

**COUNTRY DISTANCE: AN OBJECTIVE MEASURE
AND ITS IMPACT ON
INTERNATIONAL MARKET SELECTION**

Abstract

We develop a construct, country distance, which we define as the objective differences between countries and that can be measured using secondary information sources. Our research advances understanding of country distance and its dimensions, and the impact thereof on market selection decisions. The results of our empirical study on a sample of 170 Spanish SMEs and 99 potential export markets support the hypothesis that larger country distance negatively impacts IMS. The main implication of our findings, however, is that country distance can be measured using a multidimensional and comprehensive set of reliable and valid constructs, all based on objective data. We further provide insights into the differential weights of dimensions of country distance in the context of our sample: more than physical distance, socio-economic factors and cultural and historical linkages determine country distance and its impact on IMS.

Keywords

Country distance; Country Distance Index (CDI); Psychic distance; Cultural distance; International Market Selection (IMS)

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1. Introduction

Regardless of the globalization process that is said to result in the convergence and standardization of people's values and preferences (Levitt, 1984) countries differ in terms of their economic, political, social, cultural, linguistic, and other characteristics and these differences continue to affect international business (Ghemawat, 2001). Many researchers have summarized and measured one or more of the various differences among countries in terms of a measure of distance, the result of which is a varied collection of distance measures, including psychic (Johanson and Wiedersheim-Paul, 1975), cultural (Kogut and Singh, 1988), linguistic (West and Graham, 2004) and institutional distance (Kostova, 1999). Though these concepts and most of their empirical measures are said to cover different, or partly different elements, they generally seem to reduce the plurality of difference between pairs of countries to an expression of distance between them suggesting a unidimensional linear scale of distance to exist.

The most widely used measure of distance between countries is cultural distance (Kogut and Singh, 1988; Drogendijk and Slangen, 2006). This measure, however, focuses on one of the many dimensions to explain the variation among countries and ignores differences in other dimensions like political systems, level of economic development, language, and other factors that define the distance between countries. Psychic (or psychological) distance, the other established construct in the international marketing and business literature covers more dimensions of country differences (Johanson and Wiedersheim-Paul, 1975; Dow and Karunaratna, 2006). The concept of psychic distance was introduced by Uppsala researchers to capture the distortion of information between firms and markets, which is the result of differences between the home and host markets *and* managers' perception of these differences (cf. Johanson and Wiedersheim-Paul, 1975). While some researchers have argued that we should use perceptual measures of psychic distance in order to do full justice to its contents (Stöttinger and Schlegelmilch, 1998, 2000), others claim that mixing measurements based on publicly available data-sources and subjective measures collected from samples of managers or experts have confused the use and measurement of the concept of psychic distance (Clark and Pugh, 2001; Evans, Treadgold and Mavondo, 2000).

Recently, several attempts have been made to develop the measurement of psychic distance concept through focusing on the factors influencing managerial perception (e.g. Clark and Pugh, 2001; Dow and Karunaratna, 2006) and the distortion of information (Brewer, 2007). Generally, these measures include dimensions of culture and other factors that are mentioned to cause variation between countries. These outstanding proposals have been very valuable both because of their contribution to measuring the concept of psychic distance as well as through their support for the continuing importance of psychic distance to international business decisions. In this paper we review these recent contributions and we take one step further in proposing the definition of ‘country distance’ as the objective differences between countries’ multiple characteristics; a separate clear definition that will much less easily be confused with the also as perceptually interpreted concept of psychic distance. We build on prior studies because we include multiple dimensions of country differences, but in contrast to those studies we only include objective data in order to construct a measure of country distance. Furthermore, our statistical method (partial least squares) allows us to investigate the relative importance of the different dimensions and their indicators in the context of our study; international market selection by Spanish firms.

The aim of our study is to clarify and advance our knowledge on distance between countries and its different measures, and to test the explanatory value of our objective country distance measure on international market selection (IMS), one of the main outcome variables in international marketing research that is related to cultural and psychic distance. Below, we first review the literature and the most important constructs of distance between countries employed in previous research, focusing on psychic distance. We then propose a definition of country distance and develop an index to measure it, which we consecutively test studying IMS decisions of a sample of small and medium sized Spanish firms. Our empirical study supports the validity of the construct: it reveals that, in accordance with our hypothesis, Spanish SMEs’ main foreign markets are those at a smaller objective country distance. In contrast to prior studies (Dow, 2000; Dow and Karunaratna, 2006) we find that more than physical distance, socio-economic differences and cultural and historical linkages drive country distance in the context of IMS. We conclude with a discussion of our findings and the implications of our study for research and practice.

