

Track 7: Clusters, location and local linkages
Category: Workshop paper

The multinational enterprise and the location issue - A three models perspective

Keywords

International business, globalization-regionalization, eclectic paradigm, FSA-CSA matrix, diamond framework.

Abstract

John Dunning, Alan Rugman and Michael Porter are widely recognized as being amongst the most influential economists of the last decades. Their path-breaking theories, concepts and models have contributed to a better understanding of the current world economy and have emphasized a new dimension of the location issue. However, despite the close interrelation of their theories, few studies have linked them in a global perspective. This paper aims thus at presenting an overview of three of their most influential theoretical models, namely the eclectic paradigm, the FSA-CSA matrix and the diamond framework, and at emphasizing the close relations between their location variables. In doing so, it will provide a first step for the rapprochement of these prominent theories.

INTRODUCTION

Even if the location issue has been widely explored throughout the International Business (IB) literature, the last decades have witnessed a wide array of crucial evolution opening a way towards new theoretical challenges (Dunning, 2008). On the one hand, the emergence of new countries on the international economic stage, the fast technological revolution and the sophistication of trade regulation tools have underlined a shift towards a globalization of the world economy (Dunning, 1998). On the other hand, at the same time, another trend towards more independency and integration of physical and human resources has appeared (Dunning, 2008). A growing clustering of the economic activity has thus emphasized a noticeable regionalization stream (Dunning, 2008).

Although it seems evident that location remains fundamental to competition, its role has strongly evolved over time (Porter, 1998a). The changing world economic landscape has widened the location opportunities for international business entities (Porter, 1998b). Whereas competition used to be driven by input costs and specific endowments, today's economy is far more dynamic and requires continual innovation (Porter, 1998a). Furthermore, the accent on the firm-specific advantages has been complemented by the spatial configuration of value-added activity, the main theory on the competitiveness of firms and the dynamic comparative advantage of regions and country (Dunning, 1998).

Among the plethora literature on the location issue in the IB theory, three prominent contributions may nevertheless be highlighted: the eclectic paradigm of international production developed by John Dunning (Dunning, 1958/1973/1993), the FSA-CSA matrix of multinationals' activity shaped by Alan Rugman (Rugman, 1981/1996) and the diamond framework of microeconomic competitiveness elaborated by Michael Porter (Porter, 1990/1998b). Even if the two former are principally related to the understanding of foreign production and multinational enterprise (MNE) activity, they have set a solid explanation of the significance of location in the internationalization process. This paper has two main parts. First, it will review these three models in order to provide a global perspective of these

prominent contributions. Second, it aims at emphasizing their close relations and their decisive contribution to the understanding of the location issue.

DUNNING AND THE ECLECTIC PARADIGM

In order to introduce the eclectic paradigm, it is worthwhile to point out some basic concepts that have influenced and shaped its structure and elaboration. First, among the several definitions of a MNE, one is widely accepted both by scholars and international institutions: A MNE is an enterprise that engages in foreign direct investment (FDI) and owns or, in some way, controls value-added activities in more than one country (Dunning & Lundan, 2008). In other words, like international trade enterprises or multiplant domestic firms, MNEs undertake cross-border operations outside their home country, manage multiple production plants and internalize the transactions between these units. However, unlike them, MNEs own or control foreign production facilities, internalize transnational markets and possess at least one of their affiliates in a foreign country (Dunning, 1992). Even if this definition may seem trivial, it underscores the main concepts and issues arising from the MNE theory: “why do some firms desire to engage in foreign production?” and “how do companies manage their internationalization?”.

According to Dunning (1992), the great majority of MNE activity is undertaken by private business enterprises. This implies that MNEs are principally motivated by the maximization of their private interest and that of their stakeholders. A firm will thus produce outside its national boundaries if the expected benefit of the internationalization will be higher than the cost of the operation. Although MNEs evolve in an imperfect environment and it is not easy to make general statements about their strategic behavior, Dunning (1992) identified, in extension and update from an initial categorization by Behrman (1972), four main types of MNE activity. These four types of foreign production are listed as well as briefly developed in the table below.

TABLE I: The four main types of foreign production¹

Natural resource seeker	Market seekers
<p>These firms invest abroad to acquire particular resources of a higher quality at a lower cost than could be obtained in their home country. There are three main types of resource seekers:</p> <ol style="list-style-type: none"> 1. Physical resources seekers (e.g. raw materials). 2. Cheap and motivated unskilled labor seekers. 3. Technological, managerial or organizational skills seekers. 	<p>These firms invest abroad to supply goods or services to markets in these countries in order to sustain existing markets or to exploit new ones. There are four main reasons of market seeking investments:</p> <ol style="list-style-type: none"> 1. To follow their competitors in order to protect their business. 2. To adapt their production to local tastes. 3. To reduce transaction costs. 4. To have a physical presence abroad as part of a global strategy.
Efficiency seekers	Strategic asset seekers
<p>These firms invest abroad to rationalize the structure of former investments in order to benefit from the governance of geographically dispersed activities. There are two main kinds of efficiency FDI:</p> <ol style="list-style-type: none"> 1. To take advantage of differences in the availability and cost of factor endowments in different countries. 2. To take advantage of the economies of scale and scope in countries with broadly similar economic level. 	<p>These firms invest abroad to promote their long-term strategic objectives and to improve their global competitiveness. They seek to raise their global set of competences in order to strength their ownership advantages.</p>

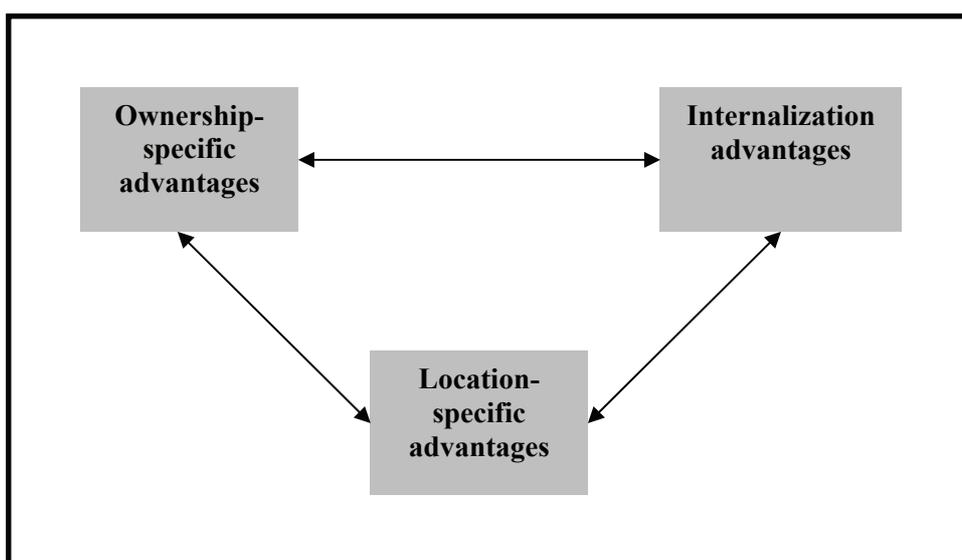
Source: Adapted on the basis of Dunning & Lundan (2008) pp. 67-77.

