

SOCIO-CULTURAL FACTORS AND INTERNATIONAL COMPETITIVENESS

Madara APSALONE¹, Ērika ŠUMILO²

Faculty of Economics and Management, University of Latvia, Riga, Latvia
E-mails: ¹madara.apsalone@gmail.com (corresponding author); ²erika.sumilo@lu.lv

Received 02 November 2015; accepted 02 December 2015

Abstract. Socio-cultural factors – shared values, norms and attitudes are significant, but less acknowledged sources of international competitiveness. Previous studies have found socio-cultural factors positively affecting various aspects of international competitiveness – entrepreneurship, innovation, productivity and international cooperation. These factors are more sustainable and less affected by external environment changes in comparison with the traditional factors. Socio-cultural factors provide an opportunity to develop competitiveness strategies based on unique advantages.

This research aims to explore the impact of socio-cultural factors on international competitiveness in small, open economies. Analysing relationship between 400 socio-cultural indicators and competitiveness indicators such as productivity, economic development, business and government efficiency, innovation capacity and infrastructure in 37 countries, six socio-cultural factors have emerged: Collectivism and Hierarchy; Future, Cooperation and Performance Orientation, Self-expression, Monochronism and Rationality, Economic Orientation and Social structure. The first factor – Collectivism and Hierarchy – tends to reduce the international competitiveness; the other five affect it positively.

Keywords: cross-cultural studies, international competitiveness, socio-cultural factors.

JEL Classification: M16, F00.

1. Introduction

In times of globalization, international competitiveness is an important aspect of prosperity and development potential of countries and organizations. International competitiveness has several determinants – export capability (Ezeala-Harrison 1999), resource productivity (Porter 1990), as well as infrastructure, institutions and macroeconomic environment (World Economic Forum 2014).

Traditionally international competitiveness depends on the available economic capital, human capital, technologies, knowledge and natural resources. Competitiveness is also affected by a group of factors that could be referred to as socio-cultural factors –

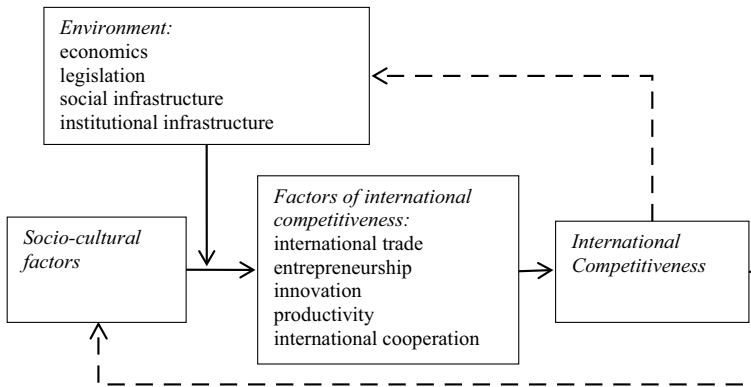


Fig. 1. Relationship model of socio-cultural factors and international competitiveness (source: authors' model)

values, norms and attitudes. Classical factors do not provide a complete understanding of competitiveness in a long-term. A country can, for example, disproportionately consume its natural resources, manipulate exchange rates, or protect certain sectors and enterprises to create a competitive advantage in the short-term. Similarly an organization can overuse its human and capital resources in the short-term. Traditional factors are affected by economic cycles. Short-term changes in economic indicators are quickly reflected in competitiveness indicators, but do not necessarily imply long-term structural improvements. Socio-cultural factors based on social priorities are more permanent and less affected by external environment changes. They provide an opportunity to develop competitiveness strategies based on unique advantages.

The impact of socio-cultural factors on various aspects of international competitiveness – external trade, entrepreneurship, innovations and knowledge transfer, productivity and international cooperation – has been observed in the previous research, as explained in the model illustrated in the Figure 1.

The purpose of this research is to define socio-cultural factors and explore their impact on international competitiveness.

2. Socio-cultural factors – the existing frameworks

Many definitions of culture exist. Culture can be seen a broader sense as a civilization, or as certain values, beliefs and attitudes characterizing a certain group or community. In this study we have approached culture using the definition of Geert Hofstede seeing culture as “*the collective programming of the mind distinguishing the members of one group or category of people from others*”. Each individual belongs to several groups

and thus this collective programming can take place at different contexts and levels – such as at national, organizational, occupational and gender levels (Hofstede, G. H., Hofstede, G. J. 2005). In this study we focus on the national level – the impact that socio-cultural factors of a certain nation has on the country's international competitiveness. At the same time this study recognizes that organizational culture could have significant effects on international competitiveness of this organization.

Socio-cultural factors provide dimensions for measuring and comparing cultures, and they were principally defined by Talcott Parsons, Edward T. Hall and Geert Hofstede.

