Market Economies Potentialities and Cultural Clusters. A Global and Longitudinal Study

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This paper explores longitudinally and globally the relationships between cultural clusters and the determinants that drive market potentiality. The research shows differences in variances in all 7 determinants using a longitudinal one way Anova method and an Estimated Size Effect. Conclusions show three revealing issues: 1. There is significance in all Market Potentiality Index determinants with the exception of “Market Intensity and Market Receptivity”. 2. The clusters do not show significant differences according to the MPI determinants with the regular exception of Latin American cluster. 3. The results obtained after the estimated effect size analysis show that Commercial Infrastructure and Country Risk are the most important factors which influence on the variability of the clusters.

Keywords: cultural clusters, market potentiality, global research

JEL Classification: E22, L22, L10

1. Introduction

The main goal of this research is to determine possible relationships and influences of cultural clusters in country-market potentialities and its determinants. For this purpose two very well-known models are applied due to their robustness: The first one is The Globe Project (Grove, 2005) created with the cooperation of 170 country investigators and over 17,000 managers who participated worldwide in order to group into cultural clusters a total of 62 countries. The second big model used is the composite index to measure country-market potentiality, the called originally Overall Market Opportunity Index but also known generally as Market Potentiality Index developed by (Cavusgil, 1997). The research will setup as independent variables a total 9 clusters which are: 1. Anglo, 2. Germanic, 3. Latin European, 4. Eastern European, 5. Middle Eastern, 6. Confucian, 7. South East Asian. 8. Latin American and 9. Nordic. Note that the African cluster has not been tested due to the lack of data related to the determinants of the MPI. On the other side, the determinants of the Market Potentiality Index analyzed are as follows: 1) Market size, 2) Market growth, 3) Market intensity, 4) Market Consumption Capacity 5) Commercial Infrastructure, 6) Economic Freedom, 7) Market Receptivity and 8) Risk. Longitudinal secondary data collected refers to years 2014, 2015 and 2016 leading to a total of 48 countries evaluated where N=1296. The research applies a one way Anova and its Estimated Size Effect of each variable.

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2. Literature Review

2.1. Globe Project, Clusters and Culture

National culture is widely analyzed in the literature and its references to international business are quite relevant and regular. Country clusters appear in order to moderate the power relationships (Hoffman, 1987). Language, religion, and geography generates cluster formation playing a complex and prominent role (Ronen and Shenkar, 2013). Cultural and religious differences relate to perceived corruption in countries (Mensah, 2014). Cultural effects, the internationalization process and national culture play a significant role in International Business Theory (Chabowski et al., 2010). Clusters of countries are analyzed in reference to national wealth, as well as with dimensions of national culture (Hofstede, Van Deusen, Mueller and Charles, 2002). Research on cultural country clusters identified by Ronen and Shenkar (1985) and Shenkar (2001), as Oesterle and Fisch (2000) have also been observed. Classifying the geographical distribution of Foreign Direct Investment allows to present cultural and institutional diversity as a locational determining variable (Sullivan, 1994; Ietto-Gillies, 1998). Six clusters are considered in other research performed, which includes all other countries (supporting the findings of Rugman and Verbeke, 2007).

While geographic clusters may develop as a result of historic factors and co-location advantages (Mudambi and Swift, 2012; Zucker et al., 1998), the functionality of clusters may be conditioned by different types of connectivity (Lorenzen and Mudambi, 2013), and also is important to mention the alliances and netwowing (Markusen, 1999). Research suggests as well that firms can reduce the liability of foreignness by expanding to close countries (Hymer, 1960).

The clustering phenomenon has also been used in spatial proximity and knowledge spillovers (Cantwell and Piscitello, 2005) and the effect of proximity with collaborators and competitors on company performance (Chang and Xu, 2008). Country clusters in Vietnam and its FDI have been studied showing distinct clusters of foreign investors from a wide range of industries and countries of origin. (Tan and Meyer, 2011). Country and industry impacts is substantial in explaining growth options of companies based in different nations (Tong et al., 2008). National culture influences as well the effectiveness of legal settings and regulations (Karaibrahimoglu and Cangarli, 2015). National cultures differences influence to MNC’s experience with foreign direct investments (FDI) (Zeng et al., 2013).