The above development leads to the second question, how companies manage their internationalization? In order to answer to this question, the theoretical frame has to regard together the location, the ownership and the organization issue of value-adding activities. Whereas the traditional models of trade had focused for a long time only on the “where” of production, it has just been these last years that scholars have dealt with the question of the ownership and organization of economic activity (Dunning & Lundan, 2008). The attempts to develop a theory on MNE activity

depend strongly on the respective research goals and are a generally difficult task due to the fact that the nature of FDI undertaken by MNEs is extremely varied. Nevertheless, it is possible to formulate a general paradigm of MNE activity. Among the major initial contribution of Hymer (Hymer, 1968/1976), the internalization theory (Lundgren, 1977; Swedenborg, 1979; McManus, 1972; Buckley & Casson, 1976/1985; Hennart, 1982) and the macroeconomic approach (Kojima, 1973/1978/1982/1990; Kojima and Ozawa, 1984), the eclectic paradigm developed by Dunning (1958/1973) is the most ambitious attempt to combine the main theoretical ideas of the understanding of the MNE activity (Cantwell & Narula, 2003).

According to Dunning (2001), the eclectic paradigm does not claim to be solely a theory of MNE but to rather constitute an explanation of the activity of enterprises engaged in cross-border value-adding activities. It includes both the geographical distribution of specific factor endowments and the configuration of economic organization to explain the structure of trade and production. The OLI paradigm is based not only on the acceptance of the main traditional trade theories but also on the recognition of the failures of the markets (Dunning, 1973/1992).

FIGURE I: The eclectic or OLI paradigm



Source: Adapted on the basis of Dunning and Lundan (2008).

According to Dunning (1992), the eclectic or OLI paradigm of international production, presented in the figure above, is based on four main statements. First, the possession of ownership-specific (O) advantages in the supplying of particular markets or group of markets allows a firm to generate a competitive advantage over host country enterprises. The capability and motivation of one country's firm to set up its activity in a foreign country strongly depends on its possessing of certain assets not available to another country's enterprises. These assets are supposed to be unique and are either tangible or intangible. Indeed, in the first edition of his book "Multinational enterprises and the global economy", Dunning (1992) proposed a first refinement of the O-advantages. He separated them into two categories. The O-advantages that arise from the possession of particular intangible assets such as organizational systems, innovatory capacity or noncodifiable knowledge have been called asset-specific advantages (Oa). Whereas those emerging from the capacity of a firm to coordinate multiple and geographically dispersed value-added activities and to capture the gains of risk diversification have been labeled as transaction cost-minimizing advantages (Ot). Second, assuming that the first statement has been satisfied, in accordance with the internalization (I) advantages, a firm will maybe find it more profitable to coordinate itself the value-added process across countries rather than to delegate their right of use to independent foreign firms. In other words, the I-advantages are those explaining why firms internalize the cross-boarder market for those advantages rather than sell them or their rights to independent firms. Third, assuming that the first and the second statements have been fulfilled, the location-specific (L) advantages will confer a competitive advantage on the countries possessing them over those that do not have them. They will induce the global interest of the firm to add value to its O-advantages in a foreign location. The L-advantages are thus the specific environmental conditions offered by a particular location over another. As underlined above, it is the existence of market imperfections that causes firms to pursue different strategies towards the exploitation of the O and the L assets available to them. Besides, Dunning carefully examined the implication of the changing world economy for the location of FDI and MNE activity in his famous article "Location and the Multinational Enterprise: A Neglected factor?" (Dunning, 1998/2009). He emphasized the importance of location as a variable affecting the global competitiveness of firms and the new role of governments in the design of competitive enhancing policies (Dunning, 1998). Finally,

and fourth, the willingness to produce abroad will obviously depend on the long-term goals of the enterprise and the global configuration of its OLI framework. In other words, the eclectic paradigm states that firms will establish foreign affiliates in the case of strong O, L and I-advantages. MNEs are defined as entities that systematically engage in a cost-benefit appreciation of all possible entry modes i.e exports, licensing or FDI. FDI will be chosen if trade barriers or natural market imperfections make exports and licensing impossible or too expensive.

According to Dunning (1998), the OLI structure determining FDI and MNE activity may be compared to a three-legged stool. It is an interdependent and dynamic system that only functions equally equilibrated. The main idea behind the paradigm has been summarized by Dunning and Lundan (2008) as: “the more a country’s firms possess unique O advantages, the greater the incentive they have to internalize rather than externalize their use, the more they find in their interest to access or exploit them in a foreign location, then, the more they are likely to engage in outbound FDI”. Besides the former attempts to theorize the international production, the OLI paradigm is an evolutionary structure and a context-specific economic theory that copes not only with the geographical and organizational issue but also with the gains that may arise from the internalization of geographically dispersed activities. The main contribution of this model is that it does not emphasize the firm specific features such as the possession of advanced technology or particular skills as the main reason of their internationalization decision. The OLI framework is thus not a contradictory theory rejecting the former writings but a complementary contribution that can explain all forms of foreign production by all countries.

An evolutionary extension of the eclectic paradigm

The eclectic paradigm has always been seen as an “envelop” within which new subsequent theories concerning MNE activity may be brought together (Dunning, 2000). Until now, four main refinements have been proposed and will be explored throughout this subsection. An emphasis will however be given to the role institutions play in the evolution of the eclectic paradigm (Dunning & Lundan, 2008;

Lundan & Dunning, 2008/2009). In fact, unlike the three other extensions, this latter issue is the only one that really affects the three determinants of the OLI structure.

First, since coordination through external transactions has become increasingly frequent, an evaluation of the concept of internalization has been undertaken (Chen, 2005; Hennart, 2001). It has resulted in the cooperative relationship issue and its effects on the I-advantages. Even if the internalization theory and the transaction cost theory are useful to explain whether a MNE should penetrate a new market by a joint venture (or any other type of agreement), or a totally owned affiliate, they just enlighten the “I” leg of the eclectic paradigm and do not capture the whole extent of foreign production. However, this extension has raised the question of the boundaries of MNE and their aptitude to manage their growing network of coordinated value-added activities in the improvement of their I-advantages. The coordination of the value chain by the MNE is the core of the understanding of the I-advantages.

The second extension deals with the resource-based theory and its impact on the O-advantages dynamic (Penrose, 1959; Pitelis, 2002, 2004; Rugman & Verbeke 2002, 2004a; Dunning, 2003). According to this theory, valuable, rare and difficult to imitate resources are the foundation of the competitive advantages of firms. However, unlike its denomination, this theory deals not only with the physical assets, but also with the knowledge assets that help firms to guarantee the singularity of particular abilities and competitive advantages (Rugman & Verbeke, 2002). However, even this theory has underlined the kinds of assets that might stimulate the O-advantages of a firm; it also does not take into account the other parameters of the OLI paradigm.

Third, the O-advantages dynamic will also be stimulated by the knowledge-based theory (Forsgren, 2008). In accordance with this theory, any knowledge generation and transfer within the MNE network will arise without a hierarchical organization (Kogut & Zander, 1993). Kogut and Zander (1993) asserted that tacit knowledge was likely to be transferred more efficiently within the firm. This statement provided a justification for the existence of MNEs. The conception of the MNE as a social community specialized in the creation and the transfer of knowledge introduces the significance of the

informal institutions at the firm level. In other words, the firm offers the institutional structure within which the formal and informal rules and incentives that lead the process of knowledge generation and transfer are formed and implemented (Dunning and Lundan, 2008).