American sociologist Talcott Parsons developed five relational orientations (Parsons 1951):

- Universalism versus Particularism – *universalism seeks a general and consistent application, while in particularism a situation specific context matters the most;*
- Individualism versus Collectivism *determines self-orientation versus collective orientation;*
- Neutrality versus Affectivity *describes the level of expressing emotions;*
- Specificity versus Diffuseness *measures the degree to which members of a certain culture separate their personal and public lives;*
- Achievement versus Ascription *refers to status (based on achievement or attribution).*

American anthropologist Edward T. Hall defined three cultural dimensions (Hall 1976):

- Context – *high-context cultures have many contextual elements, meaning is embedded in the information and the listener is expected to understand the unsaid. In low context meanings are explicitly expressed;*
- Time – *monochronic time assumes planning and sequencing, polychronic time assumes parallel actions;*
- Space – *high territoriality concerns ownership, lower territoriality implies less ownership of space and less importance of boundaries.*

Dutch social psychologist Geert Hofstede conducted one of the most comprehensive studies of how values in the workplace are influenced by culture. He used the dimension of Individualism versus Collectivism exploring the degree to which people in a society are integrated into groups, and defined four additional dimensions of culture (Hofstede, G. H., Hofstede, G. J. 2005):

- Power Distance *describes the extent to which less powerful members of organizations and institutions accept and expect unequal power distribution.*
- Uncertainty Avoidance *describes a society's tolerance for ambiguity.*
- Masculinity *values achievement, heroism, assertiveness and material rewards for success, while Femininity – cooperation, modesty and quality of life.*
- Long-term orientation versus short-term orientation *associates the connection of the past with the current and future actions and challenges.*

Hofstede later introduced one more dimension – indulgence versus restraint – which measures happiness.

These socio-cultural factors have been modified and used in further studies – for instance, Alfons Trompenaars conducted a comprehensive study, using the five factors developed by Parsons, adding time and environment as additional cultural dimensions (Trompenaars, Hampden-Turner 2005), while GLOBE project measured nine dimensions, using Power Distance and Uncertainty Avoidance, and further developing the dimension of Collectivism into Societal Collectivism and In-Group Collectivism.

A different perspective has been provided by the World Values Survey. Analysis of World Values Survey data made by political scientists Ronald Inglehart and Christian Welzel asserts that there are two major dimensions of cross cultural variation in the world – *Traditional values versus Secular-rational values* and *Survival values versus Self-expression values*. Traditional values emphasize the importance of religion, parent-child ties, deference to authority and traditional family values. Survival values place emphasis on economic and physical security. Self-expression values give high priority to environmental protection, growing tolerance of foreigners and minorities, gender equality, and rising demands for participation in decision-making in economic and political life (World Values Survey 2015). The dimension of Survival values versus Self-expression values is conceptually related to the dimension of individualism and collectivism. Two more indexes are calculated – Post-Materialist index and Autonomy Index.

3. Defining international competitiveness

International Competitiveness can be defined in many different ways. In this study we're interested in national level competitiveness. Initially international trade provided basis for such competitiveness – export exceeded import in a country with a competitive economy, and if import exceeded export, it was considered as not competitive (Ezeala-Harrison 1999). This approach formed Mercantilist policies.

Porter's fundamental work "*Competitive Advantage of Nations*" argued that the only meaningful concept of competitiveness at the national level is productivity. Porter defined that "the principal goal of a nation is to produce a high and rising standard of living for its citizens. The ability to do so depends on the productivity with which a nation's labour and capital are employed. Productivity is the value of the output produced by a unit of labour or capital." (Porter 1990).

In this research we have chosen two comprehensive frameworks assessing economic competitiveness landscapes. First, the World Economic Forum defines competitiveness as "the set of institutions, policies and factors that determine the level of productivity of a country" (World Economic Forum 2014) and calculates the Global Competitiveness Index in 144 economies. GCI is calculated using 12 pillars of competitiveness, grouped into 3 sub-indexes. GCI assumes that, in the first stage, the economy is factor-

driven and countries compete based on their factor endowments – primarily unskilled labour and natural resources. As a country becomes more competitive, move into the efficiency-driven stage of development. Finally, as countries move into the innovation-driven stage, wages will have risen by so much that they are able to sustain those higher wages and the associated standard of living only if their businesses are able to compete with new and unique products (World Economic Forum 2014). So, when calculating the index, factors are weighted depending on the development level of the economy.

Second, Swiss International Management Development Institute's (IMD 2011) World Competitiveness Center calculates the World Competitiveness Index based on economic performance, government efficiency, government efficiency and infrastructure (IMD). In comparison to the GCI, the weight of WCI indicators remains constant and is not adjusted for the development of an economy.

4. Previous research on the impact of socio-cultural factors on international competitiveness

Several studies have confirmed the impact of socio-cultural factors on international trade (Dwyer *et al.* 2005; Hewitt *et al.* 2006; Iwasaki, Suganuma 2013) and export capacity (González 2006). It has also been observed that economic development affects culture in different ways – increasing or lowering the impact of the socio-cultural factors (Gannon 2008).