2. Literature review, model and hypotheses

Psychic distance is a well-known construct in the fields of international business and marketing. It is considered a multidimensional construct (Clark and Pugh, 2001; Dow and Karunaratna, 2006) and several definitions have been proposed since it was first used by Beckerman (1956) and others in research on international trade (e.g. Geraci and Prewo, 1977; Rauch, 1999). Among these, the earliest definition was formulated by the 'Uppsala school' in the 1970s (Johanson and Wiedersheim-Paul, 1975; Johanson and Vahlne, 1977; Vahlne and Wiedersheim-Paul, 1977) as 'factors preventing or disturbing the flow of information between firms and markets' (Johanson and Wiedersheim-Paul, 1975: 308). Psychic distance was understood as the result of a collection of factors that reflect the differences between two countries, for example language, culture, level of education, differences in political systems etcetera. Conceptually, the Uppsala model therefore clearly distinguishes between the perception of psychic distance and the factors that influence managers' perceptions: these were assumed to increase uncertainty of managers and the likelihood of misinterpretation of information by them and consequently affect the internationalization decisions made in firms. The psychic distance concept was operationalized in a number of indicators measuring absolute levels of economic development and education in the host markets of interest, differences in both between Sweden and the foreign country, differences in 'business language' and in national culture and language in the host country, and the existence of prior trade channels between Sweden and the host country (Vahlne and Wiedersheim-Paul, 1977). Data were collected both from publicly available statistics and among experts in Swedish business circles and the resulting ranking was used in empirical studies. The effect of psychic distance on firms' internationalization decisions and processes has played an important role in research by the 'Uppsala school' (e.g. Johanson and Vahlne, 1977, 1990) and has had an even wider impact on IB research in general.

In large parts of the literature however, psychic distance has been translated and reduced to cultural distance, for which a convenient measure was developed by Kogut and Singh (1988) based on Hofstede's (1980) dimensions of national cultures (see for instance, Davidson, 1980; Benito and Gripsrud, 1992; Barkema, Bell and Pennings, 1996). The recent criticism on cultural distance as an explanatory variable (Tihanyi, Griffith & Russell, 2005), its measurement (Drogendijk and Slangen, 2006; Shenkar, 2001) and its use as a surrogate measure for psychic distance (Dow, 2000; Clark and

Pugh, 2001; Dow and Karanuratna, 2006) have increased the interest in the psychic distance concept and its measurement. Most researchers agree that in order to develop a more inclusive measure than one that only measures cultural aspects, we should return to the distinction between perceptual psychic distance and the factors that influence it as originally proposed by Uppsala researchers (e.g. Dow and Karanuratna, 2006).

2.1. Psychic Distance and its measurements

Since its original introduction a range of different methods to operationalize and measure psychic distance have been used, including panel-based ranking (Nordström, 1991; Dow, 2000), cognitive mapping (Stöttinger and Schlegelmilch, 1998), and measures and indices based on secondary data sources (Clark and Pugh, 2001; Dow and Karunaratna, 2006; Brewer, 2007). Some of these approaches were chosen as to include a perceptual element into the measurement of psychic distance, most notably the (panel based) rankings and cognitive mapping approach. Whether based on expert evaluations (as in Nordström, 1991 and Dow, 2000) or on managers' spatial assessments (Stöttinger and Schlegelmilch, 1998), in those approaches countries are ordered in terms of their 'distance' from a base country, based on the original Uppsala school definition. Such measures capture psychic distance in terms of the perception of the subjects involved, but they are not very helpful in determining the factors that influence perceived psychic distance (Evans et al, 2000) and whether they do so to a different extent.

Others have proposed measures, mostly based on publicly available statistics, that offer more opportunities to identify the different factors of influence. Clark and Pugh (2001) for instance include four single-item independent indicators to explain the priority of countries entered by Australian firms. An indicator of the level of economic development appears the most important driver of country priority, rather than market size, geographical distance and cultural distance. This result confirms prior findings by for example Nordström (1991) who compared his ranking to economic indicators and found similar results. These studies, however, employed very simple measurements and include a limited number of factors that influence psychic distance. More promising in this and other respects, however, is the work by Brewer (2007) and Dow and Karunaratna (2006).

Brewer (2007) stays close to the conceptualization of psychic distance in terms of barriers to information flows. He develops a measure based on factors that influence such flows in contrast to factors that define country differences on which most other

psychic distance work is based. He hypothesizes that commercial, political, historic, geographic, social and information ties between countries as well as a host country's level of development positively affect information flows between a firm and a foreign country. This way, he proposes seven formative dimensions, selects 15 indicators to measure them and constructs an index of psychic distance to Australia for 25 countries. This relatively small number of countries makes it impossible to use methods more suitable for latent variables (such as Structural Equations Modelling techniques) and external validation procedures appropriate for index construction (see Diamantopoulos and Winklhofer, 2001). However, in an empirical test, psychic distance shows to be positively related to market selection by Australian firms. All indicators receive equal weights in the psychic distance index in the absence of a theoretical argument for differentiating. It is however obvious that some indicators, like the number of formal trade agreements between two countries (an indicator of political ties) and the presence of a direct colonial relationship (indicator of historic ties) should be of more impact to IMS than others, like the number of sports in which two countries meet regularly (an indicator of social ties) or the number of entries about a certain country in an Australian university library (indicator of information ties).