Finally, forth, according to Dunning and Lundan (2008), the understanding of the institutional dimension of MNE activity will not only lead to an improved analysis of the MNE but it will also better enable to understand how MNE activity influences national-level institutions and the economic and social goals of countries. The evolutionary structure of the OLI paradigm is thus well-suited to incorporate the effects of institutions on both the microeconomic and the macroeconomic scope (Lundan & Dunning, 2008). The changing conception of the MNE as an organizational entity and the radical changes of the global economic landscape have resulted in an increase in the number of location where value-added activities can take place and in a widening of the motives, values and norms that shape and condition MNE decision making (Lundan & Dunning, 2009). According to North (1990), institutions are formal rules and informal constraints that set the “rules of the game”. Consequently, and as mentioned in the first paragraph of this subsection, they will affect all three components of the OLI paradigm. On the one hand, the quality of the institutional frame has a direct influence on the location factor of the OLI paradigm. Even if the informal institutions are harder to capture, both the formal and informal institutions shape the competitiveness and the attractiveness of a county. Indeed, many studies have found out and confirmed that countries with suitable institutions attract the most FDI. It is worth noting that MNEs also influence the institutions. On the other hand, the internalization factor is strongly dependent on the institutional configuration of the MNE. Indeed, the firm’s institutional belief-system has a direct influence on its coordination mode and the exploitation of its O-specific advantages. Although the L and the I-advantages seem directly influenced by the quality of the institutional frame, the relations between institutions and O-advantages are more challenging. Actually, it would have been too simplistic to include them in the Oa-advantages as an ordinary new form of organizational know-how. That’s why Dunning and Lundan (2008) extended the initial O-advantages classification. After the Oa and the Ot-advantages refinement, they created and added the institutional assets advantages (Oi). This new addition

encompasses the range of formal and informal institutions that drive the value-added activities within the firms.

To conclude this section, the eclectic paradigm has been a path-breaking model and the dominant conceptual framework in IB research during the last decades. Although its origins can be traced back to the mid-1950s, it remains, at the present time, one of the most powerful insights in the explanation of the extent and pattern of international production. This robustness underlines once again its extraordinary adaptation capacity and its openness to new theoretical extension.

RUGMAN AND THE FSA-CSA MATRIX OF MULTINATIONALS

Along with the seminal work of John Dunning, Alan Rugman has also contributed to the development of a determining analysis of the MNE activity (Rugman, 1979/1981/1982/1996). Besides, these two eminent scholars have based their contribution on a similar basis. According to his renowned book “Inside the multinational”, Rugman (1981) has acknowledged that the theory of FDI suggests that the MNE develops in response to imperfections in the goods or factor markets. As originally stated by Hymer (1976), Rugman (1981) has underlined that market failures lead to the development of MNEs. In other words, the MNE is, in essence, a response to exogenous market imperfections which can be internalized by the MNE. In this situation, the firm generates an internal market to substitute for, or supplant, the regular external market. This finding has emphasized the crucial role of internalization in the overcoming process of market externalities and has set up the basis of the FSA-CSA matrix developed by Rugman (1981). This analytical tool of MNE activity provides a strong theoretical framework based on two major components: the firm-specific advantages (FSAs) and the country-specific advantages (CSAs).

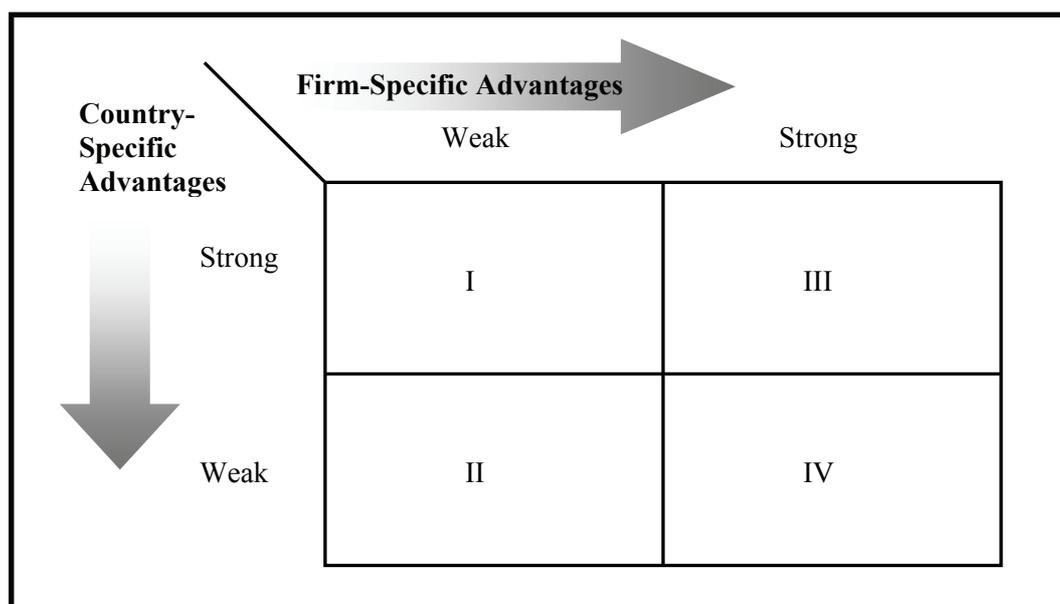
First, the FSAs determine the competitive advantage of an enterprise. They are unique capabilities controlled and possessed by a firm that may be built on advanced technology, particular organizational skills or specific know-how. The FSAs are directly linked with the firm’s internalization capacity over assets such as production knowledge and managerial or marketing capabilities. FSAs are thus related

to the firm's ability to coordinate the use of these advantages in its value-added process (Rugman, 2008). Second, CSAs correspond to the unique factors of the business environment that lead a country to a competitive advantage. They can be based on natural-resource endowments, on the labor force or on less-tangible assets such as education and skills, institutional protections of intellectual property, entrepreneurial dynamism or other factors specific to a given country (Rugman, 2008). Tariff and non-tariff barriers to trade and government regulations also influence CSAs.

According to Rugman (2008), most MNEs build their strategy on the interaction between FSAs and CSAs. This model allows them to develop a unique strategic space. Indeed, on the base of the CSAs, firm makes decisions about the efficient configuration and coordination of their value-added activity. Besides, this decision process represents a strong managerial FSA.

The FSA-CSA matrix, presented in the figure II below, helps to formulate the strategic options of the MNE.

FIGURE II: The FSA-CSA matrix



Source: Adapted on the basis of Rugman (2008)

This matrix is based on a context relative strength/weakness graduation that facilitates the identification of the CSAs and the FSAs of a particular MNE in accordance with the relevant market and the CSAs/FSAs structure of potential competitors. For example, a strong FSA implies that under identical CSAs, a firm has a potential competitive advantage over its rivals (Rugman, 2008).

Companies belonging to quadrant I are named “cost-leadership” enterprises. These firms possess weak FSAs but strong CSAs. It means that the ownership of intangible assets is less relevant than the CSAs of location that are the main sources of firms’ competitive advantage. These firms are mainly resource dependant or active in the production of undifferentiated goods. Quadrant II firms have no particular FSAs or CSAs. These firms are either inefficient companies that are on the point to restructuring their activity or to exiting the market or small and medium enterprises (SMEs) with little global exposure. In line with their strengths in both the CSAs and the FSAs, quadrant III enterprises can either combine the cost or differentiation strategies or choose one of them. Finally, firms belonging to quadrant IV possess relative strong FSAs and weak CSAs. They are generally differentiated firms with specific intangible skills or a renowned brand. Since the FSAs dominate, the CSAs do not really matter in their global long run strategy. However, it is worth noting that whereas quadrants II and III are clear in their implication, quadrants I and IV require specific strategies for different types of firms. For example, whereas a quadrant I firm might envisage to improve its FSAs to move towards quadrant III, the integration of CSAs in a quadrant IV firm strategy is not essential. This phenomenon, rooted in the exogenous characteristic of the CSAs, leads to an asymmetry between quadrants IV and I.