Analyzing the impact of socio-cultural factors on entrepreneurship, studies revealed that culture can be a source of entrepreneurial attitudes towards independence, risk and the distribution of power (Shane 1994; Tan 2002; Alvarez, Urbano 2012; Noguera *et al.* 2013). Evidence was found that national ethics affects business ethics (Stajkovic, Luthans 1997). It was also confirmed that the role of culture is crucial for the development of innovation – long-term aims, risk-taking ability and individual responsibility increases innovation capacity (King 2007; Turró *et al.* 2014).

Culture affects productivity through shaping social decision-making process, forming an attitude towards innovation, affecting the ability to adjust to economic changes and through attitudes towards social equality (Throsby 2001). Certain cultural values also affect effectiveness, productivity and welfare (House, Javidan 2002). Cultural values will determine tightness and effectiveness of leadership (Aktas *et al.* 2015). And it has also been observed that home country's' culture affect performance of multinational corporations abroad (Schein 2001; Halkos, Tzeremes 2008).

Previous research has also confirmed the impact of socio-cultural factors on international cooperation. For in-stance, evidence has been found that culture determines how much the society is ready to invest in economic and social development and how open it is to international cooperation in general (Hofstede, G. H., Hofstede, G. J. 2005; Gannon 2008). Depending on the culture, international cooperation can become a source of mutual trust, or a source of conflicts.

5. Data and methodology

For this research, we examined 400 socio-cultural indicators assessed in 37 countries. Firstly, we assessed five cultural dimensions developed and studied by Geert Hofstede in 64 countries. Those include the Power Distance, Individualism versus Collectivism, Uncertainty Avoidance, Masculinity versus Femininity and Long-term orientation versus Short-term orientation. Lately introduced dimension – Indulgence versus Restraint was not used in this research due to data availability.

Secondly, seven dimensions of culture measured in a cross-cultural study by Alfons Trompenaars, exploring cultural diversity in business, impact on the organization of the systems and management models in 51 countries. Five of these dimensions were based on relational orientations defined by Talcott Parsons. Trompenaars also studied Sequential versus Synchronic attitude towards time and Internal versus External control towards environment, which refers to controlling environment or being rather controlled by it.

Thirdly, nine cultural dimensions were included in the GLOBE cross-cultural leadership study conducted in 62 countries and especially focusing on leadership, management style and productivity. Power Distance and Uncertainty Avoidance were defined similarly to the respective Hofstede's dimensions. Humane Orientation was defined similarly to Femininity – as a degree to which a group encourages and rewards individuals for being fair, altruistic, generous, caring and kind to others. This study distinguished two aspects of Collectivism – Societal Collectivism – the degree to which individuals are integrated into groups within the society, and In-Group Collectivism – the degree to which individuals have strong ties to their small immediate groups. Gender Egalitarianism measures the degree to which a collective minimizes gender inequality. Assertiveness – the degree to which individuals are assertive, dominant and demanding in their relationships with others. Future Orientation measures the extent to which a collective encourages and rewards future-oriented behaviours such as delaying gratification, planning and investing in the future. Performance Orientation measures the tendency towards performance improvement and excellence (House, Javidan 2002).

Fourthly, we used the Cultural Orientations Indicator (COI) developed by TMC Corp, which analyses 22 socio-cultural aspects organized into 10 groups in 55 countries, mainly emphasizing the intercultural aspects of cooperation. The COI includes 10 groups. Environment includes Control, Harmony and Constraint and it refers to how individuals view and relate to the people, objects and issues in their sphere of influence. Time includes 3 continuums – Single-Focus or Multi-Focus, Fixed or Fluid and Past, Present or Future oriented, and it explains how individuals perceive the nature of time and its use. Action is defined as either Being or Doing, and it explains how individuals conceptualize actions and interactions with people and objects in their environment. Communication includes 4 continuums – High Context or Low Context, Direct or Indirect, Expressive or Instrumental and Formal or Informal. Space can be either Private or Public, and it refers to how individuals demarcate their physical and psychological space. Power – Hierarchy

or Equality – defines how individuals view differential power relationships. Individualism determines how individuals define their identity – Individualistic or Collectivistic and Universalistic or Particularistic. Societies and individuals are either Competitive or more Cooperative. Order or Flexibility in Structure determines how individuals approach change, risk, ambiguity and uncertainty. And Thinking explains how individuals conceptualize – it can be either Deductive or Inductive and either Linear or Systemic (COI 2011).

