countries in which they are based. However Ricardo's theory of comparative advantage is unable to offer any explanation as to what causes differences in relative advantages, in fact it does not answer why production cost differ within each country, and also no consideration is given to the possibility of producing the same goods with different combinations of factors.

## *The Factors Proportions Theory*

The leading theory of what determines nations' trade patterns was presented by Eli Heckscher in 1919 and a clear overall explanation was developed and publicized in the 1930s by Heckscher's student, Bertil Ohlin. Many elaborations of the model were provided by Paul Samuelson after the 1930s and thus sometimes the model is referred to as the 'Heckscher-Ohlin-Samuelson' (or H-O-S) model. In the 1950s and 60s some noteworthy extensions to the model were made by Jaroslav Vanek and so occasionally the model is called the 'Heckscher-Ohlin-Vanek' model. Here we will simply refer to the first version of the model calling it either the 'Heckscher-Ohlin (or H-O) model' or simply the more generic 'Factor Proportions model'.

Heckscher-Ohlin model incorporates a number of realistic characteristics of production that are left out of the simple Ricardian model. Recall that in the simple Ricardian model only one factor of production, labor, is needed to produce goods and services. The productivity of labor is assumed to vary across countries, which implies a difference in technology between nations. It was the difference in technology that motivated advantageous international trade in the model.

The standard H-O model begins by expanding the number of factors of production from one to two; the model assumes that capital as well as labor is used in the production final goods, where capital refers to the physical machines and equipment that is used in production.

The assumption of two productive factors, capital and labor, allows for the introduction of another realistic feature in production; that of differing factor proportions both across and within industries. When one considers a range of industries in a country it is easy to

convince oneself that the proportion of capital to labor used varies considerably<sup>1</sup>. In the H-O model we define the ratio of the quantity of capital to the quantity of labor used in a production process as the capital-labor ratio. We imagine, and therefore assume, that different industries, producing different goods, have different capital-labor ratios. It is this ratio (or proportion) of one factor to another that gives the model its generic name: the Factor Proportions Model.

Another realistic assumption is that countries have different quantities, or endowments, of capital and labor available for use in the production process. In some countries, such as the U.S, capital is abundant and therefore a rather inexpensive factor of production while labor is relatively scarce and thus a more expensive factor of production. In other countries, the situation is quite the opposite. Capital is relatively scarce and therefore expensive while labor is a comparably inexpensive factor of production due to lower labor costs or relatively easy access to large labor pools. The H-O model assumes that the only difference between countries are these variations in the relative endowments of factors of production. It is worth emphasizing here a fundamental distinction between the H-O model and the Ricardian model. Whereas the Ricardian model assumes that production technologies differ between countries, the H-O model assumes that production technologies are the same. The reason for the identical technology assumption in the H-O model is perhaps not so much because it is believed that technologies are really the same; although a case can be made for that. Instead the assumption is useful because it enables us to see precisely how differences in resource endowments is sufficient to cause trade and it shows what impacts will arise

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<sup>1</sup> For example, steel production generally involves large amounts of expensive machines and equipment spread over perhaps hundreds of acres of land, but also uses relatively few workers. In the tomato industry, in contrast, harvesting requires hundreds of migrant workers to hand-pick and collect each fruit from the vine. The amount of machinery used in this process is relatively small.

entirely due to these differences. In fact the theory suggests that firms will shift their resources in a way to minimized overall costs and predicts patterns of commerce and production based on the factor endowments of a trading region. It essentially states that under free trade, countries export the products that use their abundant factors intensively and imports the products that use their scarce factors intensively. Recalling that labor and capital are the only factors considered , the consequence of the Heckscher-Ohlin theorem is that: a capital-abundant country will export the capital-intensive good, while the labor-abundant country will export the labor-intensive good. Welge and Holtbrügge note that under these conditions foreign trade is economically sound because each country is able to save on the relatively more expensive factor of production by importing either capital- or labor-intensive products (Cf. Welge/Holtbrügge 2001, p. 61).

However, empirical examinations in the United States did not lend support to this model. Specifically, Leontief's attempt to test the Heckscher-Ohlin theory empirically failed. In 1954, Leontief found that U.S. (the most capital-abundant country in the world by any criteria) exports had a higher labor content and a lower capital content than U.S imports, in contradiction with the above-mentioned theory. The fact was henceforth referred to as the 'Leontief paradox'. His results and those from similar investigations of other countries effectively destroyed the comfortable confidence of the economists in the simple version Heckscher-Ohlin theory. However the 'Leontief Paradox' also stimulated extensive theoretical and empirical research directed at providing alternative explanations for the commodity-pattern of a country's trade. According to Baldwin six major groups of explanations of the apparently contradictory result can be distinguished:

- the relative abundance of skilled labor in the United States,

- an efficiency advantage in favor of the United States in Research and Development oriented industries,
- the scarcity of natural resources in the United States,
- factor-intensity reversals <sup>2</sup>sufficiently extensive to upset the Heckscher-Ohlin proposition,
- a strong U.S. demand bias in favor of capital-intensive goods so that these are imported although the United States is capital-abundant,
- high tariffs and other trade distorting measures that favor the domestic production of labor-intensive products.

Especially the skill-level of labor as it relates to the formation of human capital has received much attention in the literature. Specifically the relatively abundant supply of engineers and scientists is an important source of the United States' comparative advantage position, especially as far as trade in manufactures is concerned (Cf. Baldwin 1971, p. 142). This abundance of highly trained labor gives the U.S. an export advantage in products requiring relatively large amounts of such labor. Based on the above discussion Baldwin suggests using multi-factor trade models instead of single-factor trade theories. Particularly, the labor force should be divided into various skill groups thereby taking account of the relative differences in human capital. He further concludes that under such a more general approach the relative abundance among countries of the factors of production will still occupy an important place in trade theory (Cf. Baldwin (1971), p. 143).

The theory of comparative costs is closely related to the location theory of multinational corporations. "Location theory suggests that the spatial allocation of plants and subsidiaries

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<sup>2</sup> A property of the technologies for two industries such that their ordering of relative factor intensities is different at different factor prices. For example, one industry may be relatively capital intensive compared to the other at high relative wages and labor intensive at low relative wages.

is determined by the costs of factor inputs in various regions, together with the transport costs and tariffs involved in linking the production process with the firm's marketing strategy" (Cf. Rugman 1980, p. 25). Therefore, the theory of comparative costs as described above becomes also relevant in explaining the international business activity of MNCs. One good example is given by Kogut. In his point of view, differences in factor costs between countries (e.g. wages, materials, capital charges) have powerful implications for where a firm should locate the links of its value-added chain internationally (Cf. Kogut 1985a, p. 18). Logically different activities of the firm, such as R&D, production, marketing, etc., have different factor intensities; in general, it should be expected that firms locate their activities in those countries that possess a comparative advantage in terms of the relevant intensive factor. Therefore, multinational corporations can gain cost advantages by locating labor-intensive activities such as food processing or assembly where unskilled labor is inexpensive, and moving capital-intensive activities such as research and development or advanced electronics manufacturing to countries in which capital is inexpensive. As countries differ in factor costs and the intensity of factor use varies along the value chain, the distribution of value-added activities between countries will tend to differ. Kogut confesses that the clean and tidy ordering of value activities along the chain of comparative advantage as described above may be distorted by transportation costs and tariffs. Specifically, these two factors may create strong barriers between nations and permit domestically located firms to survive despite a disadvantage in factor prices. However, "the general tendency of trade to reflect the comparative advantages of nations is certain to influence the allocation of world resources" (Cf. Kogut 1985a, p. 20).

The theory of comparative costs contains important explanatory variables regarding the benefits of corporate internationalization and may therefore significantly influence a firm's



international strategy. Specifically, multinational corporations may choose the locations of their value-added activities in a way that allows for the exploitation of differences in productivity levels and factor endowments between countries thereby improving the sourcing and cost structure of the company. However, the explanatory power of the theory of comparative costs is also limited. Differences in factor costs are externalities and therefore part of a firm's environment. Thus, they should be available to the same degree to all companies (at least within one industry). Consequently, one would not expect to observe any differences in the nature and variety of overseas activities pursued by individual companies. However, there appear to be many such differences even between firms in the same industry. These differences cannot be reconciled with the theoretical predictions that follow from the comparative cost approach. In addition, several authors have criticized the restrictive assumptions of the theory of comparative costs, especially the assumption of complete international immobility of productive factors (Cf. Welge/Holtbrügge (2001), p. 62). Accordingly, Ramaswamy notes that “while comparative cost theories could provide several plausible factors that motivate a corporation to go overseas, they do not explain why different international firms exhibit differences in multinationality profiles” (Cf. Ramaswamy 1990, p. 26). Kogut suggests that there is an interplay between the comparative advantage of countries and the competitive advantages of firms. “When firms achieve a competitive advantage in terms of scale, scope, or learning, firms can be disadvantaged in terms of their location but still compete successfully. In other words, the competitive advantage of a firm can overcome the comparative disadvantage of country location” (Cf. Kogut 1985a, p. 22). Thus, company-specific factors and motivations may also play a crucial role in explaining the benefits of international business activity. It is therefore necessary to turn to further

theories of internationalization in order to get a more complete understanding of multinational corporations.

## Theories of Foreign Direct Investment

Trade theories, such as the theory of comparative costs, generally employ a macroeconomic standpoint and are primarily concerned with explaining exports and imports between national economies. In contrast, theories of foreign direct investment (FDI) also take individual companies as their unit of analysis thereby providing insights into the motivations and advantages of firms investing directly overseas.

According to the United Nations Conference on Trade and Development (UNCTAD), foreign direct investment refers to an investment made to acquire lasting interests and control in a foreign enterprise, which implies the investor's straight involvement in the management of the firm's activities. These investments are extremely different from portfolio ones, which do not involve the management of foreign activities and are concerned only with the remuneration of invested capital (hence FDI is undertaken mostly by business firms and portfolio investment mostly by individuals).

FDI theories are useful for understanding the presence of multinational corporations and further complement the findings of trade theory. Their key concepts will be discussed in the following sections.

### *Theory of Monopolistic Advantages*

The theory of monopolistic advantages was first propounded by Hymer and later by Kindleberger.

Hymer's thesis was a path-breaking reaching that triggered the development of a more comprehensive theory of the international production. His theory was the first to leave behind the articulation of international production with international trade and capital movements. The title of his thesis, "The international operations national firms: a study of foreign direct investment", point out that his focus was the firm and its operations abroad, rather than capital flows across borders. Hymer's dissertation, which did not become widely known until 1976, was an attempt to reformulate a theory of the firm, in which the firm's strategic investment abroad were the focal point of the analysis. In order to deeply understand Hymer's thoughts let's start from the basic research question: "How is it firms can establish and run a business in a host country in competition with local firms in a situation where the foreign investor suffers from a lack of knowledge of how to do business in that country?"

This lack of knowledge, which came to be labeled the 'liability of foreignness', is an obvious disadvantage to foreign firm. In a world of perfect competition we would expect non, or at most very limited foreign direct investment; if all firms have the access to similar resources and technology, so that the only difference consists in the liability of foreignness, there would be no possibility for foreign firms to compete with local ones. Why then are foreign direct investments, not only extensive, but also growing? Hymer drew the most obvious solution: for firms to own and control foreign value-adding activities they must possess some kind of innovatory, cost, financial or marketing advantages - specific to their ownership - which is sufficient to outweigh the disadvantages they face in competing with indigenous firms in the country of production. The next step was to formulate a theory for the existence of these firm-specific advantages; in seeking an explanation Hymer turned his attention towards theories about the deviation from pure market competition : some

markets are imperfect because some firms operating in these markets can have access to certain resources and others cannot. Thus the competition is limited. Hymer labeled these resources "firm's special advantages" (Cf. Hymer 1976, p.33). However it did not examine in details the kind advantage that firms may use to operate internationally. Finally the last question is: why firms do engage in foreign production? According to Hymer firm's main motivation to locate production facilities abroad involves the pursuit of market power; specifically the objective is to extend collusive networks in order to decrease the level of competition and to increase the entry barriers to outsiders. Thus the most important motivation to exploit market imperfections through FDI is that it allows the firm to exploit collusion abroad and therefore weakens competition in the expectation that it will lead to larger profits.

Hymer's work was later extended by Kindleberger. According to Kindleberger, two conditions must be met in order to justify foreign direct investment (Cf. Kindleberger 1969, pp. 11-12). First, the investing company can earn a higher rate of return abroad than at home. Second, the investing firm must be able to earn a higher return in the market where it is investing than local firms earn. However, especially the latter appears to be difficult because firms engaging in international production are intrinsically at disadvantage compared to local firms. There are costs associated with operating at a distance that arise from travel, communication, time lost in communicating information and decisions, and misunderstandings that lead to errors. Other costs are related to the new environment and arise from cultural, legal, institutional and linguistic differences, as well as the lack of knowledge of local markets conditions. For FDI to be successful, companies must therefore possess certain advantages that they can transfer from one country to another but not available to existing or potential local competitors. Only in this way they can compensate for

the costs of operating in an unfamiliar environment. Otherwise, domestic (local) firms would have an advantage over foreign firms due to their better knowledge of the local environment and the proximity of their operations to the decision-making center, so that no firm could survive in foreign operation. Unlike the theory of comparative cost, Kindleberger does not trace the advantages that multinational corporations possess back to the existence of factor-cost differences. "In the present view, cheaper costs abroad than at home are not enough. What must be explained is why the production abroad is not undertaken by local entrepreneurs, who have an inherent advantage over outside investors" (Cf. Kindleberger 1969, p. 13). Rather, he regards imperfections in the markets for goods and factors (including technology), or some interference in competition by governments or by firms as the sources of what he called 'monopolistic advantages'. Market imperfections may be one or more of several types: in goods markets, in factor markets, economies of scale internal or external to a firm and government- imposed market distortions. The nature of these advantages will be briefly discussed below (Cf. Kindleberger (1969), pp. 14-27).

Departures from perfect competition in goods markets, among other things, may be caused by product differentiation, special marketing skills, retail price maintenance, and administered pricing. Thus, the multinational corporation may benefit from its branded products that allow for differentiation in the sales market and from its high reputation and image that is achieved through global marketing. In addition, corporate internationalization may result in greater market power that in turn enables the multinational corporation to realize better prices.

Imperfections in factor markets include the existence of patented or unavailable technology, discrimination in access to capital and differences in skills of managers organized into firms rather than hired in competitive markets. Patents and restricted technology are

major advantages that multinational corporations can bring to the local market. They limit entry and can hardly be imitated. Therefore, depending on the type of technology brought to the local market, MNCs may benefit from increased differentiation or higher degrees of efficiency. Superior management skills are another important aspect. For example, large international companies may gain an advantage over local competitors by centralizing the decision-making, performing scientific cost-benefit analysis, raising the concern for marketing or raising the standards on performance, tolerances, delivery dates etc. The key role of management skills in foreign direct investment is emphasized by Kindleberger who notes that “there is little advantage to the foreign investor in access to labor other than management and technical staff” (Cf. Kindleberger 1969, p. 16). Finally, a foreign company may have an advantage over a domestic firm in raising capital due to its superior credit rating.

The existence of external and internal economies of scale is also a source of monopolistic advantage. In general, multinational corporations are larger in size than their domestic counterparts and therefore are better able to switch to large-scale production and to reach the optimal scale of operations. As a result, they can realize internal economies of scale that lower their average production cost. In addition, international corporations may benefit from external economies of scale through vertical integration. Kindleberger suggests that there are substantial economies in coordinating decisions at various stages of the value chain. Thus, by integrating the separate stages of the value chain performed in different countries into the same company, multinational corporations may improve their efficiency and profitability.

The final source of monopolistic advantages proposed by Kindleberger is government interference in competition. Tariffs and non-tariff barriers to trade, originally intended to

protect domestic firms from foreign competition, frequently stimulate foreign direct investments. One example is the formation of the European Economic Community, which originally favored firms inside the common tariff over those outside. However, foreign firms that were discriminated against by the customs union set up subsidiaries within the customs area if they had an advantage that enabled them to compete successfully with local firms.

Such advantages give MNCs an edge over their competitors in similar locations and thus serve to compensate for the additional costs of operating across national boundaries.

The theory of monopolistic advantages provides a multitude of sources of benefits that put multinational corporations at an advantage over local (domestic) firms. However, this theory also has some weaknesses. Specifically, it concentrates on existing advantages that MNCs can transfer to the foreign market. Yet, companies also make foreign direct investments in order to gain access to new sources of competitive advantage, e.g. technology, know-how, raw materials, and other resources. Moreover, the transfer of monopolistic advantages is likely to be associated with costs that are not reflected in this theory (Cf. Welge/Holtrügge 2001, p. 75). Finally it does not explain why a domestic firms should choose to exploit its monopolistic advantage by foreign production rather than by producing at home and exporting, or by licensing a manufacturer abroad. The solution lies in the concept of internalization.

### *The International Product Life Cycle Theory*

The product life cycle model was applied to the international context by Vernon (Cf. Vernon 1966, pp. 190-207). Vernon (1966) used a microeconomic concept to explain a macroeconomic phenomenon: the growth of the USA FDI in Western European countries in

the post-war period. The main argument used by Vernon was that the high level of income and demand fostered innovation, which gave American firms an advantage to increase exports and then through import-substituting investments in Europe. His theory not only attempts to explain the emergence of exports but also relates the product life cycle to the international investment decisions made by corporations, viewing foreign direct investment as a natural stage of the product life cycle. The basic assumption of this theory is that all products pass through certain distinct stages of development, growth, maturity and decline (Figure 1.1).