Similarly to the eclectic paradigm, the FSA-CSA matrix developed by Alan Rugman is a dynamic model that internalizes the modification of the business environment and the evolution of the firm specific characteristic. That evolutionary capacity has enabled several expansions of the model that have been determinant in the appraisal of some recent research questions such as the globalization-regionalization debate. Indeed, the distinction between location-bound and non-location-bound FSAs has allowed emphasizing the fact that many FSAs, especially at the downstream end of the value chain (sales), experience a rapid decay when penetrating a host region, because of the lack of complementary FSAs required to operate successfully there (Rugman & Verbeke, 2004b/2007). Such

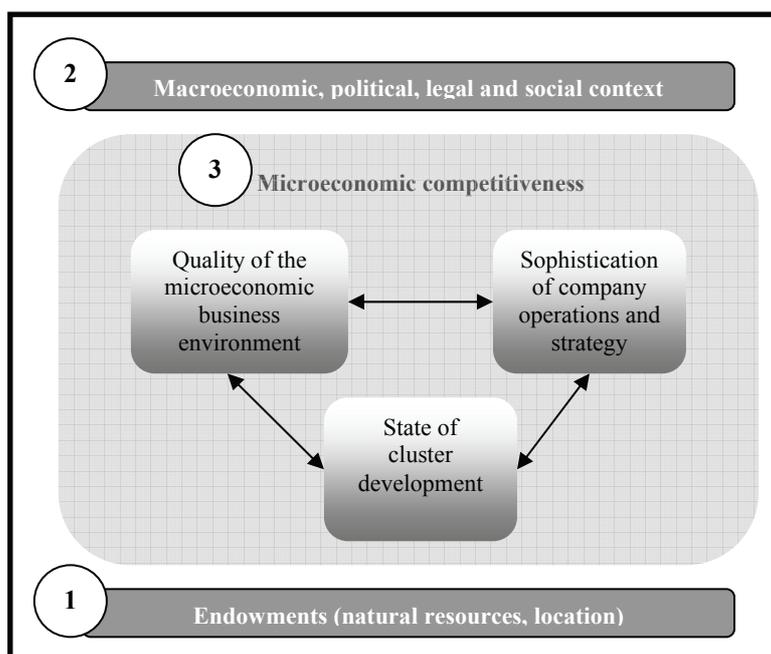
extension underlines the strength of the Rugman's matrix and its robustness through the evolution of the economic landscape.

PORTER AND THE MICROECONOMICS OF COMPETITIVENESS

Among Dunning and Rugman, Porter has developed one of the most influential concepts on the impact of location on international competitiveness. Even if his contribution is not an attempt to explain the international production process or a theory of MNE *per se*, it has brought up a new expertise on the role of location in competition that is, in some way, deeply intertwined with the two former approaches. According to Porter (1998), it has been widely recognized that changes in technology and competition have diminished many of the traditional roles of location these last decades. However and paradoxically, the enduring competitive advantages in a global economy are often heavily local, arising from concentrations of specialized skills and knowledge, institutions, rivals, related businesses and sophisticated customers in a particular nation or region. In recent decades, local competition has been seen as largely static and as resting on cost minimization whereas yet competition is dynamic and rests on innovation and the search for strategic differences.

As mentioned in the last Global Competitiveness Report (WEF, 2008) and illustrated in figure III below, three main factors constitute the ground of productivity: endowments, macroeconomic competitiveness and microeconomic competitiveness.

FIGURE III: Foundations of productivity

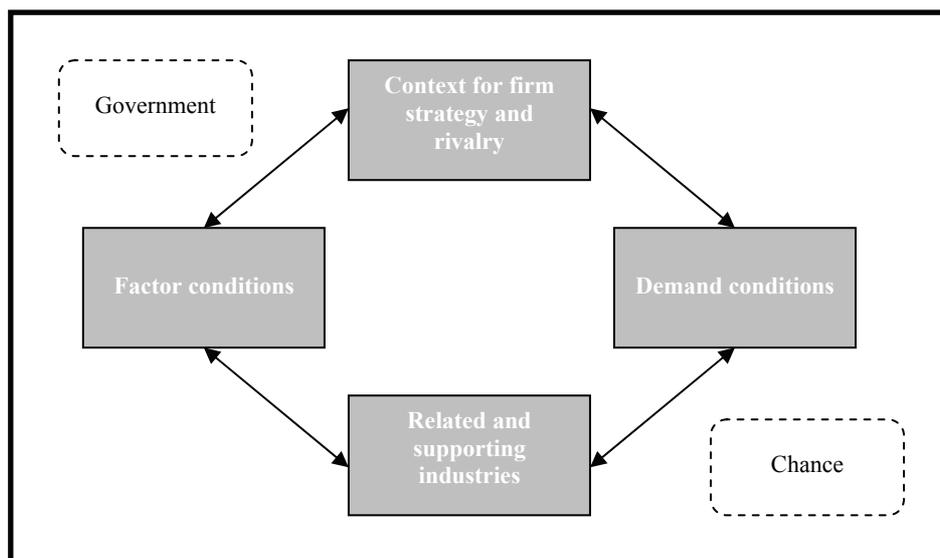


Source: Adapted on the basis of the Global Competitiveness Report, 2007-2008

On the one hand, endowments influence prosperity directly through inherited natural resources, geographic location or the size of the home market (Porter, 1998; WEF, 2008). However, their impacts on competitiveness have to be moderated as they strongly depend on the way they are allocated and managed. On the other hand, macroeconomic factors operate indirectly to affect the productivity of firms in an economy (Porter, 1998; WEF, 2008). They can be separated into two main groups: macroeconomic policy and social infrastructure, and political institutions. Even if an efficient macroeconomic frame is essential, it is not sufficient to sustain a high productivity (Porter, 1998; WEF, 2008). According to Porter, microeconomic factors are the sole that operate directly on firms in affecting productivity. Indeed, the sophistication and productivity with which companies compete in a location is strongly influenced by the quality of the business environment. Governments, companies, academic institutions and business associations are essential in defining the microeconomic environment in which business takes place. The microeconomic competitiveness may be analyzed through three determinants: the sophistication of company operations and strategy, the quality of the microeconomic business environment and the state of cluster development (WEF, 2008).

The following will develop these three concepts in more detail. First, the sophistication of a company, evaluated by the firms' strategies and operational practices, emphasizes that the productivity of a particular country or region is dependant on the productivity of its companies. In other words, a region cannot be competitive without competitive firms. Furthermore, the sophistication with which companies compete influences their productivity. Indeed, productivity augments not only as a firm improves the operational effectiveness of its activities and practices but also as it develops differentiated strategies involving exclusive products and innovative processes. Second, the quality of the business environment, particularly developed by Porter, has a strong impact on the productivity of companies. Indeed, the more the companies use sophisticated processes, the more they need highly skilled staff, efficient administrative and physical infrastructures, top-quality suppliers or advanced research institutions. A strong business environment widens the capabilities, the competitive choices and the productivity enhancing opportunities offered to companies. According to Porter (1990), the ways that firms create and sustain competitive advantage in global industries provide the necessary foundation for understanding the role of the home nation in the process. The famous diamond framework, developed by Porter (1990) and presented in the figure IV below, constitutes a useful tool in the characterization of the business environment of a region. This path-breaking model is based on four interrelated components that shape the environment in which firms compete and promote or impede the creation of competitive advantage. These four determinants are: the factor conditions, the demand conditions, the context for firm strategy and rivalry and the related and supporting industries.

