

IS THE IMPORTANCE OF LOCATION FACTORS DIFFERENT DEPENDING ON THE DEGREE OF DEVELOPMENT OF THE COUNTRY?

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ABSTRACT

The increasing importance of Foreign Direct Investment (FDI) in the global markets and its unequal distribution throughout the world have been the source of studies on the importance of country factors in determining where foreign investors choose to invest. Our paper aims to provide a better understanding of the location factors of FDI. Based on the Investment Development Path (IDP) we study how the importance of these country factors, such as location advantage, varies depending on the degree of development of the host economy. We consider a broad set of well-known location factors (13) and we analyze them using panel data for a broad set of economies (117) over the period 2006-2013 (8 years). Our results establish that most of the location factors studied are not only decisive in attracting FDI, but also that their importance is moderated by the host economy's stage of development.

Key words: Investment Development Path, Foreign Direct Investment, Location Factors, Internationalization.

1. INTRODUCTION

The increasing significance of Foreign Direct Investment (FDI) in the global markets and its unequal distribution throughout the world have been the source of studies on the importance of the country factors in determining where the foreign investor chooses to invest.

The importance of country factors in attracting FDI has been unquestioned in the literature since the initial contributions of classical macroeconomic theory that justified international trade by the existence of absolute or comparative advantages, or by the unequal endowment of factors among the countries. Initially, researchers focused on macroeconomic factors such as resource endowments, factor prices and productivity. However, these factors may provide only a partial explanation of FDI location (Van Wyk and Lal, 2010).

Different theories have emerged to explain the internationalization of the firm, but they have also contributed to answering the question of where to locate abroad. Recent studies such as Blonigen (2005), Faeth (2009) or Assunção et al. (2013) present a complete and complementary review of the most important determinants of FDI and its location. The literature provides a long list of FDI location determinants or, following Dunning's terminology, location advantages. These include infrastructural support, the role of the institutions, macroeconomic policies, human capital, capital flows, exchange rates, market size, and technology, among others. The research considers all those specific conditions or properties of host countries that make them attractive because they provide potential benefits to foreign direct investors. However, although there is theoretical consensus that these factors attract FDI, the results obtained in the empirical literature are not conclusive. For example, while there is certain consensus that market size is a determinant factor (Buckley and Casson, 1992; Vogiatzoglou, 2008), others such as labor costs yield no conclusive results (Na and Lightfoot, 2006).

This lack of consistency among the results may be due initially to researchers' focus on those

developed countries or regions that traditionally attract more FDIs, such as USA, Japan or Europe. However, since the last decade of twentieth century, emerging economies such as China, Brazil or India have become significantly more important as host countries. This has given rise to a large body of research, most of it context-specific, interested in providing new insights into the determinants of FDIs in less developed countries. Thus, individual factors applied to different countries and timeframes could yield contradicting results (Tahir and Larimo, 2004). However, from previous studies we can also derive that location factors are different depending on the degree of development of the country or region. As Blonigen (2005, p. 397) said, *“the factors that determine FDI into developed countries is simply much different than into less-developed countries, and that these differences are still not captured adequately”* in the empirical research.

In this paper, we want to go a step further. Based on the theoretical and empirical literature, we start with the assumption that the country factors considered in the literature are important as location advantages for FDI. However, our proposal is that their influence will be moderated by the degree of development of the host economy. We believe that there are some location factors that will be more influential in less developed countries (e.g. resource endowments or infrastructure), others in transition economies (e.g. quality of human capital) and still others in the most developed countries (e.g. innovation). Therefore, our arguments build primarily on the dynamic interaction between FDI and the level of development of a given economy put forward by the Investment Development Path (IDP) approach (Dunning, 1981, Dunning and Narula, 1996; Narula and Dunning, 2000, 2010) and categorized in five stages. As Nayak and Choudury (2014, p. 11) summarize, *“the basic hypothesis is that when a country develops, the conditions encountered by foreign and local firms change. This will affect the flows of inward and outward FDI. This, in turn, will have an impact on the economic structure of the country. Thus, there is a dynamic interaction between the two”*.

Thus, the IDP supports that the importance of the location factors would vary depending on the stage of development of the host country.

Although there are several empirical studies based on the IDP, they focus mainly on the relationship between the stage of development and the net outward investment (NOI) applied to a set of countries at a particular stage (Durán and Úbeda, 2005), to geographic areas (Narula and Guimón, 2010 for Eastern Europe), or to specific countries such as Austria (Bellak, 2001), China (Liu et al., 2005), Spain (Galán et al., 2007), and India (Verma and Brennan, 2011), among others.

However, references to location factors using the IDP approach are scarce (Li and Clarke-Hill, 2004), with the exception of Galán et al.'s (2007) study, which partially confirms that the impact of location factors depends on the stage of development of the host country.

Unlike previous studies, our paper seeks to determine if the degree of development of the host economy moderates the influence of its location advantages for FDI by applying it to 117 economies over a period of 8 years (2006-2013). The approach used is also applied to regional sub-samples in order to better understand the complexities of the study and also as a measure for the robustness of our findings.

Thus, our study contributes to, and complements, prior research in several ways. First, it explains the reasons why certain location factors are more influential in attracting FDI in some stages, and why other factors are more important in others. It explores the interaction between location advantages and degree of development by way of the IDP, increasing the explanatory power and understanding of the complex phenomenon that is the location of FDI. Second, it includes most of world's economies instead of being context specific, although we also provide results by regions. Third, it is not a cross-sectional study that is affected by the moment of the analysis, but rather a longitudinal study. Finally, it analyzes a broad set of well-known location factors (13) using homogeneous data that allows us to make comparisons

across most of world's economies, solving the problems raised by Pantelidis and Nikolopoulos (2008).

As far as can be ascertained, this is the first study that dynamically analyzes a broad set of location factors applied to a large number of economies, differentiated by their stage of economic development, over a long period of time. We believe this paper will contribute to a better understanding of the country factors that determine the destination of FDI, the importance of which, as pointed out by both Meyer, Mudambi and Narula (2011) and Narula and Santangelo (2012), continues to be significant.

2. LOCATION FACTORS

The importance of country factors in attracting FDI has been unquestioned in the literature since the first contributions of classical macroeconomic theory that justified international trade by the existence of absolute (Adam Smith) or comparative advantages (David Ricardo), or by the unequal endowment of factors among the countries (Heckscher-Ohlin). Since then, the study of these location factors has progressed through contributions from different theoretical approaches thus providing a very broad and rich literature on this issue; however there is still no generally accepted theory (Villaverde and Maza, 2015). In the following lines we concentrate on the main FDI theories in order to present a brief theoretical context that will help us to better understand the location advantages (and in particular, the country factors) that an economy can offer foreign investors¹.