The effect of culture on corporate governance is analyzed using a single institutional framework, suggesting that a company board composition is significantly driven by language, although in contrast, ownership and equity structure are not significantly related to culture. (Volonte, 2015). Nation’s culture has been demonstrated that it might affect to the quality of information (Gnanlet and Yayla Kullu, 2014).

Some studies conducted by (Yim and Gray, 2009) assess the relative benefits of optional cultural systems as the premise to build indices of cultural distance utilizing the one presented by Kogut and Singh (1988), Hofstede (1980, 1991) as well as Schwartz (1994, 2003) and GLOBE (2004) systems. These outcomes bolster not just the robustness of Kogut and Singh’s technique to index of cultural distance, additionally the consistency of the alternative indices of cultural distance used to clarify ownership mode choices by MNEs.

Some studies that have been using the GLOBE approach In particular, stating that some national cultures are more conducive to the implementation of quality management than others suggesting that the creation and transferability of knowledge and quality at an international level is relates to culture. (Vecchi and Brennan, 2011). The GLOBE project received criticisms from a marketing perspective, supporting others like Brewer and Venaik’s. It is stated the fact that the implausibility of deterministic claims about the multi-level power of national culture is described and discussed by drawing on a wide range of disciplines (including anthropology, geography, and sociology). Findings related to “Descriptions of the characteristics and origins of subnational level behavior based on a priori depictions of national culture values look invalid and misleading. Research conducted highlights the unsoundness of descriptions of the subnational (individuals, consumer segments, organizations, and so forth) which are derived from national-level depictions of culture and the dangers of ignoring the independent causal influence of non-national culture and non-cultural factors. (McSweeney, 2013).

Researchers should be cautious in using the Hofstede or GLOBE national culture dimension scores for analysis at the level of individuals (Venaik and Brewer, 2013).

Other models state that is possible to cluster European countries by market attractiveness. The authors encourage international marketing and business scholars to make use of Inglehart’s framework. (Gaston-Breton and Martin, 2011). Ronen and Shenkar (2013) synthesized cultural clustering of countries based on similarity and dissimilarity in work-related attitudes. Their map expands coverage to world areas that were non-accessible at the time, indicating three levels of similarity across given country pairs. Also has been found a highly cohesive Arab and Anglo clusters to the least cohesive Confucian and Far Eastern clusters. A
ecocultural perspective is used to examine a combined role of language, religion, and geography in generating cluster formation. Findings state that forces play a complex role. (Stephan and Uhlaner, 2010) in a sample of 40 nations. Based on data from the GLOBE project, they identify two higher-order dimensions of culture as socially supportive culture (SSC) and performance-based culture (PBC).

Understanding the influence of culture on business operations has been one of the most important issues in theorizing and empirical investigation in the international business field. Authors tend to demonstrate that further advancement on how we conceptualize and measure culture is not only needed, but also possible. (Caprar et al., 2015). Also, Dow et al. (2009) explore how within-country diversity of both language and religion influences the ownership structure of foreign acquisitions. Diversity within the home country may increase the cognitive complexity of the decision makers. Some hypothesis stated is that knowledge of foreign market opportunities is commonly acquired via existing inter-personal links rather than collected systematically via market research (Ellis, 2000). Others like as Gomez-Mejia and Palich (1997) test the hypothesis that culturally related international diversification will have a positive impact on firm performance and that the opposite will be true for culturally unrelated globalization.