Finally, the World Values Survey covers people's values, beliefs and attitudes towards family, work, environment and society, in total 350 indicators in 87 countries. World Values Survey Wave 3 (1995–1999) was chosen based on the countries included in this period. Indicators were chosen taking into account thematic relevance to the study, sample adequacy (available results for at least 30% of the 222,732 respondents), sample adequacy for each country as well as correlation with the competitiveness indicators. In addition the four World Values Survey indexes (Post-Materialist index, Autonomy Index, Traditional values versus Secular-rational values and Survival values versus Self-expression values) were included in the further calculation.

While recognizing that each culture has its unique set of values and heritage, only those values and norms that can be quantified and thus internationally compared and relevant to the field of economics and business were included in this study. Furthermore, the study assumes that these values and norms are broadly shared by the whole society independency of ethnical differences – we base this assumption on previous research that common social systems, such as education and economy affect the values of individuals more than ethnicity (Parboteeah, Cullen 2003).

All cultural indicators were tested for correlation with international competitiveness indicators. As international competitiveness indicators we used the World Economic Forum's Global Competitiveness Index and its sub-indexes, IMD World Competitiveness Index and its sub-indexes. We also looked at labour productivity as an internationally accessible and comparable productivity indicator, the World Bank's Doing Business index, Transparency International's Corruption Perceptions Index and Political Risk Services indicators.

Given the possible correlation between various cultural indicators, socio-cultural factors were determined using the Principal Component Analysis (PCA). This analysis was chosen as it does not require making assumptions about the data structure. Such assumptions would be difficult to make, given the very diverse definitions, nature and scales of socio-cultural factors.

In order to perform the PCA, we made assumptions of linearity and statistical significance of the mean and of the covariance. The number of respondents and countries allow making an assumption about sampling adequacy, and as national averages are used, we can assume the significance of deviation. The socio-cultural factors have been rotated using *direct oblimin* method, allowing further usage of factors in a regression analysis. The number of basic factors was determined using the Kaiser criterion (dropping all components with eigenvalues under 1.0), the scree test, the total percent variance explained and the interpretation criteria.

6. Determining socio-cultural factors

Following the methodology explained in the previous section, 6 independent socio-cultural factors emerged – Collectivism and Hierarchy; Future, Cooperation and Performance Orientation, Self-expression, Monochronism and Rationality, Economic Orientation and Social Structure. The PCA is statistically significant (Table 1):

Table 1. KMO and Barlett’s tests (source: authors’ SCF calculations)

<i>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</i>		0.765
<i>Bartlett’s Test of Sphericity</i>	<i>Approx. Chi-Square</i>	828.890
	Df	300
	<i>Sig.</i>	0.000

and the calculated components explain 81% of the total cultural variance (Table 2).

Table 2. Socio-cultural Factors and International Competitiveness (source: World Economic Forum 2011; IMD 2011; Euromonitor International 2011; Transparency International 2011; World Bank Group 2011; PRS Group 2011; authors’ SCF calculations)

	World Economic Forum				IMD					Labour Productivity	Corruption Perceptions Index	Ease of Doing Business Ranking	PRS Composite Risk Rating
	GCI	Basic requirements	Efficiency enhancers	Innovation and sophistication	Overall Competitiveness	Economic Performance	Government Efficiency	Business Efficiency	Infrastructure				
Collectivism and Hierarchy	-0.62 **	-0.61 **	-0.63 **	-0.62 **	-0.46 **	-0.15	-0.32	-0.38 *	-0.62 **	-0.77 **	-0.77 **	0.59 **	-0.59 **
Future, Cooperation and Performance Orientation	0.57 **	0.38 *	0.57 **	0.58 **	0.70 **	0.45 **	0.75 **	0.78 **	0.49 **	0.47 **	0.52 **	-0.44 **	0.49 **
Self-expression	0.52 **	0.53 **	0.46 **	0.51 **	0.32	0.12	0.18	0.17	0.52 **	0.28	0.34 *	-0.41 *	0.54 **
Monochronism and Rationality	0.54 **	0.60 **	0.57 **	0.41 *	0.56 **	0.45 **	0.51 **	0.40 *	0.55 **	0.48 **	0.51 **	-0.40 *	0.48 **
Economic Orientation	0.42 *	0.38 *	0.43 **	0.49 **	0.54 **	0.33	0.38 *	0.46 **	0.61 **	0.49 **	0.48 **	-0.21	0.30
Social Structure	0.60 **	0.58 **	0.60 **	0.56 **	0.57 **	0.34	0.66 **	0.59 **	0.41 *	0.38 *	0.56 **	-0.41 *	0.53 **

Notes: * Correlation is significant at the p = 0.05 (asymptotic).

** Correlation is significant at the p = 0.01 (asymptotic – 2-tailed).

Collectivism and Hierarchy describes the degree of integration and power distance in the society. High values for this factor indicate the importance of hierarchy and relationships. Low values indicate equality, direct communication and precise approach to time. Figure 2 illustrates Collectivism and Hierarchy in regional division.



