# THE INFLUENCE OF CULTURAL AFFINITY FOR THE BOOST OF BRAZILIAN INVESTMENT IN PORTUGAL

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**Abstract:**
*In response to a survey of Fortune 1000 companies enquiring in 2007 about "the biggest barrier in doing business in the world market", cultural differences ranked at the top of the list. For a long time culture and economy have been treated as broadly independent areas of research The gap to recognize cultural differences was the most common cause of failure for cross-national enterprises. Members of different cultures express different values and priorities when they make and implement decisions. This article seeks to measure the influence of factors such as history, language and culture in foreign direct investment (FDI) of Brazilian companies in Portugal, two countries with deep cultural affinity. Brazil is an emerging country that is increasing your importance as international investor. Firstly, we will describe the increase importance of emerging countries in the world economy, Brazil as international investor and the luso-Brazilian economic relations, especially after 1990s. Secondly, it will take surveys and assesses approaches to explain a multidimensional analysis of the FDI, in particular those related to culture. After that, through a regression analysis based on interviews answered by Brazilian companies in Portugal, we measure by a regression model the influence of the Uppsala School, or Scandinavian, which postulates the importance of culture in corporate investment abroad. While geographic, political and economic approaches have advantages of their own; the cultural area is particularly useful for a long-term comparative economic analysis.*

**Keywords**: cultural affinity – enterprises – Foreign Direct Investment – Brazil – Portugal - emerging countries – Stepwise method – Eclectic theory – Scandinavian Theory

## 1. The Brazilian outward FDI on emerging countries and Portuguese context

For many years, emerging economies have commonly been perceived as target countries of foreign direct investment (FDI). Recent large-scale overseas investments by companies based in countries like China, India, Brazil, Mexico, Indonesia, Russia or South Africa have made it clear, however, that emerging economies also play an important role as origin countries of FDI (McCann, 2010). This article seeks to provide some background information on this phenomenon and formulates preliminary policy conclusions.
Stylized facts can be summarized as follows:

- According to UNCTAD (2007), aggregate production of emerging economies reached an important landmark in 2006: more than half of gross domestic product (GDP), measured in purchasing power parity (PPP, the acronym in English). The emerging countries, maximizing the global growth, causing a strong impact on inflation, wages, interest rates and corporate profits. The participation of the emerging world exports rose from 20% in 1970 to 43% in 2005. They consume more than half the world's energy and account for 80% growth in oil demand from 2001 to 2006. They also hold 70% of global foreign exchange reserves.
- Emerging economies have become an important source of FDI. Outflows grew particularly in the 1990s and reached US$ 133 billion in 2005 or about 17 per cent of world flows. Even excluding flows from Hong Kong (China) and offshore financial centres, outflows from developing and transition countries were close to US$ 90 billion. The outward FDI stock of developing and transition countries reached US$ 1.4 trillion in 2005, or 13 per cent of the world total (all data from United Nations Conference on Trade and Development [UNCTAD], 2006: 105–08).

Given that developing and transition countries invest heavily in other developing countries, mostly from the same region, their importance as source of developing countries' inward FDI is even more pronounced. The share of South–South flows in total FDI to developing countries rose from 16 per cent in 1995 to 36 per cent in 2003 (World Bank, 2006: 108). According to the UNCTAD Investment Report 2006, close to 50 per cent of the inward FDI stock of developing and transition economies comes from other developing countries. Especially for low-income countries, FDI from other developing countries takes the lion's share of all inward investments (UNCTAD, 2006: 117–21).

- For some emerging economies, outward FDI has become a quantitatively relevant phenomenon. Starting in the mid-1990s, outward FDI of emerging economies has gained strength, albeit with great volatility. Based on the average 2002–04, the following countries have experienced outward FDI of more than US$ 1 billion annually: Brazil, Chile, China (PRC), Hong Kong (China); (US$ 23 billion!), India, Korea, Malaysia, Mexico, Russia, Taipei, China (UNCTAD, 2005). For countries like Brazil (2004), Korea, Malaysia, Russia, South Africa (2003–04), outward FDI is in the range (or above) of 50 per cent of inward FDI. In some industries, multinational enterprises (MNEs) based in emerging economies have become important players on world markets. A recent Boston Consulting Group (BCG) report identified, from an original set of more than 3,000 companies, a list of 100 global challengers from emerging countries and analyzed their entry strategies and growth potential (BCG, 2006). Major countries of origin of these companies are China (44), India (21), Brazil (12), Russia (7) and Mexico (6). They are active in a wide range of industries, with 32 companies in the industrial goods sector, 18 in consumer durables, 15 in resource extraction, 11 in food and cosmetics, six in technology equipment, six in telecommunication services and 12 in other sectors. According to the 2006 UNCTAD Investment Report (UNCTAD, 2006: 123),MNEs from developing and transition countries are among the top 20 players worldwide in all areas of economic activity, with some concentration in container shipping, steel and petroleum refining. Before going into details, a cautious note on the availability and reliability of data is appropriate. FDI of emerging economies is incomplete and does not give a breakdown for industries or destination countries.