2.2. Geography and Strategic Implications

Making reference to clusters, culture, societies and their potentiality as market, the importance of geographical location has been analyzed in as well. Findings of research suggest that the political and legal related risks associated with companies’ activities pose a threat to the majority of executives and the vulnerability to these risks are not related to any enterprise’s-specific characteristics (Khattab et al., 2012). Research on Home Regional Orientation (HRO) suggests that there is an emerging consensus that most multinational companies are regional and performance significantly reduces Home Regional Orientation although this factor does not show a significant effect on performance (Banalieva and Dhanaraj, 2013). Geographic location may be one reason why some ventures are able to acquire the resources needed to internationalize while others cannot. Location influences new venture internationalization, and firm characteristics impact the nature of the relationship (Fernhaber et al., 2008) and international business has much to contribute to intra-national business in helping develop a theory of the business enterprise in space (Ghemawat, 2015).

Also related to market potentiality, it is highlighted in the literature the nature and importance of international segmentation (Wind and Douglas, 1972). Also, the relationship of country-specific corporate social responsibility (CSR) to international organizational strategy shows that institutional pressures, guide the decision-making process related to Corporate Social Responsibility policies. (Husted and Allen, 2006). National trust affects the governance structure used to organize alliances between partners. Research argues that this effect of national trust is moderated by improved information on the partner firm. (Kwon, Halebian and Hagedorn, 2016). Also and despite failure rates of around 30%, international joint ventures (IJVs) continue to grow. Research has also being conducted on strategy related beliefs in organizations with substantial foreign participation finding that one of the strongest determinants of similarity of beliefs was being a member of the functional area favored by the strategic change. It looks that the effect of being in the favored area was greater than the effect of all other individual characteristics, including nationality (Markoczy, 2000). Related to Emerging Markets (EM), also it has been demonstrated that Multinational Corporations (MNC) play a pivotal role in the development of the markets (Meyer, 2004).

2.3. Market Potentiality and Attractiveness

The imperatives for sustainability marketing (SM) adoption in the emerging markets (EMs) have been evaluated due to their importance in today’s international business context (Anayo, 2011). Using Rugman and Verbeke’s (2007) diamond network model, (Asmussen et al., 2009), it is possible to hypothesize upon the links between host-country environments and subsidiary competence. Companies seeking to expand abroad are faced with the complex task of screening and evaluating foreign markets. How managers define, characterize, and express foreign market opportunities, what makes a good market or an attractive industry environment? Markets differ in terms of market attractiveness, due to variations in the economic and commercial environment, growth rates, political stability, consumption capacity, receptiveness to foreign products, and other factors. Research proposes the use of two complementary approaches to initial foreign market assessment and selection: country clustering and country ranking.

These two combined methods, can be very useful for managers in the early stages of foreign market selection (Cavusgil et al., 2004). It is also encouraged to business and international marketing scholars the use of Inglehart’s framework (Gaston-Breton and Martin, 2011).
Market potentiality and attractiveness is not always easy to measure and compare due to the different nature of the industries. When comparing the BRIC countries with Germany as a representative mature market to put into perspective the short to medium-term market potential of BRIC markets, the majority of the companies examined focused their strategic investment priorities on emerging markets. The short-to mid-term revenue potential of the BRIC countries are expected to be lower in absolute terms than those for mature markets such as Germany (Heinz and Tomenendal, 2012). Erhman and Hamburg (1986) report as well the development of a model for determining how firms should select the countries to be used in the information search for foreign direct investment.

International business research has long acknowledged the importance of supranational regional factors in building models to explain phenomena such as where multinational corporations (MNCs) choose to locate. It is documented and supported in comparative analyses of regional schemes used to explain where US-based MNCs locate operations around the world. Geography, culture, trade and investment-based schemes with better structural coherence exhibit better initial fit with MNC location models (Flores et al., 2013), while Hashai (2011) theorizes and empirically demonstrates that born global firms stick to a dominant internationalization path.