FIGURE IV: The diamond framework



Source: Adapted on the basis of Porter (1990)

Factor conditions are an important element affecting the productivity of companies. They correspond to the inputs necessary to compete in any industry, such as human resources, physical resources, knowledge resources, capital resources and infrastructure quality. The competitive impact of factors depends more on the way they are used and allocated than on their amount in a particular country or region. Home demand conditions are a second factor influencing the productivity of firms and the competitive advantage of a region. The type, the size and the internationalization potential of the home demand are the dynamic factors that shape the rate and character of improvement and innovation by a country's firms. A sophisticated home demand will induce firms to innovate continually. The third determinant of the national advantage in a specific industry is the presence of internationally competitive related and supporting industries. Indeed, their presence confers potential advantages and important innovation inducement thanks to the top-quality inputs they supply. Finally the fourth broad component of the diamond framework is the context in which firms are managed as well as the nature of domestic rivalry. A sophisticated management and a high level of competition support firms to sustain a high level of innovation and productivity. Michael Porter also underlines two external factors influencing the business environment and the national competitiveness generally, namely the role of government and the historical and chance factors.

Finally, the state of cluster development is the last determinant influencing the microeconomic competitiveness. However, due to a lack of data on clusters, this last determinant remains a simple refinement of the analysis of the quality of the business environment and of the related and supporting industries. Clusters symbolize a strong business environment. According to Porter (1998b), a cluster is a geographically proximate group of interconnected companies and associated institutions in a particular field, linked by commonalities and complementarities. They often include firms in downstream industries, producers of complementary products, specialized infrastructure providers, government and other institutions providing specialized training, education, information, research and technical support. Clusters affect competition by increasing the productivity of constituent firms, by enhancing their capacity for innovation and by stimulating new business formation. The harsh rivalry prevailing among clusters' members induces them to differentiate and ameliorate their output constantly. Clusters are the best manifestation of the interaction among the four facets of the diamond system. Their increasing role in the global economy highlights the remaining importance of regions. As mentioned in the GCR (WEF, 2008), clusters provide an intermediate unit of productivity drivers between the general business environment quality and firm level sophistication.

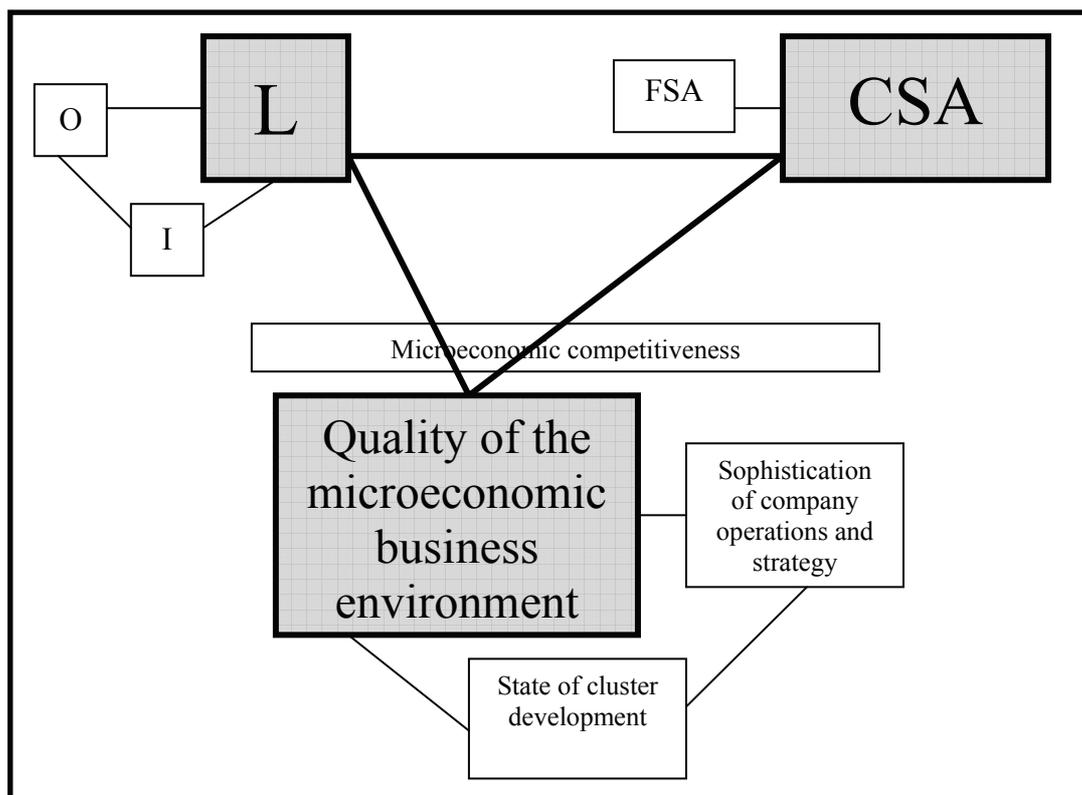
To conclude this section, even if Porter's diamond of competitive advantage has been initially criticized by international business scholars because of its lack of appreciation of MNE activity, it has been widely recognized as one of the most influential contributions on the impact of location on international competitiveness. Indeed, Porter has revealed the remaining role of location in our global economy and the importance of location as a competitive advantage of firms. His path-breaking contribution to the cluster theory has led to new agenda for all business executives and has set up a new way of thinking the configuration of the economic activity.

A COMMON PERSPECTIVE ON LOCATION

Dunning, Rugman and Porter have all contributed to a better understanding of our modern world economy. The three scholars are unanimously recognized among the most influential and prolific economists of the last decades. Their path-breaking concepts, models and theories have set up a strong

theoretical framework for the understanding of location as a factor in economic activity. As mentioned previously in this paper, whereas Dunning and Rugman have extensively developed the theory of foreign production and MNE activity, Porter has concentrated on the role of location in competition. Nevertheless, even if the work of Dunning and Rugman is closer in its implication, they have both acknowledged and assessed the contribution of Porter. Surprisingly, despite these close relations in the international business field, few studies have linked these three contributions in a joint perspective. Although it would be out of the reach of this paper to undertake an exhaustive analysis of all the links arising from these three prominent theories, this section will emphasize their relation on the location issue. Even if this analysis will provide a first step in their rapprochement, it is important to keep in mind that these models are systems of interconnected variables. It means that even if this section will be focused on their location variable, it is necessary to be aware of the implications on the whole system. For example, the analysis of the L-advantages does only make sense within an overall perspective of the OLI structure. As illustrated by figure V, this section will link the “L-advantages” of John Dunning, the “CSAs” of Alan Rugman and the “Quality of the business environment” of Porter. These three determinants set a strong theoretical framework in the analysis of the significance of location in a world seen as ever more global.

FIGURE V: Location framework



Source: Personal elaboration

The “L-advantages” of Dunning

As mentioned previously in this paper and in order to understand the significance of location in their models, it is worth noting that Dunning and Rugman have both set their theory of foreign production and MNE activity on the same basis, namely on the path-breaking work of Hymer (1976) about the existence of market imperfections (Dunning & Lundan 2008; Rugman, 1981). Indeed, it is the presence of market failures that explains the existence of MNEs. In other words, MNEs are a response to market imperfections. They generate an internal market to substitute for, or supplant, the regular external market (Rugman, 1981). These market imperfections cause firms to pursue different strategies towards the exploitation of the O and L assets available to them, and explain why some firms choose the hierarchical rather than the market path for exploiting differences in L-advantages between countries (Dunning & Rugman, 1985; Dunning & Pitelis, 2008; Dunning & Lundan, 2008). The fact that a MNE is defined as an enterprise that engages in FDI and owns value-added activities in more

than one country is the root of the location issue arising from the models of Dunning and Rugman. Indeed, the international production will be a function of the configuration of the O-advantages of firms, the L-advantages of countries and the extent to which firms coordinate these O- and L-advantages, namely their I-advantages (Dunning & Lundan, 2008). It is worth noting that the dynamic structure of the eclectic paradigm influences considerably the L-determinant. Indeed, according to Dunning and Lundan (2008, pp. 102), a firm's response to the L-attractions of a particular country in time "t" will affect the composition of its O-advantages in time "t +1". Similarly, the strategic use of a firm's O- and I-advantages in time "t" will affect the L-advantages of the country in which it invests in time "t +1". These statements underline once again the interdependence of the determinants of the eclectic paradigm in the explanation of foreign production and the location of economic activity.