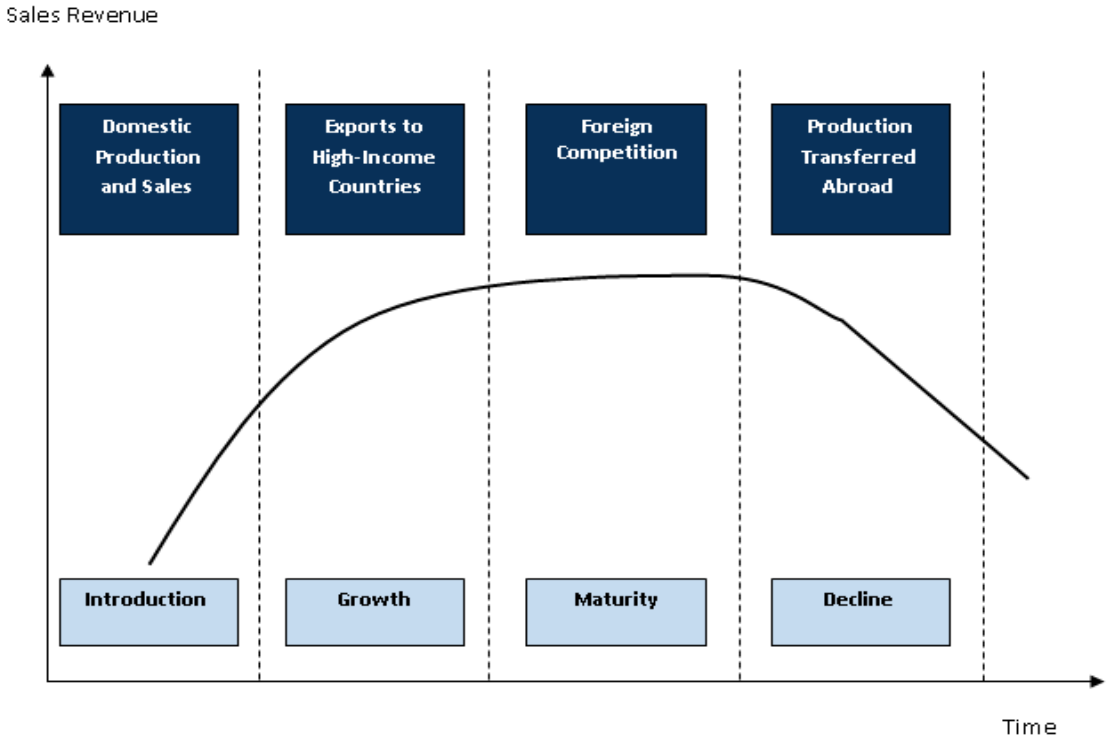


Figure 1.1: Vernon’s Product Life Cycle.

The cycle starts with the development of new products that subsequently are introduced to the market. In this first stage, the location of new products' production is influenced by the proximity of innovators to their home country customers. Specifically, Vernon suggests



that the production facilities for these new products are located in the home country of the producer for reasons that go beyond the traditional considerations of relative factor-cost and transportation. "In the early stages of introduction of a new product, producers were usually confronted with a number of critical, albeit transitory, conditions. For one thing, the product itself may be quite unstandardized for a time; its inputs, its processing, and its final specifications may cover a wide range [...]. The unstandardized nature of the design at this early stage carries with it a number of locational implications. First, producers at this stage are particularly concerned with the degree of freedom they have in changing their inputs. Of course, the cost of the inputs is also relevant. But as long as the nature of these inputs cannot be fixed in advance with assurance, the calculation of cost must take into account the general need for flexibility in any locational choice. Second, the price elasticity of demand for the output of individual firms is comparatively low. This follows from the high degree of production differentiation, or the existence of monopoly in the early stage. One result is, of course, that small cost differences count less in the calculations of the entrepreneur than they are likely to count later on. Third, the need for swift and effective communication on the part of the producer with customers, suppliers, and even competitors is especially high at this stage. This is a corollary of the fact that a considerable amount of uncertainty remains regarding the ultimate dimensions of the market, the efforts of rivals to preempt that market, the specifications of the inputs needed for production, and the specifications of the products likely to be most successful in the effort. All of these considerations tend to argue for a location in which communication between the market and the executives directly concerned with the new product is swift and easy, and in which a wide variety of potential types of input that might be needed by the production unit are easily come by. In brief, the producer who sees a market for some new product in the United States may be led to select

a United States location for production on the basis of national locational considerations which extend well beyond simple factor cost analysis plus transport considerations” (Cf. Vernon 1966, p. 195).

In the second stage of the product life cycle demand for the new product grows, the product starts to mature and some degree of standardization takes place. According to Vernon this not means that efforts at product differentiation come to an end. On the contrary, such efforts may even intensify, as competitors try to avoid the negative effects of price competition . Moreover, variety may appear as a result of specialization. Nevertheless, though the subcategories may multiply and the efforts at product differentiation increase, a growing acceptance of certain general standards seems to be typical. Of course the change has locational implications. While the need for flexibility declines, technical possibilities open up to achieve economies of scale through mass production and long-term commitments to some given process/facilities are encouraged. It is this switch to mass production that is predicated to motivate a firm to move into international markets. Rapid market expansion is necessitated by increasing production volumes, which in turn are required to achieve economies of scale. Thus, the company begins to export its product to foreign markets because "some demand for the product begins almost at once to appear elsewhere" (Cf. Vernon 1966, p. 197). However, as far as first mover advantages are gradually dissipating , this stage of the product life cycle is also associated with a growing concern about production costs. Vernon suggests that “even if increased price competition is not yet present, the reduction of the uncertainties surrounding the operations enhances the usefulness of cost projections and increases the attention devoted to cost” (Cf. Vernon 1966, p. 196). Thus, managers begin to ask themselves whether setting up local production facilities is more advantageous than exports. According to Vernon, the key decision criterion

in this respect is the marginal production cost plus the transport cost: as long as the marginal production cost plus the transport cost of the goods exported is lower than the average cost of prospective production in the market if import, producers will prefer to avoid an investment. However, once the average cost of overseas production is lower than the marginal production and transport cost of the goods exported, companies will start to engage in foreign direct investment by setting up local production facilities in overseas markets.

Finally, in the third stage, the fully standardization of the production process makes further reduction in production cost impossible. The market, even if large, is completely saturated with competitors, thus price often falls to a bare minimum above costs. Firms can gain a competitive advantage only by managing factor cost, that is, by shifting production to those countries in which there are location advantages (i.e. the elements of production are least expensive). The home country market now is supplied primarily by production imported from offshore plants.

There is also a possible phase four. In this stage, products being designed to meet individual needs but assembled from components sourced worldwide. A firm will need to understand and respond to individual clients' needs by delivering top quality products and services at the least cost. To success firms must become simultaneously more highly differentiated and more integrated. Structurally firms will have passed to global hierarchies that weave together complex networks of joint venture, wholly-owned subsidiaries, and organizational and project defined alliances. To maintain responsiveness, successful firm will develop global corporate cultures that recognize cultural allowing them to integrate culture specific strategic choice within a global vision.

The international product life cycle theory thus provides some plausible explanations for corporate internationalization. First, it builds on technological differences through product development that trigger foreign trade and exports. Companies that possess differentiated products create demand for these products beyond the boundaries of their home market. Thus they are able to expand the market for their products internationally thereby facilitating the realization of economies of scale. Moreover, multinational corporations are able to improve their cost position as compared to export companies by setting up local production facilities in the markets of import. In this way MNCs may achieve average costs of production that are lower than the marginal costs of the goods exported.

On the other hand, the literature suggests that the international product life cycle theory is also associated with certain critical shortcomings. Specifically:

- it is a strictly technological model, since the advantages arises only from innovation;
- it is too deterministic in describing the behavior e the objectives of the firm, without considering other alternatives;
- it does not consider incremental innovation but only the introduction of new products.

While empirical studies have largely confirmed the validity of the product life cycle concept for U.S. based companies in the 1960s and 1970s, its predictive power may decrease due to the increasing globalization of the world economy (Cf. Vernon (1979), p. 265). Explicitly, the sequence of the stages suggested by the international product life cycle theory may not be respected. Some of these stages may be accelerated, taken in parallel, or even be skipped. For example, Welge and Holtbrügge suggest that the introduction of products in the home market, exports, and foreign production largely take place simultaneously in

multinational corporations (Cf. Welge/Holtbrügge 2001, p. 66). Thus, the product life cycle concept is primarily applicable to smaller companies with comparatively low degrees of internationalization (Cf. Vernon 1979, p. 265). In addition, it is difficult to generalize the concept to include all products. Many different levels of aggregation (e.g. product classes, product forms, and brands) may be used, which in turn affects the pattern of the product life cycle (Cf. Polli/Cook 1969, pp. 385-400; Dhalla/Yuseph 1976, pp. 102-112). Also, it is almost impossible to a priori identify the beginning and end of each of the constituent stages of the cycle. Dhalla and Yuseph note that the length of different stages tends to vary from product and product so that it is difficult to predict when the next stage will appear, how long it will last, and to what levels the sales will reach. Consequently, the major phases do not divide themselves into clear-cut compartments (Cf. Dhalla/Yuseph 1976, pp. 103-104).

### *Internalization Theory*

“Internalization refers to bringing new foreign operations within the boundaries of a firm rather than using arm’s-length market transactions” (Cf. Hitt/Hoskisson/Kim (1997), p.767). The fundamental proposition of the internalization theory is that multinational corporations use hierarchical organizational structures as a substitute for inoperable or inefficient market systems.

The internalization approach is closely associated with the transaction costs theory, which is rooted in Coase’s work (1937) on the efficiency with which transactions between agents of production are organized. Coase was among the first to recognize that “the operation of a market costs something and by forming an organization and allowing some authority (an entrepreneur) to direct the resources, certain marketing costs are saved” (Cf. Coase (1937),

p. 392). The term 'marketing costs' refers to what economists now call transaction costs. According to the literature, transaction costs are the negotiating, monitoring, and enforcement costs that have to be borne to allow an exchange between two parties to take place. These costs may be especially high in situations where it is difficult to discover the relevant price, uncertainty and complexity prevail, or it is desired to close long-term contracts<sup>3</sup>. The basic insight of this theory is that firms and markets are alternative institutions for organizing interdependencies between economic agents; specifically each of them experiences different efficiencies in arranging a specific interdependency because they use a different mix of two basic organizing principles, the price system and hierarchy, with firms organizing interdependencies mostly through hierarchy and markets mainly through prices (Cf. Hennart 1993). Consequently, firms will evaluate whether a given transaction can be undertaken at a lower cost via a market or within a hierarchy (firm): if the costs of undertaking transactions via the market are high, then firms can gain economic benefits by 'internalizing' the transaction within its own organization (Cf. Jones/Hill 1988, p. 160).

Several authors have applied this approach to multinational corporations with special emphasis on imperfections in markets for intangible assets and intermediate products<sup>4</sup> (e.g. Buckley/Casson 1976, Caves 1971, Magee 1981, Rugman 1980, Teece 1986). "The MNE is an organization which uses its internal market to produce and distribute products in an efficient manner in situations where a regular market fails to operate. In particular, the MNE allocates intermediate products such as knowledge [...]" (Cf. Rugman 1982, p.11). Thus the theory is firstly concerned with identifying the situations in which the cross-border markets for

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<sup>3</sup> Furthermore, Williamson (1975) provides a comprehensive overview of transaction difficulties (or markets failures) that are sources of transaction costs. These transaction difficulties stem from bounded rationality, opportunism, uncertainty, small numbers trading relationships, asymmetric distribution of information, and asset specificity

<sup>4</sup> Finished product traded usually among producers or suppliers, and not between them and the end users.

intermediate products are likely to be internalized within hierarchies and hence those in which firms are likely to own and control value-adding activities outside their national boundaries. In this regard, the internalization approach has two important strands that must be considered. The first is that internalization can substitute external arm's-length contracts for internal markets, due to lower transaction costs. The second strand comes about when a market is created within the firm when the external market is absent. These two strands are especially important in the transaction of intermediate products – in the first case – and intangible assets as knowledge or technology – in the second case.

According to Buckley and Casson there are at least five types of market imperfection, related to intermediate products, which generate significant benefits to internalization (Cf. Buckley/Casson 1976, p. 37). Firstly, combining interdependent activities through the market may involve significant time-lags between initiation and completion. In this case spot as well as futures market are required to provide buyers and sellers with the price signals necessary to co-ordinate both short-term production schedule and long-term investment plans. When futures markets are lacking exists a strong incentive for firms to create their own internal market by internalizing the interdependent activities. Secondly, in certain cases, an efficient exploitation of market power arising from an intermediate product may need some kind of price discrimination. Not always this price discrimination can take place in an external market. Thus the monopolist has a strong incentive to integrate (forward, backward or both) in order to implement the proper system of price discrimination. The third type of market imperfection can arise from bilateral concentration of market power that can lead to an unstable bargaining situation. In this case a long-term contract or a more permanent arrangement (i.e. merger or takeover) could be desirable for both parties. The fourth type of market failure occurs when buyers and sellers have to do with asymmetric information

about the nature or the value of the product. For example if the seller of an intermediate product is better informed than the buyer but is unable to convince the latter that the price requested is reasonable, then the seller is encouraged to integrate forward. The last type of imperfection may stem from government interferences in international markets (in the form of tariffs or restriction on capital movements) and discrepancies between countries in rates of income and profit taxation. Each of these interventions depends on, amongst the other things, the valuation of internationally traded intermediate goods. While in external markets prices cannot easily be misquoted because they are usually published, in internal markets no such transparency exist and imputed prices of intermediate goods are limited only by the require for consistency in divisional accounting.

Applying the abovementioned arguments to the internationalization of the firm, Buckley and Casson conclude that “the link between the internalization of markets and the existence of MNEs is very simple: an MNE is created whenever markets are internationalised across national boundaries” (Cf. Buckley/Casson 1976, p. 45). The discussion above also suggest that there are certain markets in which the incentive to internalize is particularly strong. The strongest case of all concerns the markets for various type of knowledge.

According to Morck and Yeung, intangible assets for which it is beneficial to organize transactions within the organization include superior production skills, patents, marketing abilities, managerial skill, or consumer goodwill (Cf. Morck/Yeung 1991, p. 165). The underlying rationale is that such intangible assets possess the characteristics of public goods<sup>5</sup>. When trying to exchange assets with public goods properties on the market, firms face two fundamental difficulties. First, a public good cannot be priced by the market, indeed its price is zero. Such a case of market failure can only be overcome through the

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<sup>5</sup> “their consumption by one party does not reduce the consumption of others” (Cf. Rugman (1980), p. 26).



assignment of property rights or the introduction of some interventions in the market. Second, and even more important, the firm runs the risk of misappropriation. Public goods are non-excludable and non-rival in their consumption. Thus, the consumption and use of special (intangible) assets cannot be limited to the corporation that is currently in possession of them. Rivals and outside parties can equally benefit from these assets as soon as they can get hold of them. Magee emphasizes this difficulty in trying to exchange intangible goods via the market mechanism in his appropriability theory of the MNC. He states that “technology is also a public good in that once it is created, its use by second parties does not preclude its continued use by the party who discovers it. However, use by second parties does reduce the private return on information created by the first party” (Cf. Magee 1981, p. 125). Magee calls this last feature ‘appropriability problem’.

Caves (1971) has argued that the principal factor stimulating overseas direct investment by companies is the desire to exploit intangible firm-specific assets: by internalizing the markets for their intangible assets through foreign direct investment, MNCs are able to reduce transaction costs and to better protect their profits from these unique assets. Moreover, they may also realize economies of scale. Due to the public good characteristics of the described intangible assets, their value increases in direct proportion to the scale they are applied to. If advantages in information, knowledge or technique have proven to yield positive returns over direct costs in the first market, they can potentially do the same in other markets. However, there is no need to incur again the sunk costs that were associated with their development and discovery (Cf. Caves (1971), p. 4). As a result, MNCs can benefit from economies of scale when applying their intangible assets in foreign markets through direct investments.

Eun/Kolodny/Scheraga (1996) summarize this paragraph by stating that “firms that have intangible assets with a public good property, such as technical and managerial know-how, tend to invest directly in foreign countries in order to utilize these assets on a larger scale and, at the same time, avoid the misappropriations that may occur while transacting in foreign markets through a market mechanism” (Cf. Eun/Kolodny/Scheraga 1996, p. 1563).

The literature also suggests further benefits that arise to the MNC due to its ability to internalize economic activity. These benefits include the ability to employ price discrimination across markets, economies of integration, economies of scope, and economies of internal capital markets. For example, Rugman finds that charging different prices for a product to different users is facilitated by the establishment of overseas subsidiaries. The process of FDI enables the MNC to segment national markets and provides additional information on the local demand curves for the products of the MNC (Cf. Rugman 1980, p. 27). Jones and Hill notice that economies of scope are difficult to realize using the market mechanism because of transaction difficulties. Economies of scope are generally defined as stemming from inputs that are shared, or utilized jointly with complete congestion. However, due to the joint utilization or sharing of inputs, it is very difficult to draft contingent claims contracts aimed at realizing economies of scope because the real world can be characterized by bounded rationality, asymmetric distribution of information and the risk of opportunism (Cf. Jones/Hill 1988, p. 162). Consequently, in order to realize economies of scope, the MNC may use internalization through foreign direct investment to overcome these transaction difficulties.

The main line of argument of the internalization theory aims at providing a rationale for firms to engage in foreign direct investment instead of using market transactions, specifically licensing. However, the theory itself does not provide a convincing argument for the decision

of corporations to use foreign direct investment instead of exports in order to expand internationally. Although it is argued that local production through subsidiaries enables MNCs to better adapt the product to the local market or to provide superior quality (or lower cost) supplementary services, the real justification of using FDI instead of exports is often seen in locational factors. According to Caves, two conditions must be satisfied so that the possession of some special assets leads the firm to invest abroad. First, the assets must possess the character of a public good. Second, the return on a firm's special asset in a foreign market must depend at least somewhat on local production (Cf. Caves 1971, pp. 5-6). Thus, locational factors such as factor costs, transportation costs, and tariffs still play an important role in the decision to engage in FDI instead of trying to supply the foreign market via exports<sup>6</sup>.

Yet despite this weakness, the internalization theory can be regarded as one of the most well established theories of the MNC that has been verified in several empirical studies.

## The Eclectic Theory of International Production

Since here, the theory of the MNC has developed along three paths explaining why firms produce abroad (internalization advantages), how they are able to compete successfully with domestic firms (monopolistic advantages) and where MNCs of a particular nationality produce in particular host countries (locational advantages). These are, however, only partial explanations of international production. For example the ability of MNCs to internalize markets may partly explain their ability to compete successfully in foreign locations but does

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<sup>6</sup> Rugman argues that in a world of free trade (i.e. without barriers and tariffs) all foreign markets would be serviced by exports. Only if the theoretical reasons for free trade do not hold, is it necessary to have a model of the MNC. Thus, free trade is seen to be the converse of FDI.

not explain cases where an MNC has an absolute advantage over local producers derived from the knowledge and expertise of individual within the enterprise. Ownership advantages must therefore be carefully distinguished from internalization advantages. Similarly, internalization theory does not explain the different distribution of production between countries.