Host market selection in the context of home market retail structural development has been analyzed by Alexander et al., (2011). Although there are many techniques which are used in determining market potentials, when the data are scarce one of these becomes more readily useful than others. A relevant technique used is the multiple factor analysis, for example, research attempts to determine the market potential of Easter European countries by using this technique which converts the East European market conditions into the known U.S. market conditions by using a series of criteria as common denominators according to Samli (1977).

Also, the importance of proximity in the supply chain has been analyzed on the field of the European automotive industry in order to simultaneously evaluate the relative importance of three dimensions: geographical, cultural, and relational proximity, here authors Schmitt and Van Biesebroeck (2013) find that carmakers value some aspects of each dimension independently in their sourcing strategy.

Traditional market selection analysis relies on purely macroeconomic and political factors and fails to account for an emerging market’s dynamism and future potential (Sakarya et al., 2007). A theoretical model of managerial decisions involving international market entry has been analyzed by (Malhotra and Sivakumar, 2011). The authors find that cultural distance and market potential have curvilinear and interaction effects on the level of equity participation.

Rahman (2003) states that the significance and requirement for efficiently assessing and selecting potential foreign markets has been stressed by numerous researchers. The conclusions drawn by the author identified with the fact that global organizations follow stepwise process; the primary phase is based on the assessment of market size attractiveness which takes into consideration some macro and microeconomic factors alongside some other macro scale level and company related factors; and the second stage is based on the assessment of markets structural attractiveness which considers some cost, structural similarity, government policy factors, alongside some firm related factors.

Deciding variables in the rate of franchising among developing countries has been looked into also by previous studies (Baena, 2012). Little is thought about the components affecting nation choice for venture into these markets. While upgrading the information that managers and researchers have on franchising extension, a study analyzes how market situations may constrain diffusion of franchising into developing markets. They are: geological distance; cultural distance; uncertainty evasion; individualism; political solidness; and corruption.

The author also controlled for gross domestic product, the efficiency of contract enforcement, and nascent. Sahoo and Acharya (2012) state that it exists a positive significant correlation between foreign direct investment (FDI) and Macroeconomic performance (MEP) indicates that a State’s overall macroeconomic policy performance does matter to attract FDI.

3. Methodology, Data, Research and Hypothesis

This research project will determine if the fact of being a member of a certain cultural cluster has something to do with the variables that determine the market potentiality index (MPI) or Overall Market Opportunity Index (OMOI), in line with prior research of variables identification by Cavusgil (1997) and Cavusgil (2004). As a first step a normality test has been applied to verify the datasets and make sure that the correct statistical contrast is used. As a second step a one-way ANOVA evaluates the significance between the variables including a Post Hoc analysis in some cases in order to verify the significance between groups. As a
third step an Estimated Size effect analysis (ETA) will determine the factors which account the most in the variability of the MPI index.

Using the GLOBE project as a framework for analysis looks coherent with the literature review e.g. Dorfman and House (2004), Peterson and Castro (2006) on measurements of the GLOBE, Javidan, Dastalmachian (2009) on managerial implications in Asia, Den Hartog et al. (1997) comparative research, or Kabasakal et al. (2012).

This research starts collecting data of 10 different global clusters. (African cluster is excluded in its MPI index analytics due to the lack of data).

Collected longitudinal information on absolute values of the Market Potentiality Index (MPI) (Cavusgil, 1997) and its determinants which construct the MPI. The determinants are as follows: 1) Market size (MS), 2) Market growth (MG), 3) Market intensity (MI), 4) Market Consumption Capacity (MCC), 5) Commercial Infrastructure (CI), 6) Economic Freedom (EF), 7) Market Receptivity (MR) and 8) Risk. Longitudinal data collected refers to years 2014, 2015 and 2016.

The cultural clusters are based on values and beliefs and abstract ideas influenced by lifestyle, religion or other human variables. The elements which compose the Market Potentiality Index (Cavusgil, 1997) depend on weighted factors.