While other BRIC countries don't have the same degree of need for change, awareness that it is dangerous to be over reliant on exporting as a means of growth is no bad thing for them all. According to O'Neill (2010), for the next decade up to 2020, the possible increase in the aggregate GDP of the four BRIC countries will be about $11 trillion, about three times more than the 3 trillion that the US is likely to grow by. In fact, if this occurs, the dollar size of the BRIC economies will match that of the US sometime before the end of the decade, both being around $18 trillion. China will be about 2/3 of this, at 12 trillion, with the other BRIC countries, Brazil, India and Russia making up the rest. Of that increase, it is vital for the US and other over levered economies who will be raising savings, reducing their budget and external deficits, which the lion's share of it will be in domestic consumption, much of which can be satisfied through imports. In relation to Eurozone countries, a detailed breakdown of regional German export destinations shows a staggering degree of growth in exports to both China and India. To China in particular, things are so buoyant that if the current pace remained for the next 12 months, by this time in 2011, German trade with China could be as large as their trade with France.

The internationalization of Brazilian companies is a relatively recent phenomenon. From 2000 to 2003, outward foreign direct investment (OFDI) averaged USD 0.7 billion a year. Over the four-year period 2004−2008, this average jumped to nearly USD 14 billion. In 2008, when global FDI inflows were estimated to have fallen by 15%, OFDI from Brazil almost tripled, increasing from just over USD 7 billion in 2007 to nearly USD 21 billion in 2008. Central Bank data put the current stock of Brazilian OFDI at USD 104 billion, an increase of 89% over 2003. Brazilian outflows are difficult to separate authentic FDI from purely financial investment under the guise of FDI. According to the most recent data, more than one thousand of Brazilian companies have invested abroad. Along with other emerging economies, Brazil is suffering from the effects of the global financial crisis. The OECD forecasts that M&A spending from

Brazil, Russia, India, China, South Africa, and Indonesia will be reduced by 85% in 2009, in comparison to 2008. This matches the partial performance captured in the data already released: in the period January-May 2009, Brazilian OFDI shrank by 87% in comparison to the same period in 2008, from somewhat under USD 8 billion to somewhat under USD 1 billion. If this trend persists, outward FDI from Brazil will be no higher than USD 4 billion in 2009, as against USD 21 billion in 2008.

The internationalization of Brazilian companies is dominated by the private sector, although state-owned enterprises also play a role. Petrobras, for example, has expanded its overseas activities to 15 countries in three continents. In Latin America, the company has energetically pursued a strategy of regional integration in natural gas.

Why are more and more Brazilian companies going abroad? The most frequently cited reason is that they are following clients into international markets. But there are many other reasons as well, such as defending their competitive position, monitoring the competition in international markets, meeting international demand and reducing their dependence on a single (domestic) market. Many Brazilian companies are also interested in natural resources. Yet others are looking for lower costs, better infrastructure and more attractive fiscal incentives. Broadly speaking, Brazilian outward investors are in search of three things: markets, natural resources and investment climates superior to the one they find at home. The cultural affinity could play a special importance in this direction.