Dissatisfaction with the partial explanations of international production offered by trade theory and the theories of foreign direct investment has lead economist to build up a more eclectic approach to the subject. In his eclectic paradigm Dunning draws upon and integrates the three strands of economic theory (i.e. monopolistic advantages theory, internalization theory, and location theory) in order to explain the ability and willingness of firms to serve markets, and the reason why they choose to exploit this advantage through foreign production rather than by exports or contractual resource flow, and to explain the direction of international production by the MNC.

According to Dunning, a firm that want to enter a foreign market can choose between different entry modes: exporting, licensing or pure FDI. These are critical choices that cannot be modified in the short period and are influenced by three main factors. Specifically, the level and structure of a firm's foreign value-adding activities will depend of three conditions being satisfied (Cf. Dunning/Lundan, 2008).

1. The extent to which it possesses unique and sustainable ownership-specific (O) advantages compared to firms of other nationalities in serving particular market or groups of markets.

These ownership advantages mostly stem from intangible assets, which are exclusive or specific to the company at least for some period of time. It is possible to distinguish three types of ownership advantages.

a. Property rights and/or intangible asset advantages (Oa)

The asset structure of the firm. Product innovation, production management, organizational and marketing systems, innovatory capacity, noncodifiable knowledge; accumulated experience in marketing, finance etc. Ability to reduce costs of intra- and/or inter-firm transactions (also influenced by Oi).

b. Advantages of common governance, that is organizing Oa with complementary assets (Oi)

i. Those that branch plants of established enterprises may enjoy over de novo firms. Those resulting mainly from size, product diversity and learning experience of enterprise (e.g. economies of scope and specialization). Exclusive or favored access to inputs and to product markets. Access to resources of parent company at marginal costs. Synergistic economies.

ii. Which specially arise because of multinationality. Multinationality, in fact, enhances operational flexibility by offering wider opportunities for arbitraging, production shifting and global sourcing of inputs. More favoured access to and/or better knowledge about international markets. Ability to take advantage of geographic differences in factor endowments, government regulation, markets etc. Ability to diversify or reduce risks. Ability to learn from societal differences in organizational and managerial processes and systems(also influenced by Oi).

c. Institutional assets (Oi)

The formal and informal institutions that govern the value-added processes within the firm, and between the firm and its stakeholders. Codes of conduct, norms and corporate culture; incentive systems and appraisal; leadership and management of diversity.

2. Assuming that condition (1) is satisfied, the extent to which the enterprise perceives it to be in its best interest to internalize the ownership advantages through an extension of its own activities rather than externalize them through licensing and similar contracts with independent firms.<sup>7</sup>

These advantages are called market internalization (I) advantages and encompass the possibility to: avoid costs of writing enforceable and controllable contracts with potential overseas partners (i.e. searching and negotiating costs, costs of moral hazard and adverse selection, costs of contracts and ensuing litigation), capture economies of interdependent activities, compensate for the absence of future markets, avoid or exploit government interventions, control supplies and conditions of sale of inputs, control market outlets and engage in practices such as cross-subsidization, predatory pricing and transfer pricing as a competitive strategy.

3. Assuming that conditions (1) and (2) are satisfied, the extent to which it is profitable to the firm to combine these assets with factor endowments located in foreign countries.

Thus locational advantages (L) are directly connected with the characteristics of the

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<sup>7</sup> Therefore, the firm is pushed to undertake FDI only if it cannot exploit its ownership advantages through the market in an efficient manner. The existence of ownership advantages is a necessary but not a sufficient condition for FDI to take place: there must be high transaction costs which justify the hierarchical solution in order to keep these advantages in.

country or region where to operate and comprehend: input prices, quality and productivity (e.g. labour, energy, materials, components, semfinished goods), international transports and communication costs, investment incentives and disincentive, artificial barriers to trade in goods and services, infrastructure provisions, cross-country differences, economic system and strategies of government, legal and regulatory system.

The generalized predictions of the eclectic paradigm are simple: the more a country's enterprises - relative to those from another – possess desirable O advantages, the greater the incentive they have to internalize rather than externalize their use, the more they find it profitable to exploit them I a foreign location, then, the more they are likely to engage in FDI.

Due to the three types of advantages (ownership advantages, location-specific advantages, and internalization advantages) necessary for firms in order to engage in foreign direct investment, Dunning's eclectic paradigm is frequently referred to as OLI-concept. Table 1.5 summarizes the relation between the OLI-advantages and different modes of internationalization.

		Categories of Advantages		
		Ownership Advantages	Internalisation Advantages	Locational Advantages
Form of market entry	Licensing	✓	-	-
	Exporting	✓	✓	-
	FDI	✓	✓	✓

Table 1.5: Dunning's OLI Paradigm.

By combining the three strands of economic theory Dunning creates a more complete picture of the MNC while alleviating the shortcomings of the individual theories. Industrial organization theory mainly explains the nature of ownership advantages, while internalization theory explains the conditions under which it is beneficial to exploit these advantages within the organization. Theory of location and trade complement the picture by providing the factors that determine the location of production. Dunning has found support for his eclectic paradigm in various empirical studies (Cf. Dunning 1980, Dunning/Kundu 1995). Yet, due to some criticism Dunning adapted and extended his paradigm with the "core" of the paradigm still relying on the earlier OLI-concept. The extended version includes four new components (Cf. Dunning 1988, pp. 1-31.). First, the motives underlying the decisions on international production locations are now taken account of. Second, Dunning introduces contextual variables and recognizes that asset advantages of international firms are expected to vary according to the factor endowments of the countries from which they originate. Moreover, factor endowments have been extended to embrace intermediate products and the mobility of some products across national borders. In an earlier work Dunning already noted that OLI characteristics may vary according to country, industry and firm-specific considerations (Cf. Dunning 1981, pp. 34-35). One important implication of this finding is given by Welge and Holtbrügge. Companies residing in countries with a relatively large home market size may also have a large potential to realize economies of mass production and diversification. This puts them at a comparative advantage over firms from countries with relatively small home markets during the process of internationalization (Cf. Welge/Holtbrügge 2001, pp. 78-79.). Third, structural variables of the strategic decision-making process have been introduced to the theory. Fourth, the range of applications of the paradigm has been expanded to include not only the determinants and types of



international production but also intra-firm trade and divestment. However, despite Dunning's attempt to respond to the critics and extend the paradigm, some concerns still remain. For example, Macharzina and Engelhard conclude that “while the conceptual and analytical structure of the [original] paradigm remains largely unimpaired its operational usefulness decreases as the complexity of the variables making up the OLI configuration increases” (Cf. Macharzina/Engelhard 1991, p. 28). They further elaborate that the traditional version of the OLI-concept provides a plausible and in empirical terms partly proven foundation for explanatory purposes. However, the extended version has diluted the concise basis. Yet, Welge and Holtbrügge still conclude that Dunning's eclectic paradigm presents the currently most well received theory of FDI whose main propositions have been confirmed in various empirical studies (Cf. Welge/Holtbrügge 2001, p. 79).

## Portfolio Diversification Theory

The risk diversification theory was first put forward by Lessard (1976), Rugman (1975a, 1975b) and Agmon and Lessard (1977). These scholars argued that the MNCs offered individual or institutional equity investors a superior vehicle for geographically diversifying their investment portfolios than did the international equity market. This, in their view, partly reflected the failure of equity markets to efficiently evaluate the risks and the benefits of diversification, and partly the fact that, compared to their domestic counterparts, MNCs possessed certain non financial advantages that enabled them to manage the risks of international diversified portfolios more effectively. Rugman predicts that a multinational firms will provide greater benefit to its shareholders than will a comparable firm which has few foreign operations; this because individual investors are concerned about the risk of

their earnings as well as the expected rate of return. On the contrary the multinational corporation is able to reduce the risk of its expected earnings because it has sales of goods to, or within, foreign countries whose economic fluctuations are less than perfectly correlated with the fluctuations in the home country (Cf. Rugman 1975a, p. 233.). So diversification across national boundaries is expected to increase the stability of profits. Thus, according to the risk-return characteristics of investments, the benefits come in the form of risk reduction without diminishing the expected returns or through risk-adjusted returns outperforming an achievable nationally diversified portfolio. Rugman concludes that “foreign operations afford the multinational firm the advantage of international diversification in the goods and factor markets and this risk reduction in expected earnings should be reflected in the valuation of its shares” (Cf. Rugman 1975b, p. 652). In addition, he finds that the potential for risk reduction from the diversification of real assets may be significant compared with that of financial assets diversification, because of a relative low correlation between national industrial production indices compared with one of financial variables. Specifically, by calculating international correlation coefficients he finds low correlations for GNP, wages, and other indicators of product and factor markets but high correlations for financial market indicators such as interest rates. Because product markets are less correlated than financial markets, this suggests that both foreign and home markets may be mutually complementary: MNCs benefit from the low correlation observed in international goods and factor markets and therefore achieve a more stable stream of profits. However, there is one important limitation to the discussed theory. If there were no barriers to international capital flows and if capital markets were fully integrated, investors could achieve international portfolio diversification themselves by buying shares in the stocks of firms domiciled in various countries eliminating unsystematic risk on a global basis.

In such circumstances there is no need for diversification at the firm level. Indeed, Hughes, Logue and Sweeney state that “in a world where capital markets are perfect, the multinational firm does nothing for investors that they could not otherwise do for themselves” (Cf. Hughes/Logue/Sweeney 1975, p. 627). Thus, the extent to which multinational corporations provide benefits to their shareholders largely depends on the existence of factors responsible for imperfect and segmented capital markets. These factors represents barriers to the flow of funds between various countries such as the lack of fully integrated capital markets, exchange rate risks, transaction costs (e.g. differential trading costs), host country regulations, and perhaps even more important, the bounded rationality of investors and the cost of information of foreign securities. Consequently, Mathur and Hanagan conclude that “these barriers to direct international diversification by investors indicate that MNCs may possess unique advantages and may in fact be superior vehicles for achieving international diversification” (Mathur/Hanagan 1983, p. 143). These unique advantages of MNCs can stem from market imperfections in product and factor markets as previously described, but also from financial economies. Financial economies arise from the lower financing costs of multinational corporations because they are able to fund direct investments internally, can identify and choose the external financing source with the lowest cost of debt in any of the countries in which they operate, and they can benefit from international differences in corporate income taxes. In addition, MNCs can usually hedge more cheaply against exchange rate risk. Empirical evidence on the predictions of the diversification theory is somewhat mixed. For example, in a regression analysis Rugman finds that the degree of foreign operations is negatively related to the variance of profits which indicates more stable earnings of MNCs and hence a reduction in risk (Cf. Rugman 1975a, p. 233). Hughes, Logue and Sweeney examine the security returns of MNCs relative to

domestic companies and find multinational corporations have lower systematic risk, lower unsystematic risk, thus lower total risk. Furthermore, MNCs have higher risk-adjusted returns using a domestic index, but they have a similar performance when a world index is used. The authors conclude from these results that investors correctly perceive the diversification benefits of shares of multinational firms and that such firms do indeed something for the investor (Cf. Hughes/Logue/Sweeney 1975, p. 636). Using a sample of 217 U.S. multinational corporations, Agmon and Lessard find that MNC's non-domestic sales are negatively related to the domestic systematic risk in an international market model. They interpret this result as an indication of a reduction in systematic risk from international diversification. In their point of view, barriers to capital flows exist and the resulting financial advantage complements the advantages of MNCs derived from imperfections in goods and factor markets thereby providing an additional motive for multinational expansion (Cf. Agmon/Lessard 1977, pp. 1049-1055). Errunza and Senbet demonstrate the existence of a systematic positive relationship between the (current) degree of international involvement and excess market value. Moreover, this relationship is especially strong during periods characterized by barriers to capital flows. These results support the notion that the diversification benefit is reflected in the valuation of the shares of MNCs as well as the existence of barriers to the free flow of financial capital (Cf. Errunza/Senbet 1981, pp. 401-417). Contrary to the above findings, Brewer observes no statistical difference in the risk-adjusted performance of the stocks of multinational and domestic corporations. From his perspective, lower risk does not provide a benefit when it is accompanied by lower return. Thus, in order to be a superior investment, MNCs would need to display significantly higher returns than domestic companies over a variety of risk levels. However, he finds no such evidence because in his analyses MNCs and domestic companies basically lie on the same

security market line (Cf. Brewer 1981, pp. 120-121). Michel and Shaked find that, on average, multinational corporations have a lower systematic risk, lower total risk, higher capitalization ratio, and lower risk-adjusted market-based performance than domestic corporations (Cf. Michel/Shaked 1986, pp. 89-100).

However, based on both theoretical and empirical research, it seems to be well accepted that multinational corporations possess the ability to reduce their systematic risk due to their international operations. The resulting financial advantages (e.g. lower financing costs due to lower cost of debt) complement the advantages they derive from imperfections in goods and factor markets and are most likely reflected in the valuation of their stocks.

### 1.2.1.2 Organizational Perspective

The reviewed theories of corporate internationalization mostly deal with factors that are either common to all firms within an industry (e.g. technology, labor costs, transportation costs), or common to firms across industries (e.g. tariff barriers, comparative costs of inputs). They may thus provide valuable insights into the factors that trigger corporate internationalization, yet fail to explain why firms operating within the same industry may exhibit differences in their multinational business activities. In particular they do not account for interdependencies and competitive advantages that result from the integration of all domestic and international activities of corporations. Thus, in order to gain more insights into the benefits from corporate internationalization, it is necessary to include firm-level factors that may be a source of MNCs' competitive advantage over domestic firms. Indeed the main source of benefits from internationalization is not seen in the reactive exploitation of external opportunities, as proposed by FDI theories, but in the proactive induction of

intra-firm comparative advantages. Therefore, the following discussion focuses on theories that are more concerned with organizational factors, firm resources, and processes.

## Resource Transmission Theory

The 'resource transmission theory' is rooted in Fayerweather's work. There are two main aspects of this theory that are worth to focus on. First of all there is a bi-national dimension which emphasizes optimizing the flow resources. In this sense Fayerweather's point of departure is that multinational corporations may benefit from their capability to transfer resources from one country to the other. In particular, the extent to which the process of international resource transmission yields a competitive advantage for MNCs over domestic corporations depends on three factors: (1) differences in the resource endowments between the parent country and the host country, (2) the extent of restrictions imposed on the transmission of resources through government regulations, (3) the ability of MNCs to reasonably bundle resources and to transfer them in an efficient and effective manner.

The third condition is a consequence of the assumption that for different resource differentials, different transmission structures will be most efficient. Thus, according to Fayerweather, is more efficient to structure the system in a way so that transmission is precisely limited to resources of particular MNC capability (Cf. Fayerweather 1978, p. 257). Moreover, as the majority of resource transmission processes within multinational corporations focuses on capabilities (e.g. managerial skills and technological competence) rather than on raw materials and labor, he finds that an integrated organization (i.e. a multinational corporation with foreign subsidiaries) will be most successful in transferring these skills and capabilities.

The second aspect is the multinational dimension of the theory that focuses on optimizing the benefits of unification versus fragmentation due to the difference between national environments. Fragmenting influences (e.g. local culture, nationalism, economic forces such as differences in market structures, customer tastes, factor costs, skills of employees) may encourage the management of multinational corporations to tailor operations to the unique local requirements of individual host countries and the ultimate result would be a family of foreign units, with substantial diversity in a number of phases of operations. In contrast the possibility for economies and greater efficiency depends upon a high degree of uniformity in the activities of the units composing the structure. In the first instance, there is considerable value in unifying the capabilities embodied in the parent company, especially its technological competence and managerial know-how. They can be most effectively drawn upon to strengthen the operations of foreign subsidiaries when the activities of these subsidiaries fall in the same pattern. Moreover, the ability of MNCs to realize economies and efficiency gains due to their global span arises largely from the capabilities for specialization of activities in individual units with substantial interchange among them. unifying influences call for the substantial standardization and rationalization of MNCs' activities. To summarize, unifying influences call for the substantial standardization and rationalization of MNCs' activities.

The main conclusion from the resource transmission theory is that multinational corporations may benefit from transferring resources between countries. However, their competitive advantage over domestic firms largely lies in their ability to standardize activities across countries. As Fayerweather notes: "The unifying influences represent a substantial portion of the basic rationale for the existence of the MNC and the source of a considerable part of its competitive advantage" ( Fayerweather 1978, p. 215).

## The Resource-Based View of the Firm and Organizational Learning

The resource-based view of the firm employs an internal perspective to identify the types of resources that may provide a sustainable competitive advantage: the firm is seen not through its activities in the product market but as a unique bundle of resources and capabilities (Cf. Wernerfelt 1984, pp. 171-180). Resources can broadly be defined as stocks of available factors that are owned or controlled by the firm and include both tangible (financial and physical assets such as properties, plants and equipments) and intangible (e.g. patents, licenses and human capital) .

Whereas capabilities refer to a firm's ability to deploy resources using organizational processes so as to ensure the desired end. Unlike resources, capabilities are developed over time through complex interactions among the firm's resources (information-based, tangible or intangible process), especially through developing, carrying, and exchanging information between the firm's human capital.

Naturally in order to generate a sustainable competitive advantage, the aforementioned resources and capabilities must be difficult to trade, rent-yielding, non-imitable, and non-substitutable (Cf. Tallman 1992, p. 460).

Although the resource-based view relates to firms in general, it can also be successfully applied to the multinational corporation. Tallman states that in order to explain MNC activities is necessary to apply a perspective truly differentiating firm-specific characteristics that includes tangible as well as intangible assets (Cf. Tallman 1992, pp. 459-460). Based on these unique skills and assets, which are the basis for any economic rent, each MNC will devise the best suited strategy for a particular host market environment. Thus, strategies and firm-specific resources interact to generate competitive advantages for the firm and



only those resources that are compatible with the characteristics of a given market are likely to be influential in the decision to invest overseas. According to Tallman MNCs employ an internalized structure in the form of foreign direct investment in order to better control the execution of strategy and the exploitation of these critical resources (Cf. Tallman 1992, p. 461, Tallman 1991, p. 71). Thus, compared to their domestic rivals, MNCs may be better able to extract rents from their unique resources and capabilities in foreign markets. Moreover, after a period of operation in any market, new firm-specific resources may be developed in the host market. As a consequence, the MNC may benefit from its international presence thanks to its ability to access new valuable resources and capabilities which were not among the original set of parent resources, and which may not be available outside of that market (Cf. Tallman 1991, p. 71). These market-specific resources add to the MNC's stock of strategic assets, thereby contributing to its competitive advantage over purely domestic companies.

