

CULTURAL DISTANCE OF FOREIGN INVESTORS IN THE CZECH REPUBLIC BASED ON HOFSTEDE'S DIMENSIONS

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Abstract: Business internationalization brings more or less intensive contact with different cultures. Cultural factors have to be taken into account when making decisions about foreign localization, entry mode choice and local staffing. The aim of the paper is to investigate national cultural distances between 12 selected countries that represent the most frequent foreign investors on the Czech market and the Czech Republic as their business partner and a host country of the investment. Cultural distances were calculated by using Kogut-Singh formula for four original Hofstede's cultural dimensions and compared with variation of six dimensions. Findings show the various differences resulting from including the last two dimensions into formula and their important impact on overall national cultural distance.

Keywords: culture, Czech Republic, distance, foreign direct investment, Hofstede, multinational companies.

1 Introduction

The globalization includes several aspects such as institutional, political, cultural and economic globalization. These trends can be seen by growth in international trade and capital flows. Rise of economic mobility, attractive migration policies for highly skilled professionals, international networks and increasing number of multinational companies (MNCs) are significant determinants supporting the world tendency of internationalization and interconnectivity. The trend of internationalization is however a challenging process for all activities within a company as they are gaining multinational feature.

A company has generally two main options to expand to foreign markets; through export or via foreign direct investment (FDI). When the company decides to invest in foreign market, the integration, control and management of foreign subsidiary is determined by choice of local staffing. MNCs have to decide whether and on which positions to employ parent country national expatriates, third country national expatriates or host country nationals in order to fulfil their strategic needs.¹

Expatriates from the headquarter country are often used for leadership positions in the subsidiary and for knowledge transfer and they therefore provide the biggest potential to influence the performance of the subsidiary among three mentioned categories of employees.² On the other hand, parent country expatriates are most liable to difficulties in adaptation process. As findings suggest the unsuccessful adaptation of the expatriate and his family to the host country environment is one of the most common reasons for expatriate failure.³ This problem emphasizes the crucial role of candidate selection process for international assignments and also its cross-cultural pre-departure training.

Business internationalization carries additional risks and costs or so called the liability of foreignness. The liability of foreignness can be defined as *"the total sum of additional costs, including the hidden costs related to dealing with new rules and regulations or new cultures"*.⁴ The costs arise from geographic, institutional, economic and cultural distance, and increase difficulties for succeeding abroad.⁵

2 Cultural distance

The overall distance between two markets has a multidimensional concept including geographical, administrative/institutional, cultural and economic distance.⁵ Administrative/institutional factors include currencies, trading arrangements but also colony-colonized links. A study found out

that the common currency boosts trade more than 300 %.⁶ Differences in incomes or distribution-channel quality represent the economic factors of distance. Besides these determinants, especially the geographical distance that is the most often considered, firms also have to consider a foreign culture. Cultural factors are those in religion, race, social norms and language. Culture is also reflected in rules of behaviour of employees as well customers and their preferences. The existence of different cultural values is particularly relevant for MNCs since there is often intensive contact between various national cultures in their operations and it determines headquarter-subsidiary relationship. A factor of cultural attractiveness is pointed out as preference for establishing some partnership between countries.⁷

Concept of national cultural distance is often investigated in terms of foreign market attractiveness, location decision, expansion process, entry mode choice, performance of MNCs in international market, technology transfer or also for example issues of international human resource management and expatriate adjustment.⁸ Some studies however suggest that it may be just as difficult to do business and work in culturally similar countries as in countries with low cultural distance.^{9, 10} The application of cultural distance concept has a great impact on research of FDI.⁷

Other findings of previous researches show that as cultural distance between countries increases, MNCs has a higher tendency to use more expatriates in the host subsidiary.^{11, 12, 13} The other issue to consider is that expatriates coming from the headquarter country bring with them both the national and organizational culture while third country nationals will more likely bring just the parent company's culture into the subsidiary. Very welcoming is then the presence of bicultural individuals that are familiar with both cultures – home as well as host culture. These employees, often in senior positions, serve as a mechanism in bringing cultures together and closing cultural distance.¹²