### 1.2- The luso-Brazilian investments

The increase of economic cooperation between Portugal and Brazil has always been object of discourses evoking the historical and cultural ties that unite the two countries. It was not an empty rhetoric, since it reflected a genuine aspiration, but it lacked the business content, which has been, since ancient times, a key force for the contacts intensification between peoples. In recent years this has changed. According to FDI inflows, since 1986, the European Economic Community, now the European Union, Portugal has become, for Brazil, the gateway to a powerful market. Similarly, from the constitution in 1991, the Southern Common Market (Mercosur), this region of South America has qualified himself as one of the most promising investment centres around the world. The bilateral commerce (Imports + exports), which increased from 292.78 million euros in 1989 to 1.70 billion euros in 2008, six times more. And bilateral investment has grown from 67, 26 million to 1765.50 million gross in the same period, more than 26 times. The turning point on investment relations between the two countries with deep historical ties had a precise date. It was on April, 14, 1996, with the visit in Brazil of Prime Minister Antonio Guterres, who was accompanied by a large delegation of executives from various small, medium and large Portuguese companies, and appeal to the business cooperation between the two countries. As some pull factors, in addition to history, culture and language (this fact lowers the cost of communication), Brazil is the fifth largest consumer market in the world and the second largest location of foreign investment among emerging markets. The Guterres plan was facilitated by Brazil government, a team with the dialogue was very easy. The convergence between Guterres and Fernando Henrique Cardoso had a decisive new posture of luso-Brazilian economic relations. Guterre's speech coincided with the opening of the Brazilian economy and the privatization that began in Brazil in the 90s, besides the economic stability provided by Real Plan. Then, the companies' acquire more confidence to investing in Brazil. Portugal already is a preferred location for Brazilian companies. Proof of this is the number of Brazilian companies installed the second favourite in terms of geographical location, shortly after Argentina. Brazil's position among the 10 largest foreign investors in Portugal, in the early 2000s, is ahead of several countries traditionally overseas investors. By 1990 there were about 50 Brazilian companies in Portugal. With the globalization phenomenon, especially in the 2000s, this number increased significantly, reaching in 2010 more than one hundred companies, and a gross investment of over 2 billion euros, between 1996 and 2009, according to Bank of Portugal.

The fact that there are recognized Brazilian companies in various sectors of the Portuguese economy is also a relevant point in our subject of study. Cechella (2008) points out the main factors for the boost of Brazilian investments in Portugal (Cechella, 2008):

- The size of domestic market: with a GDP per capita of U.S. $ 21,404.00 in 2009 (IMF), Portugal is a relevant market for many Brazilian companies and various economic sectors.
- Basis for wider market and the European Union (EU): as a member state of the European Union, and having to observe the common rules that the EU imposes, Portugal is seen by many companies in Brazil as a central country to deepening investments in the European Union.
- The cultural connexion from the European immigration to Brazil in the nineteenth century and their traditional trade relations also reflect the importance of EU for Brazilian investments.
- Possibility of learning and facilitate foreign management - a common language and cultural relations intense simplify the understanding of business environment, one of the biggest challenges for investment abroad. The cultural affinity is one advantage that some Brazilian companies visualize in Portugal, especially those that are beginning. This facilitates both the communication between people as to interchange experience and technology.
- The economic geography: the geographic position of one country over another is an essential aspect in measuring the potential of trade and investment. Brazil, in the context of South America, and Portugal in the European Union, are part of different continental areas and, therefore, can take the advantage of these strategic points.
- Economic and political stability of two countries is a key factor to foreign direct investment because it reduces the uncertainty of investment. Portugal, European Union member since 1986, need to fulfil targets of macroeconomic balance and good policies to continue as a member, and Brazil, with democratic elections since 1985 and with the success of the Real Plan in 1994 in the fight against the inflation as well as the significant improvement in its balance of payments, are countries that have achieved a good degree of politic and economic stability.
- The increasing importance for some companies to integrate into global networks: the phenomenon of integration and globalization has opened the borders. For many sectors of the economy, this represented a reduction of protectionist barriers, and the resulting increase on competition. Thus, companies needed to reorganize its business through measures as the internationalization of their activities to gain scale and improve their products and services.

## 2. A multidimensional analysis of the FDI

The early attempts to explain why foreign direct investment exists emerged in the 1960s, just as flows of FDI began to increase in volume. Before this time, FDI was modelled as a part of neoclassical capital theory, but as Dunning (1981) notes there are two main problems with viewing FDI this way. First, FDI is more than just the transfer of capital, since just as importantly it involves the transfer of technology, organisational and management skills. Second, the resources are transferred within the firm rather than between two independent parties in the marketplace, as is the case with capital. These factors give FDI its own unique literature, with the key theories often cited as: Hymer's (1960) international operations of national firms; Vernon's (1966) product life-cycle theory; Caves's (1971) horizontal and vertical theories; Buckley and Casson's (1976) internalisation theory; Dunning's (1977) eclectic theory; and The Uppsala or Scandinavian School of firms. The last two approaches will be considered and form the theory substance of this paper.