Dow and Karunaratna (2006) do offer some insights into the contribution of different factors to their measure of psychic distance stimuli (which they discriminate explicitly from perceived psychic distance). They distinguish seven dimensions that according to the literature are likely to represent psychic distance stimuli affecting the market selection decision. These are differences in terms of national culture, language, education level, level of industrial development, political systems, religions and time zones. In addition, they include the existence of colonial ties between two countries. Each dimension is measured by multiple indicators using data from publicly available statistics: United Nations databases were for instance used for education level and economic indicators, and accepted standard works on language and religion provided input for respective indicators, but also sociological constructs like Hofstede's (1980) cultural dimensions, and aggregated measures developed by institutes like the Freedom House. Dow and Karanuratna estimate the relations between indicators and the respective dimensions to achieve a set of psychic distance stimuli using over 600 country pairs. The model is validated with data from a different set of country pairs. All dimensions of psychic distance stimuli, except those related to the cultural dimensions based on Hofstede (1980), are related as predicted to trade flows between countries. The

results further show that control variable geographic distance, however, appears the most important barrier to trade. Problems related to multicollinearity prevented more conclusions to be drawn about the relative impact of different dimensions on psychic distance stimuli. Especially, the dimensions of education, industrial development and political systems seemed to relate, as well as the dimension language differences and the presence of colonial ties. Although Dow and Karunaratna's (2006) work is seminal in its identification and collection of possible indicators and making these available for other researchers, much work remains to be done in identifying dimensions that affect psychic distance and even more in how they link together.

In this study, we aim to take such a next step in developing a measurable construct that influences perceived psychic distance and increasing our understanding of the linkages between its dimensions. We propose to introduce a separate label for a construct that captures the objective differences between countries only: 'country distance'. Such a construct and its distinct label will help to distinguish more clearly between the construct of psychic distance, with its associations to managerial perception, and the factors triggering it. It is important to make a clear distinction with the label of psychic distance, because of confusions in the past when psychic distance has recurrently been misunderstood and operationalized as the objective differences between countries, neglecting its perceptual nature. Below, we study conceptually and empirically which dimensions potentially define country distance and how they relate and link together in explaining IMS.

2.2. Country Distance

Building on the psychic distance literature, but limiting ourselves to determinants of psychic distance that can be measured using objective data sources, we introduce the construct of country distance. We consider country distance as an index consisting of multiple dimensions (see Figure 1). Building on prior work developing related constructs of psychic distance factors, we distinguish three basic dimensions to compose country distance: socio-economic development distance (SED), physical distance (PHD) and cultural and historical linkages (CHL). The three dimensions are assumed to cause the latent construct 'country distance' rather than reflecting its changes (Bollen, 1989). It is appropriate to conceptualize country distance as a formative index since changes in any of its dimensions are expected to cause a variation on its value (Diamantopoulos and Sigauw, 2006).

[PLEASE INSERT FIGURE 1 ABOUT HERE]

We conceptualize socio-economic development distance (SED) as a ‘reflective first-order, reflective second-order’ construct (Jarvis, Mackenzie and Podsakoff, 2003, p. 205), i.e., it is assumed to be reflected in a number of dimensions, including educational distance, political distance and industrialization distance. These constructs have been mentioned as examples of factors influencing psychic distance in the early days of the development of the concept (Johanson and Wiedersheim-Paul, 1975; Vahlne and Wiedersheim-Paul, 1977), and have also been included in recent measurements of psychic distance factors (Clark and Pugh, 2001; Child, Ng and Wong, 2002; Dow and Karunaratna, 2006; Brewer, 2007). The absolute levels of education and economic development can be said to influence the availability of information about a certain market and the ease with which information flows to potential investors (Johanson and Wiedersheim-Paul, 1975; Brewer, 2007; Dow and Karunaratna, 2006). It is likely that in markets with high levels of education and economic development more information is collected in printed or electronic form and spread among its inhabitants than in markets with low levels of education and economic development. Education furthermore influences the way in which people present information and the way of building up arguments. Differences between the levels of education and also in political systems between two countries can lead to confusion and uncertainty for people communicating and interpreting information (Dow and Karunaratna, 2006). Likewise, higher levels of economic development and similarity in political systems guarantee decrease uncertainty in business agreements and transactions, like property rights, that may lack in countries with low levels of economic development or with undemocratic or corrupted political systems (Brewer, 2007). Differences in political systems and political instability, finally, make it difficult for investing firms to assess risks related to government actions (Henisz, 2000). Most researchers have only included measures related to the level of economic development into their psychic distance measurements, but Dow and Karunaratna (2006) measured indicators related to all three dimensions. In their study, these dimensions showed high correlations and we therefore decided to conceptualize them as composites of the same dimension: socio-economic development distance. SED encompasses indicators of the level of education and (il)literacy, political

systems and level of democracy, and economic development and welfare: all indicators related to a society's social and political institutions.

Physical distance (PHD) is a construct that captures two main magnitudes in physics: time and space. In other words, it not only includes geographical distance but also differences in time zones between countries. Geographical distance has very often been used next to measures of cultural or psychic distance and it has been shown to positively relate to measurements of psychic distance (Johanson and Wiedersheim-Paul, 1975; Stöttinger and Schlegelmilch, 1998; Dow, 2000; Clark and Pugh, 2001; Child et al., 2002; Dow and Karunaratna, 2006, Brewer, 2007). Despite distances decreasing because of globalisation and related processes, it still is a factor that undeniably impacts firms' IMS decisions (cf. Ghemawat, 2001). Time zone differences have been included less often as a factor influencing psychic distance (e.g. Child et al., 2002; Dow and Karunaratna; 2006). Differences in time zones can be said to increase uncertainties in the speed of communication (Dow and Karunaratna, 2006) and may lead to delays, confusion and loss of accuracy in case information travels with people crossing (many) time zones. In the context of IMS we therefore conceptualize physical distance, as a dimension defining country distance, to consist of both these aspects of space and time.