Cultural differences have the impact on people mobility creating diasporas and business network across borders as evident by observing patterns of migration, information flows as well as patterns of trade and investment.¹⁴ The greater cultural distance between home and host countries, more FDI are encouraged as a way of overcoming market failures.¹⁵ Moreover, the type of distance affects industries differently.⁵

The most often used measurement of cultural distance is based on Kogut-Singh index¹⁶ and it uses the original scores of dimensional framework from Hofstede's survey.¹⁷ Kogut and Singh found out the cultural distance to be a significant predictor of market entry choice and the index has been used in numerous subsequent studies. Although it is widely used, it has been criticized for combining all Hofstede dimensions into one distance measure. Secondly, the Kogut-Singh formula assumes that cultural distance between country A and B is similar to the distance between country B and country A. This illusion of symmetry is object of criticism since it may be culturally easier for Czech firms to invest in the Great Britain, then vice versa.^{7, 18} Despite all the criticism, the index has its rational justification same as using Hofstede's cultural dimensions in calculation. As noted by researchers, the culture and cultural values are relatively stable over time and change very slowly and Hofstede's results of measuring national cultural dimensions are therefore the appropriate choice for computing national cultural distance.^{18, 19}

2.1 Methodology and data

The logic of the cultural distance measurement in the paper is based on Kogut-Singh index as the most popular cultural distance calculation. The cultural distance index is calculated as

an arithmetic average of the variance-corrected squared differences in each dimension.¹⁶ Algebraically, the following formula is formed:

$$CD_{jk} = \sum_{i=1}^n \{(I_{ij} - I_{ik})^2 / V_i\} / n$$

where CD_{jk} is the cultural distance between the j th and k th country, I_{ij} and I_{ik} are indicators of the i th cultural dimension for the j th and k th country, V_i stands for the variance of the i th cultural dimension, n is the number of cultural dimensions.¹⁶ In Kogut-Singh study from 1988, n stands for four Hofstede's original cultural dimensions.¹⁷ In this paper, the cultural distance index is calculated as in the original study of Kogut and Singh and then modified by using Hofstede's country scores on the six dimensions, including two extra dimensions added later.²⁰ Similar modification of Kogut-Singh formula was already made by Ott²¹ by using nine dimensions from the GLOBE study.²² Six dimensions that constitute the model of national cultures are: power distance, individualism, masculinity, uncertainty avoidance, long term orientation and indulgence. These dimensions are very briefly described as follows.

Power distance refers to the inequality among people and the way in which power is distributed. In countries with high power distance, there is a hierarchical order between bosses and subordinates and vertical arrangements make clear of everyone's place. Dimension of individualism versus collectivism might be reflected whether people define themselves as "I" or "we". In cultures with high individualism, individuals are expected to take care of themselves and their immediate family. On the other hand, in collectivist societies people are integrated into strong in-groups, group goals and achievements are important and people are emotionally dependent on organizations. The masculinity preference stands for cultures with orientation in individual achievement, assertiveness, materialism, strength and more competitive environment. Masculine cultures encourage separate sex roles. Contrary, feminine-oriented societies prefer cooperation, modesty and caring and value quality of life and the environment. Uncertainty avoidance is the degree to which people feel uncomfortable with uncertainty and in unstructured and unknown situations. It deals with tolerance for ambiguity and relying on rules and plans.^{18, 23}