Fig. 2. Collectivism and Hierarchy in regional division (source: authors' calculations)

We found high values for Africa and the Middle East, Asia and the Central Eastern Europe (the highest results in Morocco, China, Taiwan and Bangladesh). Most of the Western cultures – Anglo-Saxon, Germanic and Scandinavian countries – have low tendency towards Collectivism and Hierarchy (the lowest values in Denmark, Finland, Norway, Sweden and the Netherlands).

Future, Cooperation and Performance Orientation describes the preference of future aims, tendency to reduce uncertainty, trust in social institutions and importance of teamwork. Low values in this factor indicate priority of daily issues over future objectives and planning, as well as a low cooperation level in the society. Scandinavian countries and the Confucian Asia demonstrate high values for this factor (the highest values in Singapore, Switzerland, Japan and China). We found low future, cooperation and performance orientation in the Central Eastern Europe, Latin Europe and Latin America (Fig. 3).



Fig. 3. Future, Cooperation and Performance Orientation in regional division (source: authors' calculations)

Self-expression explains the tendency of individuals to be independent and the mutual trust between the members of society. Low values of this factor indicate low autonomy and dominance of religious and traditional values, as well as a lack of trust between people. We found high values of this factor in the Nordic countries, the Central Eastern Europe and in the Confucian Asia, while low values in Africa, the Middle East and Latin America (Fig. 4).

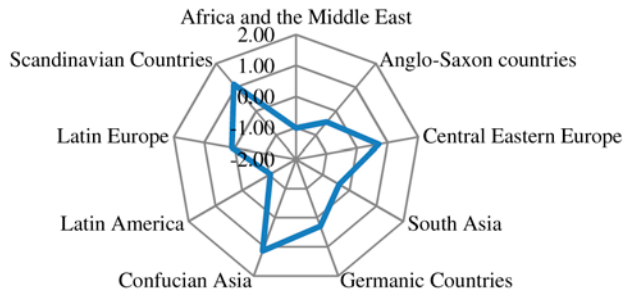


Fig. 4. Self-expression in regional division (source: authors' calculations)

Monochronism and Rationality refers to linear attitudes towards time. Individuals in monochronic societies tend to prioritize tasks and favour a rational assessment. Individuals in polychronic societies tend to multitask. In addition, they are more expressive. Anglo-Saxon countries, the Central Eastern Europe and Scandinavia display high values for this factor (the highest results observed in the United States, Australia, the Russian Federation and New Zealand), while South Asia and Latin countries have low values (the lowest values in South Korea, Spain, India and Italy. Figure 5. Illustrates Monochronism and Rationality in regional division.

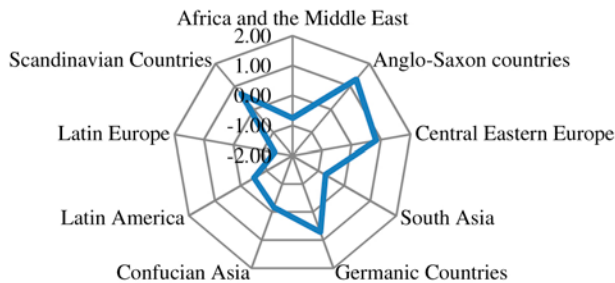


Fig. 5. Monochronism and rationality in regional division (source: authors' calculations)

Economic Orientation describes strong economic focus and achievement orientation. Lack of economic orientation indicates the importance of relationships over results. Germanic countries and Sweden score high for this factor, while we found low values for Latin America, Confucian Asia and Central Eastern Europe (Fig. 6).

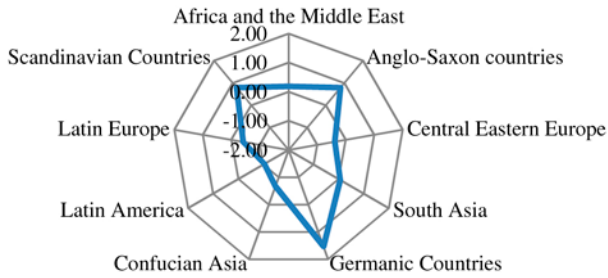


Fig. 6. Economic Orientation in regional division
(source: authors' calculations)

Social Structure refers to universal or particular attitudes. Germanic, Anglo-Saxon and Confucian Asia have highly developed society structure (the highest values for Germany, Chile, India, Taiwan and Switzerland). Social structure has lower values in Africa, the Middle East and Latin cultures, especially Turkey, Vietnam, Bangladesh, Mexico and Italy (Fig. 7).

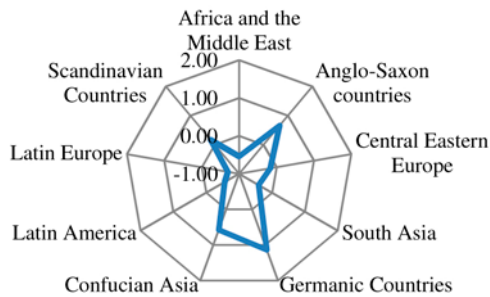


Fig. 7. Social Structure in regional division
(source: authors' calculations)

7. Impact on international competitiveness

We used multiple regression analysis to determine the impact of socio-cultural factors on international competitiveness.