Initially, the Neoclassical trade models focused on macroeconomic factors such as resource endowments, factor prices and productivity as location advantages. But these theories of international trade proved to be inadequate for explaining the changing trade flows in the 1960s and Vernon (1966) developed his Product Life Cycle Theory in response to this need (assimilating international trade with international investment). This model took into account

¹ Blonigen (2005), Faeth (2009), Assunção et al. (2013) or Nayak and Choudhury (2014) presented a more complete review of the FDI determinant literature.

not only the comparative cost due to the differential of resource endowments in different nations, but also the timing of innovation, the effects of scale economies, the role of uncertainty, and the theory of location². Based on these, Vernon explains the pattern of development and production of a product, which moves from one stage to another through the three stages of its life cycle (new, mature and standardized) and from advanced industrialized countries to less developed countries. Internalization theory (Buckley and Casson, 1976), based on the contributions from the Market Imperfection (Hymer, 1976) and Transaction Cost (Coase, 1937) approaches, explains the creation of multinational firms when they replace imperfect (or nonexistent) markets by creating more efficient internal markets (internalization of transactions) across national borders. Four groups of factors influence this internalization decision: firm-specific (e.g. managerial and technological capabilities), industry-specific (e.g. market structure), nation-specific (e.g. government regulations, taxes, trade-barriers) and region-specific (e.g. geographic and social characteristics) factors. Most of previous contributions are included in the Eclectic or OLI paradigm developed by Dunning (1977, 1988, 1995, 2000, 2001). This model states that the combination of ownership-specific (O) advantages of the local firms, location-specific (L) advantages of the host country and internalization (I) advantages explain the decision of the firms to operate internationally. Location advantages are the result of the natural resources, lower production and transportation costs, infrastructures, market size, favorable competitive structures, and institutions, among others, that are immobile and country-specific. The “new theory of trade” integrates elements of the previously mentioned ownership and location advantages with knowledge and the intrinsic characteristics of the country using a general equilibrium model. Helpman (1984) focuses on relative factor endowments and Brainard (1997) on proximity and concentration advantages using gravity models of trade and FDI. Gravity models suggest that

² Drawing on Capello (2011), location theory was developed in the early 1900s and seeks to explain the economic mechanisms that influence the location of individual activities in space.

the distance between home and host countries is one of the key determinants of FDI (Blonigen, 2005; Blonigen and Piger, 2014). As Bevan and Estrin (2004) point out, distance can be considered as a measure of the transaction costs of undertaking activities in foreign countries (e.g. transportation and communication costs, costs resulting from cultural and language differences, or other institutional and legal factors, among others). Thus, distance reduces FDI. Similarly, the incremental internationalization, or the Uppsala model (Johanson and Vahlne, 1977), explains the choice of countries in which to locate FDI is also based on the ‘psychic distance’ between the home and host countries.

The Institutional Theory complements the previous contributions since institutions (formal and informal) are immobile factors that establish the rules of the game of a market economy which reduce uncertainty and transaction costs (North, 1990) and could determine the international attractiveness of the location. Thus, robust and transparent institutions are an important location advantage for the internationalization process (Bevan et al., 2004).

All of these theories coincide in considering that the choice of a particular location for the FDI is based, among other factors, on the specific characteristics and conditions of the location that favor investment by foreign firms. The greater the availability and/or quality of these country factors in the host country, the greater its capacity to attract FDI. The complexity lies in the identification of these country factors. As Faeth (2009, p. 187) said, *“since there are a variety of theoretical models explaining FDI, there are many factors that were experimented with in empirical studies to determine which factors influence FDI”*.

Consequently, it is difficult to make a list of all possible location advantages since there is a broad set of potential country factors, which may vary depending on the motive of the investment, the spatial, or the strategic relationships with other operations both inside and outside the firm (Narula and Santangelo, 2012).

Our selection of location factors includes those that are the most important and frequently

used in previous studies, and reflect the countries' economic structure, government policies and industrial and technological specialization. The location factors considered here are: natural resource endowments, institutions, infrastructures, macroeconomic stability (or macroeconomic environment), basic education and health services, market size, qualified labor, labor market efficiency, financial market development, goods markets efficiency, technological readiness, innovation and business sophistication (or business climate). The reason for the use of these factors is three-fold. First, every factor has been stressed by one or more of the previous theories³ (e.g. resource endowments, market size or factor prices could be explained by the trade theories or the OLI paradigm; the political variables by the institutional approach that complements the OLI paradigm). Second, every factor has been used frequently in the empirical literature⁴. Finally, the factors are in line with the country competitiveness factors defined in the annual Global Competitive Report provided by the World Economic Forum (WEF)⁵.

Although there is theoretical consensus that these factors attract FDI, the results of empirical studies are not conclusive. This lack of consistency among the results may be due initially to researchers' focus on those developed countries or regions that attract more FDIs, such as USA (e.g. Kravis and Lipsey, 1982; Globerman and Shapiro, 2003) or Europe (e.g. Scaperlanda and Mauer, 1969; Villaverde and Maza, 2015). However, since the last decade of twentieth century, emerging economies have become significantly more important as host countries. This has given rise to a large body of research, most of it context-specific, interested in providing new insights into the determinants of FDIs in developing or emerging countries (e.g. China: Zhang, 2001; India: Dunning and Narula, 2003; Verma and Brennan, 2011; Eastern Europe: Narula and Guimón, 2010; among others).

³ However, as Assunção et al. (2013, p. 11) stated: “*all these determinants could be embraced by the location dimension of the OLI paradigm*”.

⁴ Examples of authors that have used them are presented with the definition of the variables (table 2).

⁵ The WEF is the source of information to measure 12 of the 13 variables we use. The availability and homogeneity of the data are some of the advantages of using them, as we will explain later.

Indeed, the analysis of a particular factor may yield contradicting results when applied to different countries and timeframes (Tahir and Larimo, 2004). As Dunning (1988) stated, location advantages could vary depending on the size, the degree of industrialization and the degree of development of countries. This idea is also reflected by the Investment Development Path –IDP- (Dunning, 1981; Dunning and Narula, 1996; Narula and Dunning, 2000, 2010), which was developed as a framework to understand the dynamic relationship between FDI and the country's level of economic development. The basic proposition of the IDP is that a country transitions through five stages of development, where its Net Outward Investment (NOI) - defined as the difference between its stock of outward investment and its stock of inward investment - presents a J-shaped curve. The outward flows from a particular country are the result of the ownership advantages of autochthonous companies that allow them to compete in foreign markets. The outward flows are close to zero in the initial development stages, because the advantages for autochthonous companies to invest abroad are quite limited, however they increase gradually during the later stages of development. On the other hand, the inward flows to a host country are driven by the ownership advantages of foreign investors, as well as the attractiveness of the host location. Investors have different motives to locate productive activities in new and foreign locations which are related to the specific characteristics of the recipient country, and change over time according to their economic development. According to Narula and Dunning (2000, 2010), countries in stages 1 and 2 of their IDP (less developed) are unlikely to attract significant strategic asset-seeking FDI since the local conditions are based primarily on generic resources⁶. These investments would be primarily attracted by countries in stages 4 and 5 (most developed). On the contrary, countries in stages 1 and 2 would attract resource-seeking and market-seeking investments, while investors looking for efficiency (efficiency-seeking FDI) would be more attracted to

⁶ As Narula and Dunning (2000, p. 150) said “*while there has been an increase in asset-seeking FDI in some developing countries during the last decade, this continues to be the exception rather than the rule*”.

emergent countries (stage 3). All these main motivations would be linked to some specific country location factors which would be more appreciated by the investors.

Thus, the IDP could be a suitable theoretical framework to analyze how the influence of a country's location factors would be moderated by the degree of development of its economy.

In the following section the location factors that are important for each stage of development are identified along with their corresponding hypotheses.

3. HYPOTHESES

To analyze how the importance of the selected country factors as location advantages depends on the degree of development of the host economy, we consider the IDP to be a suitable theoretical framework. Following the IDP, countries that are at an early stage of development (**Stages 1-2**) attract only a small amount of FDI because they are considered unattractive to foreign investors (Ragoussis, 2011). The location advantages that countries in Stage 1 can offer are underdeveloped and weak, based primarily on factors characterized by their immobility across nations, such as labor or natural resources, since it is unlikely that these markets have capabilities much beyond the accumulation of certain human capabilities associated with the primary product sector or labor-intensive manufacturing sectors (Dunning and Lundan, 2008). Thus, the investments are likely to be almost entirely *resource-seeking* (Narula and Dunning, 2000) due to the lack of other types of location advantages (Dunning and Narula, 2004).