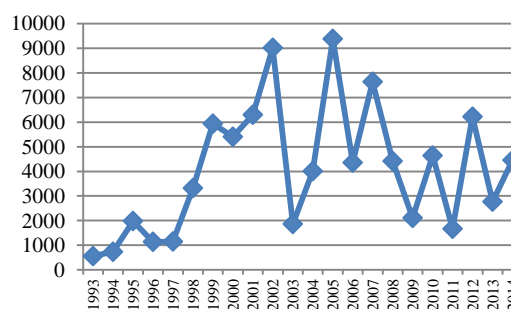
Long term versus short term normative orientation from 2001 was added later compared to four original cultural dimensions. Via Chinese value survey, it generally distinguishes between the East and West. Short term-oriented societies are characterized by personal steadiness, suspicion to societal changes, protecting own "face" and reciprocation of favours. Contrary, long term-oriented cultures encourage thrift and order relationships by status.¹⁸ The sixth dimension of indulgence was complemented to the model in 2010. Indulgence-oriented societies allow relatively free gratification of human drives of enjoying life, leisure time as well as freedom is important. Restrained cultures regulate this gratification by strict social norms. This dimension is still relatively new and has not been widely adopted within the intercultural management as other dimensions.²³

2.2 Case of the Czech Republic

Since opening the borders of the Czech Republic in 1989, the Czech government has aimed to attract foreign investors through introducing systems of investment incentives for FDI to increase its competitiveness as other neighboring countries. The Czech Republic has been recognized as very successful in bringing foreign capital on the local market among Central and Eastern European countries.

Since 1990s, the inflow of industrial FDI has maintained the employment in the structurally affected regions. Moreover, these investments extensively supported Czech economy during the economic crisis.²⁴ Figure no 1 shows the development of inward FDI into the Czech Republic during the last years.

Figure 1: Inward FDI into the Czech Republic; 1993-2014 (in millions of EUR)



In the overall Global Competitiveness Report 2015-2016, the Czech Republic came 31st in the competition of 140 economies of the world with high scores especially in macroeconomic environment and category of health and primary education. It also got 2nd rank within Central and Eastern European, just behind 30th Estonia.²⁵ The positioning of the country in international rankings support and characterize its level of development.

Based on data from the Czech National Bank²⁶ and CzechInvest²⁷, the most of the investors in 2015 came from the United States (22 %) and Germany (21 %). Each Taiwan, Korea, and Switzerland have share of 7 % on total investment inflow. Other significant source countries are Japan (4 %), India (3 %), China (3 %) and France (2 %). It is important to note, as National Czech Bank emphasizes, that these data are based on the location of the company investing in the Czech Republic. Many MNCs however invest on the Czech market through other third countries for corporate tax optimization reasons. This happens via subsidiaries often established in Netherlands, Luxembourg or Cyprus that have very favourable tax systems of planning.

The paper presents calculated cultural distances measured between the Czech Republic as a host country and twelve selected source countries of the investment. These countries has been chosen regarding to their importance among investors going to the Czech Republic; as the United States, Taiwan, Korea, Japan, India and China among the key non-European investors and Germany, Switzerland, and France among top investors on the Czech market from the Europe.

Scores of Hofstede's six cultural dimensions²⁰ that are used for further calculation are available as dimension data matrix on the official website of Hofstede's research and they are list in table no 1.

Table 1: Scores of Hofstede's dimensions of selected countries

Country	PDI	INV	MAS	UAI	LTO	IND
Belgium	65	75	54	94	82	57
China	80	20	66	30	87	24
Czech Rep.	57	58	57	74	70	29
France	68	71	43	86	63	48
Germany	35	67	66	65	83	40
Great Britain	35	89	66	35	51	69
India	77	48	56	40	51	26
Japan	54	46	95	92	88	42
Korea South	60	18	39	85	100	29
Netherlands	38	80	14	53	67	68
Switzerland	34	68	70	58	74	66
Taiwan	58	17	45	69	93	49
United States	40	91	62	46	26	68

PDI – Power Distance Index, INV – Individualism, MAS –Masculinity, UAI – Uncertainty Index, LTO – Long Term Orientation, IND – Indulgence

In this paper, the composite cultural distance construct proposed by Kogut and Singh¹⁶ is used. The index calculates the average difference in two countries' values by combining original four

and secondly six cultural dimensions named above. Variance of each dimension was calculated as table no 2 presents.