### *2.1 The Eclectic Paradigm*

Reflecting upon the history of the theory of FDI, Dunning (1977; 2008) noted that it was very much couched in terms of either the structural market failure hypothesis of Hymer and Caves or the internalisation approach of Buckley and Casson. Dunning provided an eclectic response to these by bringing the competing theories together to form a single theory, or paradigm as it is more often referred. The basic premise of Dunning's paradigm is that it links together Hymer's ownership advantages with the internalisation school, and at the same time adds a locational dimension to the theory, which at the time had not been fully explored. Although in many ways the core of the paradigm shares similarities with the previous research, Dunning does manage to

introduce some new considerations, such as the impact that different country and industry characteristics have on each of the ownership, locational and internalisation advantages of FDI.
The eclectic paradigm of FDI states that a firm will directly invest in a foreign country only if it fulfils three conditions. These are necessary rather than sufficient conditions. First, the firm must possess an ownership-specific asset, which gives it an advantage over other firms and which are exclusive to the firm. Second, it must internalise these assets within the firm rather than through contracting or licensing. Third, there must be an advantage in setting-up production in a particular foreign country rather than relying on exports.
Different types of ownership (O), locational (L) and internalisation (I) factors are given in Table 2.1 (collectively known as OLI). The ownership advantages are defined by Dunning as particular assets that are specific to the firm that give it the potential to earn greater profits in the future. They include the size of the firm, the level or quality of management, access to factor inputs, access to product markets and technological capabilities. They may reinforce themselves over time to include advantages created from economies of joint supply and through the possession of greater knowledge and information. Thus, a large multinational will have a large number of ownership-specific advantages. Location advantages are the assets that a country possesses that make production attractive, as opposed to exporting. They include input prices, transportation costs (Cechella et al.), communication costs and government incentives. Stable political and legal systems, a commercial infrastructure and language and culture are also relevant. Internalisation advantages are the ways that a firm maximises the gains from their ownership advantages to avoid or overcome market imperfections. Internalisation-specific advantages results in the process of production becoming internal to the firm. Reasons for internalisation include the avoidance of transaction costs, the protection of the good, avoidance of tariffs and the ability to capture economies of scale from production, marketing and finance.

**Table 2.1 The Three Conditions of the Eclectic Theory**

| *Ownership-specific advantages (internal to enterprises of one nationality)* |
|---|
| Size of firm |
| Technology and trade marks |
| Management and organisational systems |
| Access to spare capacity |
| Economies of joint supply |
| Greater access to markets and knowledge |
| International opportunities such as diversifying risk |
| *Location-specific advantages (determining the location of production)* |
| Distribution of inputs and markets |
| Costs of labour, materials and transport costs between countries |
| Government intervention and policies |
| Commercial and legal infrastructure |
| Language, culture and customs (i.e. psychic distance) |
| *Internalisation-specific advantages (overcoming market imperfections)* |
| Reduction in search, negotiation and monitoring costs |
| Avoidance of property right enforcement costs |
| Engage in price discrimination |
| Protection of product |
| Avoidance of tariffs |

*Source*: Dunning (1981).

Not all of the OLI conditions for FDI will be evenly spread across countries, and therefore each condition will be determined by the factors that are specific to individual countries. Links between the OLI advantages and the country-specific characteristics are summarised in Table 2.2. For example, the ownership-specific advantage of firm size is likely to be influenced by market size in the firm's home country. This is because the larger the market is, the more likely will a firm be able to gain ownership-specific advantages in the form of economies of scale. In terms of location-specific factors, labour costs will vary across developed and developing countries, while transport costs are determined by the distance between the home and host countries. Finally, country-specific factors are likely to affect the degree to which firms internalise their advantages.

**Table 2.2 Characteristics of Countries and *OLI*-Specific Advantages**

| *Ownership-specific advantages* | *Country characteristics* |
|---|---|
| Size of firm.<br><br>Technology and trade marks.<br><br>Management and organisational systems.<br><br>Product differentiation. | Large markets.<br>Liberal attitudes to mergers.<br>Government support of innovation.<br>Skilled workforce.<br>Supply of trained managers.<br>Educational facilities.<br>High income countries.<br>Levels of advertising and Marketing. |
| *Location-specific advantages* | *Country characteristics* |
| Costs of labour and materials.<br>Transport costs between countries.<br>Government intervention and policies.<br>Economies of scale.<br>Psychic distance. | Developed or developing country.<br>Distance between countries.<br>Attitudes of government to FDI.<br>Size of markets.<br>Similarities of countries' languages and cultures. |
| *Internalisation-specific advantages* | *Country characteristics* |
| Searching, negotiating, monitoring costs.<br>Avoid costs of enforcing property rights.<br>Protection of products. | Greater levels of education and larger markets make knowledge type ownership-specific advantages more likely to occur. |

*Source*: Dunning (1981).