According to Dunning and its eclectic paradigm, a firm will engage in foreign production first if it possesses unique and sustainable O-advantages. If this condition is fulfilled, the firm will then assess the extent to which it is in its interest to add value to its O-advantages by internalizing them rather than by selling them, or their right of use, to independent foreign firms (= I-advantages). Assuming that these two conditions are satisfied, it is just in a third step that the firm will analyze if it is in its global interest to use its O-advantages in a foreign location. Since the spatial distribution of L-bound resources, capabilities and institutions is unequally distributed across locations, it will confer a competitive advantage to countries possessing strong L-advantages (Dunning & Lundan, 2008). The L-determinant of the OLI framework is thus the features of the L-structure of the foreign country in comparison to the L-structure of the home country. Consequently, a country possessing strong L-advantages is likely to attract a large amount of inward FDI. In other words, an efficient business environment will normally favor FDI attraction.

One question is still remaining: What are concretely the L-determinants that shape the L-structure of a country? According to Dunning & Lundan (2008, pp.102), many factors may influence the L-structure of a country, such as the spatial distribution of natural resources, the input prices and quality, the transport and communication costs, the investment incentives or disincentives, the trade barriers, the

quality of infrastructures, the ideological, language and business culture or the legal and regulatory system. Even if this list is not exhaustive, it provides a brief overview of some of the main factors influencing the L-determinant of the eclectic paradigm. In a recent article, Dunning underlined the basic push and pull factors (Dunning, 2008). The push factors correspond to the motives of FDI. Dunning has observed a change in their motives the last decades. Whereas the 1980s were mostly characterized either by market or efficiency seeking FDI, the early 2000s has recorded a high proportion of FDI that was designed to augment the existing competitive advantages. More interesting are the pull factors. Indeed, they are related to the attraction of a particular location and can thus be linked to the quality of the business environment and the cluster theory developed by Porter. Dunning has underlined three basic pull factors which firms consider in making their location choices and which governments incorporate into their policies to promote an efficient economic business environment (Dunning, 2008). These three factors are the endowments, the policy, institutions and values, and the externalities. Endowments comprise natural resources and created assets such as machines and equipment or human knowledge that generate the physical environment for business. Policy, institutions and values set up the human environment. It defines the human interactions and fosters the economic growth and the impetus to upgrade the physical environment. As mentioned by Dunning, even if there are still research opportunities in this field, it is acknowledged that both formal and informal institutions play a critical role in the creation of an efficient business environment (Dunning, 2008; Dunning & Lundan, 2008). Finally, externalities define the absorption capacity associated with a particular location. The recent evolution of the economic landscape has influenced these three pull factors. For example, the clustering of the economic activity, by facilitating the learning process of the participating members, has modified both firm and country specific institutional constraints and incentive structures.

To conclude this subsection, it is worth noting that the L-component of the eclectic paradigm has received an increasing attention as countries strive to compete for inward FDI. The last years have witnessed a reconfiguration of the location needs of firms. Variables such as the institutional infrastructure, the presence of local supporting firms, the opportunity for high-tech clusters and the

quality of social capital have been of particular significance in explaining the recent clustering of economic activity (Dunning & Lundan, 2008, pp.114). As mentioned by Dunning in one of his most influential article, three major developments in the global economy have affected the perception of the L-advantages offered by countries: the growing significance of knowledge intensive assets, the reduction of many natural and artificial impediments to trade, and the growing ease with which firms are able to coordinate their cross-border activities. Although some of these factors have led to a concentration of the economic activity within a limited number of locations, others have led to more dispersion. Various surveys have nevertheless confirmed that MNEs are increasingly seeking locations which offer the best economic and institutional facilities for their core competencies to be efficiently utilized (Dunning, 1998). In other words, like Porter, Dunning believes that location is a variable that affects significantly the global competitiveness of firms.

The “CSAs” of Rugman

Since the previous subsection has already introduced the starting point of Rugman’s contribution, this section will be concentrated on the location issue of his FSA-CSA matrix of MNE activity. As pointed out previously in this paper, Rugman has based his analysis of MNE activity on two main variables: the firm-specific advantages (FSAs) and the country-specific advantages (CSAs). Whereas the FSAs correspond to the competitive advantage of a company, the CSAs are the location variable of the model. These CSAs depict the specific characteristic of the business environment of a country that can lead to a competitive advantage. They can be based on natural-resources endowments, on the work force or on less-tangible assets such as education and skills, institutional protection of intellectual property, entrepreneurial dynamism or other factors unique to a country (Rugman, 2008). This definition emphasizes the close relation between the CSAs and the location variables of both Dunning’s and Porter’s models. On the one hand, as stated by Rugman (2008), the CSAs are closely related to the diamond of Porter. The CSAs form the basis of the global platform from which the MNE derives a home-based diamond advantage in global competition (Rugman, 2008). On the other hand, the L-advantages of Dunning are also closely related to the CSAs of Rugman. They both describe the quality of the business environment. However, it is worth noting that the location variable of the

models of Dunning and Rugman has an opposite perspective. Whereas the L-determinant of Dunning corresponds to the location environment of the foreign country, the CSAs of Rugman depict the situation of the home country. This nuance is however negligible so much that it is just a divergence of point of view. Furthermore, in a later extension of his matrix, Rugman has introduced the notion of home and host CSAs (Rugman & Verbeke, 2001). Rugman has also acknowledged the interdependence between the two variables of his model (Rugman, 2008). In other words, like the interdependence of the OLI paradigm, if the CSAs influence the FSAs, the FSAs also affect the CSAs.

Rugman has extensively written on the significance of location advantages for MNEs (Rugman, 1981; Rugman, 1996; Rugman & Verbeke, 1992; Rugman & Verbeke, 2004). In an article co-written with Verbeke, Rugman has acknowledged that Dunning's eclectic paradigm has become the leading conceptual framework for the analysis of all kinds of foreign production at the beginning of the twenty-first century (Rugman & Verbeke, 2001). However, he has also stated that this paradigm is closely related to his FSA-CSA framework and its extensions. This affirmation suggests that, like the eclectic paradigm, the configuration of the FSA-CSA of a particular enterprise will determine whether or not it will internationalize its activity through FDI (Rugman & Verbeke, 2001).

Even if Rugman has addressed some critics to Porter's theory from an international business perspective, he has also acknowledged that the most influential work on the impact of location on international competitiveness in the 1990s has been Porter's study on the diamond of competitive advantage (Rugman & Verbeke, 2001). Although Rugman deplores the weakness of Porter's framework in the appraisal of foreign production, the diamond framework of Porter is clearly related to the CSAs of Rugman. Indeed, the diamond framework provides a strong analysis of the business environment of a country. In doing so, it emphasizes the specific advantages of a particular country and the location possibility available to every firm organizing its internationalization.