Finally, we conceptualize cultural and historical linkages (or its inverse distance, CHD) as another reflective first-order, reflective second-order construct reflecting three dimensions: language distance, religion distance, and colonial ties. It is undisputed that differences in language are part of factors that distort information flows and increase uncertainty at foreign markets (Johanson and Wiedersheim-Paul, 1975; Brewer, 2007). Not speaking the same (native) language increases inefficiency and clarity in communication and transfer and interpretation of information. Language has even been proposed as an objective proxy for cultural distance and linguistic distance shows great correlation to differences in values among nations (West and Graham, 2004). Language similarity measures have also been employed by researchers developing the measurement of psychic distance related factors (Dow and Karunaratna, 2006; Brewer, 2007). Religion also closely relates to and determines cultural differences: not only people's active practicing of a religion today, but also the impact of main religions on culture throughout history impact people's norms, values and behaviour. Differences in religion can cause misunderstanding and misinterpretation, as well as disagreements and as such distort information flows. Dow and Karunaratna (2006) were the first to include differences between religions beyond the dummy level into their measure of psychic

distance stimuli. Finally, whether or not two countries have had colonial ties strongly impacts cultural ties between in the sense that such a tie may compress psychic distance (Johanson and Wiedersheim-Paul, 1975; Child et al., 2002). The presence of colonial ties increases the level of knowledge that people in the respective countries have of each other, allowing information to flow more easily between a firm and the foreign market (Brewer, 2007). Colonial ties has been included in the most recent measurements of psychic distance denominators (Dow and Karunaratna, 2006; Brewer, 2007). Since measures of cultural differences based on Hofstede's dimensions in prior studies have shown not to contribute to a measure of psychic distance denominators, we have decided not to include a separate dimension for it. Instead, we propose that CHD is reflected by these three dimensions: language differences, religion differences and the existence of colonial ties. CHD affects market selection decisions because of its influence on information flows between markets and the level of uncertainty and risk experienced by managers involved in IMS.

The resulting conceptual model, see Figure 1, was supported by an exploratory factor analysis of all indicators included (results not included in this paper).

2.3. Research hypothesis

We test the value of the country distance index (CDI) on an important international marketing decision: the international market selection (IMS). Although others have shown the impact of psychic distance factors on IMS (e.g. Dow, 2000; Brewer, 2007), it has been given relatively limited attention in comparison to the array of studies dealing with, for instance, the relationship of psychic distance with entry modes or international marketing strategy (e.g. Sousa and Bradley, 2005). Following prior literature, we formulated one research hypothesis on the relation between country distance and market selection. We expect firms to be more likely to select foreign markets at a shorter country distance, i.e. countries that are less different from their home market (Davidson, 1980; Dow, 2000). According to our conceptualization above, differences in terms of socio-economic circumstances and a less certain socio-economic environment, physical distance and a lack of cultural and historical linkages increase the country distance between two countries. As we argued above, a larger country distance results in disturbance of information flows and increased uncertainty and decreases the likelihood that firms do business in these countries (Johanson and Wiedersheim-Paul, 1975).

Hypothesis: *The larger the country distance between a firm's home country and a foreign country, the less likely the firm is to select this market as export market.*

It has frequently been stressed that psychic distance is of particular importance in explaining internationalization choices, like the IMS, of small firms and of firms in the early stages of their internationalization process (Douglas et al., 1982; Johanson and Vahlne, 1990; Papadopolous, 1987, Anderson and Buvik, 2002). SMEs usually have fewer resources in terms of both assets and international experience; they use more frequently exporting as the main source of international expansion, and are more ethnocentrically oriented in their international development.

3. Methods

In this section we present and describe the sample selection, the questionnaire, the field research as carried out, the measurement of the constructs and the data analysis technique applied to analyze the resulting database.

3.1. Sample

We have drawn a stratified random sample from the census of Small and Medium sized firms that regularly export in a Spanish region. This census was provided by the regional Chamber of Commerce and Industry from their "Catalogue of Navarre's Exporters". In order to obtain a more uniform sample we took two decisions. Firstly, we did not consider micro-enterprises, i.e., firms having fewer than ten employees (European Commission Recommendation of 3 April 1996 concerning the definition of small and medium-sized enterprises). Secondly, we targeted a representative sample from a regional population in order to safeguard homogeneity also in terms of important characteristics like culture and economic denominators. We achieved complete data on 170 SMEs and used this sample in our analyses.