*2.2 The Uppsala or Scandinavian School*

A group of Swedish economics and management academics probed further into the dynamics of internationalization in their analysis of the process leading from domestic only production and sales to foreign sales (Johanson and Wiedersheim-Paul, 1975; Johanson and Vahlne, 1977; 1990). Their approach draws on Penrose (1959), and it looks into the black box of the firm in order to analyse its decision-making process in a specific field: sales in foreign markets.

The authors study the organization of sales and marketing in one or more foreign countries and come up with the idea of stages in the internationalization process.

What emerges is a dynamic model involving a time sequence that develops in a logical and linear pattern, and in which elements in one stage form the input for the next stage. The work of the Scandinavian School starts with empirical research into the internationalization process of Swedish manufacturing firms (Johanson and Wiedersheim-Paul, 1975). The authors study in detail the following four firms: Sandwik AB, a steel and steel products manufacturer; Atlas Copco, a producer of railway materials and components; Facit, originally a producer of calculating and typing machines who later, in 1972, merged with Electrolux; and Volvo, the car manufacturer.

The authors aim to analyse the stages through which internationalization takes place in any one country as well as the sequence of penetration into different countries. In a later work, Johanson and Vahlne (1990) specify that the model they developed in 1977 – partly on the basis of the empirical work in Johanson and Wiedersheim-Paul (1975) – can explain two patterns in the internationalization of the firm:
• the firm's engagement in a specific foreign market/country, which develops according to an establishment chain; and
• the involvement into several foreign countries, which proceeds in a time sequence related linearly to the psychic distance from the home country.

The psychic distance is defined in Johanson and Vahlne as 'the sum of factors preventing the flow of information from and to the market. Examples are differences in language, education, business practices, culture and industrial development (Johanson and Vahlne, 1977: 24). The countries psychically closer to the domestic market see international involvement earlier than the more distant countries. Psychic and spatial distance tends to be very closely related. In the case of the Swedish firms, the countries which are spatially close tend also to be countries which are culturally and linguistically close to Sweden; they are the ones in which the firm looks for foreign markets first. International involvement into more distant countries – psychically and, usually, also spatially – comes at a later stage (Johanson and Wiedersheim-Paul, 1975).
Johanson and Vahlne (1977) concentrate on the first pattern: increasing involvement in the same foreign country. On the basis of previous empirical work, they see that the establishment of various modes of market involvement into a foreign country follows a specific linear chain ('the establishment chain') along the following sequence: exports via independent representatives (agents); sales subsidiary; and, finally, production subsidiary.
The task the authors set themselves is to explain why and how this sequence evolves. To this end they develop a model of internationalization in which the various steps are explained. Theirs is a dynamic model in which 'the outcome of one decision – or more generally one cycle of events – constitutes the input of the next'.
In their model they distinguish between variables related to state and those related to change aspects of internationalization: the present state of internationalization affects the change in internationalization and therefore the future state aspects.
Essentially the state aspects refer to elements of the situation as it is at the time of the analysis and as the result of investment made and resources committed in the past in that foreign market. It could, for example, include also the resources committed to the training of local labour force or for the deployment of managers and technical staff from other units of the company.
Aspects related to change have to do with results and decisions that extend through time such as the current performance of past investment or the decisions already taken to commit resources in the near future.
As regards the state aspects, the amount of resources committed is close to the size of the investment widely interpreted to include also 'investment in marketing, organization, personnel and other areas'.
The authors distinguish between economic and uncertainty effects of additional commitment. The economic effect is associated with the scale of operations on the market. The uncertainty effect relates to market uncertainty which tends to be high in very dynamic markets and also whenever there is a threat from new or potential new entrants into the market.
The level of uncertainty can be reduced by developing greater interaction and integration with the market such as better communications with customers. Reduced uncertainty or increase in the level of acceptable risk is likely to lead to an increase in the scale of commitment.
The authors conclude the discussion on 'commitment decisions' 'by observing that additional commitments will be made in small steps unless the firm has very large resources and/or market conditions are stable and homogeneous, or the firm has much experience from other markets with similar conditions' (Johanson and Vahlne, 1977: 30–31). Therefore the conclusion is that

involvement in any single foreign country will proceed cautiously and in accordance with the following stages in the establishment chain:
• exports via agents;
• setting up of sales subsidiaries;
• setting up of production subsidiaries.