The quality of the business environment of Porter

As noticed in the previous sections, Porter's analysis of the business environment of location has been widely recognized by the academic and scientific community. Both Dunning and Rugman have acknowledged the theoretical strength of the diamond framework in the appraisal of the competitiveness of a particular location. As mentioned by Rugman, Porter's approach has undoubtedly constituted an important advance on conventional economic thinking on the sources of competitiveness at the industry level (Rugman & Verbeke, 2001). Porter's statements on the importance of created and advanced factor conditions as opposed to natural resource endowments, sophisticated rather than large scale demand, linkage with related and supporting firms and intense domestic competition have undeniably influenced both managers and public policy makers (Rugman & Verbeke, 2001). Porter's theoretical framework is thus strongly related to both the L-advantages of Dunning's eclectic paradigm and the CSAs of Rugman. As pointed out by Dunning and Lundan (2008, pp. 109), Porter's diamond of competitive advantages has provided a useful framework for analyzing the L-advantages of a country. Similarly, Rugman has noticed that the CSAs form the basis of the global platform from which the MNE derives a home-base diamond advantage in global competition (Rugman, 2008).

As stated by Porter, even if the possession of specific endowments or an efficient macroeconomic environment may be necessary to set the foundation of competitiveness, they are not sufficient to sustain a high productivity among the economic entities of a particular location (WEF, 2008). Indeed, a strong microeconomic environment is the only way to enhance the productivity and to shape the competitiveness of a location. As underlined in the GCR 2008-2009 (WEF, 2008), the determinants of the microeconomic competitiveness include not only the quality of the microeconomic business environment but also the sophistication of company operations and strategy and the state of cluster development. These determinants are however strongly related and interdependent in the establishment of a strong business environment. The remaining significance of location in today's global economy testifies that the innovation capacity is still strongly related to particular location. The decisive benefits of the proximity of economic activity are depicted by the determinants of the

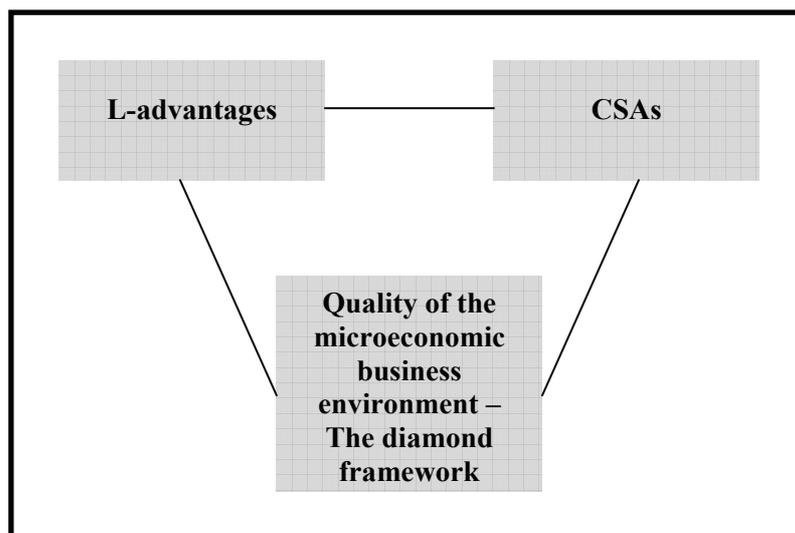
diamond framework and ideally manifested by the creation of clusters of interconnected industries at particular locations. This new vision of space allocation is thus strongly connected to both Dunning's and Rugman's contributions. Indeed, Porter's approach affects not only the location variable of the models of Dunning and Rugman, but also their FSAs and O-determinant. Like the eclectic paradigm and the FSA-CSA model, Porter's framework is a system of interconnected variables. Indeed, a strong business environment also influences firms' performances.

CONCLUSION AND RESEARCH EXTENSION

The seminal work of Dunning, Rugman and Porter has undoubtedly contributed to a better understanding of the current world economy. Whereas Dunning and Rugman have set up an outstanding theoretical framework in the explanation of international business, foreign production and MNE activity, Porter has developed a path-breaking theory in the appraisal of the competitiveness of location. In an era of global competition, they have nevertheless all acknowledged the remaining and crucial role of location in this new economics of competition. Surprisingly, despite this common research interest, few studies have linked these three theoretical contributions in a joint perspective.

The main goal of this paper has thus been to provide a first step in the "rapprochement" of these three path-breaking models. After presenting Dunning's eclectic paradigm, Rugman's FSA-CSA matrix and Porter's microeconomic of competitiveness concept, this study has underlined the close relation between the location variables of these three models. Even if these three variables come from three different models, they may set a strong theoretical framework in the appraisal of location. The figure VI illustrates this connection.

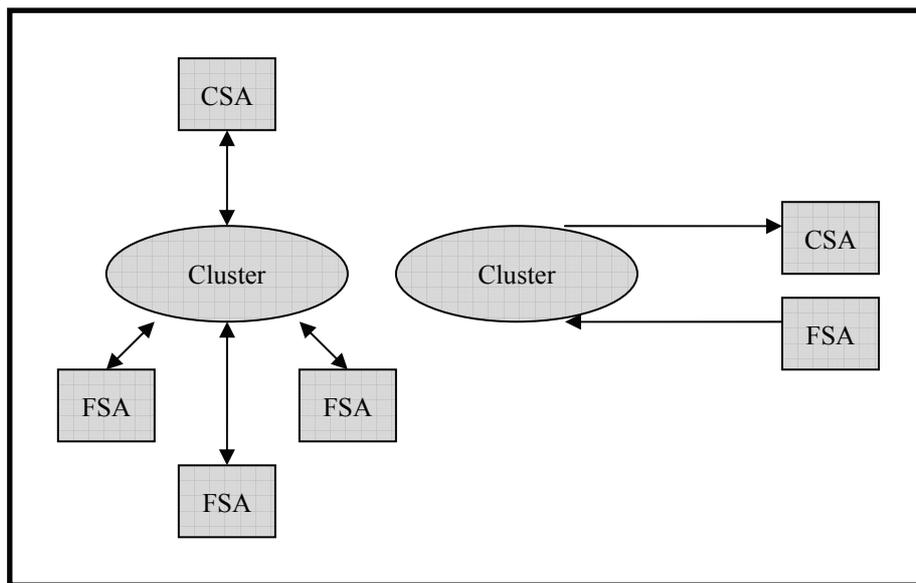
FIGURE VI: Location variables



Source: Personal elaboration

However, as pointed out by Dunning in his famous 1998 article, more attention should be given to the importance of location as a variable affecting the global competitiveness of firms (Dunning, 1998). Furthermore, the last two decades have witnessed a number of dramatic changes in the location of international business activity and in the understanding of its determinants. These changes offer huge intellectual challenges to scholars interested in the location strategies of firms (Dunning, 2008). In providing a theoretical basis and a first step in the understanding of the links between the location variables of three recognized models, this paper has unveiled new research leads. One of the most interesting and least explored topics is certainly the dynamic aspect of location and its impacts on other variables. Indeed, as illustrated by figure VII, although firms (with their own FSAs) influence the business environment of a country (or the CSAs), the country also leverages the performance of firms (and their FSAs). This virtuous circle opens thus a way towards a multitude of new research questions for scholars interested in “location” as a factor within the theory on MNE behavior.

FIGURE VII:



Source: Personal elaboration

Notes

¹ It is worth noting that Dunning & Lundan (2008, pp. 74-77) have highlighted three other motives for MNE activity, namely escape investments, support investments and passive investments.

References

Behrman, J. N. 1972. *The Role of International Companies in Latin America: Autos and Petrochemicals*. Lexington, MA: Lexington Books.

Buckley, P. J. & Casson, M. C. 1976. *The Future of the Multinational Enterprise*, London: Macmillan.