The fact that our sample is from Spain can be considered, for several reasons, one of the operative contributions of this paper. First, there is a lack of research on country, psychic and cultural distance based on samples from this country. Spain nevertheless is the ninth world economy (World Bank, 2007) and can be said to have had a remarkable

influence on the outlook of the world since it ruled other territories for centuries. This has led to the widespread use of the Spanish language and large populations of Hispanic people living on South and North America. Our study sheds light on what this means for country distance and the market selection choices of Spanish businesses today. Second, its specific history makes Spain an idiosyncratic country in terms of the dimensions of our Country Distance Index. We expect that Spain has a lower socio-economic development distance than historical and cultural distance to other countries in Europe, and a larger socio-economic development distance but smaller cultural and historical distance to a number of Latin American countries. We do not yet know how such idiosyncrasy influences international market selection decisions and our sample offers an excellent opportunity to investigate this.

A total of 99 countries and their country distance to Spain were considered in the analyses. France, Portugal, Germany, the UK, Italy and the US ranked highest as exports destinations for the firms in our sample.

3.2. Questionnaire and field research

In order to collect information about, among other topics, international strategic decisions of our Spanish SMEs, a questionnaire was designed. It was pretested, and later administered, through personal interviews. The pre test was first carried out with several marketing and international marketing scholars and two internationalization experts (consultants) and, subsequently, with five managers in charge of international activity of SMEs from the population (not selected for our sample). Their qualitative assessment of the content of our instrument provided relevant information to help establish face validity and shorten the administration time.

Data were then collected by means of in-person interviews with the firm's responsible for foreign operations. Interviews lasted between 45 to 90 minutes and were all held in Spanish. The completion of the field research took close to eight months.

3.3. Variables measurement

The Country Distance Index' three dimensions are measured by seven first-order reflective latent constructs mostly consisting of multiple indicators (see Table 1). We based our operationalization of most of these constructs (six out of seven) on the measures used by Dow and Karunaratna (2006) to measure psychic distance stimuli.

[PLEASE INSERT TABLE 1 ABOUT HERE]

SED from potential export countries to Spain is measured through the differences between Spain and the respective countries' level of education (3 indicators), level of democracy as assessed by different established judges (4 indicators), and level of industrialization based on a range of economic and welfare indicators as presented by international institutions (9 indicators).

Further, we followed Dow and Karanuratna (2006) in their measurements for the distance between Spanish and the respective countries' language (3 indicators), religion(s) (3 indicators) and for the existence of colonial linkages (a dummy variable indicating whether or not Spain shares a post-1650 colonial link with the respective countries), together defining CHD.

Finally, we measured Physical distance using two indicators: a time zone differential and the geographical distance between Spain and the respective countries.

We measured our dependent variable, international market selection as the country selection frequency (e.g. Dow, 2000) and the export sales percentage in the first four main foreign markets of the SMEs in our sample.

3.4. Data analysis techniques

Data were analysed using the Partial Least Squares (PLS) technique (Chin, 1998). This is an appropriate technique given the exploratory character and the objectives of the research: to develop and test an Index of Country Distance based on objective data only. PLS is furthermore able to cope with relatively small sample sizes, and allows the analysis of both formative and reflective constructs (Chin and Newsted, 1999). The fact that PLS does not assume normality of the indicators, finally, makes it the right technique for our analyses. PLS analysis has been shown before to be a useful technique when a formative index is built (Arnett, Laverie and Meiers, 2003; Martín Ruiz, Gremler, Washburn and Cepeda Carrión, 2007).

4. Results

We present below the measurement properties of our CDI and its relationship as a construct with the selection of foreign markets by SMEs.

4.1 The Country Distance Index

The measurement model analysis renders support to our Country Distance Index and its measurement: the results show high reliability and validity of the measures and constructs (Table 2). Firstly, all item loadings are well above suggested acceptance limits of 0.70 (see column 2). Secondly, construct reliability, measured as the composed reliability of the multiple indicator-constructs (Werts et al., 1974), is also over recommended thresholds (see column 3), intimating that each set of indicators is properly measuring the construct for which it is intended. Thirdly, the average variance extracted or AVE (Fornell and Larcker, 1981) is above the recommended acceptance boundary of 0.5 for all the reflective constructs, which means that the constructs obtain much more variance from their indicators than from the measurement error (Table 2, column 4). The comparison of bivariate correlations and square roots of the AVEs presented in Table 2, furthermore, shows that also discriminant validity is strictly respected in our measurement. Finally, the weights for the three dimensions forming Country Distance are significant ($p < 0.001$) with values equal to 0.557, 0.599 and 0.431 for SED, CHL and PHD respectively. This indicates that SED and CHL have a slightly higher contribution to the index than PHD. As regular precaution when working with formative measures (Mathieson, Peacock and Chin, 2001) we tested for multicollinearity and find the Tolerance to be greater than the acceptance threshold recommended of 0.1 (Hair et al. 2006). We therefore conclude that multicollinearity does not pose a problem to the interpretation of the results. In the light of the above, we can thus accept the Country Distance Index as a valuable instrument built from reliable measures.

[PLEASE INSERT TABLE 2 ABOUT HERE]

4.2 Country Distance and IMS

The relationship between country distance and IMS implied by the structural model and its external validity are tested by means of a 500 sub-samples bootstrap technique. The effect of country distance on IMS is highly significant, with a negative path value of 0.593 (t-value 12.515, $p < .001$). This finding provides empirical support to our hypothesis. Furthermore, the variance explained by the model (R^2) is 0.352 for the endogenous variable, which shows that the country distance between Spain and the 99 potential export markets explains a large part of the variation in the dependent variable.