The above sequence is the result of state and change aspects in which the nature of knowledge and uncertainty play a large role. The dynamic sequence is linear in two ways: because each stage leads to the next one and because each new stage involves a larger commitment of resources than the previous stage.
The second internationalization pattern refers to the spread of internationalization from one foreign country to others. Here the sequence is also dynamic and linear proceeding by stages from the foreign country psychically closer to those more distant. Psychic and spatial distances tend to be strongly related.
In both types of patterns – within a single foreign country and across many – we see internationalization as a result of a series of incremental decisions. It proceeds dynamically and linearly: from one stage to the next; from small to large resource commitment; from a single foreign country to several.

The Scandinavian School starts with the observation of empirical regularities and then goes on to develop a general model to explain internationalization patterns and their regularities. The authors put forward the idea that internationalization develops in stages which are of the following two types:

1 - Stages in the establishment chain: a dynamic and linear sequence leads from exports via agents to sales subsidiaries and later to production subsidiaries. A related linear pattern can also be detected in terms of amount of resources committed at each stage in the establishment chain with more advanced stages in the internationalization process requiring larger commitment of resources.
2 - Stages in the geographical spread of internationalization from one country to many: this follows a linear pattern related to psychic distance between the home and foreign countries.

The model explains various stages in the internationalization process via an analysis of states and change aspects of internationalization. The nature of knowledge and in particular experiential knowledge and its environment-specific character, play a strong role in the development of the various stages. So does uncertainty.
The strength of the model is the realization that internationalization is not an either or situation with regard to mode of operations or number of foreign countries of involvement. Rather it is a dynamic sequence with each stage affecting the change and thus the next stage: the performance variables in each stage become inputs for the next. It is also a cautious and incremental approach to internationalization in which the firm tastes the internationalization water before walking in and later dipping in. The commitment is gradual and the sequences are linear. This gradual stages approach is strongly linked to uncertainty and to the relevance of non-transmittable experiential knowledge.
The model leads the authors to probe into the organization/institution and its decision making process. In this respect it follows other organizational types of studies though the authors confine themselves to the study of the organization's marketing and sales functions. There is very little on production, its organization, its problems and how opportunities might arise or strategies be formulated in relation to the production elements such as costs or innovation and technology, or availability of labour skills.
There is a rather deterministic feel about the Scandinavian School model; the various stages follow a linear, almost predetermined, pattern. Though the model is not driven by efficiency considerations, the scope for strategic decisions seems limited in its well defined linear patterns.

**3. A model of Brazilian foreign direct investments in Portugal**

This model seeks to show, through a factor analysis and regression, the factor that contributed to the evaluation perception of profitability success of Brazilian firms in Portugal, and the influence of cultural affinity as a factor in the decision to invest in Portuguese market. These two techniques are widely used in studies on FDI (Bang Nam et al., 2008; van Roeseler, 1996, Zaman and Ünsal, 1997, Read, 2008). Specific questions about Brazilian companies located in Portugal were used, based on the OLI paradigm proposed by Dunning and the Uppsala School (in annex). Firstly, we performed a factor analysis to identify the main explanatory variables, according to the survey conducted in locus with 30 Brazilian companies, 42.12% of total sample. Secondly, we measure de importance of cultural affinity to profitability with a regression with and without constant, using the stepwise method and SPSS 16.0 software.

*3.1. Methodology*

In order to reduce the number of items associated with the factors related to assets, internalizing and location, we performed the factorial analysis to identify the variables that explain the maximum variance of original items. The criterion used was *eigenvalues* greater than 1, followed by *Varimax* rotation and according to *screet plot*.

Firstly, we seek to explain the latent variables of Brazilian foreign direct investments in Portugal motivational factors related to the assets. The factor analysis converging to a solution with three main components, explaining 66% of total variance, as showed by the parsimony analysis. By analysing the solution after *Varimax* rotation, the first principal component explains 36% of the total variance and is composed by items related to technological capability, innovative reputation, brand image, human potential and management. The second principal component explains 17.41% of total variance and includes these factors: international vocation of the owner, location and infrastructure of trade agreements with Portugal and Brazil. The third principal component explains 12.60% of total variance and contains these items: sanitized financial structure, experience in the domestic market and low manufacturing cost of products.