Buckley, P. J. & Casson, M. C. 1985. *The Economic Theory of the Multinational Enterprise: Selected Papers*, London: Macmillan.

Cantwell, J. A. & Narula, R. 2003. *International Business and the Eclectic Paradigm: Developing the OLI Framework*. London and New York: Routledge.

Chen, S.-F. S. (2005). Extending internalization theory: a new perspective on international technology transfer and its generalization. *Journal of International Business Studies*, 36(2), pp. 231-245.

Dunning, J. H. 1958. *American Investment in British Manufacturing Industry*. London: Allen & Unwin.

Dunning, J. H. 1973. The Determinants of International Production. *Oxford Economic Papers*, 25, pp. 289-336.

Dunning, J. H. 1992. *Multinational Enterprises and the Global Economy*. Workingham, England: Addison-Wesley Publishing Company.

Dunning, J. H. 1998. Location and the Multinational Enterprise: A Neglected Factor?. *Journal of International Business Studies*, 29(1): 45-66.

Dunning, J. H. 2000. The eclectic paradigm as an envelope for economic and business theories of MNE activity. *International Business Review*, 9: 163-190.

Dunning, J. H. 2001. The eclectic (OLI) paradigm of international production: past, present and future. *International Journal of the Economics of Business*, 8(2): 173-190.

Dunning, J. H. 2003. The contribution of Edith Penrose to international business scholarship, *Management International Review (MIR)*, 43(1), pp. 3-19.

Dunning, J. H. 2008. Space, location and distance in IB activities: A changing scenario. In J. H. Dunning & P. Gugler (Ed.), *Foreign Direct Investment, Location and Competitiveness, Progress in International Business Research*: 83-110. Vol. 2. Elsevier Ltd.

Dunning, J. H. 2009. Location and the multinational enterprise: John Dunning's thoughts on receiving the Journal of International Business Studies 2008 Decade Award, *Journal of International Business Studies*, 40, pp. 20-34.

Dunning, J. H. & Lundan, S. M. 2008. *Multinational Enterprises and the Global Economy* (second edition). Cheltenham, UK, Northampton, MA, USA: Edward Elgar.

Dunning, J. H. & Pitelis, C. 2008. Stephen Hymer's contribution to international business scholarship: an assessment and extension. *Journal of International Business Studies*. 39(1): 167-176.

Dunning, J. H. & Rugman, A. M. 1985. The influence of Hymer's dissertation on the theory of foreign direct investment. *American Economic Review*, 75(5): 228-232.

Forsgren, M. 2008. Are Multinationals Superior or Just Powerful? A Critical review of the Evolutionary Theory of the MNC. In J. H. Dunning & P. Gugler (Ed.), *Foreign Direct Investment, Location and Competitiveness*, *Progress in International Business Research*: 29-50. Vol. 2. Elsevier Ltd.

Hennart, J. F. 1982. *A Theory of the Multinational Enterprise*, Ann Arbor, MI : University of Michigan Press.

Hennart, J. F. 2001. Theories of the multinational enterprise, in Rugman and Brewer (eds), pp. 127-149.

Hymer, S. H. 1968. La grande firme multinationale. *Revue Economique*, 14(b), pp. 949-973.

Hymer, S. H. 1976. *The International Operations of National Firms*. Lexington, MA: Lexington Books.

Kogut, B. & Zander, U. 1993. Knowledge of the firm and the evolutionary theory of the multinational corporation. *Journal of International Business Studies*, 24(4): 625-645.

Kojima, K. 1973. Reorganization of north-south trade: Japan's foreign economic policy for the 1970s', *Hitotsubashi Journal of Economics*, 13, pp. 1-28.

Kojima, K. 1978. *Direct Foreign Investment: A Japanese Model of Multinational Business Operations*, London: Croom Helm.

Kojima, K. 1982. Macroeconomic versus international business approach to foreign direct investment, *Hitotsubashi Journal of Economics*, 23, pp. 630-640.

Kojima, K. 1990. *Japanese Direct Investment Abroad*, Mitaka, tokio: International Christian University, Social Science Research Institute Monograph Series 1.

Kojima, K. and Ozawa, T. 1984. Micro and macro economic models of foreign direct investment: towards a synthesis, *Hitotsubashi Journal of Economics*, 25(2), pp. 1-20.

Lundan, S. M. & Dunning, J. H. 2008. Institutions and the OLI paradigm of the multinational enterprise, *Asia Pacific Journal of Management*, 25(4), pp. 573-593.

Lundan, S. M. & Dunning, J. H. 2009. The institutional origins and evolution of dynamic capabilities in multinational enterprises, *Industrial & Corporate Change*, 18 (forthcoming).

Lundgren, N. 1977. Comment (on a chapter by John H. Dunning), in B. Ohlin, P.O. Hesselborn and P.M. Wijkman (eds), *The International Allocation of Economic Activity: Proceedings of a Nobel Symposium Held at Stockholm*, London: Macmillan, pp. 419-425.

McManus, J. C. 1972. The theory of the multinational firm, in G. Pacquet (ed.), *The Multinational Firm and the Nation State*, Toronto: Collier, Macmillan, pp. 66-93.

North, D. C. 1990. *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press.

Penrose, E. T. 1959. *The Theory of the Growth of the Firm*, Oxford: Basil Blackwell.

Pitelis, C. 2002. *The Growth of the Firm: The Legacy of Edith Penrose*. Oxford and New York: Oxford University Press.

Pitelis, C. 2004. Edith Penrose and the resource-based view of (international) business strategy, *International Business Review*, 13(4), pp. 523-532.

Porter, M. E. 1990. *The Competitive Advantage of Nations*. New York: Free Press.

Porter, M. E. 1998a. Clusters and the new economics of competition. *Harvard Business Review*, November-December: 77-90.

Porter, M. E. 1998b. *On Competition*. Boston: Harvard Business School Press.

Rugman, A. M. 1979. *International Diversification and the Multinational Enterprise*, Lexington, MA: Lexington Books.

Rugman, A. M. 1981. *Inside the multinationals: The economics of internal markets*. New York: Columbia University Press.

Rugman, A. M. 1982. *New Theories of the Multinational Enterprise*, London: Croom Helm.

Rugman, A. M. 1996. *The Theory of Multinational Enterprises*. Cheltenham: Elgar.

Rugman, A. M. & Doh, J. P. 2008. *Multinationals and development*. New Haven & London: Yale University Press.

Rugman, A. M & Verbeke, A. 1992. A Note on the Transnational Solution and the Transaction Cost Theory of Multinational Strategic Management. *Journal of International Business Studies*, 23(4): 761-771.

Rugman, A. M & Verbeke, A. 2001. Location, competitiveness, and the multinational enterprise. In A. M. Rugman & T. L. Brewer (Ed.), *The Oxford Handbook of International Business*: 150-177. Oxford University Press.

Rugman, A. M & Verbeke, A. 2002. Edith Penrose's contribution to the resource-based view of strategic management. *Strategic Management Journal*, 23(8): 769-780.

Rugman, A. M. & Verbeke, A. 2004a. A final word on Edith Penrose. *Journal of International Business Studies*, 41(1), pp. 205-217.

Rugman, A. M. & Verbeke, A. 2004b. A perspective on regional and global strategies of multinational enterprises. *Journal of International Business Studies*, 35: 3-18.

Rugman, A. M. & Verbeke, A. 2007. Liabilities of regional foreignness and the use of firm-level versus country-level data: a response to Dunning et al. (2007). *Journal of International Business Studies*, 38: 200-205.

Swedenborg, B. 1979. *The Multinational Operations of Swedish Firms : An Analysis of Determinants and Effects*, Stockholm : Industriens Utrednings Institut.