In this regard, several authors have also emphasized the crucial role played by foreign subsidiaries in the generation of MNCs' competitive advantages. Ghoshal proposes that the key asset of the MNC is the diversity of environments in which it operates: the multinational corporation is exposed to multiple stimuli that trigger the development of diverse capabilities and provide the MNC with a broader learning opportunities than are available to purely domestic firms. The resulting diversity of resources and competencies may enhance the firm's ability to create joint innovations, and to exploit them in multiple locations. It also increases the probability of firm survival by enhancing the chances that the MNC will be in possession of the capabilities required to cope with future challenges (Cf. Ghoshal 1987, p. 431). Birkinshaw et al. provide support for the emerging view that MNC subsidiaries significantly contribute to the creation of firm-specific advantage. They also regard foreign

subsidiaries as heterogeneous bundles of resources. While some of these resources are 'location bound' (e.g., the sales force), others are not and can therefore be leveraged by the corporation in other countries. Thus, when combined with other resources available in the MNC, these non-location-bound resources become part of the firm-specific advantage of the multinational corporation (Cf. Birkinshaw et al. 1998, p. 224). However, they must still satisfy the condition of being valuable, rare, and imperfectly imitable as postulated by the resource-based view of the firm. As MNCs may benefit from the reciprocal transfer of resources and capabilities between the parent company and its foreign subsidiaries, it becomes clear that "international subsidiaries shouldn't just be pipelines to move products". In fact, "their own special strength can help build competitive advantage" (Cf. Bartlett/Ghoshal 1986, p. 89).

A neglected aspect so far has been the question whether multinational corporations are able to efficiently and effectively transfer resources and skills across their diverse organizational units. This ability represents a prerequisite in order to exploit the benefits arising from the application of unique assets in foreign markets, collective learning, and joint innovation. In their study of multinational corporations Kogut and Zander finds that firms specialize in transfer of knowledge that is difficult to codify and "are able to transfer these technologies at a lower cost to wholly owned subsidiaries than to third parties" (Cf. Kogut/Zander 1993, p. 636). Applying internalization and transaction cost theory, Teece confirms this contention. Firms are offered an incentive to engage in foreign direct investment due to the public good characteristics of proprietary information including technological, managerial and organizational know-how. The intra-firm transfer of these types of know-how to a foreign subsidiary is advantageous over autonomous trading because it avoids the need for continuous negotiations and alleviates the hazards of opportunism. Thus, one of the most important efficiency properties of the MNC is that it

provides an organizational mode capable of transferring knowledge and skills in an efficient manner (Cf. Teece 1981, pp. 7-10). Similarly, Gupta and Govindarajan state that “the primary reason why MNCs exist is because of their ability to transfer and exploit knowledge more effectively and efficiently in the intra-corporate context than through external market mechanisms” (Gupta/Govindarajan 2000, p. 473).

In summary, three important implications can be drawn from the application of the resource-based view to the multinational corporation: (1) MNCs must possess unique resources and capabilities in order to extract rents from their international presence; (2) MNCs are better able to control the execution of strategy and the application of critical resources in foreign markets through foreign direct investments; (3) Due to their international presence, MNCs may gain access to new valuable resources and capabilities that are developed in host markets and are not available elsewhere.

## Theory of Operational Flexibility

Kogut, applying an integrated perspective, looks at the MNC as a multinational network able to provide the operational flexibility needed to effectively exploit changes in the international environment. The distinctiveness of the international environment in which MNCs operate derives not only from larger market size but, more importantly, from the variance in country environments (Cf. Kogut 1989, pp.383-389). Sources of environmental volatility in the international context are, for example, new product entries, new government policies, or new international competitors. By developing the appropriate operational flexibility, MNCs are able to exploit these environmental changes and coordinate an international response. In principle, operating flexibility derives from the coordination of

flows within the multinational network and its value rests on exploiting differential factor, product, and capital markets as well as the enhanced leverage to respond to competitors' and governments' threats. Thus, compared to their purely domestic counterparts, MNCs may benefit from arbitrage and leverage opportunities, which Kogut describes as two distinct kinds of flexibility (Cf. Kogut 1985b, pp. 27-38).

Arbitrage opportunities may assume four different forms:

- i. Exploitation of differences in factor markets. The MNC may arbitrage differences in factor markets by shifting production; in this way, it can capitalize on differences in variable costs between plants located in separate countries, especially labor.
- ii. Exploitation of differences in productivity levels, factor endowments, and changes in exchange rates. Moreover, when operating in two countries with different rates of taxation on corporate income, a multinational corporation can (unlike the entirely domestic corporation) adjust its mark-up on intra-company sales of goods and services in order to realize profits in the low tax jurisdiction. Thus, the MNC is able to minimize its tax bill through adjustments of transfer prices and choice of remittance channels.
- iii. Exploitation of imperfections in financial markets. Specifically, it may benefit from interest rate differentials between countries, government subsidies (e.g., export credits, guaranteed loans, tax holidays, etc.), and the avoidance of barriers to international capital flows.
- iv. Exploitation of information advantages. Multinational corporations may conduct information arbitrage as a result of their global learning processes: scanning

innovations in various foreign markets, the MNC may benefit from transferring new products and processes from one location to the next.

Thus arbitrage opportunities reflect the exploitation of price differentials in assets, products, or factors of production between markets. In contrast, leverage opportunities refer to the creation of market or bargaining power because of the global position of the MNC.

This power may result from the ability of multinational firms to :

- i. Aggressively cut prices in one region or market while relying on profits earned in other regions of the world. This ability clearly puts them at an advantage over domestic firms as exemplified by Kogut. He notes that “in response to Michelin's entry into North America, Goodyear dropped its prices in Europe, forcing the family-held French company to slow its investment program and, eventually, to issue outside equity” (Cf. Kogut 1985b, p. 34). This option would not have been available to a purely domestic company.
- ii. Exercise greater power towards governments or rival firms by forming coalitions between suppliers or between a group of competitors. They are also able to better enforce equity claims or contracts in national markets due to their dispersed operations.

The multinational network hypothesis, describes the benefits of multinationality, as the positive exploitation of the risks involved in international markets thanks to the operational flexibility. As opposed to purely domestic firms, uncertainty increases the opportunity available to MNCs in their operations, investments and learning processes.

## 1.2.2 Behavioral School

Due to the static nature of economic theories and their focus on FDI decisions of MNCs, a shift began in internationalization studies. The behavioral school of internationalization, which is rooted in Cyert's and March's behavioral theory of the firm (Cf. Cyert/March 1963) adopt a more dynamic approach that views internationalization as a process. Specifically internationalization is seen as a sequence of steps by which companies acquires experience and knowledge about external markets through the gradual commitment of resources and learning by doing (Seifert/Machado-da-Silva 2007). Thus individual learning and top managers are considered a fundamental aspects in understanding a firm's international behavior; the emphasis is on the decision-maker's, or the decision-making unit's, knowledge of foreign markets, and the perceptions, options, beliefs and attitudes born out of this knowledge, or lack of it (Cf. Erramilli and Rao 1990).

This trend began with Aharoni's (1966) article, which is considered one of the key articles in internationalization studies, and has followed by a number of scholars both in Europe and US who proposed different internationalization models. Specifically the most important models are the "Uppsala Internationalization Model (U-model)" developed by Johanson and Wiedersheim-Paul (1975), Johanson and Vahlne (1977) and "The Innovation-Related Models (I-Models)" developed by Bilkey & Tesar (1977); Cavusgil (1980), Reid (1981) and Czinkota and Johnston (1982). All of these theories and models are deeply reviewed below.

### 1.2.2.1 Aharoni's Decision Making Model

Yair Aharoni's is one of the earliest studies that abandoned the classic economic rationality, and instead applied the behavioral theory of the firm (Cf. Cyert/March 1963) in order to identify the reasons behind foreign direct investment and the way how a company manages this activity. Like in the behavioral theory of the firm Aharoni conceives a company as a political coalition of different interest groups. As stated by Aharoni (1966) the process of foreign investment decision involves "an intricate structure of attitudes and opinion, social relationships both in and outside the firm, and the way such attitudes, opinions and social relations are changing. It contains various elements of individual and organizational behavior, influenced by the past and the perception of the future as well as by the present. It is composed of a large number of decisions, made by different people at different points in time" (Cf. Aharoni 1966, p.13). Consequently, he focuses on decision processes of FDI under conditions of bounded rationality, uncertainty and diverging interests. Aharoni describes FDI as a stepwise decision process; he provides a rich description of individual and organizational behavior over time that shows the crucial effect of perception and uncertainty in the course of this process. Specifically he argues that the following set of elements can be traced out in the foreign investment decision process as well as in any other decision process: "first, any one choice made in the organization depends on the social system in which the process takes place; second, the process, although not each one of the decisions from which it is composed, takes a long time; third, decisions are made under uncertainty; fourth, organizations have goals; and finally, there are many constraints on the freedom of action of the decision-maker to be reckoned with" (Cf. Aharoni 1966, p.3).

First of all, by social system he means the 'organization' and 'environment' in which the decision process takes place. "The organization has devised established 'ways of doing things' according to agreed-upon goals and past experience; these rules and specifications influence the behavior of its members, the information gathered by them, and their adaptive reactions to the environment. Moreover, individuals within the organization have established relations among themselves and with others outside the organization. These relations will also influence any specific decision" (Cf. Aharoni 1966, p.3). With respect to the environment, he explains that the decision-making of any one entrepreneur depends on his evaluation of the competitors' activities in the past and his reactions in the future. In sum, the organization is considered as embedded in a larger system: the industry, the community in which it operates, and the cultural environment of which it is a part.

Second, any investment decision is considered a long process that is spread over a considerable period of time and usually made under 'uncertainty'. Uncertainty is defined as a feeling of doubt and unreliability that is affected by two factors: 'ignorance' and 'perceived changes'. Ignorance occurs due to the 'lack of information' or 'lack of knowledge'. Perceived changes refer to the conditions where there is a high subjective probability of insecure conditions that deal with consistency of information. Due to the uncertainty, we are dealing with perceptions and subjective estimates of elements that are also bounded with constraints. According to Aharoni, investment, like any business decision, involves 'constraints'. He explains that many organizations lacking experience of investment would refuse to consider such a possibility. But when such a possibility is considered, many previous 'policies' taken as given become constraints in the decision process.

Thus the decision to look abroad usually results from a chain of events, , incomplete information, activities of different persons, and a combination of several motivating forces,



some in favor and some against such a decision. Consequently it is difficult to pin down one reason for a decision to look abroad. He explains that leadership factors provide internal impetus for internationalization and suggests that external initiatives may be opportunity-driven or problem-driven. Internationalization is not supposed to be the result of a strategy for optimal allocation of resources to different countries where alternative ways of exploiting foreign markets are compared and evaluated. Rather it is assumed to be the consequence of a process of incremental adjustments to changing conditions of the firm and its environment (Cf. Aharoni 1966).

Based on this mechanism, Aharoni (1966) concluded that the foreign investment decisions follow four successive steps: 1) decision to look, 2) decision to investigate, 3) decision to invest and 4) commitment to investment. However he emphasizes that in real life these stages are ill defined and messy, and the rationality of behavior is seen only if we observe the whole process, instead of concentrating our attention on one isolated phase of it.

### 1.2.2.2 Uppsala Internationalization Model

One of the most important and most influential models in the field of bounded rationality is the Uppsala internationalization model. The model drew upon the works of Aharoni and its main themes are firms' behavior with regards to different foreign establishment sequences related to markets and entry modes. According to this model internationalization is supposed to be a product of a series of incremental decisions (Cf. Johanson/Vahlne 1977, p.23); in particular incremental learning at the firm level is the main factor explaining a firm's

international behavior and decision-making process (Cf. Andersson 2000, Collinson/Houlden 2005).

Johanson and Wiedersheim-Paul's initial article served as the basis of subsequent research that has been encapsulated in what we know today as the 'Uppsala Model' of the internationalization process. Based upon the findings of several studies of international operations of four Swedish firms, they found that when internationalizing, firms followed an evolutionary four-stage process known as 'establishment chain'. Initially, the firm has occasional exporting activities. In the second stage, the firm exports regularly using independent representatives (agents) due to its growing knowledge of the foreign market. In the third stage, it has a deeper involvement abroad and exploits the market through a sales subsidiary and, finally, the firm engages in international production in the fourth stage. According to this study the firm is developed in the domestic market, the internationalization is a consequence of a series of incremental decisions and the term international refers to either an attitude of the firm towards foreign activities or to the actual carrying out of activities abroad (behavior). In their framework, the flow of information between the firm and the market are crucial in the internationalization process and they put heavy emphasis on the concept of 'psychic distance' which involves differences in culture, languages, education, industrial development, political systems among other things. Firms normally internationalize to low physical distant markets in the first movements abroad and once they gain experience in these markets they expand their activities to more physical distant markets.

Further based on the behavioral theory of the firm (Cf. Cyert/March 1963) and Penrose's (1959) theory of the growth of the firm, Johanson and Vahlne (1977) developed the one which is considered the seminal article in the tradition of the 'Uppsala Model'. The model is

focused “on the development of the individual firm and particularly on its gradual acquisition, integration, and use of knowledge about foreign markets and operations and on its successively increasing commitment to foreign markets” (Cf. Johanson/Vahlne 1977, p.23). This is a dynamic model in which the outcomes of one cycle of events constitute the input of the next: firm’s existing foreign market knowledge determines what kind of commitment decisions it may make, the commitment decisions reshape the current business activities, which in turn enhance the firm’s market commitment and market knowledge and thus provokes an establishment chain of international organization.

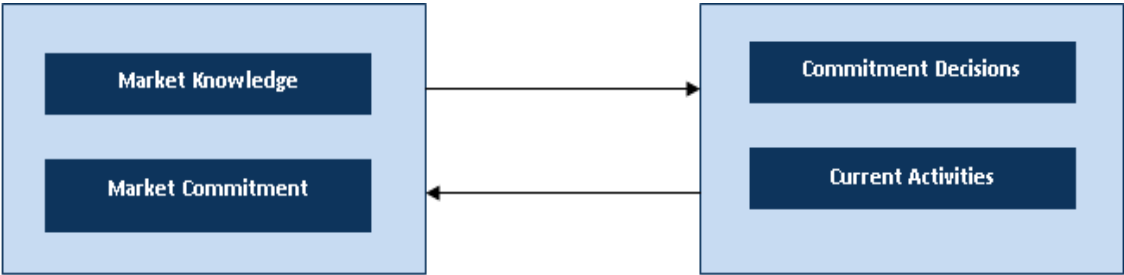


Figure 1.2 . State and Change Aspects of the Uppsala Model [Source: Johanson & Vahlne, 1977, p. 26]

Figure 1.2 illustrates how Johanson and Vahlne (1977, p.26) conceptualize the internationalization process as a dynamic interplay between static aspects of internationalization and aspects of change. The state aspect are market commitment (i.e. resource commitment to foreign markets) and market knowledge about foreign markets and operations. The change aspects are decisions to commit resources and performance of current business activities.

Market knowledge and market commitment are assumed to affect both commitment decisions and the way current activities are performed. These in turn change knowledge and commitment (Cf. Aharoni 1966).

“The basic assumptions of the model are the lack of such knowledge that is an important obstacle to the development of international operations and that the necessary knowledge is acquired mainly through operations abroad” (Cf. Johanson/Vahlne, 1977, p.23). Foreign business opportunities and problems are discovered through experiences from foreign markets and operations. Experience gives the firm an ability to see and evaluate business opportunities and thereby to reduce uncertainty associated with commitments to foreign markets. Since knowledge is developed gradually international expansion takes place incrementally<sup>8</sup> (Cf. Johanson/Vahlne, 2003). Hence, one of the central aims of the Uppsala model has been to explain how the organization learns and gains knowledge throughout its international operations. Penrose (1959) has clearly distinguished and offered an exhaustive description of the two most important types of knowledge: objective or general knowledge and experiential or market-specific knowledge. While the former can be easily taught, the latter can only be learnt through personal experience and can never be transferred or separated from the primary source (tacit knowledge). International initiatives require both kinds of knowledge. However the Uppsala model stressed the relevance of experiential learning, which determines its evolutionary character and is viewed as the main method of reducing market uncertainty. Experiential knowledge is crucial because it cannot be easily

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<sup>8</sup> The model implies three exceptions regarding the small steps in additional market commitment:

- 1) when firms have large resources, then the consequences of commitments are small; therefore, large firms with surplus resources can take larger internationalization steps;
- 2) market conditions are stable and homogenous, so market knowledge can be gained in ways other than through experience, and
- 3) firms have considerable experience from markets with similar conditions, which enables them to generalize the experience. (ibid., 1990)

acquired as objective knowledge (e.g., through marketing researches or reports) and must be gained mainly through direct experience. Consequently, the threats and opportunities in a novel market will be discovered primarily by those people who are working there. Experience generates business opportunities and constitutes a driving force in the internationalization process (Cf. Johanson/Vahlne 1990, p. 33). On the other hand experiential learning or learning through experience from a firm's own activities is an important reason why internationalization is often a slow process (Cf. Johanson/Vahlne 1977, p. 32).

The concept of market commitment is assumed to consist of two factors: the amount of resources committed and the degree of commitment. The amount of resources points at the economic factors allocated to a particular market whereas the degree of commitment represents the difficulty of finding alternative use for the resources and transferring them to alternative usage. Market commitment increases when a firm allocates more inputs to manage and support foreign operations. A direct relation exists between market knowledge and market commitment. Knowledge is considered as a resource (preferably a dimension of human resources); therefore, it is assumed that the better the knowledge about a market, the stronger is the commitment to the market.

Current business activities are considered the primary source of experiential knowledge. The commitment decision (decision to commit resources to foreign operations) is the second change aspect that depends upon what decisions are made and how they are made. Regarding the first part, they assume that decisions are made in response to perceived problems and / or opportunities on the market. Awareness of need and possibilities for business actions are assumed to be dependent on experience. Regardless of whether decisions are made in response to problems or in response to opportunities, commitment

will be made in relation to current business activities. Similarly to Aharoni (1966), they explain internationalization as the consequence of a process of incremental adjustment to changing conditions of the firm and its environment, changes that consequently present new problems and opportunities.

This theoretical model explains two patterns in the internationalization process that were observed by early studies of internationalization processes. First, the firm's level of engagement within a country will follow an establishment chain, which ranges from no regular export activities to offshore manufacturing, bringing a gradual increase in market experience at each step. Second, firms enter new markets with successively greater 'physic distance' that is "the sum of factors preventing the flow of information from and to the market. Examples are differences in language, education, business practice, culture and industrial development" (Cf. Johanson/Vahlne 1977, p. 24).