Peculiarities of the sample:
1. The US does not appear in the study of the MPI variables due to the fact that the MPI index explores a total of 87 nations identifying the levels of attractiveness or potentiality for US companies. So, consequently all possible nations are analyzed but the US.
2. The country Switzerland is included in the cluster Germanic.
3. The country South Africa is included in the cluster Anglo (due that most business and economic drivers are still under this cluster and not the African one).
4. Absence of data in the MPI determinants in the African cluster.

Hypothesis formulation

\[ H_0 = \text{Clusters and groups of countries differ regularly in a longitudinal way and determinants express significant differences in their size effect as it can be deducted from (Cavusgil, 2004)} \]

\[ H_1 = \text{Clusters and groups will not differ regularly in a longitudinal way and determinants will not express significant differences in their size effect.} \]

4. Results of the Research

Test of normality. It applies to all eight (8) variables and to the overall MPI index. In this case all variables show normality in their distributions.

Anova results for the Determinant: “Market Growth”. 2016-2014. This determinant variable shows significance <0.05 in all 3 years analyzed, 2016, 2015 and 2014, showing values .000 in all cases with a F = 5.049 (2016), F=4.824 (2015) and F= 6.637 (2014). Levene’s test shows significance <0.05 the year 2016 with a value of .039. In the first dataset related to year 2016 has been applied Tukey while in years 2015 and 2014 T2-Tamhane has been applied leading to the following Post Hoc results: In year 2016 Latino America (Latam) cluster shows significance with Germanic and Nordic groups (.011 and .025, respectively). Years 2015 and 2014 show preponderance of a varied number of groups in a fragmented series.

Anova results for the determinants “Market Size” (MS) and “Market intensity” for years 2014, 2015 and 2016 do not show significance at the level <0.05 at all.

Anova results for Market Consumption Capacity (MCC). 2014, 2015 and 2016. Market Consumption capacity (MCC) determinant shows significance in 2 years (2016 and 2015), with levels <0.05 as .003(2016) and .032 (2015). Levene’s test show significance all 3 years 2016, 2015 and 2014 with levels of .013, .041 and .014 respectively. The post hoc analysis shows a great significance and presence of the cluster LATAM with levels of significance of <0.05 in its pair with the Germanic cluster in the years 2016 and 2015 and with the Eastern European (EE) cluster in all 3 years.

Anova results for Commercial Infrastructure. (CI). 2014, 2015 and 2016. In this case the analysis shows a great significance in the levels of Commercial Infrastructure appear very significant showing levels of F=12.943 (2016), F= 6.537 (2015) and F= 9.252 (2014), being significance at the .000 level in all years. The Levene’s test of homogeneity of variances shows levels <0.05 in the years 2015 with a value of .013) and 2014 with a value of .047. Post Hoc analysis applies under Tukey and T2-Tamhane reflecting a very fragmented series of binomials in year 2016 and a quite important presence of the LATAM cluster in the years 2015 and 2014.
Anova results for Economic Freedom. 2014, 2015 and 2016. Significance appears here again in this determinant. The results show an F= 4.156 and a sig=.001 (Year 2016), F=2.891 and sig = .013 (2015) and F= 4.257 and sig = .001 (2014). In the test of homogeneity of variances (Levene), shows significance the years 2016 and 2014 (.036 and .028) respectively while not in the year 2015 with a value of .062. After applying Tukey corrector no significance appear for any group during the year 2015. On the other side and using T2, see again a predominance of LATAM cluster combined with a fragmented series of clusters.

Anova results for Market Receptivity (MR). 2014, 2015 and 2016. There is significance in years, Year 2016, p=.001, Year 2015, p = .006, Year 2014, p = .010. Levene’s test express significance in the differences in the variances as well with a Sig., p= .000 in all 3 years. Post hoc applied under T2-Tamhane is performed showing no significant differences at all between binomials.