We found that the Global Competitiveness Index is the best explained using a five-factor regression model (it has the highest adjusted determination coefficient). Collectivism and Hierarchy, Future, Cooperation and Performance Orientation, Self-expression, Monochronism and Rationality and Social Structure explain 83% of the Global Competitiveness Index change (Table 3).

Table 3. Global competitiveness index regression – model summary (source: World Economic Forum 2011, authors’ SCF calculations)

Model	R	R-Square	Adjusted R-square	Std. Error of the Estimate	R Square Change	Change Statistics				
						F Change	df1	df2	Sig. F Change	Durbin - Watson
5	0.913e	0.834	0.807	0.2726479	0.045	8.497	1	31	0.007	2.225

Notes: Predictors: (Constant); Collectivism and Hierarchy; Social Structure; Future, Cooperation and Performance Orientation; Self-expression; Monochronism and Rationality.

Economic Orientation was not included in the model, as it was not statistically significant. The autocorrelation amongst the factors is not significant (Durbin-Watson test $\in \{0;4\} = 2.2$ and the regression analysis is statistically significant. All the factors included in the model have a positive effect on competitiveness, except Collectivism and Hierarchy that affects it negatively (Table 4).

Table 4. Global competitiveness index regression – regression coefficients (source: World Economic Forum 2011, authors’ SCF calculations)

Model	Unstandardized Coefficients		Standardized Coefficients			95,0% Confidence Interval for B	
	B	Std. Error	Beta	t	Sigma	Lower Bound	Upper Bound
Constant	4.654	0.045		103.820	0.000	4.562	4.745
Collectivism and Hierarchy	-0.208	0.051	-0.334	-4.087	0.000	-0.311	-0.104
5 Social Structure	0.180	0.050	0.291	3.577	0.001	0.078	0.283
Future, Cooperation and Performance Orientation	0.197	0.049	0.317	4.004	0.000	0.097	0.297
Self-expression	0.170	0.048	0.274	3.550	0.001	0.073	0.268
Monochronism and Rationality	0.147	0.051	0.237	2.915	0.007	0.044	0.250

IMD World Competitiveness Index is the best explained by a three-factor regression model. Future, Cooperation and Performance Orientation, Monochronism and Rationality and Economic Orientation explain 77% of the World Competitiveness Index changes (Table 5).

Table 5. IMD world competitiveness index – model summary (source: IMD 2011, authors’ SCF calculations)

Model	R	R-Square	Adjusted R-square	Std. Error of the Estimate	R Square Change	Change Statistics				
						F Change	df1	df2	Sig. F Change	Durbin - Watson
3	0.879c	0.773	0.749	9.1039788	0.049	6.244	1	29	0.018	1.821

Notes: Predictors: (Constant); Future, Cooperation and Performance Orientation; Monochronism and Rationality, Economic Orientation.

The other three socio-cultural factors (Collectivism and Hierarchy, Self-expression and Social Structure) do not have a significant effect. The autocorrelation amongst the factors is not significant (Durbin-Watson test $\in \{0;4\} = 1.8$ and the regression analysis is statistically significant. All the factors included in the model have a positive effect on competitiveness (Table 6).

Table 6. IMD world competitiveness index – regression coefficients (source: IMD 2011, authors’ SCF calculations)

Model	Unstandardized Coefficients		Standardized Coefficients			95,0% Confidence Interval for B		
	B	Std. Error	Beta	B	Std. Error	Beta	B	
3	Constant	70.051	1.598		43.830	0.000	66.782	73.319
	Future, Cooperation and Performance Orientation	10.271	1.602	0.588	6.411	0.000	6.994	13.547
	Monochronism and Rationality	7.471	1.693	0.415	4.414	0.000	4.009	10.933
	Economic Orientation	4.226	1.691	0.242	2.499	0.018	0.767	7.684

To illustrate the impact of socio-cultural factors, we provide an example of three small, open economies – Denmark, Chile and Singapore – for which international competitiveness is particularly important, given the limited size of their domestic market.

Denmark ranks as the 8th most competitive economy globally in the IMD World Competitiveness Scoreboard and the 13th most competitive economy globally in 2014–2015 after the Global Competitiveness Index. Similarly to other Scandinavian nations, Danes demonstrate a strong equality orientation (low Collectivism and Hierarchy). High scores in Future, Cooperation and Performance Orientation impact the long-term approach towards strategy. High orientation towards Self-expression is the third cornerstone of Denmark’s international competitiveness (it has the 5th highest score amongst the countries included in this research). This factor drives openness towards new ideas, creativity, innovation and international cooperation.