In addition, the Stone-Geisser Q^2 value (0.134) indicates that the dependent reflective construct has predictive relevance (Geisser, 1975; Stone, 1974). This statistic was estimated using a ‘blindfolding’ technique with omission distance fixed at 8. Finally, global goodness of fit (GoF) at 0.536 points at a satisfactory quality of the measurement and structural models taken as a whole (Tenenhaus et al., 2005). These results are discussed in the last section.

Table 3 presents an overview of the country distance of a limited number of countries to Spain with regard to the three separate dimensions and the final Country Distance Index score. We decided to present the scores of the six main export countries of the firms in our sample based on both selection frequency and importance (France, Portugal, Germany, the UK, Italy and the US), and added the top five and bottom five countries (if not overlapping with the main export markets) for each dimension and the CDI. In this endeavour, with the intentions of providing an easier and more intuitive interpretation of the index, the original latent variable scores were converted to a scale of 1–100 by applying the following accepted formula (e.g. Cavusgil, Yiyak and Yenyurt, 2004):

$$X'_{ij} = \left[\frac{(X_{ij} - \min_i)}{R_i} \right] 99 + 1$$

Where X'_{ij} is the transformed value of country j for the dimension i ; X_{ij} is the latent variable score of country j on dimension i ; \min_i is the minimum value for dimension i , and R_i is the range of dimension i .

‘Nearest’ to Spain, in terms of socio-economic distance, are Anglo-Saxon and Northern European countries: countries characterized by stable political and economic environments and comparable high levels of education and economic development, like Spain. The fact that all six main export markets of our sample are found within the ‘nearest’ quartile supports the observation made before that this dimension is of high impact on the market selection decision.

[PLEASE INSERT TABLE 3 ABOUT HERE]

Looking at cultural and historical distance (CHD), we find a selection of Latin American countries at shortest distance from Spain, shorter even than neighbouring

Latin European countries Italy, France and Portugal!¹ The latter three and the USA (with its large Spanish speaking population) are again found within the first quartile, supporting the importance of CHD to country distance. Further, five of the six main export markets are among the 18 countries nearest in terms of physical distance (only the USA is logically placed further away in terms of time and space) and all of them rank among the first 18 countries in the resulting Country Distance Index.

At the bottom ends of we find African countries at the largest SED from Spain, Asian and Arabic countries at largest CHD and countries in the Pacific and South-East Asia at largest physical distance, resulting in large CDI scores for most of these countries as well.

5. Discussion, implications and future research

Our study makes a number of contributions to existing insights about the impact of country distance, and related constructs, on international market selection decisions. The first and main implication of the findings for researchers in the field is that country distance can be measured using a multidimensional and comprehensive set of reliable and valid constructs, all based on indicators measured through publicly available indicators. Because much of our measurements were based on Dow and Karunaratna's work (2006) our study can be seen as supportive to the measures proposed by them. The Country Distance Index developed here, however, has advantages over all measures of psychic distance determinants that included widely disputed measures of cultural distance based on Hofstede's dimensions: a dimension of culture and historical distance not based on sociological constructs like Hofstede's or others' dimensions shows both statistical and face validity. Excluding those dimension scores, and using more sophisticated measures than dummy indicators or variables based on cultural blocks (Ronen and Shenkar, 1985) employed in other studies (Dow, 2000; Clark and Pugh, 2001; Dow and Karunaratna, 2006) we bring back cultural differences as a valid determinant of psychic distance and explanatory factor of international market selection. A partial explanation for the renewed support for cultural differences as an important factor may be that we were not limited to select potential export countries for which cultural dimension scores are available, but instead could include 99 countries (including a wide range of Asian, Latin American and African countries) in our

¹ Actually, all 12 countries scoring a lower CHD than Italy (#13) are located in Latin America.

analyses. This presumably resulted in a better coverage of the existing cultural variation among all countries in the world in our models.

Our method further proved fruitful in exploring the relations among the different factors that determine differences and distance between countries. We find that differences in level of education, economic development and political systems together define a dimension that we label socio-economic distance. Likewise, cultural and historical distance is reflected by the correlating factors of language and religious commonalities between countries, as well as in previous colonial ties between them. Physical distance, finally, shows to be well reflected in both the often employed measure of geographical distance as well as the less often used time zone differences. Our results further showed that in contrast to other studies that found geographical distance to be a main denominator of IMS (Dow, 2000; Dow and Karunaratna, 2006), Spanish firms' market selection choices are less driven by physical distance, than by cultural and historical distance and socio-economic distance to Spain.

Among the managerial implications of our study we would like to emphasize that our study confirms prior work in that SMEs foreign market selection is highly based on country distance. Managers in small and medium sized firms can learn from the results presented here which factors form the dimensions of country distance, and how they are weighted to affect IMS. The market selection choices of our sample of Spanish firms were mostly driven by a dimension of cultural and historical denominators, followed by the socio-economic dimension and finally only by physical distance.