However, Asiedu and Lien (2011), from a different perspective, but also in the study of developing countries, defend that the dependence on natural resources can negatively affect the attraction of FDI because it increases the volatility of the exchange rates, causes the appreciation of local currency (less competitive) and implies less trade diversification. Moreover, there are also empirical studies that find no relationship between natural resources and the attraction of FDI (e.g. Noorbakhsh et al., 2001).

Based on the previous arguments we propose that:

H.1.1: A greater availability of natural resources will attract more FDI for markets in Stages 1 and 2 of the IDP.

As the country develops and moves to Stage 2, capital investments in value-added activities start to become important, as do the quality and size of its domestic market and the growing concern of public institutions with promoting education, public health services, improving transportation and communication and controlling macroeconomic variables (Dunning and Lundan, 2008). The country's economic progress allows for the creation of certain advantages that favor a shift of activity towards sectors that are both capital and labor intensive (Cuervo-Cazurra, 2008).

Thus, in these initial stages, government policy and its administration play a crucial role (Dunning and Narula, 1996) since it can help to attract FDI and to accelerate economic growth (Verma and Brennan, 2011; Back et al., 2014). Indeed, the quality of the institutions is considered by the literature of economic development (Assunção et al., 2013) to be the key factor in explaining the differences in development between countries.

The institutions in less developed countries are particularly important (Blonigen, 2005) because their lack of maturity or inefficiency increases information asymmetries, transaction costs and investor risk (Van Wyk and Lal, 2010). For example, poor legal protection increases the probability of expropriation (Blonigen, 2005) and corruption deteriorates the quality of the business environment of a host country (De Beule and Duanmu, 2012), making investments less likely. Thus, those less developed countries with a stronger institutional framework capable of establishing the rules of the game of a market economy (Bevan et al., 2004) will reduce the cost of doing business for foreign companies (Kumar et al., 2013) and reduce the risk of policy reversals (Noorbakhsh et al., 2001) thus fomenting the appropriate business environment (Krifa-Schneider and Matei, 2010). Thus, investors will prefer countries that

have secure property rights, low levels of corruption and limited social conflict (Biglaiser and De Rouen, 2006). Therefore, we propose that:

H.1.2: More efficient institutions will attract more FDI for markets in Stages 1 and 2 of the IDP.

In addition, poor institutions would lead to poor infrastructures (Blonigen, 2005) and the accessibility to markets is also important for foreign firms in these economies. Infrastructures are necessary because they lie the foundation for the implementation of production processes, allow firms to connect easily with their suppliers and customers and improve access to markets thus increasing the true size of the market (Kinda, 2010). A more efficient transportation of raw materials and products favors the reduction of production costs (Ho and Mohd, 2011) by reducing waiting times, avoiding storage costs and fostering productivity growth. Therefore, the provision of the appropriate infrastructures will attract FDI (Na and Lightfoot, 2006) because it facilitates foreign investors' production and commercial activities (Ranjan and Agrawal, 2011) and promotes growth. However, the empirical findings are not unanimous, some authors focusing on less developed countries find a significant positive relationship, while others do not find any statistical evidence that infrastructures attract FDI (e.g. Vogiatzoglou, 2008, or see Assunção et al., 2013 for a review). Thus, we formulate the following hypothesis:

H.1.3: More developed infrastructures will attract more FDI for markets in Stages 1 and 2 of the IDP.

Another traditional key factor in attracting FDI to less developed countries is macroeconomic stability (Van Wyk and Lal, 2010). Less developed countries are usually associated with macroeconomic instability (e.g. high inflation rates, exchange rate risk and credit risk, among others) which increases uncertainty, deteriorates the business climate and negatively affects productivity and the entry of FDI (Alguacil et al., 2011). These governments must finance

their national debt at high interest rates, which makes it more difficult to provide services efficiently; and companies cannot operate properly with high and volatile inflation rates (WEF, 2011). A good macroeconomic policy that embraces (or leads to) small trade deficits and low inflation and interest rates is likely to reduce the risk premium for foreign (and domestic) investment and decrease transaction costs (Busse and Hefeker, 2007). Thus, those countries that achieve greater macroeconomic stability will be more attractive to foreign investors (Ho and Mohd, 2011; Asiedu and Lein, 2011). In spite of its importance, macroeconomic stability has been analyzed in Latin-American countries without any impact on their FDI inflows being found (e.g. Trevino et al., 2002). Thus, we hypothesize the following:

H.1.4: Greater macroeconomic stability will attract more FDI for markets in Stages 1 and 2 of the IDP.

A concern for establishing basic education and health services has been observed in less developed countries, not only because they are necessary conditions for human freedom and development, but also because they promote competitiveness and economic growth; however these have not yet been widely implemented. Nevertheless, there is a certain consensus that a healthier workforce reduces absenteeism and increases productivity, thereby lowering the costs to the organization (WEF, 2011). Indeed, as Alsan et al. (2006) established, high rates of absenteeism, or worker turnover due to mortality, can increase production costs and decrease FDI; but also the prevalence of infectious diseases might discourage FDI inflows to a given area if investors fear for their own health.

Giving workers basic education and training favors greater on the job efficiency, increases the capacity to absorb technological transfers (Talpos and Enache, 2010) and allows companies to move towards more advanced and sophisticated production processes. Therefore, the population's quality of life in general improves with the entrance of FDI (Globerman and

Shapiro, 2003). Thus, better primary education and health services improve the location advantages of the less developed countries (Noorbakhsh et al., 2001) making them more attractive for FDI. Although we will propose a positive relationship between this factor and FDI inflows, there are studies that have found a non-relationship, for example, with education (e.g. Alsan et al., 2006). Thus, we propose that:

H.1.5: A greater availability of basic education and health services will attract more FDI for markets in Stages 1 and 2 of the IDP.

Finally, market size represents the potential demand for business and investment opportunities (Ho and Mohd, 2011; Bailey and Li, 2014) as well as the potential for growth and the capacity to supply (Bevan and Estrin, 2004). Large markets offer greater opportunities for the companies to increase their market share and allows them to increase production, take advantage of economies of scale and scope (Buckley and Casson, 1992), increase their income (Zhang, 2001) and recover their investment more quickly (Vogiatzoglou, 2008). Although most of the empirical evidence supports the positive influence that market size plays on the ability of less developed countries to attract FDI (e.g. Van Wyk and Lal, 2010), some evidence shows that it is not important, depending on the origin of the investor (Aleksynska and Havrylchyk, 2013).

Based on the previous arguments we propose the following hypothesis:

H.1.6: A larger market will attract more FDI for economies in Stages 1 and 2 of the IDP.

The improvement of the aforementioned location factors through governmental policies is important for generating external economies and for promoting growth. Thus, once the less developed economies exceed a threshold level of the previously mentioned location factors, they will reach a certain economic maturity where their economic structures begin to resemble those of developed countries and, as a consequence, they will progress towards greater industrialization and advance to the next stage of development (**Stage 3**). However, as the

country moves successfully through the development stages, the importance of those location factors as key determinants of FDI diminishes in favor of others that can provide foreign investors with greater efficiency. In this stage, FDI is mainly “*efficiency seeking*” (Dunning and Narula, 2004). Therefore, the governments of these economies focus their efforts on providing better quality higher education, encouraging the development of financial markets, making the labor and goods markets more efficient and facilitating access to technology to make their markets more attractive to FDI.