Later, in response to criticisms such as being deterministic (Cf. Reid 1981) and being applicable to the early stages of internationalization when the lack of knowledge and resources is still a constraining force (Cf. Forsgren 1989), Johanson and Vahlne (1990) attempted to extend the explanatory power of the model by developing its theoretical basis to embrace new concepts and approaches. Firstly, they related the internationalization model to direct investment theory, by perceiving the eclectic paradigm. Thus, the purpose of the model has been modified and defined as: "explaining the pattern and mode of establishing marketing-oriented operations (including manufacturing for the local market)" (Cf. Johanson/Vahlne 1990, p.16). Therefore, with respect to the 'location', they took not only psychic distant into account but also assumed that the firm would enter where demand for its products exists. Regarding the second variable 'mode of entry', 'uncertainty avoidance' is assumed as the influential factor. Therefore, not only lack of experiential

knowledge of the foreign market, but also lack of established relationships to various parties, especially customers, on the foreign market (which makes it possible to calculate costs and risks) are considered as explanatory variables. Secondly, some other deficiencies are discussed by relating the process model to the concept of the industrial network. In response to the developing role of the network of business relationships among different business actors, Johanson and Vahlne (1990) argue that business relationships and industrial networks are subtle phenomena that are not easily observable by outside observers. These relationships can only be understood through experience from interaction inside; therefore, regarding the internationalization process model, it can be assumed that “market (i.e., network) knowledge is based on experience from current business activities, or current business interaction” (Cf. Johanson/Vahlne 1990, p.19). Therefore, the foreign market entry or network entry are considered to be the result of interaction initiatives taken by other firms that are insiders in the network in the specific country. The relationships of a firm are considered as bridges to other networks that are important in the initial steps abroad and in the subsequent entry of new markets. Though countries and industries are thought to differ in terms of their relative importance to the firm’s relationships, “it can be expected that the personal influence on relationships is strongest in the early establishment of relationships” (Cf. Johanson/Vahlne 1990, p.20).

### 1.2.2.3 The Innovation-Related Internationalization Models

Models of innovation-related internationalization emerged in North America in the late 1970s and early 1980s and were developed on the basis of the Uppsala model (Andersen 1993). Among the best known models are from Bickley and Tesar (1977), Cavusgil (1980) and

Reid (1981). These models describe an internationalization process as similar to a sequence of new technology adoption, because internationalization is perceived as an innovation for the firm.

All of these models possess a common theme in which they propose an incremental “stages” approach to export development and generally support the notion of psychic distance. Consistent with U-Models, the I-Models have attributed the gradual pattern of export development to two reasons: 1) the firm’s lack of knowledge, especially ‘experiential knowledge’, and 2) uncertainty associated with the decision to internationalize.

Bilkey & Tesar (1977) have conceptualized the process of export development on the basis of firms’ increasing involvement in exporting to psychologically more distant markets. They have explained that the ‘stage’ model is meaningful for examining export behavior of small and medium-sized firms. Several criteria such as past export, present export, exploration of exporting, unsolicited orders, etc. were used to separate the stages. There are no arguments for the classification procedures, and no discussion of why and how the independent variables should influence the export development process.

Cavusgil’s (1980) model is founded on management’s successive decisions regarding exporting over a period of time. Based on empirical evidence, he suggests that several firm-specific characteristics and managerial factors act as determinants in the process of facilitating or inhibiting the progress of firms from one internationalization stage to the next.

Reid (1981) views internationalization as an innovation adoption process. Export adoption was believed to require a favorable management attitude to exporting, an available foreign market opportunity and the presence of spare resource capacity within the firm. He points out the need to distinguish between the foreign entry expansion processes of small and large firms. Regarding small firms, he assumed that the individual decision-maker influences



the export behavior of the firm while the entry behavior in large firms is supposed to be structurally determined. This model differs from other I-models, as it is not focused on the organizational form adopted by the firm for exporting, but on the attitude and behavior of the decisionmaker and the requirements of the firm in terms of allocated resources at each stage of the adoption process. Although no formal definitions are offered for 'managerial attitude', Reid (1981) indicates "managerial attitude" in the exporting research has been used to refer to decision-makers' preconditional views, perceptual tendencies, expectations, beliefs and general attitudes towards foreign markets. This model suggests that individual characteristics of both decision-maker and firm are of great importance in determining export behavior.

Although all variables (except size) identified by Cavusgil (1980) and Reid (1981) turn out to have a significant impact, they cannot explain movements from one stage to the next; it is only possible to characterize the firms that are in different stages (Andersen, 1993).

Czinkota (1981) adapted the first four stages of his model from Bilkey & Tesar's study. He used several criteria for differentiating among stages: past export volume, absolute export volume, length of export experience, types of countries exported to, number of export customers, number of export transactions, and manpower committed to exporting. He has segmented firms so as to be able to target government export assistance requirements effectively. The empirical investigation revealed that firms, at various stages, significantly differed in terms of their organizational and managerial characteristics.

Stage	Uppsala Model	Innovation-related Model			
		Bilkey & Tesar (1977)	Cavugsil (1980)	Reid (1980)	Czinkota (1981)
1	No regular export activities	Management is not interested in exporting	Domestic marketing: the firm sells only in the home market	Export awareness: problem of opportunity recognition, arousal of need	The completely uninterested firm
2	Export via independent representatives	Management is willing to fill unsolicited orders, but makes no effort to explore the feasibility of active exporting	Pre-export stage; the firm searches for information and evaluate the easibility of undertaking exporting	Export intention: motivation, attitude, beliefs, and expectancy about export	The partially interested firm
3	Establishment of an overseas sales subsidiary	Management actively explores the feasibility of active exporting	Experimental involvement: the firm starts exporting on a limited basis to some psychologically close country	Export trial: personal experience from limited exporting	The exploring firm
4	Overseas production / manufacturing units	The firm on an experimental basis to some psychologically close country	Active involvement: exporting to more new countries – direct exporting – increase in sales volume	Export evaluation: results from engaging in exporting	The experimental firm
5		The firm is an experienced exporter	Commitment involvement: management constantly makes choices in allocating limited resources between domestic and foreign markets	Export acceptance: adoption of exporting / rejection of exporting	The experienced small exporter
6		Management explores the feasibility of exporting to other more psychologically distant countries			The experienced large exporter

Table 1.6: A review of the Uppsala Model and Innovation-Related Models [Source:Andersen 1993]

Similar to the Uppsala Model, the Innovation-related Models regard internationalization as a process. The Uppsala Model, with its emphasis on learning theory, is presented as a dynamic model, while the Innovation Model portray the internationalization process as a step-by-step development (Cf. Andersen 1993). Each new stage represents more experience and/or involvement than the earlier stages (Cf. Andersen 1993, Vissak 2003) and each stage is considered an innovation for the firm. However, the number of internationalization stages varies by researchers following the innovation-related models (Cf. Vissak 2003).

Part of the contribution of the Innovation-related Models lies in their explanation of how the process starts and the role of key decision-markers and the variables that influence their decisions (Cf. Collinson/Houlden 2005).

Internal	External
<ul style="list-style-type: none"> <li>▪ General firm characteristics: size, goals, background, past performance, ownership structure and reputation.</li> <li>▪ Differential company advantages: the nature of its products, markets, technological orientation, financial resources and information about foreign markets.</li> <li>▪ Decision-maker characteristics: age, country of birth, value system, past history, experience in foreign markets and behavior in uncertain situations.</li> <li>▪ The strength of managerial aspirations for various business goals (e.g. growth, profit and market development).</li> <li>▪ Management expectations about the effect of exporting on business goals.</li> <li>▪ The level of organizational commitment to export marketing including willingness to learn and devote adequate resources to export-related activities</li> </ul>	<ul style="list-style-type: none"> <li>▪ National policies (e.g. export incentives, export support services, provision of information about, foreign market opportunities and currency devaluation).</li> <li>▪ Regional trading agreements.</li> <li>▪ Home country conditions: size, domestic demand, competition, the workforce’s education level, production and transport costs, linkage between industries, legislation, infrastructure and institutional framework.</li> <li>▪ Industry characteristics, including foreign and domestic competition and market demand.</li> <li>▪ Foreign market conditions: size, competition, tariff and non-tariff trade barriers, product standards, geographical and cultural distance from the host country.</li> <li>▪ Marketing activities by competitors in foreign markets.</li> <li>▪ Industrial and trade associations.</li> <li>▪ Unsolicited export orders.</li> </ul>

Table 1.7 The determinants of export marketing behavior according to the innovation-related models [Source: Vissak, 2003]

The view states that export attitudes and knowledge of the way they influence choice of method of foreign entry, choice of country, and recognition of potential opportunities, represent the major elements of exporting as an adoption of innovation processes. Furthermore, the view states that the decision-maker's attitude, experience, motivation, and expectations are primary determinants in firms engaging in foreign market activity (Cf. Reid 1981) and therefore the entry into exporting is considered to be traced to an innovator inside the firm. That individual possesses aggressive and competitive traits, with greater tolerance of risk than his/her counterparts in the firm and motivated by perceived rewards stemming directly from exporting as a strategy of its growth (Vissak, 2003).

## 1.3 Conclusions

As demonstrated in this section, in reviewing the literature on determinants of MNCs activity and its benefits/costs, it is important to distinguish between the different approaches, because what may be an exogenous variable in one may be endogenous in another. It follows that there is no all-embracing explanation of international production only a correct answer to a particular question, each of which may contribute to our understanding about the cross-border economic activity. However, it is possible to formulate a general paradigm of MNCs activity that sets out a conceptual framework, and seeks to identify clusters of variables relevant to an explanation of all kinds of foreign activity. Also, while the relevance and significance of the variables identified by each theory will differ, they should be more properly viewed as complementary rather than substitutable explanations for the cross-border activity of the firm. In the next chapter, all of these

variables will be considered in order to comprehend which is the nature of the relationship between internationalization and performance.

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## 2. The impact of the MNC's home country on the internationalization-performance relationship

In this chapter we focus on the core of this dissertation: the relationship between internationalization and performance . In particular this study seeks to contribute to the topic by empirically investigating the influence of the country of origin effect (COE) on the shape of the internationalization-performance relationship.

The chapter is structured as follows. First, a brief introduction to the importance of country of origin effects is provided. Second, we go deep into the subject of the performance-internationalization relationship by reviewing previous theories and empirical findings. Third we develop our hypothesis and explain analysis techniques. Finally results, implications, limitations and possible extensions are presented.

### 2.1 Introduction

Nowadays, the degree of economic interdependence among countries is growing enormously. This growth in interdependence is confirmed by increases in the cross-border flow of goods, services, capital, and knowledge. By introducing a new set of competitors, especially in the growing economies, local companies might face more disruptive competition. Those foreign companies, usually owner of significantly different sources of competitive advantage (such as access to lower cost factor markets, and different technologies and capabilities), increase competition in such a way that compels the domestic firms to rise a 'world class' level to remain competitive (Cf. Bowen/Wiersema 2005). On the

other hand, despite this apparent advantage to the foreign firms such as cited above, local uncertainties are always present, featuring to the international arena both opportunities and threats for firms seeking strategic competitiveness in global markets. Based on this flick environment, the best understanding of the relation between the degree of internationalization and performance is fundamental. Managers and scholars must understand which variables most affect the firm performance behavior. Knowing that, firms can best determine how to apply their resources and capabilities efficiently. Additionally, firms must understand how those resources and capabilities can be a constraint to their increasing expansion to new markets (international diversification) and new product areas (product diversification), configuring it in the optimal way. As a matter of fact the internationalization-performance link has become one of the mayor topics of the management literature. Despite the large amount of researchers dealing with it, a general consensus hasn't been reached yet, reason for why this research stream is still moving so much efforts in the academic world. To Palich, Cardinal and Miller (2000), a research stream can be considered as mature when (1) a substantial number of empirical studies have been conducted, (2) these studies have generated reasonably consistent and interpretable findings and (3) the research has led to a general consensus concerning the nature of key relationships. Analysing the main researches done up to date, we are able to say that the international diversification – performance relationship does not come up to scratch, since the last two criteria was not fully satisfied.

In particular, empirical studies of the past 30 years have shown only inconclusive and contradictory results for the link between financial performance and a firm's degree of internationalization. Initially researches, focusing only on the benefits of international expansion, addressed and occasionally found evidence in support of a positive linear form



(Cf. Buhner 1987, Grant 1987, Grant/Jammine/Thomas 1987, Han/Lee/Suk 1998 Kim/Hwang/Burgers 1989, Kim/Lyn 1987, Tallman/Li 1996). However, inconclusive results led researches to consider a non-linearity hypothesis: if a non-linear curve best reflects the internationalization-performance relationship, linear regression provide misleading findings. Over the past decade, researches applying quadratic estimation models found evidence in support of a U-shaped form, i.e. negative sign for the first order term and positive for the second order (Cf. Capar/Kotabe 2003, Contractor/Kumar/Kundu 2007, Lu/Beamish 2001, Pangarkar 2007, Ruigrock/Wagner 2003, Thomas 2006), as well as an inverted U-shaped form (Geringer/Beamish/daCosta 1989, Gomes/Ramaswamy 1999, Hitt/Hoskisson/Kim 1997), i.e. a positive sign for the first order term and negative for the second order term. While, a U-shaped relationship suggests that early internationalizers see an initial decline in performance up to a certain point, after which further expansion leads to an increase in performance, an inverted U-shaped link suggests that geographic expansion brings to superior corporate performance up to a certain point, beyond which the costs of internationalization outweigh the benefits, and performance decreases. More recently researches have aimed at reconciling research findings and proposed that on average a horizontal S-curve best describes the internationalization-performance relationship (Cf. Contractor/Kundu/Hsu 2003, Lu/Beamish 2004, Riahi Belkaoui 1998, Thomas/Eden 2004). According to this three-stage model, multinational companies experience a performance downturn at low degrees of foreign expansion, increasing performance levels at moderate degrees of internationalization (DOIs), and eventually a second and final performance downturn at high DOIs. The inflection point between the second and the third stage has been referred to as 'internationalization threshold' (Cf. Geringer/Beamish/daCosta 1989). Beyond this point the incremental costs of internationalization will begin outweighing the

incremental benefits of internationalization. The academic implication of this is that while companies may cover a broader spectrum of DOIs, performance pressures will ultimately select against both under-internationalization and over-expansion/over-internationalization (Cf. Contractor/Hsu/Kundu, 2003). The managerial implication of this finding is that managers should seek to control costs at lower DOIs and steer away from high DOIs.

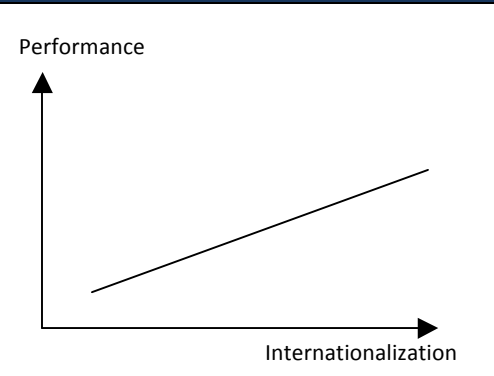
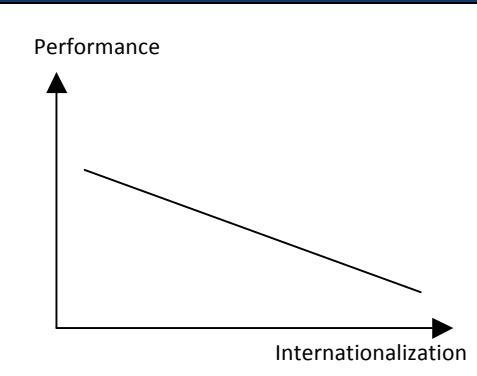
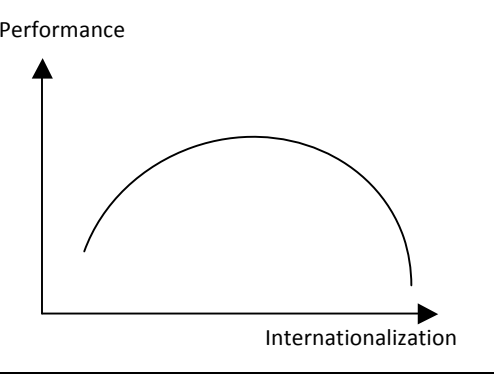
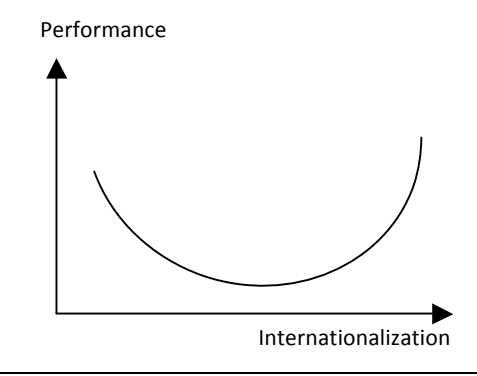
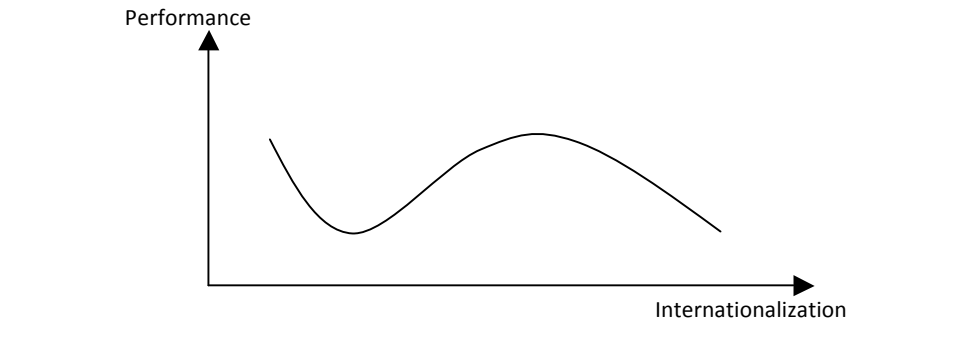
		Form of the relationship
 <p>Performance</p> <p>Internationalization</p>	 <p>Performance</p> <p>Internationalization</p>	<b>Linear</b>
 <p>Performance</p> <p>Internationalization</p>	 <p>Performance</p> <p>Internationalization</p>	<b>Quadratic</b>
 <p>Performance</p> <p>Internationalization</p>		<b>Cubic</b>

Table 2.1: Different Forms of the Relationships between Internationalization and Corporate Performance found in Empirical Studies

The relationship between a firm's extent of internationalization and its financial performances raises a number of complex issues, as previous research generally accepts the notion that performance outcomes of a firm's international strategy are influenced by a three sets of factors: firm, industry and home/host country (Cf. Kochhar/Hitt 1995). Extant studies incorporate largely firm and few industry related variables in the testing of the internationalization-performance relationship, while country influences are treated as residuals (or in a few instances partialled out using dummy variables). The underlying assumption of this research has been that all factors pertaining to the effectiveness of internationalization reside within the company.