Ranking 33rd by the Global Competitiveness Index and 35th in the IMD World Competitiveness Scoreboard, Chile has the most competitive economy in the Latin America. Chile stands out with a very high orientation towards Social Structure (the 3rd highest score amongst the countries included in this research). Chile has lower corruption and more transparent business environment (Transparency International 2015). It is complemented by high Economic Orientation and Monochronism and Rationality.

Singapore ranks 2nd by the Global Competitiveness Index and 3rd in the IMD World Competitiveness Scoreboard. Singapore has a very interesting culture, shaped by both – the Confucian Asia and the West values. Singapore is particularly characterized by a sin-

gle socio-cultural factor – Future, Cooperation and Performance Orientation (Singapore scores the highest amongst all the countries included in this research, and the second score is twice lower). Singapore’s international competitiveness is also positively affected by more direct business communication and more precise approach towards time.

8. Conclusions

Based on several global frameworks, in this study we determined and calculated 6 socio-cultural factors – Collectivism and Hierarchy; Future, Cooperation and Performance Orientation, Self-expression, Monochronism and Rationality, Economic Orientation and Social Structure explaining 81% of the total cultural variance.

This study confirms the impact of socio-cultural factors on international competitiveness. Collectivism and Hierarchy, Future, Cooperation and Performance Orientation, Self-expression, Monochronism and Rationality and Social Structure explain 83% of the Global Competitiveness Index change. And Future, Cooperation and Performance Orientation, Monochronism and Rationality and Economic Orientation explain 77% of the World Competitiveness Index change. All of the defined socio-cultural factors except Collectivism and Hierarchy affect international competitiveness positively. The unique competitive advantage of certain socio-cultural factors has been illustrated by equality in Denmark, strong tendency towards social structure in Chile and Future, Cooperation and Performance Orientation in Singapore.

However some limitations in our study must be emphasized. The data used to calculate the socio-cultural factors have been collected by several studies having diverse aims, diverse geographic coverage and diverse measurement scales. The data has been collected in different times. We would argue, however, that socio-cultural factors are long-term indicators and thus do not change rapidly in a relatively short time. Yet it could be further explored, how changes in socio-cultural factors result in changes of long-term competitiveness indicators. Another aspect is that not only socio-cultural factors affect international competitiveness, but country’s economic development could over time change its socio-cultural factors. Future research could be directed towards an investigation of this aspect.

Nevertheless this study provides solid empirical evidence for policy implications on the fact that socio-cultural factors are important and along with so-called traditional factors have a direct effect on international competitiveness.

Disclosure statement

We declare that we do have any competing financial, professional, or personal interests from other parties.

References

- Alvarez, C.; Urbano, D. 2012. Cultural-cognitive dimension and entrepreneurial activity: a cross-country study, *Revista de Estudios Sociales* 44: 146–157. <http://dx.doi.org/10.7440/res44.2012.14>
- Aktas, M.; Gelfand, M.; Hanges, P. 2015. Cultural tightness–looseness and perceptions of effective leadership, *Journal of Cross-Cultural Psychology*. <http://dx.doi.org/10.1177/0022022115606802>
- Cultural Orientations Indicator (COI). 2011 [online], [cited 31 March 2011]. Available from Internet: <https://www.culturalorientations.com/Our-Assessment-Tool/56/>
- Dwyer, S.; Mesak, H.; Hsu, M. 2005. An exploratory examination of the influence of national culture on cross-national product diffusion, *Journal of International Marketing* 13(2): 1–27. <http://dx.doi.org/10.1509/jimk.13.2.1.64859>
- Euromonitor International. 2011 [online], [cited 20 April 2011]. Available from Internet: <http://www.euromonitor.com/>
- Ezeala-Harrison, F. 1999. *Theory and policy of international competitiveness*. Greenwood Publishing Group.
- IMD World Competitiveness Center (IMD). 2011 [online], [cited 31 March 2011]. Available from Internet: <http://www.imd.org/wcc>
- Iwasaki, I.; Suganuma, K. 2013. *A gravity model of Russian trade: the role of foreign direct investment and socio-cultural similarity*. Russian Research Center, Institute of Economic Research, Hitotsubashi University 40.
- Gannon, M. J. 2008. *Paradoxes of culture and globalization*. Los Angeles: SAGE Publications. <http://dx.doi.org/10.4135/9781483329604>
- González, S. H. J. 2006. Exporting culture: a strategic issue for international competitiveness, *Latin American Business Review* 7(1): 59–80. http://dx.doi.org/10.1300/J140v07n01_03
- Halkos, G. E.; Tzeremes, N. G. 2008. Does the home country's national culture affect MNCs' performance? Empirical evidence of the World's Top 100 East-West Non-financial MNCs, *Global Economic Review* 37(4): 405–427. <http://dx.doi.org/10.1080/12265080802480811>
- Hall, E. T. 1976. *Beyond culture*. Anchor Books.
- Hewitt, K.; Money, R. B.; Sharma, S. 2006. National culture and industrial buyer-seller relationships in the United States and Latin America, *Journal of the Academy of Marketing Science* 34(3): 386–402. <http://dx.doi.org/10.1177/0092070305285370>
- Hofstede, G. H.; Hofstede, G. J. 2005. *Cultures and organizations: software of the mind*. New York: McGraw-Hill.
- House, R. J.; Javidan, M. 2002. *Leadership and cultures around the world: findings from GLOBE*. New York: Elsevier Science.
- King, W. R. 2007. A research agenda for the relationships between culture and knowledge management, *Knowledge & Process Management* 14(3): 226–236. <http://dx.doi.org/10.1002/kpm.281>
- Noguera, M.; Alvarez, C.; Urbano, D. 2013. Socio-cultural factors and female entrepreneurship, *International Entrepreneurship and Management Journal* 9(2): 183–197. <http://dx.doi.org/10.1007/s11365-013-0251-x>
- Parsons, T. 1951. *The social system*. Routledge.
- Parboteeah, K. P.; Cullen, J. B. 2003. Social institutions and work centrality: explorations beyond national culture, *Organization Science* 14(2): 137–148. <http://dx.doi.org/10.1287/orsc.14.2.137.14989>
- Porter, M. E. 1990. *The competitive advantage of nations*. Free Press.