The FDI increases and favors the access to new ownership advantages that did not exist in the host market, allows the local firms and institutions to improve their capabilities (Dunning and Lundan, 2008), and enables local firms to offer products of higher quality. This creates a virtuous cycle that promotes, in turn, the entrance of new FDI. At this stage investments are primarily directed towards sectors with a higher human capital, technological and commercial content (Durán and Úbeda, 2005). The labor cost advantages, crucial in the initial stages, are not such decisive factors in the countries whose economic development is progressing (Yamawaki, 2006; Na and Lightfoot, 2006) and where labor costs are rising (WEF, 2011). The products transition from labor-intensive products to other, higher quality products based on new designs and technologies. Therefore, foreign investors prefer qualified labor and access to markets where higher education is of better quality (Ho and Mohd, 2011). A more qualified work force not only increases the marginal productivity of capital (Vogiatzoglou, 2008), but also allows new technologies to be grasped and adopted more rapidly (Talpos and Enache, 2010). All of this, complemented by the investor’s ownership specific advantages is what makes operations in the host country more efficient, since it can adapt to local demand with more differentiated demand patterns (Panteledis and Nikolopoulos, 2008). Therefore, more qualified human capital is expected to attract more FDI (Zhang, 2001; Na and Lightfoot, 2006), especially during the third stage of economic development (Li and Clark-Hill, 2004).

H.2.1: The greater availability of qualified labor will attract more FDI for markets in Stage 3 of the IDP.

The above-mentioned location factors must be accompanied by an efficient and flexible labor market. Efficiency ensures the best performance by workers and provides incentives that encourage their maximum effort. Market flexibility also allows job changes to occur at low cost and without causing serious social disruption. This can have positive effects on workers (higher remuneration) and make a country more attractive to foreign investors (WEF, 2011). Firms prefer to invest where they find regulations that facilitate hiring (Kinda, 2010) and where salaries are linked to an employee's productivity (Noorbakhsh et al., 2001). Nevertheless, some empirical results do not confirm this relationship (e.g. Noorbakhsh et al., 2001).

H.2.2: More efficient labor markets will attract more FDI for markets in Stage 3 of the IDP.

However, inbound FDI would be limited without efficient financial markets. The last economic crisis has highlighted the importance that the financial sector has on business activity since it provoked liquidity problems in many countries, leading to higher costs of credit. All companies need funding, however for foreign companies it is critical, since access to local financing will allow them to make the necessary investments and reduce their exposure to exchange rate risk (Bevan et al., 2004). Therefore, firms will locate where they encounter financial facilities (Blonigen, 2005). Developed financial services also facilitate financial transactions between foreign firms, their customers, and their employees in the host country (Kinda, 2010), benefiting local firms and customers since they will gain access to credit to purchase goods (Bevan et al., 2004). Therefore, the existence of an adequately functioning financial market increases business opportunities for foreign investors. Based on these arguments, we propose that:

H.2.3: More developed financial markets will attract more FDI for markets in Stage 3 of the

IDP.

For this to happen, efficient goods markets are needed that ensure the freedom of exchange between consumers and businesses without government restrictions on one hand, and, on the other, that products and services can be adequately produced given the conditions of supply and demand, and that their distribution and commercialization be the most efficient, thereby making the economy more competitive (WEF, 2008). This allows the price of goods to approach their marginal cost (Pantelidis and Kyrkilis, 2005). Furthermore, local companies begin to establish relationships with the investor, which constitutes an important location factor, since the investor can benefit from their local presence by accessing their distribution networks, similar demand patterns and common services (Dunning, 1998). Moreover, foreign investors usually prefer to operate in competitive domestic markets (Bevan et al., 2004).

Finally, multinational firms will locate in those countries with trade-barriers (tariffs and /or non-tariff barriers) in order to circumvent them. Thus, our hypothesis is as follows:

H.2.4: More efficient goods markets will attract more FDI for markets in Stage 3 of the IDP.

Finally, the preferences of foreign investors turn toward the search for factors that allow them to make better use of their technology (Dunning and Narula, 1998). The target markets have low levels of research and development and product innovations and designs come mostly from abroad (Anokhin and Wincent, 2012). Thus, it is necessary for the market to have labor with a high enough level of education to be able to use more complex production systems, as well as a sufficient level of technology to allow more advanced production processes to be implemented successfully. In fact, in his empirical investigation Narula (1996) cites this argument to explain the negative and significant relationship between a countries' technological capabilities and the FDI inflows obtained. The higher the speed with which an economy is able to adopt existing technologies, the more attractive it becomes for foreign investors. They will be able to implement productive activities in more advantageous

conditions than in their home market and also adapt them to meet the new local demand (Yamawaki, 2006). Besides, this also facilitates the investing company's access to the local technology and capabilities available in the market (Driffield and Love, 2007), which could be internalized thereby creating new ownership specific advantages (Pantelidis and Kyrkilis, 2005). Therefore, based on the previous arguments, we propose the following hypothesis:

H.2.5: A greater capacity to adopt technology will attract more FDI for markets in Stage 3 of the IDP.

At the end of Stage 3, it is common for there to be strong domestic industries that have the ability to differentiate products and/or adapt to local consumer preferences. Inward FDI rises and outward FDI increases even faster. Intra-industry trade and investment increase with respect to Stages 1-2 (Narula and Dunning, 2010). The increase of domestic investments in physical assets, as well as FDI inflows and their spillovers, strengthen economic growth leading to the next development stages.

The economies that reach the later stages of development (**Stages 4-5**) are characterized by their capacity for innovation. It is in these markets where the most R & D effort is directed towards new product and process innovation (Dunning and Lundan, 2008). Governments play a key role in stimulating innovation by encouraging both public and private sector investments in R & D and favoring highly technological alternatives (Anokhin and Wincent, 2012). The location advantages of the markets revolve around their ability to create strategic assets; therefore the FDI primarily undertakes "*strategic asset seeking*" investments (Dunning and Narula, 2004). Multinationals tend to locate higher value-adding operations in the most advanced countries (Narula and Dunning, 2010) and show a strong preference towards limiting their innovation activities to a few locations (Narula, 2002, Narula and Dunning, 2010). Some of the principal location factors at this stage are an environment that allows the investing companies to reinforce their ownership specific advantages, the availability and

price of synergy producing assets, access to different consumer cultures/preferences (Dunning, 1998) and technological and innovative capacity (Li and Clark-Hill, 2004; Kothari et al., 2013). Innovative capacity allows innovations and patents to be created that can be purchased in one market and later exploited in others at zero marginal cost (Pantelidis and Kyrkilis, 2005), therefore companies will locate in places where these can be acquired (Porter, 1990). In spite of its importance, Noorbakhsh et al. (2001) do not find this relationship to be significant. However, innovation is more prevalent in highly competitive environments (Pantelidis and Kyrkilis, 2005) which are more common in the more developed economies. Thus, we propose:

H. 3.1: *Greater innovative capacity will attract more FDI for markets in Stages 4-5 of the IDP.*

Moreover, in the more developed economies other factors, such as business sophistication, are also a more prevalent (WEF, 2008). Business sophistication reflects the quality of the environment in which businesses operate (business climate). WEF (2013, p.7) define it as “*the quality of a country’s overall business networks and the quality of business firms’ operations and strategies*”. It would capture the ability of business leaders, the quality of management, the level of integration among the firms, and the know-how, skills and capabilities that are embedded within organizations in a country.