Anova results for Risk (RISK). 2014, 2015 and 2016. There is significance in all groups and years, Year 2016, p=.001, Year 2015, p = .001, Year 2014, p = .001. Levene’s test express significance in the differences in the variances as well with a Sig., p= .005, 0.014 and 0.016 in all 3 years. Post hoc applied under T2-Tamhane is performed showing no significant differences at all between binomials.

Anova results for the overall Market Potential Index (MPI). 2014, 2015 and 2016. There is significance in all groups and years, (.000 in all years). Levene’s test express significance in the differences in the variances as well (.009, .007 and .008) , so post hoc analysis under T2-Tamhane is performed showing significance only in the pair Latin America-Germanic with a value of sig=0.049.

The results of Anova in table the following tables:

Table 1. ANOVA results for all determinants.

<table>
<thead>
<tr>
<th>Market Consumption Capacity. (MCC)</th>
<th>F</th>
<th>Sig.</th>
<th>Commercial Infrastructure (CI)</th>
<th>F</th>
<th>Sig.</th>
<th>Economic Freedom (EE)</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y2016</td>
<td>3.678</td>
<td>0.003 *</td>
<td>Y2016</td>
<td>12.943</td>
<td>0.000 *</td>
<td>Y2016</td>
<td>4.156</td>
<td>0.001 *</td>
</tr>
<tr>
<td>Y2015</td>
<td>2.41</td>
<td>0.032 *</td>
<td>Y2015</td>
<td>6.537</td>
<td>0.000 *</td>
<td>Y2015</td>
<td>2.891</td>
<td>0.013 *</td>
</tr>
<tr>
<td>Y2014</td>
<td>1.956</td>
<td>0.079</td>
<td>Y2014</td>
<td>9.252</td>
<td>0.000 *</td>
<td>Y2014</td>
<td>4.257</td>
<td>0.001 *</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Market Growth (MG)</th>
<th>F</th>
<th>Sig.</th>
<th>Market Size (MS)</th>
<th>F</th>
<th>Sig.</th>
<th>Market Potential Index (MPI)</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y2016</td>
<td>5.049</td>
<td>0.000 *</td>
<td>Y2016</td>
<td>1.307</td>
<td>0.268</td>
<td>Y2016</td>
<td>5.559</td>
<td>0.000 *</td>
</tr>
<tr>
<td>Y2015</td>
<td>4.824</td>
<td>0.000 *</td>
<td>Y2015</td>
<td>1.301</td>
<td>0.272</td>
<td>Y2015</td>
<td>5.618</td>
<td>0.000 *</td>
</tr>
<tr>
<td>Y2014</td>
<td>6.637</td>
<td>0.000 *</td>
<td>Y2014</td>
<td>1.292</td>
<td>0.276</td>
<td>Y2014</td>
<td>4.819</td>
<td>0.000 *</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Market Intensity (MI)</th>
<th>F</th>
<th>Sig.</th>
<th>Market Receptivity (MR)</th>
<th>F</th>
<th>Sig.</th>
<th>Risk</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y2016</td>
<td>1.036</td>
<td>0.427</td>
<td>Y2016</td>
<td>2.963</td>
<td>0.011 *</td>
<td>Y2016</td>
<td>5.578</td>
<td>0.001 *</td>
</tr>
<tr>
<td>Y2015</td>
<td>0.878</td>
<td>0.543</td>
<td>Y2015</td>
<td>3.268</td>
<td>0.006 *</td>
<td>Y2015</td>
<td>4.429</td>
<td>0.001 *</td>
</tr>
<tr>
<td>Y2014</td>
<td>1.488</td>
<td>0.193</td>
<td>Y2014</td>
<td>3.005</td>
<td>0.010 *</td>
<td>Y2014</td>
<td>4.117</td>
<td>0.001 *</td>
</tr>
</tbody>
</table>

Note:(*): Sig <0.05 level

After the Post Hoc test are applied to the relevant groups and significance appears, not all groups show differences and when differences appear not always shows a longitudinal consistency.