We believe that separate treatment of country in the internationalization-performance relationship will offer greater insights into this topic. The selection of variables includes those controlled by the firm and extends to external, environmental-related variables that provide the firm with some type of strategic advantage (or disadvantage) in the international markets. The latter may include country – based factors where the location of a large segment of the industry may create a certain infrastructure and thus positive externalities. Therefore, a firm cannot isolate itself from the home country, as it incurs a complex set of costs and benefits by virtue of its home base of operations. Thus, it is inadvisable to ignore the potential impact of home country on the performance outcome of internationalization. This assertion deserves greater investigation, as other researchers working on this topic (eg. Ruigrock/Wagner 2003) have suggested that one potential reason for differences in empirical findings across studies could be the country of origin of the MNC. In this paper, we aim at demonstrate that the home country environment would have an impact on a firm's internationalization effort and outcomes, which is independent of, and in any addition to, the within the firm variables.

## 2.2 Literature Review

Empirical studies reach back until the 1970s and have employed different approaches to examine the topic. Earlier studies adopt a 'comparative' approach by contrasting a group of multinational corporations with a sample of companies that are domestic in nature. In doing so, these studies attempt to isolate the unique performance benefits that multinational corporations might enjoy over purely domestic firms. In contrast, more recent empirical studies largely employ a 'control' approach that focuses exclusively on MNCs and evaluates the relative performance outcomes associated with various levels of multinationality. Consequently, multinationality (internationality) is conceptualized as a continuous variable. Moreover, these studies frequently use multivariate analysis to control for the extraneous influences of firm size, research and advertising intensity, or industry membership. In this way, the relationship in question can be examined without confounding influences. Typical measures of the degree of multinationality (internationalization) are the percent of foreign sales or foreign assets as well as the number of overseas subsidiaries.

In addition, empirical studies can be distinguished based upon the performance-measures they employ. Scholars of finance and economics explore the internationalization performance relationship from the viewpoint of investors. Therefore, they assess corporate performance in terms of stock market-based measures such as Tobin's q or P/E ratios. In contrast, scholars of international business and management tend to use accounting-based measures of performance. Amongst others, these measures include the return on sales (ROS), the return on assets (ROA), the return on equity (ROE), and/or sales growth rates.

However, the most important distinction between the existing empirical studies on the internationalization-performance relationship is based upon the assumed form of the relationship. The principal features of each theories are reviewed below.

## 2.2.1 Linear Theory

Earlier studies in the 1970s and 1980s hypothesized that either the benefits or costs of international expansion (fully explained in the previous chapter) dominate throughout the internationalization continuum, i.e. from low to high degrees of internationalization. Consequently, they examined a linear association that resulted in either monotonically increasing or decreasing returns from continued foreign expansion. Table 2.2 summarizes the findings of the linear theory.

Authors	Year	Sample	Period	Dependent Variables	Type of relationship
Rolf Buhner	1987	40 Best Companies West Germany	1966-1981	Market Return	Positive
Kim and Lyn	1987	US companies	1974-1983	Tobin's Q	Positive
Grant	1987	304 Manufacturing Firms UK	1968-1984	ROA,ROS,ROE	Positive
Grant, Jamine and Thomas	1988	304 Manufacturing Firms UK	1972-1984	ROA,ROA,ROE	Positive
Han, Lee and Suk	1998	Canada (92) France (163) Germany (173) Italy (60) Japan (870) UK (420) US (857)	1994	ROE	Positive
Brewer	1988	US (151)	1963-1975	Stock Return	Negative
Siddhartan and Lall	1982	US (74)	1976-1979	Growth of Sales Revenue	Negative

Michel and Shaked	1986	US MNEs (58) US DCs (43)	1973-1982	Risk-Adjusted Return	Negative
Collins	1990	US (150)	1976-1985	Total Risk, Debt to Equity Ratio, Beta	Negative

Table 2.2: Empirical studies of the linear theory.

## 2.2.2 Curvilinear Theory

Because of contrasting results by investigating a linear relationship between internationalization and performance, some authors started to ask themselves if the nature of the relationship could be curvilinear. In particular MNCs come across both the benefits and the costs of internationalization; thus, hypothesizing a monotonic linear relationship between internationalization and performance is a simplistic approach. On the contrary is necessary to consider the interplay (i.e. the trade-off) between costs and benefits. In order to test this hypothesis they introduced in their models a squared term for DOI. However, results obtained are conflicting once again. Curvilinear theories could be classified in two different categories according to the shape of the relationship. In particular some authors hypothesized and found evidence for the existence of an inverted U-shaped link between DOI and performance; according to them the positive impact of internationalization on performance is, over time, outweighed of coordinating a wide dispersed network of international operations. In other words, the slope of the curve is initially positive and after reaching an apex, becomes negative. Thus they found that the slope is positive at low levels of 'multinationality' but turning negative at higher levels of internationalization, when companies become 'overinternationalized'. This argument is best exemplified by the theoretical framework of Gomes and Ramaswamy (1999), in which a central point is the

assumption of incremental internationalization<sup>9</sup>. Firms internationalize on an evolutionary path: starting in geographically and culturally close markets, then successfully entering 'physically' more distant markets. According to Gomes and Ramaswamy "it can be argued that firms have much to gain during their initial foreign market entries because they can deploy their home based skills and resources to achieve economies of scale and/or scope...without huge cost increases" (Cf. Gomes/Ramaswamy 1999, p.176). Initial expansion into countries that exhibit a close similarity in terms of consumer tastes, market systems, and institutional settings eases the transfer of marketing techniques, human resources, and technology. Likewise, organizational structures, leadership approaches, and corporate control mechanisms need only small adjustment when dealing with foreign settings closely resembling home markets. Finally, financial and political risk is perceived to be minor for companies operating in homogeneous business environments. Thereby the result is a positive relationship between DOI and performance. However, once the level of foreign operations becomes high, the MNC enter less familiar settings that require major reconfiguration of internal processes, structures, and mechanisms, the costs of internationalization dramatically increase and eventually overtake the benefits. According to Hitt/Hoskisson/Kim 1997 greater geographic dispersion increases the cost of coordinating, integrating and managing the MNE's overall operations and as a consequence marginal costs will exceed marginal benefits of international expansion. Following this argument, one readily infers that the inverted U-shaped curve is, to a high degree, pre-determined, and that firms should avoid crossing the identified thresholds of internationalization.

On the other hand, several scholars theorized and found evidence for the opposite relationship; Lu and Beamish (2001), analyzing a sample of 164 small to medium Japanese

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<sup>9</sup> A fully explanation of this view is provided in the previous chapter, section 2.2.

enterprises (SMEs) found regular U-shaped form relationship between international diversification and performance. To those authors, different from big and well internationalized firms (where the main concerns are related to the downward exerted on performance by increasing governance and coordination costs on high internationalization levels), to SMEs the primary concern is related to the liability of foreignness. Because of those liabilities, SMEs may not capture the benefits of foreign direct investment in the first stage of internationalization. At later stages, those liabilities can be reduced as firm increases its experience on FDI, and the effect on performance starts to grow positively, configuring the regular U-form. The same U-form was found by Capar and Kotabe (2003) when testing for German service firms. According to them, in the first stages of international expansion service firms must undertake much higher investment than their manufacturing counterparts, which generally start their international expansion by exporting to host countries. Other reasons presented by the authors to the declining initial performance of the internationally diversified service firms are: (1) host country restrictions and regulations in the service industries to the foreign involvements (e.g. ownership restrictions, domestic preference policies, unfavorable tax treatments), (2) service firms must be more adapted to the client culture and language comparing to the manufacturing firms, since the service sector requires intensive customer contact and extensive customization, and (3) while in the manufacturing sector the goods are generally first produced and then sold and then consumed, in the service sector the product is first sold and there is an inseparability between the produce and consume stages. Because of that, very often the buyer must have intimate contact with the production process, what requires a local facility. Table 2.3 summarizes the findings of the curvilinear theory.



Authors	Year	Sample (number)	Period	Dependent Variables	Type of relationship
Daniels and Bracker	1989	US (116)	1974-1983	ROS, ROA	Inverted U-shaped
Geringer, Beamish and daCosta	1989	US MNEs(100) Europe MNEs (100)	1977-1981	ROS, ROA	Inverted U-shaped
Sullivan	1994	US (74)	1979-1980	ROS, ROA	Inverted U-shaped
Hitt, Hoskisson and Kim	1997	US (295)	1988-1990	ROS, ROA, ROE	Inverted U-shaped
Gomes and Ramaswamy	1999	US MNEs (95)	1990-1995	ROA, Op. Cost/Sales	Inverted U-shaped
Qian	2002	71 Emerging SMEs	1989-1993	ROS	Inverted U-shaped
Hsu and Boggs	2003	US MNEs (118)	1996-1998	ROA, ROE	Inverted U-shaped
Lu and Beamish	2001	Japanese SMEs (164)	1986-1997	ROS, ROA	U-shaped
Capar and Kotabe	2003	German Firms (81)	1997-1999	ROS	U-shaped
Ruigrock and Wagner	2003	German Firms (84)	1993-1997	ROA	U-shaped
Thomas	2006	Mexican Firms (386)	1994-2001	ROS	U-shaped
Contractor, Kumar, Kundu	2007	Indian Firms (269)	1997-2001	ROS, ROA, ROE	U-shaped

Table 2.3: Empirical studies of the curvilinear theory

### 2.2.3 Multiple Stages Theory

The recent 3-stage theory (Cf. Contractor/Kundu/Hsu 2003, Lu/Beamish 2004, Thomas/Eden 2004) provides a dynamic explanation of the effect of three sequential stages that companies go through when expand internationally. At all stages, there are incremental benefits and incremental costs, of adding an additional nation or market to the firm's existing portfolio of countries.

According to Lu and Beamish “the conflicting results could be an outcome of incomplete theorization about the full range of benefits and costs, and about the changes in these benefits and costs over the time it takes to fully implement an internationalization strategy” (Cf. Lu/Beamish 2004); thus they developed a theoretical framework that provide a more complete account of the benefits the costs of internationalization change across stages of the internationalization process.

**Stage 1 : costs and barriers to initial international expansion.** In the early stage of foreign expansion, firms face significant entrance costs (Cf. Zaheer 1995, Zaheer/Mosakowski 1997, Gomes/Ramaswamy 1999) stemming from what the literature call the ‘liability of foreignness and newness’ in terms of their unfamiliarity with the foreign market’s institutions and possible discrimination against foreign companies. Early internationalizers incur large learning costs because of unfamiliarity with foreign markets, cultures and environments. As Caves (1971, p. 5) puts it, “the foreign enterprise must pay dearly for what the native has acquired at no cost to the firm (because it was part of the entrepreneur’s general education) or can acquire more cheaply (because as it were the native knows where to look)”. Initially, the large incremental set-up costs of setting up new international operations, including additional overheads, can only be amortized over one or few foreign markets. As a result, in Stage 1, the company’s incremental costs of international expansion are greater than the incremental benefits or revenues it reaps, and thus we expect a negative slope for the link between performance and multinationality.

**Stage 2: realization of international expansion’s benefits.** Having passed through Stage 1<sup>10</sup>, further international expansion begins to yield incremental benefits that exceed the firm’s

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<sup>10</sup> The length or duration that a firm may spend in Stage 1 will vary by sector, home and foreign market characteristics. In that sense, the M/P relation is context-dependent. The context or situation of the firm, or

incremental costs. For every additional international operation or market added, there would continue to be learning, coordination, local adaptation and legitimacy acquisition costs, but the following benefits are now greater than the incremental costs (C.f. Contractor 2007, pp.455-459).

a. Knowledge acquired from abroad. The international firm's presence in several nations increases its ability to pick up on foreign knowledge that domestic or less internationalized rivals cannot access (Cf. Kogut/Zander 1993, Ghoshal/Bartlett 1990).

b. Accessing or "arbitraging" cheaper inputs. This may include lower cost labor, or any other inputs. In sum, a company present in more nations is, ceteris paribus, in a better position to find arbitrage opportunities than its competitors that are present in few, or only one.

c. Exploitation of firm-specific assets carried to each foreign market (Cf. Caves 1996, Buckley 1988). This confers – for a considerable if not indefinite period – monopolistic advantage to the foreign firm. This is due to the fact that internalized knowledge is sticky, not easily imitable, and where intellectual property, such as brands and patents confers firm-specific advantages that last for a long time, if not indefinitely. Even if patent rights expire, continued investments in R&D can keep firms ahead of competitors. Moreover, the bulk of corporate capability, for all sectors in general, lies not in formally registered IP, but in internal organizational routines that confer lasting advantage.

d. Accumulation of market power because of wide multinational presence. There is a considerable body of work (e.g. Kogut 1985) that supports the view that, in many sectors, being large and multinational enables a company to establish its preferred technical

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sector, does make a difference. But modification dependent on the context by no means obviates this general theory

standards and protocols, or create global brand equity, and even, in some cases, cartelize the industry to earn “super-normal” profits. A considerable degree of internationalization (DOI) is prerequisite to enjoying this financial muscle.

e. International scale. But the simple fact remains, that the large expenditures needed for R&D and central overhead costs comprise a lower burden per unit of output, the more output there is. That is to say, a firm present and selling in many countries is (i) better able to amortize huge R&D outlays that are today needed in high-tech sectors, and (ii) is better positioned to assume the risks of larger R&D budgets than its less internationalized rivals. If larger R&D budgets enable performance superior to that in rivals, then international scale does matter.

f. Geographical diversification. There has been unnecessary confusion in the M/P literature in using the term “diversification” which has been used loosely to suggest higher profits from internationalization. The term should refer only to risk reduction from operating in several nations at once, because of asynchronous business cycles (e.g. Siddharthan/Lall 1982), or from smoothing out foreign exchange volatility with multi-currency cash flows, or because having plants in several nations confers operational and strategic flexibility on the firm. Hence geographical diversification can indeed be an advantage, but one needs to differentiate between reduction in risk (or volatility), from increases in profit, as a result of greater internationalization. In empirical studies one needs to measure risk or volatility reduction separately from increase in profits. Alternatively, as in the finance literature, one needs to create an overall index of risk-adjusted profit – as an indicator of performance.

g. Internationalization experience. This is another term that has been used to suggest different meanings to different authors. Traditional internationalization literature, such as Johanson/Vahlne (1977) simply describes the internationally expanding firm as gaining more

foreign knowledge, and market opportunities, as it adds more markets abroad. With more experience it ventures farther afield to less culturally familiar territories. I refer here to something else – the accumulated and better organizational ability, over time, to reproduce the firm in foreign locations. This replication ability, at lower cost and time, is gained through greater international experience. Faster foreign entry, at lower cost, improves profit compared to rivals with less internationalization experience.

Based on the seven foregoing benefits, the internationalizing firm, over a considerable range in middle Stage 2, enjoys the net benefits of international expansion, as shown in Figure 1. In Stage 2 incremental benefits outweigh incremental costs. *Ceteris paribus*, there is a positive slope for the Performance vs. DOI link.

**Stage 3: International expansion beyond an optimal threshold.** Unfortunately, firms do not experience infinite performance increases: international expansion beyond a certain point (depending on the particular sector) again leads to a reduction in profits.

After having expanded in the top tier markets, firms further expansion in peripheral nations would bring more costs than benefits, and hence is detrimental for performance. First because, after having expanded into the most profitable markets, the firm deals with minor and lower profit potential countries. Second the extent of cultural and economic diversity increases sharply. Finally, beyond an optimal number of nations, the growth of coordination and governance costs may exceed the benefits of further expansion, because of the complexity of widespread operations. In Stage 3, a few firms may inadvertently (or knowingly) over-internationalize, and once more, suffer a net negative effect on performance. (The slope of Performance on Degree of Internationalization is negative).

To summarize: the 3-stage model posits two relatively short periods (Stage 1 and Stage 3) where incremental internationalization produces a net negative effect on profits, and a

longer middle Stage 2 where the net effect of international expansion is positive. Overall, the theory thus posits a sigmoid M/P function as depicted in Figure 2.1.