The nature, extension and quality of the links in the supply chain in a country affect the operational effectiveness and efficiency of companies operating within that economy. The availability of local suppliers, the quality of the components, and the sophistication of the buyers and the processes underpin the efficiency of manufacturing-related operations. These characteristics enhance operational flexibility, reduce time, incorporate new management models and facilitate the acquisition of new skills, thereby enhancing the attractiveness of companies making FDI in these locations (Alam and Bagchi, 2011).

Therefore, we propose the following hypothesis:

H. 3.2: *Greater business sophistication will attract more FDI for markets in Stages 4-5 of the IDP.*

4. SAMPLE AND VARIABLES

Our analyses are based on a dataset that covers 117 markets from 2006 to 2013, obtaining a balanced panel data of 936 observations.

In order to achieve our objective, firstly we classified these markets by their stage of development in each year of the period of analysis. We opted to apply the criteria established by the World Economic Forum (WEF) based on the GDP per capita of the markets, because it is the only international organism that establishes the thresholds to identify the five development stages and publishes them annually in its World Competitiveness Report. From 2006 (the first year of our period of analysis) to the present, the thresholds used by the WEF are: markets with a GDP per capita below 2,000 dollars are in the first stage of development, between 2,000 and 3,000 dollars in the second, up to 9,000 dollars in the third, up to 17,000 dollars in the fourth, and over 17,000 dollars in the fifth (WEF 2006 to 2013). For reasons of simplicity, in Table 1 we only present the classification of the countries by stages for 2013, however since the development stage of the country may have varied throughout the period (2006-2013), we note those changes in the table.

Secondly, we approximated the dependent variable, *Foreign Direct Investment* (FDI), by the logarithm of the stock of FDI for each of the markets for every one of the years, relativized by its GDP (in millions of dollars) to control for the market size effect. This variable is obtained from the database UNCTAD Stat (available online and collected by the United Nations) and is calculated for a period of eight years (2006-2013). This database provides information on the majority of the world's economies and is used frequently in the literature (Krifa-Schneider and Matei, 2010).

Table 1. Markets Classified by IDP. 2013

Stages	Countries
Stage 1-2 41 countries	Armenia*†, Bangladesh, Benin, Bolivia, Burkina Faso, Burundi, Cambodia, Cameroon, Chad, Egypt, Ethiopia, Gambia, Georgia*, Guatemala, Guyana*, Honduras, India, Indonesia, Jordan, Kenya, Kyrgyz Republic, Lesotho, Madagascar, Mali, Mauritania, Mongolia, Morocco*, Mozambique, Nepal, Nicaragua, Nigeria, Pakistan, Paraguay, Philippines, Sri Lanka, Tanzania, Uganda, Ukraine*†, Vietnam, Zambia, Zimbabwe.
Stage 3 31 countries	Albania*, Algeria, Argentina, Azerbaijan*, Bosnia and Herzegovina*, Botswana, Brazil, Bulgaria, China*, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador*†, Jamaica, Kazakhstan, Latvia, Macedonia*, Malaysia, Mauritius, Mexico, Namibia, Panama, Peru*, Romania, Russian Federation, South Africa, Thailand*, Turkey, Uruguay, Venezuela.
Stage 4-5 45 countries	Australia, Austria, Bahrain†, Barbados, Belgium, Canada, Chile*, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong SAR, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Kuwait, Lithuania,*† Luxembourg, Malta, Netherlands, New Zealand, Norway, Poland*, Portugal, Qatar, Singapore, Slovak Republic*, Slovenia, Spain, Sweden, Switzerland, Taiwan*, Trinidad and Tobago, United Arab Emirates, United Kingdom, United States.

Countries that have changed their degree of development during the period (2006-2013) are marked by (*) increase, (†) decrease.

Thirdly, the independent variables correspond to the 13 location factors identified in the preceding section and defined in Table 2. The first variable, Natural resources (NR), has been obtained from the United Nations Statistics annually since 2006. The remaining 12 variables correspond to the 12 *pillars* (indicators) defined by the Global Competitiveness Report (World Economic Forum) and are measured on a scale of 1-7 (where 1 means a low availability of the factor and 7 means high availability) based on a set of items obtained annually from different sources and that have been statistically proven. Most of these items have been used individually in previous research (see Table 2). The advantages of these indicators are the official nature of the data, their homogeneity across a large set of countries and their availability over time. Moreover, they are ex ante market evaluations of country-specific location advantages, rather than ex post constructions by researchers.

All independent variables are measured in logarithms and are calculated for the period 2006-

2013. Table 3 shows the main descriptive statistics of the variables.

Table 2. Independent Variables

Variable	Definition /Items	Examples of authors that have used the variable/ item
Natural resources (NR)	Weight of the primary sector (agriculture, forestry, hunting and fishing) in the total GDP of the country.	Buckley et al. 2007.
Institutions (I)	Public Institutions: Property rights, Ethics and corruption, Undue influence, Government efficiency, Security. Private Institutions: Corporate ethics, Accountability.	Bevan et al. 2004; Biglaiser and De Rouen 2006; Alguacil et al. 2011.
Infrastructure (IF)	Transport infrastructure. Electricity and telephony infrastructure.	Zhang 2001; Bevan et al. 2004; Vogiatzoglou 2008; Ranjan and Agrawal 2011.
Macroeconomic environment (ME)	Government budget balance, Gross national savings, inflation, government debt, country credit rating.	Biglaiser and De Rouen 2006; Vogiatzoglou, 2008; Alguacil et al. 2011; Ranjan and Agrawal 2011.
Health and primary education (HPE)	Health (e.g. malaria incidence, HIV prevalence, infant mortality or life expectancy). Primary education (quality and enrollment rate).	Globerman and Shapiro 2003; Talpos and Enache 2010.
Market size (MS)	Domestic (GDP) and foreign market (exports and imports) size.	Pantelidis and Kyrkilis 2005; Pantelidis and Nikolopoulos 2008; Vogiatzoglou 2008, Ranjan and Agrawal 2011, Villaverde y Maza, 2015
Higher education and training (HE)	Quantity and quality of education, on the job training.	Pantelidis and Kyrkilis, 2005; Na and Lightfoot 2006; Vogiatzoglou, 2008.
Labor market efficiency (LM)	Flexibility. Efficient use of talent.	Ranjan and Agrawal 2011, Villaverde y Maza, 2015
Financial market development (FM)	Efficiency. Trustworthiness and confidence.	Nam and Sup 2008.
Goods market efficiency (GM)	Domestic and foreign competition. Quality of demand conditions.	Tahir and Larimo 2004; Yamawaki 2006; Nam and Sup 2008.
Technological readiness (T)	Technological adoption. ICT use	Ho and Mohd 2011.
R&D Innovation (RD)	Capacity for innovation, Quality of scientific research institutions, Company spending on R&D, University-industry collaboration, Government procurement of advanced technology products, etc.	Pantelidis and Kyrkilis 2005; Pantelidis and Nikolopoulos 2008, Villaverde y Maza, 2015
Business sophistication (BS)	Local supplier quantity and quality; cluster development; nature of competitive advantage; value chain breadth; control of international distribution: production process sophistication, etc.	Alam and Bagchi 2011.