Of course, much work remains to be done regarding expanding our understanding of the country distance concept, and its measurements. Future research should for instance test the cross-national validity of the Country Distance Index. On the one hand, the CDI needs to be validated for all Spanish exporters. This can be done through tests based on international trade and/or investments flows from and to Spain. We expect, however, that tests based on such aggregate export and investment flows show a smaller relationship with country distance than flows coming from SMEs only. On the other hand, the cross-national value of the country distance measure has to be tested using other countries as a base country to calculate distances to. Our study already contributed in providing a first test on a Latin (European) sample, complementing to insights gained using Australian samples (Dow, 2000) and samples from Central and Northern Europe and the USA (Stöttinger and Schlegelmilch, 1998), or that employed trade flows data among samples of country pairs (Dow and Karunaratna, 2006; Brewer, 2007). Studies

on other country samples can provide interesting insights in the idiosyncrasy of the impact and importance of country distance dimensions.

Another avenue for researchers will be to investigate the effect of managers' international experience on country distance, i.e., the way country distance evolves regarding the importance of international markets entered, as firms gain international experience (Dow, 2000). Finally, new research could test the value of country distance in explaining not only IMS but a larger set of international strategic decisions.

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Figure 1: Model and hypothesized relationships.

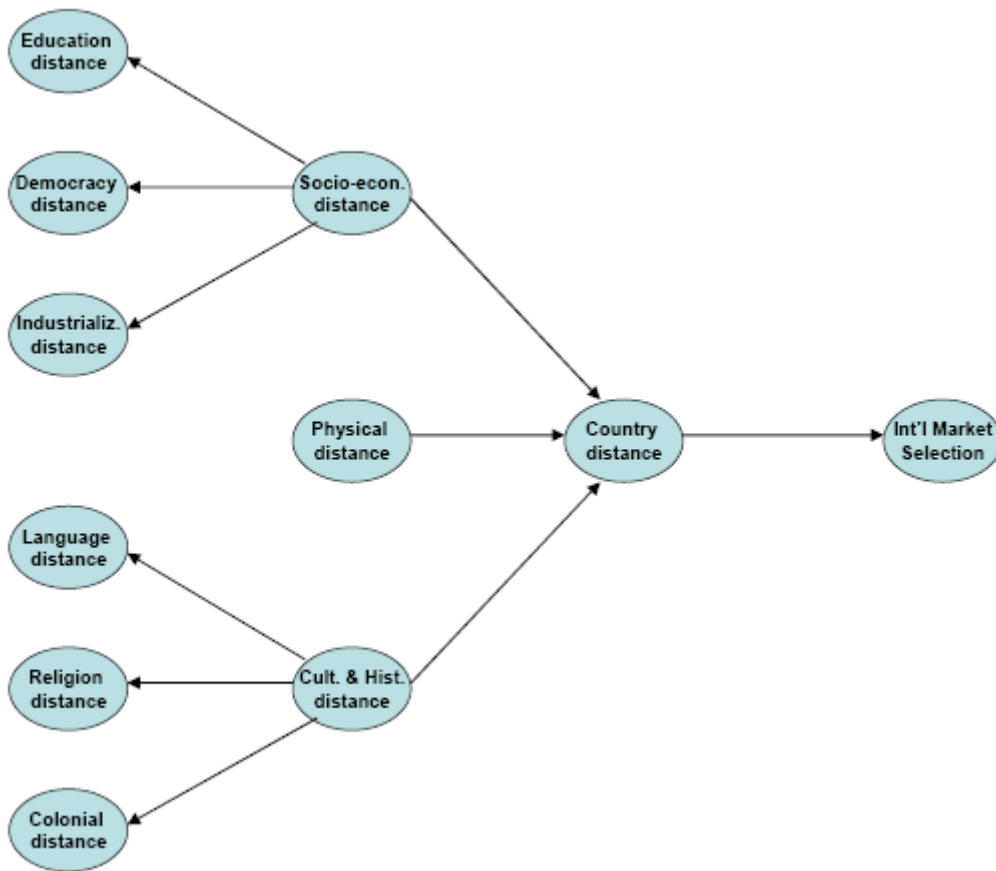


Table 1: Operationalization, item and construct reliability and average variance extracted (AVE) for first and second order reflective constructs.