As for factors related to internalization, the factor analysis converged to a solution with four main components that explain 75% of total variance. The items with high saturation in the first component, which explains 47% of total variance, are the high costs of transportation and communication; market used as a platform for export to third countries and customs barriers. The second component (11.21% of total variance), the factors are those related to good financial structure, to follow competitors or clients, institutional support and economic stability in Brazil. The three components (9.12% of total variance) consists a prior exports and synergies by integrating international, and the four component (7.9% of total variance) is related to the company seeking to diversify the risk and be closer to its customers.

The factors related to location, the factor analysis converged to a solution with 9 principal components that explain 86% of total variance. The components that we retain were the first three, which explain 56.6% of total variance, the sufficient to assess the representativeness of the sample. The component number one (36.40% of total variance) includes items as the existence of bilateral agreements, host- country tax incentives, subsidies, and land section by host-country, subsidies and tax incentives in the country of origin and investments limitations of the country of origin. The component number two (11.73% of total variance) covers the availability and quality factors of human capital, potential and size of the Portuguese market, level of competence of the host country and access to suppliers. The component number three (8.48% of total variance) includes the items geographical distance, emergence of relations between Brazil and Portugal, legal environment, clustering, buy opportunities to businesses. All major components described above were saved in our database for statistical analysis, including a multiple linear regression analysis. In order to clarify the determinants found by factor, in the following section we perform the empirical analysis.

*3.2 Results and discussion*

To identify the influence of cultural affinity in the profitability of Brazilian companies located in Portugal and proceeded to a multiple linear regression with these variables as independent and dependent, respectively. The first two principal components of the factors related to the assets, the first two main components of factors related to internalization, the three main factors related to location and, finally, two variables that attempt to measure the influence of cultural affinity between Brazil and Portugal complete the list of independent model variables.

The first arises in the context of the factors of location, and the second is a single question asking whether the language, culture and history influenced Brazilian companies' decision-making to invest in Portugal. The method used was the stepwise regression. This model is particularly appropriate when there are significant correlations between independent variables. In search of the best model we test simulations including and excluding the constant. In both models were not detected multicollinearity problems.

*3.2.1 - Model with constant*

**Table 3.1.** Model with constant profitability - summary

| Model | R | $R^2$ | Adjusted $R^2$ | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | 0.568 | 0.323 | 0.283 | 0.95611 |

The first model explains only 32% of profitability, contributing to the explanation the first principal component of factors related to internalizing 8p=0.011), that encompasses issues of high cost of transportation and communication, barriers customs and Portuguese market used as export platform.

**Table 3.2.** Profitability model with constant - coefficients

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 5.000 | 0.220 | | 22.713 | 0.000 |
| | FAC1_28 | 0.556 | 0.195 | 0.568 | 2.846 | 0.011 |

a Dependent Variable: **Profitability**

*3.2.2 – Model without constant*

Seeking the best solution, we estimate a new model not including the constant in the regression line. The regression analysis stopped at the fourth step and explained 94% profitability variance.

**Table 3.3.** Profitability model without constant - summary

| Model | R | $R^2$ (a) | Adjusted $R^2$ | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | 0.924 | 0.854 | 0.846 | 2.02857 |
| 2 | 0.944 | 0.892 | 0.879 | 1.80040 |
| 3 | 0.959 | 0.919 | 0.904 | 1.60389 |
| 4 | 0.972 | 0.944 | 0.929 | 1.37831 |

The variables that contribute significantly to explain the variance valuation of the company based on profitability are: q21 (cultural influence, in annex), B = 0.924, t (15) = 4.402, p = 0,001, Q29_25 (cultural affinity), the first principal component of factors related to assets FAC1_27 (technological innovative capability, reputation and brand image, human potential and management company), and the first principal component of the factors related to the internalization FAC1_28 (high cost of transportation and communication, tariff barriers and Portuguese market used as export platform).

**Table 3.4.** Profitability model without constant - coefficients

| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | B | Std. Error |
| 1 | Q21 | 3.214 | 0.313 | 0.924 | 10.269 | 0.000 |
| 2 | Q21 | 3.383 | 0.286 | 0.973 | 11.811 | 0.000 |
| | FAC1_27 | -1.247 | 0.516 | 0.199 | 2.419 | 0.027 |
| 3 | Q21 | 2.379 | 0.501 | 0.684 | 4.749 | 0.000 |
| | FAC1_27 | -1.188 | 0.460 | 0.190 | 2.582 | 0.020 |
| | Q29_25 | 0.305 | 0.131 | 0.331 | 2.328 | 0.033 |
| **4** | **Q21** | **2.001** | **0.455** | **0.575** | **4.402** | **0.001** |
| | **FAC1_27** | **-1.263** | **0.396** | **0.202** | **3.185** | **0.006** |
| | **Q29_25** | **0.400** | **0.119** | **0.434** | **3.378** | **0.004** |
| | **FAC1_28** | **0.772** | **0.299** | **0.168** | **2.582** | **0.021** |