Table 3. Main descriptive statistics

Variables	Stage 1-2		Stage 3		Stage 4-5		Total	
	mean	s.d.	mean	s.d.	mean	s.d.	mean	s.d.
FDI	-0.56	0.38	-0.45	0.25	-0.35	0.43	-0.46	0.39
NR	-0.77	0.24	-1.24	0.20	-1.90	0.48	-1.29	0.60
I	0.54	0.06	0.58	0.08	0.69	0.07	0.60	0.10
IF	0.44	0.10	0.55	0.08	0.71	0.08	0.56	0.15
ME	0.62	0.11	0.68	0.06	0.72	0.06	0.67	0.09
HPE	0.67	0.09	0.74	0.05	0.79	0.02	0.73	0.08
HE	0.50	0.08	0.60	0.05	0.70	0.05	0.60	0.11
LM	0.62	0.04	0.62	0.05	0.67	0.05	0.64	0.53

FM	0.57	0.06	0.62	0.07	0.70	0.05	0.63	0.08
GM	0.58	0.05	0.61	0.05	0.69	0.04	0.63	0.07
T	0.43	0.06	0.53	0.06	0.69	0.07	0.55	0.13
MS	0.50	0.15	0.59	0.10	0.62	0.12	0.56	0.14
RD	0.46	0.06	0.49	0.06	0.62	0.09	0.52	0.10
BS	0.55	0.06	0.60	0.05	0.69	0.05	0.61	0.08

5. MODEL AND METHODOLOGY

To test the hypotheses, we propose a general model in which the dependent variable captures the country's FDI, the independent variables correspond to the location factors (one year lagged), a dummy variable identifies the stage of development in which it is predicted that the location factor will have its greatest impact and a multiplicative variable between the location factor and stage's dummy variable.

However, this model suffers from multicollinearity problems due to the high correlation observed between most of the study's location variables (see Table 4). This is a common problem in studies analyzing the IDP (Durán and Úbeda, 2001), since progress of the different location factors often occurs simultaneously.

Table 4. Correlation Matrix

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
1 NR	1												
2 I	-0.68	1											
3 IF	-0.77	0.82	1										
4 ME	-0.46	0.4	0.39	1									
5 HPE	-0.62	0.52	0.71	0.34	1								
6 MS	-0.36	0.27	0.47	0.37	0.45	1							
7 HE	-0.73	0.72	0.87	0.39	0.83	0.52	1						
8 LM	-0.48	0.66	0.52	0.34	0.32	0.14	0.51	1					
9 FM	-0.65	0.78	0.69	0.4	0.5	0.37	0.52	0.57	1				
10 GM	-0.67	0.88	0.81	0.45	0.6	0.42	0.76	0.68	0.83	1			
11 T	-0.77	0.8	0.91	0.4	0.72	0.46	0.9	0.56	0.7	0.82	1		
12 RD	-0.64	0.82	0.81	0.37	0.56	0.55	0.79	0.62	0.69	0.82	0.84	1	
13 BS	-0.69	0.81	0.85	0.38	0.64	0.58	0.83	0.56	0.79	0.88	0.86	0.91	1

To avoid problems derived from collinearity we test the hypotheses by estimating a series of regression models, one for each location variable, following previous papers such as Bevan et al. (2004) or Galán et al. (2007). Consequently, 13 models were estimated following this general model: $Y_{i,t} = \beta_0 + \beta_1 D_e + \beta_2 X_{i,t-1} + \beta_3 X_{i,t-1} D_e + \varepsilon_{i,t}$

Where $Y_{i,t}$ is the endogenous variable of FDI for each economy. The subscript “i” corresponds to each one of the markets ($i = 1, \dots, 117$), and “t” is the year in which the investment is made ($t = 2006, \dots, 2013$). D_e is a dummy variable that takes on the value of “1” for countries in Stages 1-2 for hypotheses 1.1, 1.2, 1.3, 1.4, 1.5 and 1.6 and a value of “0” otherwise, a value of “1” for countries in Stage 3 for the hypotheses 2.1, 2.2, 2.3, 2.4 and 2.5, and a value of “0” otherwise, and a value of “1” for countries in Stages 4-5 for hypotheses 3.1 and 3.2, and a value of “0” otherwise. $X_{i, t-1}$ represents, in each model, one of the most important location variables for the stage analyzed. Finally, the “ β s” are the parameters to be estimated and “ ε ” is the random disturbance.

Given the cross-sectional – countries - and longitudinal – years - nature of the data, the models are contrasted with the panel data estimation technique since it takes into account the unobserved heterogeneity of the cross-sectional observations and allows the dynamics of change to be studied. The models are estimated using Feasible Generalized Least Squares (FGLS) with fixed or random effects and correcting the problems of correlation and heteroscedasticity.

6. RESULTS

Table 5 presents the results obtained from the estimation of each of the 13 models (one per hypothesis). All of the regressions are highly significant, showing that our models are a good fit. The adjusted R^2 are between 22% and 39% indicating that the independent variables have some degree of significance.

The first result obtained is that all the location factors, with the one important exception of Macroeconomic environment (ME), are found to be significant and, therefore, are influential in attracting FDI, regardless of the degree of economic development, as was predicted in the literature. Their effect is positive and significant, except for the variables that approximate the availability of Natural resources (NR) and Market size (MS), which are negative. The effect

of natural resources on FDI is in line with previous studies, since countries whose primary activities are in natural resource intensive sectors offer few local advantages to foreign investors, or they become generic over time. For example, Gylfasson (2001) stated that vast endowments of natural resources could lead to over-confidence and a false sense of economic security for the country, which could lead to under-investment in other important factors such as human capital. However, the negative effect of market size is unexpected. The results indicate that smaller economies are more attractive to FDI. A possible justification could reside in the increasing regionalization of the economies that unite through free trade zones and bilateral agreements that allow them access to a greater number of markets thereby expanding their *de facto* market size (Narula and Dunning, 2000).

The non-significance of the Macroeconomic environment (ME) is another unexpected result since macroeconomic factors have traditionally been regarded as determinants for location decisions by MNE. However, the results from several other empirical studies are also inconclusive. For example, macroeconomic factors such as the exchange rate (Nam and Sup, 2008), currency depreciation (Van Wyk and Lal, 2010), country-specific risk (Bevan and Estrin, 2004) and external debt (Majeed and Ahmad, 2009), among others, do not have a significant effect on attracting FDI. According to Dunning and Lundan (2008), firms frequently ignore factors such as economic stability and give priority to the objective of improving their competitive situation by relocating some or all of their production to areas with lower production costs.

A second result refers to the testing of the hypotheses. Confirmation is obtained for the group of factors that were expected to have a greater effect on the economies in Stage 3. Of the five hypotheses, the first three are not rejected (the greater effect of the qualified labor force –HE, efficiency of labor markets –LM, and developed financial markets –FM). This confirms the economic arguments put forward. As economies become more developed, efforts are directed

towards higher productivity, efficiency and competitiveness as well as a friendlier investment climate. In this new environment, wages rise but more slowly than the increase in the qualification of the workforce. The improvement of the situation of the country in general favors the emergence of new local and foreign companies that require new financing to develop their projects. As a result, those economies that excel in these location factors, offer greater location advantages, and reduce the additional costs of doing business in a foreign country will be more attractive for foreign investors, especially those investors that use more complex production systems that require highly qualified labor.

Although the investment conditions have improved in these countries, their goods markets and their technological readiness (T) do not seem to be mature enough to be especially attractive for foreign investors. The non-significance of goods markets could be due to the type of FDI, which could be vertical FDI. Vertical FDIs are efficiency-seeking investments and export-oriented. Therefore, foreign investors would choose these countries for production since the factors of production would be cheaper in the host countries than at home. The non-significance of the technology could be due to the fact that these countries do not have a sufficient level of research and development, which limits their absorptive capacity, or perhaps because technological readiness is linked to better education and training of the workforce, therefore its importance may decrease as an isolated factor.