| Construct/ Indicator | Item reliability Loading | Construct reliability Composed reliability | Convergent validity AVE |
|--|---------------------------------|---|--------------------------------|
| Education distance | | .917 | .787 |
| Difference in % adult literacy between countries | .861 | | |
| Difference in % in second-level education between countries | .896 | | |
| Difference in % in third-level education between countries | .903 | | |
| Democracy distance | | .972 | .895 |
| Difference in POLCON between countries | .898 | | |
| Difference in Modif POLITY IV between countries | .959 | | |
| Difference in Freedom House political rights between countries | .975 | | |
| Difference in Freedom House Civil Liberties between countries | .951 | | |
| Industrialization distance | | .960 | .728 |
| Difference in GDP per capita between countries | .815 | | |
| Difference in energy consumption (equiv. kg coal per capita) between countries | .761 | | |
| Difference in cars per 1000 people between countries | .910 | | |
| Difference in % non-agricultural labour between countries | .878 | | |
| Difference in % urban population between countries | .794 | | |
| Difference in newspapers per 1000 people between countries | .798 | | |
| Difference in radios per 1000 people between countries | .867 | | |
| Difference in phones per 1000 people between countries | .936 | | |
| Difference in TV per 1000 people between countries | .905 | | |
| Social and economic development distance | | .927 | .809 |
| LVS for Education distance | .930 | | |
| LVS for Democracy distance | .853 | | |
| LVS for Industrialization distance | .914 | | |
| Language distance | | .953 | .870 |
| Distance between major languages of countries | .915 | | |
| Incidence of i's major language in j | .936 | | |
| Incidence of j's major language in i | .947 | | |
| Religion distance | | .950 | .865 |
| Distance between major religions between countries | .925 | | |
| Incidence of i's major religion in j | .908 | | |
| Incidence of j's major religion in i | .956 | | |
| Cultural and historical linkages distance | | .891 | .733 |
| LVS for Language distance | .923 | | |
| LVS for Religion distance | .776 | | |
| LVS for Colonial distance | .863 | | |
| Physical distance | | .931 | .871 |
| Time zone differential between countries (hours) | .874 | | |
| Geographical distance between countries (Km from capitals) | .989 | | |
| International Market Selection (IMS) | | .889 | .801 |
| Importance of selection (market importance of the first four markets in terms of exports percentage) | .940 | | |
| Frequency of selection (frequency with which a country is among the first four markets entered) | .848 | | |

Table 2: First order latent variables: Correlations and square root of the average variances extracted (AVE^a).

| Construct | EduD | DemD | IndD | LanD | RelD | ColD | PhyD | IMS |
|-------------|-------------|-------------|-------------|-------------|-------------|----------|-------------|-------------|
| EduD | .887 | | | | | | | |
| DemD | .674 | .956 | | | | | | |
| IndD | .815 | .646 | .853 | | | | | |
| LanD | -.019 | .234 | -.045 | .933 | | | | |
| RelD | .394 | .553 | .336 | .510 | .930 | | | |
| ColD | -.035 | .156 | -.110 | .887 | .393 | 1 | | |
| PhyD | .136 | .053 | .217 | -.265 | .141 | -.335 | .933 | |
| IMS | -.435 | -.383 | -.396 | -.348 | -.369 | -.276 | -.249 | .895 |

^a Diagonal values in bold are the square root of the variance shared between the reflective constructs and their measures. In order to achieve discriminant validity diagonal elements must be larger than off-diagonal.

Table 3: Selected Country Scores on the CDI and its dimensions ^a

| CHD | | Physical D | | | | | SED | | | | | CDI | | | | |
|-----|-----------------------------|------------|-------------|--------|----|---------------------|--------|----|-----------------------------|--------|--|-----|--|--|--|--|
| 1 | Venezuela | 1.00 | Portugal | 1.00 | 1 | Canada | 1.00 | 1 | Italy | 1.00 | | | | | | |
| 2 | Argentina | 1.00 | France | 1.53 | 2 | USA | 1.83 | 2 | France | 13.16 | | | | | | |
| 3 | Costa Rica | 1.00 | Algeria | 1.85 | 3 | Australia | 10.34 | 3 | Belgium | 14.77 | | | | | | |
| 4 | Chile | 1.00 | Switzerland | 1.93 | 4 | Finland | 12.48 | 4 | Switzerland | 15.35 | | | | | | |
| 5 | Colombia | 1.00 | Luxembourg | 2.48 | 5 | Norway | 12.65 | 5 | Netherlands | 17.70 | | | | | | |
| | | | | | | | | | | | | | | | | |
| 13 | Italy | 31.30 | Italy | 2.89 | 9 | France | 14.82 | 8 | Germany | 19.21 | | | | | | |
| 18 | France | 67.21 | UK | 4.24 | 11 | Germany | 15.10 | 10 | Portugal | 20.18 | | | | | | |
| 20 | Portugal | 67.21 | Germany | 5.03 | 12 | Italy | 16.54 | 17 | UK | 23.65 | | | | | | |
| 23 | USA | 67.21 | USA | 27.06 | 17 | UK | 18.54 | 18 | USA | 23.72 | | | | | | |
| 32 | Germany | 67.21 | | | 24 | Portugal | 54.55 | | | | | | | | | |
| 53 | UK | 67.22 | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| 95 | Turkey | 99.38 | Indonesia | 58.12 | 95 | Congo, Dem. Rep. of | 94.66 | 95 | Vietnam | 89.09 | | | | | | |
| 96 | Morocco | 99.38 | Myanmar | 59.05 | 96 | Cote d'Ivoire | 96.00 | 96 | Korea, Dem. People's Rp. | 93.09 | | | | | | |
| 97 | Yemen | 99.38 | Fiji | 82.79 | 97 | Ethiopia | 97.16 | 97 | Indonesia | 93.90 | | | | | | |
| 98 | Korea, Dem. People's Rp. | 100.00 | Australia | 86.63 | 98 | Sierra Leone | 99.44 | 98 | China | 94.39 | | | | | | |
| 99 | China | 100.00 | New Zealand | 100.00 | 99 | Sudan | 100.00 | 99 | Myanmar | 100.00 | | | | | | |

^a The six main export markets of the SMEs in the sample are marked grey.