a Dependent Variable: **Profitability,** b Linear Regression through the Origin

The cultural affinity contribute more significantly to explain the variance in profitability to *Stepwise method*, according to the theories of FDI examined, such as Uppsala and eclectic paradigm, followed by the first principal component of factors related to assets (related to monopolistic advantage), and the first principal component of the factors related to internalization. Not only in the case of the Portuguese language, which is still emerging, but also of English, Spanish, among others, are evidence that a common language, even that does not guarantee the success of the investment, is a facilitator of business in several strategic issues.

Therefore, the regression straight of the profitability model is:

**Profitability** = 2.001(cultural influence) -1.263 (technological innovative capability) + 0.400 (cultural affinity) + 0.772 (high cost of transportation and communication)

## 4. Final remarks

For a long time culture and economy have been treated as broadly independent areas of research. Furthering the understanding of the determinants of economic activity promised to be one of the major research areas in the post-war era, although past analyses, especially those that are quantitatively based, are mainly focused on economic variables. Since the late twentieth century, however, there have been arguments respecting an increasingly close relationship between economy and culture. With regards to the mechanism of their relationship, one should recognize that economy and culture do not impose upon one another as wholly external forces, but are always intimately associated. Despite the closeness of this association, they have different logics: the one taking account of certain intrinsic or non-instrumental values, the other relating instrumental values to external goals of reproduction. Their interactions are complex as are their effects on economic development and cultural change.

It is now increasingly accepted that one of the many reasons underlying the relative lack of success of past economic development efforts is that culture was overlooked in development thinking and practice. This belated resurgence of interest has raised culture to a position of honour in development debates. Even conservative financial planners and technical problem-solvers now recognize that if healthy and sustainable development is to take place culture cannot be ignored. In fact, many social scientists, particularly sociologists, human geographers and political scientists, have been undergoing a ‘cultural conversion’ in recent decades, evident

both in method and content. As a result there has been a long-overdue dialogue with literary studies, and an increased concern with cultural phenomena.
This paper show, though a factorial and a regression model, the importance of cultural affinity for Brazilian foreign direct investment in Portugal, on globalization and economic growing of emerging countries, as Uppsala School approach, exposed.

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## Annex - Survey "Brazilian investment motivations in Portuguese market"

**Location factors**

- Geographic distance
- Access to natural resources
- Political and economic stability of the host country
- Legal system (judiciary efficiency, bureaucracy)
- Respect of property rights
- Labour laws
- Tax burden
- Market size Portuguese
- Cost of human resources
- Transport costs
- Costs of raw materials, energy and water
- Infrastructure
- Availability and quality of human capital
- Market extended to European Union
- Competence level of the host country
- Suppliers access
- Emergence of economic relations between Brazil and Portugal
- Buy local firms
- Improve position in relation to competition
- Personal contacts with host country
- Clustering
- Subsidies and tax incentives
- Environmental legislation less rigid

- Cultural Affinity
- International trade agreements
- Learning opportunities)
- Legal Environment
- Quality of life and public services
- Good receptivity of the community
- Tax incentives in the host country
- Existence of multilateral / bilateral agreements
- Market limitations in the country of origin
- Reduce risk (crisis and instability in the country of origin)

**Assets factors**

- Reputation, image and brand
- Technological and innovative capacity
- Human Potential and Management
- International vocation of the owner
- Products better than competition
- Low cost manufacturing of products
- Geographic location and Portuguese infrastructure
- Support and trade agreements between Brazil and Portugal
- Agreements with other multinationals
- Experience in the domestic market

**Internalizing factors**

- Availability of financial resources
- Previous exports
- High costs of transportation and communication
- Logistic
- Explore and control directly strategic resources
- Access to natural resources
- Market used as a export platform to third countries
- Follow the competitors or customers
- Institutional support
- Customs barriers
- Increase the scale of business
- Economic stability of Brazil
- Diversify the risk of production and sales
- Synergies by international integrating

**Q. 21** – Aspects, such as language, common culture and history influenced the Brazilian firms' decision-making to invest in Portugal? Yes/No