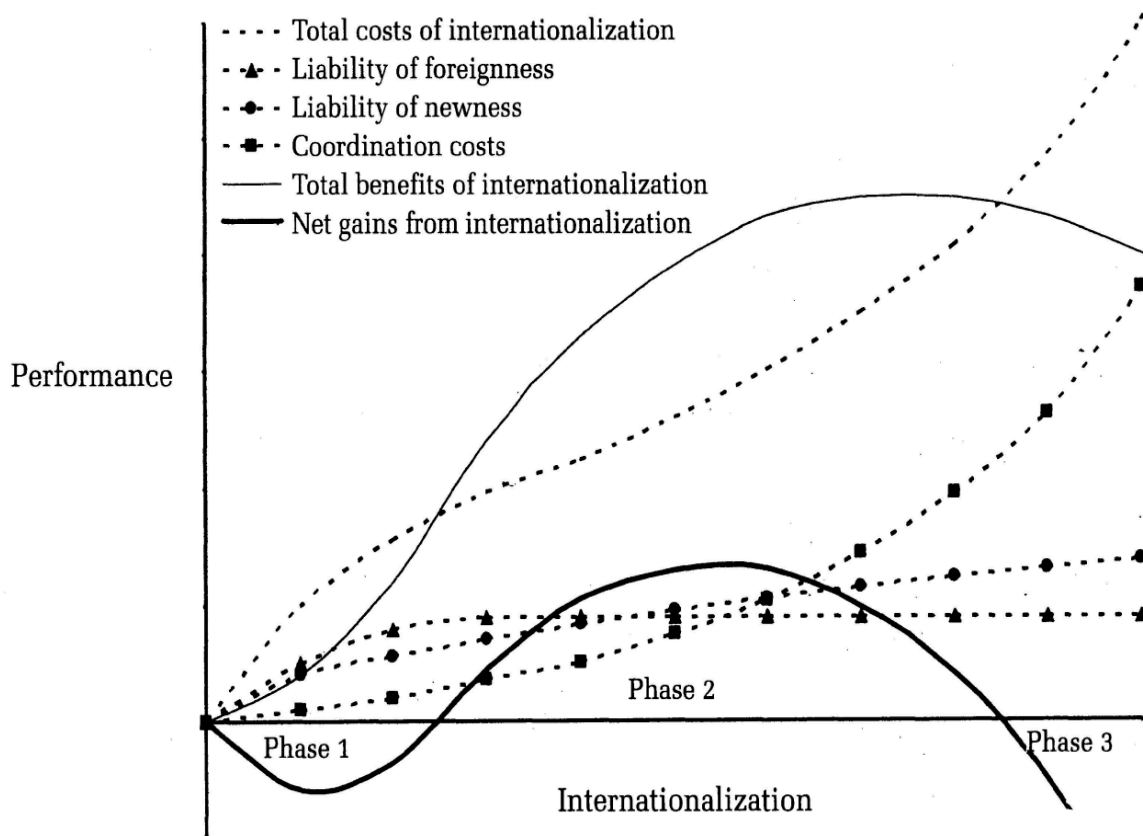


Figure 2.1 Multinationality and Performance: A Three-Phase Model [Source: Lu/Beamish 2004]

According to this theory, the misleading past empirical findings are the consequences of the use of diverse data sets and methodologies. On one hand, with exception of Riahi-Belkaoui (1998) who tested a 3-stage model, no one had introduced the cubic term for DOI

and tested for a S-shaped curve until Contractor, Kundu and Hsu (2003), Lu and Beamish (2004), and Thomas and Eden (2004). On the other hand, it also possible that the data in studies prior to 1998, despite introducing a first, second and third order term for DOI, would not have resulted in a S-curve finding because the statistics for all three stages were not significant. This may also occur in empirical testing in the future, despite first, second and third order terms for DOI being included. Thus, studies that have found a linear positive slope either not have specified a quadratic term, or may simply capture Stage 2 in their data and results; on the contrary, studies that show a negative linear relationship may capture only Stage 1. Similarly, studies that have found a U-shaped and inverted U-shaped curve may reflect respectively Stage 1 and Stage 2 combined, and Stage 2 and Stage 3 combined. For example there may be subsectors that are not fully internationalized: if the degree of multinationality in a certain subsectors is not complete (i.e. most companies are in Stage 1 and Stage 2) then the shape of the statistically fitted curve, despite a cubic or sigmoid regression specification, would be only U-shaped. Similarly, in samples that include only mature or highly internationalized firms (i.e. most companies in the Stage 2 and Stage 3) the statistically fitted curve be an inverted U-shaped curve, despite a cubic term. Finally the statistically fitted curve may turn out to be S-shaped if all three stages are well represented as was found in Contractor/Kundu/Hsu 2003, Lu/Beamish 2004, Thomas/Eden 2004 and Ruigrok/Amman/Wagner 2007 who found the S-curve but shifted to the right, as a consequence of the particular sample considered (i.e. Swiss companies).

## 2.3 Conceptual Framework and Hypothesis Development

Despite the extensive amount of research that has been conducted on the internationalization-performance relationship, a fundamental question remains: “how universal is the internationalization-performance relationship?” The apparent inability to reach a broad consensus regarding the focal relationship is not entirely unexpected. In addition to methodological reasons, such as the ambiguity of constructs and substantial differences in the research methodologies applied and samples studied, there is another plausible reason. As already mentioned, it is possible that the internationalization-performance relationship is context-dependent and therefore investigators should not be searching for internationalization-performance generalizations or principles, but rather focusing on the identification of moderators variables that could influence the shape of the link. Thus, our attention is focused on which is the impact of the MNC’s home country on the internationalization-performance relationship.

The conceptual rationale for such investigation to capture the impact of home country influence on firm strategy has been presented under the aegis of country of origin effect or COE (Sethi/Elango 1997, 1999). According to its proponents, COE is composed by three elements:

- Cultural values and institutional norms
- Country economic and physical resources and industrial capabilities



- National government's economic and industrial policies.

They argue the premise that, for companies originating within a single country, country-based factors impact all firms from that country, and these elements will manifest themselves through the action of firms from a particular country and induce firms from different countries to exhibit differential behavior in their strategic choices, operational modes and outcomes. Although these influences will vary for different firms from the same country, they would not be available to companies from other countries. Consequently, in international markets, COE characteristics create competitive advantage (or disadvantage) for firms from one country in comparison to firms from other countries. Therefore in international competition with foreign firms, firms emanating from a particular country as a group would be differentiated by the COE-related influences of their home country.

Several factors exist as to why home country influences should be factored into the internationalization-performance relationship.

First, a country's quality of infrastructure, regulatory structure, and legal systems are in the nature of a public good that impact a company's operational performance and competitive strength--all else being equal--when compared with companies having a different home base. Second, even intangible factors such as a country's reputation or cachet, if viewed in positive (or negative) terms by the governments and citizens of another country, may give an advantage (or disadvantage) to firms from that country. For example, Germany has a reputation for precision engineering and Japan for exceptional quality in consumer electronics. While this reputation would be taken for granted in the case of well-known companies, it is likely to be of considerable help to relatively unknown companies entering foreign markets from these countries.

Third, the acquisition of capital is influenced by the institutions of financial markets, such as the development of the banking system, the corporate governance structures and the development of the stock market. As a consequence, institutions pervade strategy and management of companies.

Finally, just because restricted domestic market size, firms from smaller countries are forced to internationalize earlier in order to generate the same sales volumes as firms from larger countries, and thus have the advantage of experience in dealing with foreign costumers, unfamiliar government regulations, and trade laws. Familiarity with foreign markets should lead to higher efficiency in international transactions.

Therefore, based on the above rationalizations and the notion that no firm is immune from the environment in which it is embedded, we assert that home country of the firm will influence the firm's ability to capitalize on internationalization and thereby have an impact on performance. Specific empirical support for this notion can be found in Geringer, Beamish, and daCosta (1989). For instance, they found the relationship between internationalization and performance to be lacking, unless country of origin of the multinational was controlled for. In addition Sethi and Elango (2007) introduced country level variables as GDP and Trade, and found evidence for an impact of this variables on the internationalization-performance link.

We decide to take into account the influence of six country specific variables on the internationalization-performance relationship:

- GDP (Gross Domestic product) as a proxy of the domestic market size.
- Trade defined as the sum of exports and imports of goods and services, as a percentage of GDP. It is a proxy of the domestic market openness.

- Development of the stock market, defined as the ratio between the total market capitalization of listed companies and the gross domestic product.
- Development of the banking system, defined as the ratio between the amount of credit provided by the banking system and the gross domestic product.
- Country rating. Country ratings are included in our model using a categorical variable which codes the alphanumerical ratings in the *COFACE* dataset. More precisely, the highest rating (i.e. A1) is associated with the highest value in our scale (i.e. 7), while the lowest rating (i.e. D) corresponds to the lowest value in our scale (i.e. 1).

We collected this set of country specific variables both from Sethi/Elango 2007, which is the only study in this field that considers country-based variables in the I-P relationship, and other papers from different field (Demirguc-Kunt/Maksimovic 1999).

We decided to refer to the three stages model of international expansion because we think it best models the different phases of this process and because previous studies have found evidence about this modelization, but results are conflicting regarding the sign and significance of coefficients (for example Amman, Ruigrok and Wagner (2007) have found evidence for the relationship to be cubic, but with reversed phases).

## **INFLUENCE OF THE HOME COUNTRY'S MARKET SIZE**

### **Stage1**

Early internationalizers have to face significant entrance costs (Cf. Zaheer 1995, Zaheer/Mosakowski 1997, Gomes/Ramaswamy 1999), due to the lack of familiarity with legal, social and economic regulations, as well as consumer tastes and cultural aspects of the target foreign market, that initially should outweigh the incremental benefits (e.g. cost

savings, tax benefits, economies of scale). However, we believe that firms from larger countries can spread this costs over an higher volume of sales guaranteed by the large home market so that the impact of these costs on performance is lower and these firms can fully exploit advantages of internationalization.

*Hypothesis 1: at stage 1 there will be a positive relationship between the impact of the degree of internationalization on performance and the country's market size.*

## **Stage 2**

In mid-stage, further international expansion should begin to yield incremental benefits that exceed incremental costs. However, there are differences between small and large economies once again. Firms in small economies are forced to internationalize even in the early stage of their development , as such markets do not provide for their survival in the home market alone. This exposure to international competition requires these firms to implement strategies and upgrade capabilities in order to succeed in the international arena (so that they have to support higher costs in the first phase of the international expansion coherently with what we have stated above). As these firms expand their exposure to international markets, they have to modify their routines to meet the need of growing international operations. We believe, in accordance to Sethi and Elango (2007), that firms in small countries would be able to make these changes easily because they have an higher knowledge of foreign markets and they can acquire the required capabilities through the fine tuning process, as these new requirements do not conflict with existing organizational routines. They will be able to evolve through recombination of knowledge, as there is a greater similarity between current routines and new opportunities in international markets. Therefore, the lack of a large home market would serve as an enabler, as these firms would be able to adapt knowledge from the environment to existing routines , facilitating an easier

evolution into international markets. Firms from smaller countries can maximize the benefits of internationalization in the second stage. Unlike firms in small economies, firms in large economies can afford to grow initially without operating abroad, as large domestic markets offer them a luxury relative to smaller countries (Cf. Sethi/Elango 2007). Therefore such firms are likely to develop independently of international markets and competitors. However, as firms expand in international markets, they will find the current heritage and routines geared to serve their large domestic market will require major changes to handle a growing international market presence (Cf. Hitt/Hoskisson/Kim 1997). Developing newer organizational routines to match these operational requirements would involve new learning for these firms to change the underlying core of their administrative heritage, beliefs and practices (Cf. Ruigrok/Wagner 2003). The pull to preserve currently successful operative domestic routines and the need for creating newer routines for international operations would create significant conflict within firms. Such inherently conflicting requirements within the organization will prevent such firms from exploiting at best the benefits deriving from international activities in the second stage. To summarize, in the second stage benefits should outweigh costs, though firms from larger countries have to face higher costs related to the reorganization of established routines than firms from smaller countries.

*Hypothesis 2 : at stage 2 there will be a negative relationship between the impact of the degree of internationalization on performance and the country's market size.*

### **Stage 3**

Finally, in the third stage we expect no significant influence of GDP on *DOI*<sup>3</sup>. Likely, at this stage, both companies from large countries and those from small countries have reached organizational structures able to face the further internationalization in the same way.

*Hypothesis 3: at stage 3 there will be no significative relationship between the impact of the degree of internationalization on performance and the country's market size.*

We expect the same significant impact of this variable for all three measures of performance.

## **INFLUENCE OF THE HOME COUNTRY'S LEVEL OF TRADE**

### **Stage 1**

This variable is defined as as the sum of exports and imports of goods and services, as a percentage of GDP and can considered a proxy of the market openness of a country. An high level of Trade may indicate: 1) favourable geographic position; 2) low tariffs on goods entering and leaving; 3) existence in the territory of relatively well developed infrastructure, deputies to trade; 4) availability of government agencies which are entrusted with promoting trade, business opportunities and industrial cooperation between domestic firm companies and foreign companies.

All these characteristics may be particularly important especially in the first stage of internationalization by allowing firms to cope with fewer difficulties in initial international trade and so with lower costs.

*Hypothesis 4: at stage 1 there will be a positive relationship between the impact of the degree of internationalization on performance and the country's level of Trade.*

## **Stage 2**

An high level of the Trade variable may also indicate that the country is poorly endowed with raw materials and therefore firms should go abroad for the supply of them, in order to achieve the volumes required by the international market. Initially this may not be a limitation, given the restricted production volumes; however in the second stage of internationalization, closer relationships with suppliers can be a critical factor for success. The creation of an extended network, especially in the long term, requires intensive scanning activities and a great effort by firms. This may turn into higher costs and lower performances.

*Hypothesis 5: at stage 2 there will be a negative relationship between the impact of the degree of internationalization on performance and the country's level of Trade.*

## **Stage 3**

Finally, at stage 3, firms should have created an extensive and structured network of relationship with foreign suppliers which gives the opportunity to fully leverage the benefits from operating internationally.

*Hypothesis 6: at stage 3 there will be a positive relationship between the impact of the degree of internationalization on performance and the country's level of Trade.*

We expect the same significant impact of this variable for all three measures of performance.

### **INFLUENCE OF THE HOME COUNTRY'S DEVELOPMENT OF THE BANKING SYSTEM**

We expect no impact of this variable for any of the performance measures and none of the coefficients. This because the development of the banking system can influence firms performance in general (i.e. a developed banking system allows firms to access debt capital more easily and at a lower cost), but not in relation with different degrees of internationalization. However, we decided to introduce it in the model to control for possible unexpected effects.

*Hypothesis 7: there will be no relationship between the impact of the degree of internationalization on performance and the country's development of the banking system.*

### **INFLUENCE OF THE HOME COUNTRY'S DEVELOPMENT OF THE STOCK MARKET**

We expect no impact of this variable for any of the performance measures and none of the coefficients. This because the development of the stock market can influence firms performance in general (i.e. a developed stock market allows firms to access equity capital more easily and at a lower cost), but not in relation with different degrees of internationalization. However, we decided to introduce it in the model to control for possible unexpected effects.

*Hypothesis 8: there will be no relationship between the impact of the degree of internationalization on performance and the country's development of stock market.*

### **INFLUENCE OF THE HOME COUNTRY'S RATING**

We expect this variable to positively influence the impact of the degree of internationalization on performance in each of the three stages. There are several operating costs, such as costs associated with obtaining foreign supplies, and not, such as costs of



raising capital, that can be influenced by the country rating: especially at the initial stage firms have to acquire a reputation in new markets and coming from a country with an high rating could be an important advantage. More precisely, country rating can be one of the variables which may affect the amount of interests paid on debt by each firms: firms from country's with an higher rating, are viewed as safer and could access foreign debt more easily and at lower costs than firms from countries with a lower rating. The same hold for operating costs: firms from countries with an higher country rating, can have access to more favorable conditions for payment of foreign suppliers and are subject to less stringent constraints about collaterals, than firms from countries with a lower rating. This will result in higher performance.

*Hypothesis 9: There will be a positive relationship between the impact of the degree of internationalization on performance and the country's rating, in all three stages.*

We expect the same significant impact of this variable for all three measures of performance.

## 2.4 Methodology

### 2.4.1 Data Collection and Sample Description

This investigation is based on a company sample encompassing 1,183 firms from fifteen European countries. We collected data from *Worldscope* database and we decide to consider quoted firms from all European countries included in the database: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy,

Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, United Kingdom .

The selection process was fourfold. First we eliminated those firms that exhibit no foreign sales or foreign assets in their annual accounts. Second we excluded those firms that were - as determined by share voting majority - dominantly government and foreign owned (Cf. Grant 1986, Thomas/Eden 2004, Thomas 2006, Ruigrock/Amman/Wagner 2007) . The purpose of this second criterion was to address the analysis-confounding effects of idiosyncratic ownership structures. Third we have eliminated those firms which operate in the banking and the financial services (i.e. primary two-digit SIC-Code in the range 60-67) sectors with the goal of creating a validly comparable company sample, in terms of degree of internationalization and performance measure (Cf. Ruigrok/Amman/Wagner 2007). Finally we had to erase those firms that reported values inconsistent with the theoretical limits (e.g. FSTS bigger than 100%), and those for which it was not possible to collect all the values for the variables required for the analysis over the period of study (Cf. Hsu/Boggs 2003, Ruigrock/Wagner 2003, Thomas/ Eden 2004, Thomas 2006, Ruigrock/Amman/Wagner 2007).

We also excluded Czech Republic, Greece, Iceland, Poland, Slovakia, Slovenia because of the absence of enough firms that fulfilled all the selection criteria, so that the set of countries (number of firms) used to build the sample was composed of: Austria (37), Belgium (23), Denmark (32), Finland (62), France (223), Germany (187), Ireland (21), Italy (57), Netherlands (59), Norway (29), Portugal (16), Spain (44), Sweden (68), Switzerland(88) and UK (237).

Our final pooled cross-sectional, time-series dataset consisted of 1,183 firms followed over six years 2001-2006 (i.e. sample size 7, 098 observations) and distributed across eight

industries: Agriculture, Forestry, Fishing (13), Mining (25), Construction (38), Manufacturing (676), Transportation & Public Utilities (75), Wholesale Trade (72), Retail Trade (47) and Service (237).

## 2.4.2 Variable Operationalization

### 2.4.2.1 Dependent Variables

Similarly to aforementioned studies, the financial performance measures chosen are:

- ROS, return on global sales (Cf. Capar/Kotabe 2003, Contractor/Kumar/Kundu 2007, Contractor/Kundu/Hsu 2003, Daniels and Bracker 1989, Geringer/Beamish/DaCosta 1989, Grant 1987, Hitt/Hoskisson/Kim 1997, Lu/Beamish 2001, Qian 2002, Sullivan 1994a, Thomas 2006).
- ROA, return on assets (Cf. Contractor/Kumar/Kundu 2007, Contractor/Kundu/Hsu 2003, Daniels/Bracker 1989, Geringer/Beamish/DaCosta 1989, Gomes/Ramaswamy 1999, Hitt/Hoskisson/Kim 1997, Hsu/Boggs 2003, Lu/Beamish 2001, Ruigrok/Amman/Wagner 2007, Ruigrok/Wagner 2003, Sullivan 1994, Thomas/Eden 2004).
- ROE, return on equity (Cf. Contractor/Kumar/Kundu 2007, Grant 1987, Hitt/Hoskisson/Kim 1997, Hsu/Boggs 2003, Thomas/Eden 2004).

Data for dependent variables have been drawn from *Worldscope* database.