- PRS Group. *International country risk guide 2011* [online], [cited 04 April 2011]. Available from Internet: <http://epub.prsgroup.com/products/international-country-risk-guide-icrg>
- Schein, E. H. 2001. The impact of transnational institutions on cultural values and vice versa, *Reflections* 3(1): 41–48. <http://dx.doi.org/10.1162/152417301750406112>
- Shane, S. 1994. Cultural values and the championing process, *Entrepreneurship: Theory & Practice* 18(4): 25–41.
- Stajkovic, A. D.; Luthans, F. 1997. Business ethics across cultures: a social cognitive model, *Journal of World Business* 32(1): 17–34. [http://dx.doi.org/10.1016/S1090-9516\(97\)90023-7](http://dx.doi.org/10.1016/S1090-9516(97)90023-7)
- Tan, J. 2002. Culture, nation, and entrepreneurial strategic orientations: implications for an emerging economy, *Entrepreneurship: Theory & Practice* 26(4): 95–111. <http://dx.doi.org/10.2139/ssrn.1552182>
- Throsby, C. D. 2001. *Economics and culture*. Cambridge, Cambridge UP.
- Transparency International. 2011 [online], [cited 01 October 2015]. Available from Internet: <http://www.transparency.org/cpi2011/results>
- Transparency International. 2015 [online], [cited 01 October 2015]. Available from Internet: <http://www.transparency.org/country/#CHL>
- Trompenaars, F.; Hampden-Turner, C. 2005. *Riding the waves of culture: understanding cultural diversity in business*. Nicholas Brealey Publishing.
- Turró, A.; Urbano, D.; Peris-Ortiz, M. 2014. Culture and innovation: the moderating effect of cultural values on corporate entrepreneurship, *Technological Forecasting and Social Change* 88: 360–369. <http://dx.doi.org/10.1016/j.techfore.2013.10.004>
- World Bank Group. 2011. *Doing Business project* [online], [cited 01 October 2015]. Available from Internet: <http://www.doingbusiness.org/>
- World Economic Forum. 2011. *The global competitiveness report 2011–2012* [online], [cited 01 October 2015]. Available from Internet: http://www3.weforum.org/docs/WEF_GCR_Report_2011-12.pdf
- World Economic Forum. 2014. *The Global competitiveness report 2014–2015* [online], [cited 01 October 2015]. Available from Internet: http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2014-15.pdf
- World Values Survey. 2011 [online], [cited 01 October 2015]. Available from Internet: <http://www.worldvaluessurvey.org/wvs.jsp>
- World Values Survey. 2015 [online], [cited 01 October 2015]. Available from Internet: <http://www.worldvaluessurvey.org/WVSContents.jsp>

Madara APSALONE is a PhD student of Management Science at the Faculty of Economics and Management, University of Latvia. She has studied global leadership in five universities and four countries: Latvia, Denmark, France and the USA. Madara Apsalone started to work with Latvian enterprises willing to globalize their businesses and foreign investors expanding to Latvia just after the first year of her bachelor studies, and has an extensive experience working with international affairs and European Union policy for the Latvian government.

Ērika ŠUMILO, PhD, Professor, is the Head of Department of International Economics and Business at the Faculty of Economics and Management, University of Latvia. She is also the director of International Economics and Commercial Diplomacy and International Economic Relations programmes at the Faculty of Economics and Management, University of Latvia. Research interests: competitiveness, human and social capital, innovation, organizational culture, cross-cultural studies.