Table 2. Table of Determinant MPI and their hypothesis relationship

<table>
<thead>
<tr>
<th>Determinant</th>
<th>Years of Analysis</th>
<th>ANOVA Sig.</th>
<th>Years of Sig.</th>
<th>Post-Hoc</th>
<th>Groups’ Sig.</th>
<th>Period Studied</th>
<th>Support of H0 or H1</th>
<th>ETA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Growth (MG)</td>
<td>3</td>
<td>Yes</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>2014-2016</td>
<td>H0</td>
<td>HO</td>
</tr>
<tr>
<td>Market Size (MS)</td>
<td>3</td>
<td>No</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2014-2016</td>
<td>H0</td>
<td>HO</td>
</tr>
<tr>
<td>Market Intensity (MI)</td>
<td>3</td>
<td>No</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2014-2016</td>
<td>H0</td>
<td></td>
</tr>
</tbody>
</table>
According to Market Consumption Capacity (MCC) (Table 3) we see that Latin America cluster differ from others all the 3 years, with Germanic in 2 years and with EE and Nordic. No doubt that the behavior of the Market Consumption Capacity in Latin America tends to differ from other groups analyzed.

### Table 3. Post Hoc for MCC showing significant differences, 2016-2014.

<table>
<thead>
<tr>
<th>POST HOC</th>
<th>2016</th>
<th>2015</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>T2-Tamhane</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>YEAR 2016 Sig</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Germanic- Latam</td>
<td>0.015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastern European - Latam</td>
<td>0.008</td>
<td></td>
<td></td>
</tr>
<tr>
<td>YEAR 2015 Sig</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Germanic- Latam</td>
<td>0.023</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastern European - Latam</td>
<td>0.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>YEAR 2014 Sig</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastern European - Latam</td>
<td>0.016</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nordic - Latam</td>
<td>0.003</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

According with Commercial Infrastructure (CI) (Table 4), we see again that the cluster Latin American is the one that differs more from other groups consistently during the 3 years.

### Table 4. CI Tukey test. Year 2016.

<table>
<thead>
<tr>
<th>POST HOC</th>
<th>2016</th>
<th>2015</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tukey</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T2 Tamhane</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>YEAR 2016 Sig</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anglo- Latin European</td>
<td>0.006</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anglo- EE</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anglo- Middle East</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anglo- SEA</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anglo- Latam</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Germanic- ME</td>
<td>0.025</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Germanic- SEA</td>
<td>0.014</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Germanic- Latam</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latin European- Latam</td>
<td>0.041</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EE-Confucionism</td>
<td>0.031</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ME-Confucionism</td>
<td>0.007</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confucionism- SEA</td>
<td>0.004</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confucionism- Latam</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latam- Nordic</td>
<td>0.006</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 5. T2-Tamhane test for CI. Year 2015 and 2014

<table>
<thead>
<tr>
<th>POST HOC</th>
<th>2016</th>
<th>2015</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tukey</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T2 Tamhane</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

YEAR 2015     Sig
Germanic - LATAM 0.033
Germanic - EE 0.001
Latam - Latin European 0.024

YEAR 2014     Sig
Anglo - SEA 0.015
Germanic - Latam 0.000
Latam - Latin European 0.020
Latam - Anglo 0.015
Latam - EE 0.021
Latam - Nordic 0.000

Results of the estimated size effect (ETA) analysis. Some determinants of the MPI index contribute more to the variability of the clusters, so the ones which account the most are showed in the following table:

Table 6. ETA results. Years 2014-2016

<table>
<thead>
<tr>
<th>Determinant</th>
<th>2016</th>
<th>2015</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Market Size</td>
<td>0.211</td>
<td>0.211</td>
<td>0.210</td>
</tr>
<tr>
<td>2. Market Growth</td>
<td>0.509</td>
<td>0.497</td>
<td>0.577</td>
</tr>
<tr>
<td>3. Market Intensity</td>
<td>0.175</td>
<td>0.153</td>
<td>0.234</td>
</tr>
<tr>
<td>4. Market Consumption Capacity (MCC)</td>
<td>0.430</td>
<td>0.331</td>
<td>0.286</td>
</tr>
<tr>
<td>5. Commercial Infrastructure (CI)</td>
<td>0.726</td>
<td>0.573</td>
<td>0.655</td>
</tr>
<tr>
<td>6. Economic Freedom</td>
<td>0.460</td>
<td>0.372</td>
<td>0.466</td>
</tr>
<tr>
<td>7. Market Receptivity (MR)</td>
<td>0.378</td>
<td>0.401</td>
<td>0.381</td>
</tr>
<tr>
<td>8. Risk</td>
<td>0.954</td>
<td>0.458</td>
<td>0.476</td>
</tr>
<tr>
<td>9. MPI</td>
<td>0.533</td>
<td>0.535</td>
<td>0.497</td>
</tr>
</tbody>
</table>

As we can see the factors that count the most and express more importance in the variability of the significances obtained are Risk, (with impacts ranging from 95% to 49%) Commercial Infrastructure (with impacts of 72%, 57%, and 65%) and Market Growth (with impacts of 51%, 49% and 57%). On the other side less important are the determinants Market Size with only ETA results of 21% and Market Intensity ranging from 17.5% to 23.4%).

5. Discussion, Limitations and Future Research

It has been possible to collect only 3 years of the analysis of the MPI determinants (2014 to 2016), due that the MPI index is still relatively young. The research uses the GLOBE classification which in some cases has been criticized (mainly from a marketing perspective), although it is widely believed that it provides a generic robust framework very useful to understand mechanisms related to market potentials and culture. A limitation of the research is the fact that the determinants of the market potentiality used are the ones made by (Cavusgil, 1997) and (Cavusgil, 2004) they are made from a US point of view in order to evaluate the market potentiality of countries versus the US. Obviously the US is excluded from the Anglo cluster in its analysis of determinants, but still, future recommended research would go in line of the elaboration of the Market Potentiality Index of countries versus other countries instead of countries versus the US only.
5. Conclusions

There is significance in all MPI determinants with the exception of “Market Intensity and Market Receptivity”. Consequently the type of cluster that a country belongs has to see with the possible evolution of the rest of the determinants which are Risk, Market Consumption Capacity, Market Size, Market Growth and Commercial Infrastructure. So it is possible to state that there is relationships between the cluster and most of the determinants of its market potentiality.

The clusters do not show significant differences among them with the regular exception of Latin American cluster. Latin American cluster, particularly in its Market Consumption Capacity (MCC) factor differs more than other clusters (mainly with the Anglo, Germanic and Nordic clusters). It is important to state that the MCC, (used initially in by Cavusgil in 1997) is a mix of other sub-factors as Consumer Expenditure, Income Share of Middle-Class, or Household Annual Disposable Income of Middle-Class. The behavior of the MCC, is not in line with other groups and in the same cluster but here there is a much more heterogeneous approach. Possible explanations to be explored might related to the facts that the distribution of the consumer expenditure or income behaves radically different than in Anglo or Nordic parameters.

Latin American clusters differ from others in its Commercial Infrastructure (CI). This determinant is made by a fragmented collection of sub-factors which increase its complexity. These factors are Cellular Mobile Subscribers, Households with Internet Access, International Internet Bandwidth, Number of PC’s, Paved Road Density, Population per Retail Outlet, Available Airline Seats and Logistics Performance Index. The evolution of the commercial infrastructure in Latin America might differ from other countries because of political reasons, political economy decisions or vulnerability to economic crisis or periods of expansion. Also, the degree of economic and financial volatility might influence as well.

The results obtained after the estimated effect size show that Commercial Infrastructure and Country Risk account the most in the differences between clusters, becoming a strategic factor to pay attention for governments and managers when deciding on country or market potentiality.

References