## 2.4.2.2 Independent variables

Researches may conceptualize firms' degrees internationalization on three dimensions: structural, financial and psychological (Cf. Sullivan 1994). The structural dimension comprises asset, subsidiary, or employee distribution between companies' home countries and host nation(s). Financial internationalization captures organizations' monetary or revenue dependence on foreign markets. Finally, psychological or 'qualitative' internationalization reflects the international disposition of firms' top management teams (e.g. members' educational and professional experience in foreign countries; the breadth of nationalities on board; top management team's cultural heterogeneity). However, selecting the conceptualization/operationalization technique for the internationalization variable is largely restricted by the non-availability of data. Reliable and complete internationalization data for the six-year period under study was obtainable only in FSTS form; we therefore had to depend on the financial dimension of the degree of internationalization. This has its merits. As mentioned above, next to structural internationalization it captures a core dimension of the degree of firms' foreign activity and, in addition, previous inquiry has found that the FSTS measures correlates highly with other operationalization alternatives such as foreign asset-to-total assets (FATA) and foreign subsidiaries-to-total subsidiaries (Cf. Gomes/Ramaswamy 1999, Sambharya 1995, Tallman/Li 1996). Equally important, FSTS is the DOI measure most used in previous inquiries (Cf. Capar/Kotabe 2003, Contractor/Kumar/Kundu 2007, Daniels/Bracker 1989, Lu/Beamish 2001, Qian 2002, Ruigrok/Amman/Wagner 2007, Ruigrok/Wagner 2003, Thomas 2006), facilitating valid cross-study comparison of findings and therefore sustained research progress. Data for the independent variable have been drawn from *Worldscope Global*.

### 2.4.2.3 Control variables

Several studies have used additional control variables to further investigate the relationship between the degree of internationalization and performance. Controls variables used here, which are hypothesized to affect performance, are firm size, industry, intangibility intensity and leverage.

**Firm size**, a common variable related to firm performance, is measured by the natural logarithm of total employees (Capar/Kotabe 2003, Contractor/Kundu/Hsu 2003, Hsu/Boggs 2003, Lu/Beamish 2001, Ruigrok/Amman/Wagner 2007, Ruigrok/Wagner 2003), and is used to control for economies and diseconomies of scale at the corporate level. Log transformation not only makes the results easy to interpret, because the changes in the logarithm domain represent relative (percentage) changes in the original metric; it also makes the distribution of data closer to normality.

**Leverage** measured as the ratio measured as the ratio of long-term debt to total assets (%) (Grant et al, 1988; Qian 2002, Tallman and Li, 1996; Hitt et al, 1997). We applied this measure because the literature has demonstrated that the financial structure of a firm may play a role in affecting the firm performance. It is also a key determinant of risk (Grant et al, 1988).

**Industry** effects are controlled using seven dummy variables, representing each firm's primary two-digit SIC-Code <sup>11</sup>:  $I_1$ =Agriculture, Forestry, Fishing,  $I_2$ =Mining,  $I_3$ =Construction,  $I_4$ =Manufacturing,  $I_5$ =Transportation & Public Utilities,  $I_6$ =Wholesale Trade,  $I_7$ =Retail Trade. The Service was the residual industry in the dummy variable

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<sup>11</sup> The Standard Industrial Classification (abbreviated SIC) is a United States government system for classifying industries by a four-digit code.

classification scheme that is used. The industry variable serves as a proxy to control for patterns of risk, R&D, and the role of intangibles in different industries.

We decided in favour of a simplified system of control variables due to the problem of insufficient data availability. All data for control variables have been drawn from *Worldscope* database.

#### 2.4.2.4 Country Variables

- Natural logarithm of **GDP** (Gross Domestic product) as proxy of the domestic market size.
- **Trade** defined as the sum of exports and imports of goods and services, as a percentage of GDP. It is a proxy of the domestic market openness.
- **Development of the stock market**, defined as the ratio between the total market capitalization of listed companies and the gross domestic product.
- **Development of the banking system**, defined as the ratio between the amount of credit provided by the banking system and the gross domestic product.
- **Country rating**. Country ratings are included in our model using a categorical variable which codes the alphanumerical ratings in the *COFACE* dataset. More precisely, the highest rating (i.e. A1) is associated with the highest value in our scale (i.e. 7), while the lowest rating (i.e. D) corresponds to the lowest value in our scale (i.e. 1).

Data concerning gross domestic product, trade indicator, market capitalization of companies, credit provided by the banking sector are from the *World Development Indicators* provided by the *World Bank Group*.

## 2.4.3 Analysis Techniques

We decided to use a two-steps regression model. In the first step we have sorted our sample by country and by year in order to run single-country and single-year cross-sectional OLS regressions, one for each performance measures. The specification of the model is as follows:

$$PERF_{ijt} = \beta_{0jt} + \beta_{1jt}DOI_{ijt} + \beta_{2jt}DOI_{ijt}^2 + \beta_{3jt}DOI_{ijt}^3 + \beta_{4jt}DebtAsset_{ijt} \\ + \beta_{5jt}lnEmp_{ijt} + \beta_{5jt}I_{ijk} + \varepsilon_{ijt}$$

- $i=1,\dots, 1,183$  denotes an individual firm.
- $j=1,\dots,15$  denotes a country.
- $t = 2001,\dots,2006$  denotes the year.
- $k=1,\dots,8$  denotes the industry.

The outcome of this first step are the estimated coefficients for  $DOI$ ,  $DOI^2$  and  $DOI^3$  for each country and each year over the period of study (i.e. 90 observations for each coefficient). In the second step we have ran pooled cross-section/time-series regressions, one for  $DOI$  estimated betas, one for  $DOI^2$  estimated betas and one for  $DOI^3$  estimated betas, on country's specific variables. The model used is the following:

$$\beta_{mjt} = \gamma_{0m} + \gamma_{1m}lnGDP_{jt} + \gamma_{2m}Trade_{jt} + \gamma_{3m}BankDev_{jt} + \gamma_{4m}MktDev_{jt} \\ + \gamma_{5m}CountryRating_{jt} + e_{mjt}$$

- $m=1,2,3$  denotes the estimated betas of the first step regressions.

## 2.5 Empirical Results and Implications

Table 2.5 presents results of second-step regression analyses testing the impact of country specific variables on the coefficient of  $DOI, DOI^2, DOI^3$  estimated in the first step regressions.

### **INFLUENCE OF THE HOME COUNTRY'S MARKET SIZE**

We found that all the three beta's of the degree of internationalization, estimated in the first-step regression, are influenced by the home market size. Specifically, according to the results of the second-step regression there is a positive relationship between linear and cubic coefficients of DOI and GDP values, whereas there is a negative one between quadratic coefficients and GDP values. The results, as we expected, are not affected by the different choice of the performance measure, so that our analysis is robust in respect to this point. Thus, Hypotheses H1 and H2 are confirmed, whereas we didn't find support for hypothesis H3. According to the results the domestic market size influences firms behavior also in stage 3, specifically we found a positive relationship between the cubic coefficient of DOI and GDP value; this may due to fact that firms from larger countries have faced more radical changes in stage two than firms from smaller countries, which enable the former to face the complexity of widespread operations more efficiently than the latter.



VARIABLES	ROS			ROE			ROA		
	CoefDOI Linear	CoefDOI Quadratic	CoefDOI Cubic	CoefDOI Linear	CoefDOI Quadratic	CoefDOI Cubic	CoefDOI Linear	CoefDOI Quadratic	CoefDOI Cubic
InGDP	0.304+ (0.175)	-0.080** (0.033)	0.057* (0.019)	0.938** (0.372)	-0.195* (0.070)	0.122* (0.040)	0.312* (0.079)	-0.065* (0.017)	0.041* (0.011)
Trade	2.796* (0.477)	-0.503* (0.089)	0.285* (0.051)	0.869 (1.014)	-0.227 (0.191)	0.160 (0.109)	0.495** (0.215)	-0.114** (0.045)	0.079* (0.029)
BankDev	-0.078 (0.522)	0.086 (0.097)	-0.083 (0.056)	-1.354 (1.110)	0.322 (0.209)	-0.221+ (0.120)	-0.099 (0.235)	0.051 (0.049)	-0.049 (0.032)
MktDev	0.120 (0.333)	-0.051 (0.062)	0.041 (0.036)	-0.125 (0.707)	0.000 (0.133)	0.006 (0.076)	-0.131 (0.150)	0.019 (0.031)	-0.010 (0.020)
CtrRating	-0.524+ (0.264)	0.081 (0.049)	-0.038 (0.028)	1.344** (0.561)	-0.240** (0.105)	0.138** (0.060)	0.367* (0.119)	-0.067* (0.025)	0.040** (0.016)
Constant	-1.098 (2.122)	0.389 (0.395)	-0.317 (0.227)	-12.984* (4.508)	2.472* (0.847)	-1.471* (0.486)	-4.354* (0.955)	0.827* (0.200)	-0.493* (0.129)
Observations	90	90	90	90	90	90	90	90	90
R-squared	0.317	0.285	0.278	0.132	0.146	0.165	0.218	0.208	0.206

Table 2.4 Results of second steps regressions: the impact of country specific variables on DOI's coefficients. Standard errors in parentheses \* p<0.01, \*\* p<0.05, + p<0.1

### **INFLUENCE OF THE HOME COUNTRY'S LEVEL OF TRADE**

We found that all the three beta's of the degree of internationalization found in the first-step regression are influenced by this variable. More precisely we found that, according to the results of the second-step regression, there is a positive relationship between linear and cubic coefficients and Trade values, whereas there is a negative one between quadratic coefficients and Trade values. Thus, hypotheses H4, H5, and H6 are supported. However we found this relationship to hold only for ROA and ROS, and not for ROE. This may be due to the fact that the presence of infrastructures and agencies entrusted with promoting trade, involves costs for the authorities, some of which can be reflected in a higher taxation on both exports and imports. As a result, the two competing effects (the positive and negative) might be balanced, so that the level of Trade would not significantly influence the relationship between internationalization and ROE (i.e. the only performance measure that reflects the taxation system).

### **INFLUENCE OF THE HOME COUNTRY'S DEVELOPMENT OF THE BANKING SYSTEM**

As we expected, we found no evidence of a relationship between this country-specific variable and the I-P link. Hypothesis H7 is supported.

### **INFLUENCE OF THE HOME COUNTRY'S DEVELOPMENT OF STOCK MARKET**

As we expected, we found no evidence of a relationship between this country-specific variable and the I-P link. Hypothesis H8 is supported.

## **INFLUENCE OF THE HOME COUNTRY'S RATING**

We found that all the three beta's of the degree of internationalization found in the first-step regression are influenced by the home country rating. More precisely we found that, according to the results of the second-step regression, there is a positive relationship between linear and cubic coefficients and Country Rating whereas there is a negative one between quadratic coefficients and this variable. In addition we found this relationship to hold only for ROA and ROE and not for ROS. Thus Hypothesis H9 is only partially supported.

### **Stage 1**

At stage 1, international trade actors have few elements to judge a company as safe or risky and one of these elements is the firm's home country rating. Consistent with our hypothesis, we found that the country rating has a positive impact on the linear coefficient of DOI: firms from countries with an higher rating have to face lower operating and financial costs related to the internationalization process than firms from countries with a lower rating.

### **Stage 2**

However, international trade actors should know that sound companies can operate in risky countries and unsound companies in less-risky countries and that overall risk will depend not only on qualities of the country of origin but also those of the specific firms. At stage 2 'foreign stakeholders' have more information about the qualities of the specific firms and can review their opinion in a positive direction or a negative one. More precisely is very likely that firms from countries with a high rating has been averagely overrated in stage 1, conversely those from countries with a low rating. In this case they may correct their opinions: firms coming from a country with an high rating that were found to be unsound companies might face higher costs related to their international presence; conversely firms

coming from a country with an low rating that were found to be sound companies might face lower costs related to their international presence. This turn into a negative relationship between the coefficient of  $DOI^2$  and the home country rating.

### Stage 3

At stage 3, since the adjustment has already happened in the second phase, the home country rating still have a positive impact on the relationship between internationalization an performance.

However, the previous explanation is not true for ROS: we found that the home country rating marginally and negatively affects the linear coefficient of DOI and does not affect significantly the quadratic and the cubic coefficient. In order to explain why the effect ROA does not propagate well on ROS, let's consider the following relationship between ROA and ROS:

$$ROA = \frac{Ebit}{Total\ Assets} * \frac{Sales}{Sales} = ROS * \frac{Sales}{Total\ Assets}$$

Thus:

$$ROS = ROA * \frac{Total\ Assets}{Sales}$$

We believe that the term Total Assets/Sales (related to the international expansion) is also influenced by the country rating. At first stage of internationalization, firms from a country with an high rating are required to hold fewer foreign assets in respect to the foreign sales than firms from a country with a lower rating. The higher the rating of the

home country more the firm is able to sell abroad also holding few assets. However we found that, in this phase performance in terms of ROA are positively related to the country rating. Then we might have two opposite effects on ROS. Specifically at stage 1 the first effect may prevail on the second, so that there is a negative relationship between the coefficient of DOI (related to ROS) and the home country rating. These two effects, may nullify the impact of this country specific variable on ROS, so that we didn't find a significant impact in the third and the second stage.

We believe that our study may have important implications, especially regarding the policies that can be adopted at country level. The main objective of regulators should be to ensure an high level of economic development in line, then, with firm's high performance even when they decide to expand internationally. Our results permit to identify the guidelines to be followed in order facilitate the process of internationalization of domestic firms.

First of all, regulators should implement policies that stimulate and support private investment, which could lead to an increase in GDP. As we have found, an high GDP has a positive impact on the performance related to corporate internationalization, in the first and the third stage of firm's international expansion.

Second, regulators should create the conditions for which the company manages to start and continue the internationalization process easily and at low costs. The presence of well developed infrastructure and agencies which are entrusted with promoting trade, business opportunities and industrial cooperation between domestic firm companies and foreign companies, allows the firms to sustain lower costs related to internationalization and reach higher performance in the first and the third stage of internationalization

Finally regulators should implement strategies that can contribute to an higher rating of the country, such as the reduction of public debt and the improvement public sector balance. This will positively influence the performance of firms that expand internationally.

## 2.6 Limitations and possible extensions

This study is not free of limitations. First of all, due to non-availability of data, we had to rely on FSTS as the only DOI measure. As pointed out by Sullivan (1994), single-item measures of firms' DOI may be less suitable than multi-criterion composites. Therefore, we argue that future researchers should consider alternative conceptualization and operationalization techniques for the 'degree of internationalization' variable. Specifically investigators who can select from a wide range of measures could also choose indicators that more purely reflect cultural dissimilarity, so that the validity of our presumption (that the shape of DOI-performance link is country-dependent) would be fully assessed.

Regarding possible developments of the study, future researchers may test our hypothesis on a larger sample encompassing firms from other countries to ensure, as we believe, that the results are not affected by the sample choice.

Second further analyses could explain in more details the impact of Trade and the impact of the Country Rating, that are the most controversial aspects of our analysis. First, with respect to the explanation why the Trade does not impact on ROE, could be interesting to collect the average rates of firms' taxation and compare these values with the country's Trade variable. We expect that country with an high level of Trade have an high level of taxation both on imports and exports. Second would be interesting to test the real impact of country credit rating on the ratio TotalAssets/Sales, in order to better comprehend why the

country rating doesn't impact in the internationalization-performance relationship in terms of ROS.

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### 3. Conclusions

The aim of this research project was to demonstrate that home country specific variables are a key determinant of the internationalization-performance relationship.

First we have identified several country level variables which in our opinion may affect the internationalization-performance link. In the development of our hypotheses, we decided to refer to the three stages model of international expansion because we think it best models the different phases of this process and because previous studies have found evidence about this modelization, but results are conflicting regarding the sign and significance of coefficients (for example Amman, Ruigrok and Wagner (2007) have found evidence for the relationship to be cubic, but with reversed phases). We developed single hypothesis concerning the impact of each variables in each of the stage of the international expansion. Specifically:

- GDP (Gross Domestic product), as a proxy of the domestic market size. We hypothesized that the domestic market size positively influences the relationship between internationalization and performance in the first stage. Whereas it has a negative impact in the second stage and none impact in the third. Early internationalizers have to face significant entrance costs , due to the lack of familiarity with foreign markets' characteristics. However, firms from larger countries can spread these costs over an higher volume of sales guaranteed by the large home market so that the impact on performance is lower. Firms from large countries can fully exploit the advantages of internationalization even in the first stage. In addition firms in large economies can afford to grow initially independently of international

markets and competitors. However when they enter the second stage of the internationalization process, the current heritage and routines geared to serve their large domestic market will require radical changes to handle growing international activities. The pull to preserve currently successful operative domestic routines and the need for creating newer routines for international operations would create significant conflict within firms. Firms from large countries have to face high costs related to the reorganization of established routines. Thus, in stage 2 the country's domestic market size have a negative impact on the internationalization performance relationship. Finally at stage 3, we expected no impact of this variable on on the I-P link, because firms should have reached organizational structures able to face further internationalization independently from the domestic market size

- Trade defined as the sum of exports and imports of goods and services, as a percentage of GDP. It is a proxy of the domestic market openness. We hypothesized that home country's level of Trade influences positively the relationship between internationalization and performance in the first stage and the third stage. Whereas we thought that it has a negative impact in the second stage. An high level of Trade may indicate the existence in the territory of well developed infrastructure and agencies which are entrusted with promoting trade, business opportunities and industrial cooperation between domestic firm companies and foreign companies . Thus firms in such countries are able to start the internationalization process easily and at low costs (i.e. all being equal they can achieve higher performance in the first stage). However an high level of Trade may also indicate that the country is poorly endowed with raw materials and therefore firms have to go abroad for the supply of them, in order to achieve the volumes required by the international market. Initially

this may not be a limitation, given the restricted production volumes; however, in the second stage of internationalization, closer relationship with suppliers would represent a critical factor for success. The creation of an extended network requires a great effort by firms and may turn into higher costs and lower performance. Finally, in the third stage, firms can fully exploit the benefits arising from an high level of Trade.

- Country rating. We expected this variable to positively influence the impact of the degree on internationalization on performance in each of the three stages. There are several operating costs, such as costs associated with obtaining foreign supplies, and not, such as costs of raising capital, that can be influenced by the country rating: especially at the initial stage firms have to acquire a reputation in new markets and coming from a country with an high rating could be an important advantage.

Most of our hypotheses were supported. Thus country specific variables have a significant influence on the internationalization-performance relationship.

We believe that our study may have important implications, especially regarding the policies that can be adopted at country level. Regulators, whose objectives should be in line with those of firms (i.e. high performance), can implement several strategies in order to allow firms to expand internationally at lower costs. In particular, they should adopt policies aimed at increasing the level of those variables that impact positively on the I-P relationship. First, regulators should stimulate private investment which could lead to an higher GDP level. Second they should create conditions for which firms manages to start and to continue the internationalization process easily and at low costs, such as the presence of well developed infrastructure and of agencies that can promote foreign business opportunities.



Finally they could implement strategies that can contribute to an higher country rating (e.g. reduction of public debt and the improvement of the public sector balance).

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