On the other hand, results show a negative effect on attracting FDI for Natural resources (NR), moderated by being in Stages 1-2. This result suggests that a greater endowment of natural resources in a country not only does not attract investors, but rather it discourages them. This may be due to the fact that countries whose industry is primarily natural resource based may lack other location advantages, and while the natural resources may be interesting to certain industries, they are not sufficient for investors. As noted by Lederman and Maloney (2008), if the availability of natural resources is not accompanied by other factors, its

marginal productivity is much lower. Only when an economy has an absolute advantage in a scarce resource will it attract investors, this in turn will depend on the scarcity of the resource and the difficulty of accessing it from other markets (Dunning and Narula, 2004).

When the market size is moderated by the variable Stage 1-2, its effect is positive. The development stage of the economy positively moderates the effect that the size of the market has on attracting FDI. Therefore, this factor is more important for less developed economies than for more developed ones; perhaps because the more developed economies tend to form part of economic blocs, which makes up for their smaller market size and this factor ceases to be important when taken individually.

The hypotheses proposed for the rest of what were considered the most important factors in Stages 1 and 2 are rejected. Having better Institutions (I) and Infrastructure (IF), greater Macroeconomic stability (ME) and the increased availability of Basic education and health services (HPE) is no more important to attracting foreign investors in these economies than in the more advanced economies. Although governments of less developed countries make efforts to change and develop these local advantages, this process is complex and slow as it takes considerable time and effort (Narula and Guimón, 2010). Therefore, these countries still suffer from immaturity or ineffectiveness in these factors, which raises transaction costs and risk levels for foreign investors. Thus, those countries that fail to achieve a minimum threshold of effective governance are unlikely to receive FDI (Globerman and Shapiro, 2003). Moreover, since less developed countries attract mostly resource-seeking FDI, the foreign firms that are investing are primarily searching for natural resources (Dunning, 2000) or cheap labor, and these factors may not be as relevant. Finally, although in the literature there is a certain consensus on the importance of these factors for these countries, the results obtained so far have not been conclusive (Globerman and Shapiro, 2003).

Finally, it was not confirmed that a greater capacity for innovation (RD) and business

sophistication (BS) are positively moderated by being in more developed economies. The results indicate that these two factors are neither particular to, nor specific to, more advanced economies, as has been traditionally held. In fact, the results we obtain indicate that the effect of business sophistication in the most developed countries is negative. These results, contrary to what has been established in the literature, could be due to the quality of the business climate, which has deteriorated significantly in recent years as a consequence of the economic crisis that has seriously affected the more developed countries (Stages 4-5). For example, the BS score for Germany dropped from 5.99 in 2006 to 5.68 in 2013; for the USA, it dropped from 5.8 in 2006 to 5.49 in 2013, and for the UK from 5.68 to 5.4. The countries most affected by the crisis have experienced even sharper drops, for example, we observe that Greece went from having a BS of 4.13 in 2006 to 3.84 in 2013, and Italy dropped from a score of 4.7 in 2006 to only 4 in 2013. Thus, the data confirm that the investment climate in most of the developed countries has deteriorated. On the contrary, other countries with lesser degrees of development, such as China or Costa Rica, have improved their business climate during this period.

In order to give more depth to the previous results, we have conducted further analysis by applying the same regressions to specific regional subsamples for each group of hypotheses. Following authors such as Barro and Sala-i-Martin, 1991 or Ciccone and Jarociński, 2010, we opt for grouping the countries in the sample by geographic region and using them as subsamples.

However, there are two regions which do not have countries in all the stages of development: Oceania (with zero observations in stages 1-2) and Africa (with zero observations in stages 4-5) and as they do not meet this requirement, both regions were dropped from this additional analysis.

We select the sub-sample of Asian countries (224 observations) to re-test the hypotheses of

Stages 1-2; the sub-sample of all American countries (192 observations) to re-test the hypotheses of Stage 3; and the sub-sample of European countries (136 observations) to re-test the hypotheses of Stages 4-5. The number of observations for each sub-sample is large enough to test the regressions. The variables and the methodology of testing the hypotheses are the same as in the initial analyses.

The results (Table 5B) confirm most of general findings of the original (whole) sample. However, some differences arise for five of the hypotheses, which are confirmed when the analysis is carried out on a regional level: institutions (H.1.2), macroeconomic stability (H.1.4) and health and public education (H.1.5) in Asia; as well as the good market efficiency (H.2.4.) and technology (H. 2.5) in America. These results indicate that the models are a better fit when applied to specific regions in the world.

Moreover, there are two hypotheses that become non-confirmed. On the one hand, the results do not confirm that higher education would be moderated by the degree of development of the country (H. 2.1) in America. Although basic education was found to be important for attracting FDI for example, in Latin-American countries (Bengoa and Sánchez-Robles, 2003), perhaps the level of human capital is still inadequate in spite of the existence of higher education, in addition to a mismatch between the productive demand and subjects offered (studied). On the other hand, the influence of the research and development factor in Europe (H. 3.1) is significant, but with a negative sign. The explanation for this negative result could lie in a more deficient capacity for innovation in Europe compared to other locations such as the USA (Cincera and Veugelers, 2014).

Therefore, most of the results found at the regional level are in line with the hypotheses proposed in the theoretical section, while the differences observed between the whole sample and the regional samples could correspond to the peculiarities of a set of countries, or to idiosyncratic regional patterns.

7. CONCLUSIONS

7.1. Theoretical and empirical contributions

The importance of FDI to host economies is indisputable. Over the years, the benefits of FDI have prompted countries to design economic policies to attract these investments, thereby enabling them to increase the rate of their country's development and to improve the competitiveness of their businesses, the quality of life, and the overall general welfare of their citizens. Therefore, the study of location factors of FDI has been a subject of great interest in the literature of internationalization and has inspired numerous papers (e.g. country-specific location advantages or comparisons between developed and developing countries). However, even today, no consensus has been reached and the results obtained are not conclusive.

Therefore, this paper aims to shed some light on this issue. The theoretical framework provided by the IDP is applied to the factors that are generally considered in the literature to attract FDI, which leads to the consideration that the importance of these factors varies depending on the degree of development of the host economy. For example, the factor price advantage is decisive for those less developed countries; however, its importance diminishes as these countries progress and are able to offer other, additional advantages. Specifically, this paper differs from the previous studies in several aspects: the theoretical approach applied (IDP), the use of a large number of location factors (13), its individual analysis and its analysis moderated by the degree of development of the economy, its dynamic (2006-13) application to a broad set of economies (117) and an innovative methodology. All of these allow for a better understanding of what attracts FDI.

The results for the whole sample show that the majority of location factors used are decisive in attracting FDI regardless of the degree of development of the economy, confirming some of the results obtained in previous studies. In addition, we demonstrate that the importance of these location factors differs depending on the stage of economic development in which the

host country finds itself. Specifically, we find that the market size is more important for economies that are in the early stages of development (Stages 1-2 of the IDP) than for the other more developed economies. A more qualified labor force, efficient labor and developed financial markets are especially important factors for attracting FDI when the economies are in Stage 3 of the IDP. Contrary to what has been generally accepted in the literature, the results do not confirm that greater innovation and business sophistication are specific to the more advanced economies. Furthermore, the business sophistication result reflects the deterioration of the business climate in the most developed countries as a consequence of the economic crisis.

The results of the complementary analysis applied to three regions (Asia, America and Europe) confirm that the importance of the location factors depends on the level of development of the country. Furthermore, more hypotheses become significant for Asia and America, revealing that some areas respond better to the theoretical proposals, reflecting specific regional patterns. A set of countries physically located in the same region could share similar characteristics that, at the same time, are different from other regions. In general, neighboring countries face similar conditions (resources, environment, historical events, socio-cultural habits), which could generate similar economic structures and a similar degree of development. Furthermore, the fact that countries within a region are integrated and coordinated internally by supra-national trade agreements (e.g. ASEAN, Mercosur or European Union) would have a positive impact on FDI (Kahouli and Maktouf, 2015). This could create positive interdependences and spillover effects across countries thus generating a region-effect.

In summary, the results establish that location factors are not only decisive to attracting FDI, but also that their importance varies depending on the host economy's stage of development. These results not only allow the study of location factors for FDI to progress, but can help

those responsible for designing national economic policy to better direct their efforts toward improving those economic factors that can have a stronger influence on attracting FDI, taking into account the stage of development of each particular country.

Table 5A. Results of General Models

Stages	STAGES 1-2						STAGE 3					STAGES 4-5	
HYPOTHESIS	H1.1	H1.2	H1.3	H1.4	H1.5	H1.6	H2.1	H2.2	H2.3	H2.4	H2.5	H3.1	H3.2
VARIABLES	NR	I	IF	ME	HPE	MS	HE	LM	FM	GM	T	RD	BS
Stage	-0.15*	0.04	-0.03	-0.15†	-0.76***	-0.38***	-0.18†	-0.28†	-0.29*	-0.12	-0.02	0.21†	0.62**
Variable (NR,...,BS)	-0.17***	0.71***	0.494***	-0.17	0.49**	-0.92***	0.79***	0.71***	0.28**	0.77***	0.46***	0.28*	0.42**
VarxStage (1-2, 3, 4-5)	-0.15*	-0.01	-0.01	0.10	-0.34	0.47***	0.33*	0.46†	0.50*	0.23	0.07	-0.23	-0.81**
Constant	-0.62***	-0.83***	-0.69***	-0.27***	-0.76***	0.17**	-0.91***	-0.88***	-0.60***	-0.90***	-0.69***	-0.59***	-0.70***
Effects (Hausman)	F.E.	R.E.	F.E.	F.E.	F.E.	F.E.	F.E.	R.E.	R.E.	F.E.	F.E.	F.E.	F.E.
Wald Chi ²	122.24***	73.95***	81.07***	38.7***	38.10***	123.76***	107.27***	45.95***	27.20***	39.03***	52.92***	34.50***	42.46***
Adj R ²	0.386	0.340	0.337	0.217	0.276	0.225	0.337	0.290	0.287	0.347	0.376	0.253	0.264
N (Obs.)	936												

Table 5B. Results for Regions

Region	ASIA						AMERICA					EUROPE	
HYPOTHESIS	H1.1	H1.2	H1.3	H1.4	H1.5	H1.6	H2.1	H2.2	H2.3	H2.4	H2.5	H3.1	H3.2
VARIABLES	NR	I	IF	ME	HPE	MS	HE	LM	FM	GM	T	RD	BS
Stage	-0.58***	-0.81*	-0.25	-0.58*	-1.02*	-0.48*	-0.19	-0.73**	-0.69***	-0.93***	-0.29*	1.99**	2.84*
Variable	-0.17**	-0.22	0.50	-0.47	-0.01	-1.54***	0.33	-0.12	-0.05	-0.25	-0.14	4.06**	4.26*
VarxStage 1-2, 3, 4-5	-0.58***	1.19*	0.35	0.67†	1.22†	0.52†	0.32	1.15**	1.12***	1.48***	0.54*	-3.90**	-4.59*
Constant	-0.80***	-0.37	-0.85**	-0.19	-0.52†	0.45**	-0.62***	-0.33*	-0.36*	-0.23	-0.34***	-2.33***	-2.83**
Effects (Hausman)	F.E.	R.E.	F.E.	F.E.	F.E.	F.E.	F.E.	R.E.	R.E.	F.E.	F.E.	F.E.	F.E.
Wald Chi ²	53.61***	10.25*	20.11***	8.28*	14.00**	64.59***	7.89*	14.81**	24.36***	17.72***	6.33†	10.40*	4.55†
Adj R ²	0.39	0.21	0.32	0.10	0.26	0.29	0.13	0.44	0.51	0.51	0.29	0.09	0.13
N (Obs.)	224						192					136	

*** P-value < 0.001; ** p-value < 0.01; * p-value < 0.05; † p-value < 0.1.

7.2. Implications for policy makers

Our findings not only enable the study of location factors for FDI to progress, but also have several implications for policy makers, which would be our contribution to practice. As we have stated previously, the significant benefits of FDI have prompted countries to design economic policies to attract these investments. This is especially important for those economies that are less developed (in Stages 1 to 3) because FDI can contribute to their growth. Thus, a country's policy efforts need to promote those factors that can benefit the country the most.

For example, on the one hand, policy makers in less developed countries (Stages 1-2) should consider implementing public and private institutional reforms and significant improvements in infrastructure, health and primary education as these factors are required to attract new FDI and in these countries they are undeveloped. On the other hand, the importance of market size obtained for these countries would indicate a need for international agreements to be established that facilitate the access to larger markets.

Policy makers from countries in Stage 3 should encourage more efficient and better developed financial and labor markets because they have a higher impact on attracting new FDI. Moreover, it is essential that they continue investing in further education and training because, during this stage, the quality of education begins to be more important than its cost.

We are confident that our results can help those responsible for designing national economic policy to focus their efforts on improving those economic factors that can have a stronger influence on attracting FDI, taking into account the stage of development of each individual country.

7.3. Managerial Implications

As some destinations are similarly endowed with respect to location factors once they enter the same IDP stage, managers can find a set of desirable locations in terms of the endowment

factors needed for specific productive activities. This empirical fact would facilitate the decision process of the management team in terms of time and the selection of an optimal location. It would allow them to circumvent the evaluation of multiple unsuitable destinations and to analyze new markets that might not have been considered previously.

Second, and more specifically, managers should reconsider the importance of some location factors generally labeled as “desirable” for some activities (e.g. cheap labor). It might be more important to look at the factors taken as a whole rather than examining individual terms, since this could lead to the wrong decision being taken for the medium and long term, especially since there is a correlation between the degree of development and the presence of a cluster of factors that are usually interrelated. Other factors, such as market size, are shown to be less important for all the stages since alternative solutions may exist for gaining access to larger markets. Or, for instance, macroeconomic stability may be neutralized by the access to external financing for the investors in their home country.

Finally, and in keeping with the factors that are significant at any given stage, managers should pay more attention to the factors demanded in the markets with medium-stage development (3rd stage). These have been found to be especially important, which may reflect the need to guarantee the basic conditions needed for the usual investments, the availability of other scarce resources (e.g. efficiency in the financial market, skilled labor, etc.) and greater efficiency in the ability to predict their evolution before they reach the final stage, since that is the natural next step. This means that in general, the theoretical framework would be especially useful for deciding the location of general economic activities which are not located at the extremes of complexity: such as extractive industries (first stages) and very innovative business (last stages).

7.4. Limitations and Future Research

We acknowledge that our decision to choose country-level data (due to its availability and

homogeneity for a broad set of countries and over a long period) obligates us to renounce including some of the important issues that would complete our findings if the required information were available. Firstly, we cannot include the FDI home country's stage of development, although we recognize that the factors attributed to companies from developing nations are often very different from factors that would attract companies from other developed nations. Secondly, we cannot determine the type of economic activity of the FDI although certain location factors could have a higher probability of attracting companies from specific industries. Thus, these limitations would deserve further investigation as would other issues such as the study of the differences within a group of countries at the same stage of development.

Despite the limitations of using aggregated data, we are confident that our study provides a more comprehensive understanding of the FDI location factors.

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