Table 2: Variance of Hofstede's cultural dimensions

	PDI	IND	MAS	UAI	LTO	IND
Variance	444,65	567,26	356,65	521,89	580,56	486,75

Calculated cultural distances between selected countries and the Czech Republic are shown in table no 3. In order to compare the results of measured cultural distances, the difference between cultural distance based on original four dimensions or six dimensions is clearly demonstrated.

Table 3: Cultural distance between selected countries and the Czech Republic (in alphabetical order)

Country	CD ₁	CD ₂	Difference between CD ₁ and CD ₂
Belgium	0,36	0,55	+ 0,19
China	1,92	1,37	- 0,55
France	0,35	0,37	+ 0,02
Germany	0,40	0,36	- 0,04
Great Britain	1,48	1,64	+ 0,16
India	0,82	0,66	- 0,16
Japan	1,24	0,98	- 0,26
Korea South	0,99	0,92	- 0,07
Taiwan	0,85	0,86	+ 0,01
Switzerland	0,58	0,86	+ 0,28
United States	1,04	1,77	+ 0,73

CD₁ – Cultural distance of 4 dimensions, CD₂ – Cultural distance of 6 dimensions

As can be seen from findings in table no 3, calculations of cultural distances by using four or six dimensions are very various. Differences within the countries caused by number of cultural dimensions included in the formula are not proportional nor the same direction. It has been proved that scores of the last two dimensions added to Hofstede study, long term orientation and indulgence, can have a significant impact on overall cultural similarity or difference.

The Czech Republic has the lowest cultural distance within the selected countries with France and Germany. Contrary, cultures of Great Britain and United States are culturally more distant in comparison with other investors' source countries. The Great Britain and the United States have similar result which supports the similarity of their countries' background, as also in the case of Japan and South Korea. China has the highest cultural distance in terms of measuring only four dimensions but when considering the dimensions of long term orientation and indulgence, the difference lowers since these two dimensions have scores close to the Czech values. Other measured countries; Belgium, India, Japan, Korea, Taiwan and Switzerland belong to the medium score of cultural distance from the Czech Republic within the chosen sample.

3 Conclusion

As Zaheer et al states, "international management is management of distances".⁸ Distance between countries is not only the geographical which is the first association in our mind. The concept covers many aspect and cultural knowledge and understanding are becoming important parts of business and investment activities as companies expand abroad and go international.

This paper lists the most often source countries of foreign investors in the Czech Republic. The cultural distance between these investors and the Czech Republic is calculated based on Kogut-Singh formula. Findings indicate that computation based on four original cultural dimensions from Hofstede's survey or including two additional and later added dimensions (long term orientation, indulgence) make a notable difference in distance values which shows their significance.

Although there is several limitations concerning to Kogut-Singh cultural distance index, it is still very widely used in literature as a cultural distance measurement. These limitations as well as fact that cultural distance might be very individual matter depending on specific circumstances (e.g. competences of the employees), and it may also change over time as companies gain experience; must be taken into account.

Literature:

- Collins, D. G. and Scullion, H.: *Global Staffing*. 1st ed. Routledge, 2006. ISBN-10: 0415369371.
- Colakoglu, S. and Caligiuri, P.M.: Cultural Distance, Expatriate Staffing, and Subsidiary Performance: The Case of US Subsidiaries of Multinational Corporations. *International Journal of Human Resource Management*, 2008, No. 19, pp. 223 – 239.
- Selmer, J., Chiu, R. K., Shenkar, O.: Cultural distance asymmetry in expatriate adjustment. *International Journal of Cross Cultural Management*, 2007, Vol. 14, no. 2, pp. 150–160.
- Beugelsdijk, S., Brakman, S., Garretsen, H. and Van Marrewijk, C.: *International Economics and Business. Nations and firms in the global economy*. 2nd ed., Cambridge University Press: Cambridge, 2013, pp.177.
- Ghemawat, P.: Distance still matters. *Harvard business review*, 2001, Vol. 79, no. 8, pp. 137-147.
- Frankel, J. and Rose, A.: *An Estimate of the Effects of Currency Unions on Growth*. Unpublished working paper, May 2000.
- Shenkar, O.: Cultural Distance Revisited: Towards a More Rigorous Conceptualization and Measurement of Cultural Differences. *Journal of International Business Studies*, 2012, Vol. 43, no. 1, pp. 1-11. Available at: <http://www.jstor.org/stable/41408885>.
- Zaheer, R. S., et al.: Distance without direction: restoring credibility to a much-loved construct. *Journal of International Business Studies*, 2012, Vol. 43, pp 18–27.
- Peltokorpi, V.: Cross-cultural adjustment of expatriates in Japan. *The International Journal of Human Resource Management*, 2008, Vol. 19, no. 9, pp. 1588-1606.
- Selmer, J.: "Language ability and adjustment: Western expatriates in China." *Thunderbird International Business Review* 48.3 (2006): 347-368.
- Boyacigiller, N.: "The role of expatriates in the management of interdependence complexity and risk in multinational corporations." *Journal of International Business Studies* 21.3 (1990): 357-381.
- Harzing, A.-W.: "10 Composing an International Staff." *International human resource management* (2004): 251.
- Gong, Yaping. "Subsidiary staffing in multinational enterprises: Agency, resources, and performance." *Academy of Management journal* 46.6 (2003): 728-739.
- Rauch, J. E. "Business and social networks in international trade." *Journal of economic literature* (2001): 1177-1203.
- Dunning, J. H.: "The eclectic paradigm of international production: A restatement and some possible extensions." *Journal of international business studies* 19.1 (1988): 1-31
- Kogut, B. and Singh, H.: "The effect of national culture on the choice of entry mode." *Journal of international business studies* 19.3 (1988): 411-432.
- Hofstede, G.: *Culture's Consequence: International Differences in Work-related Values*, Beverly Hills, CA: Sage, 1980.
- Hofstede, G. H., and Hofstede, G.: *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations*. Sage, 2001.
- Evans, J. and Mavondo, F.: An alternative operationalisation of cultural distance. *ANZMAC Conference*, 2001.
- Hofstede, G. H.: *Dimension Data Matrix*. 2015. [online]. [cit. 2016-06-15]. Available at: <http://www.geerthofstede.nl/dimension-data-matrix>
- Ott, U. F. Repeated moral hazard in international joint ventures: Inter-temporal culturally sensitive incentive schemes for hidden action. *Research in International Business and Finance* 35, 2015, pp. 166-179.

22. House, R., et al.: Understanding cultures and implicit leadership theories across the globe: an introduction to project GLOBE. *Journal of World Business*, 2002, Vol, 37, no.1, pp. 3-10.
23. Hofstede, G., Hofstede, G. J. and Minkov, M.: *Cultures and Organizations: Software of the Mind*. Revised and expanded 3rd ed., McGraw-Hill Education, 2010. ISBN-10: 007166418.
24. Kotíková, S.: The Impact of Foreign Direct Investment in the Industrial Zones on Regional Labor Market. In *XVIII. International colloquium on regional science*. Brno: Masaryk University, 2015, pp. 115-121. ISBN 978-80-210-7861-1. DOI 10.5817/CZ.MUNI.P210-7861-201514
25. World Economic Forum: *The Global Competitiveness Report 2015-2016*. [online]. World Economic Forum: Geneva, 2015. [cit. 2016-05-25]. Available at: http://www3.weforum.org/docs/gcr/2015-2016/Global_Competitiveness_Report_2015-2016.pdf
26. Czech National Bank: *Foreign direct investment since 2014*. [online]. Praha: Czech National Bank, 2016 [cit. 2016-05-29]. Available at: https://www.cnb.cz/cs/statistika/platebni_balance_stat/pzi/
27. CzechInvest: *Investment Incentives* [online]. Praha: CzechInvest, 2016 [cit. 2016-06-13]. Available at: <http://www.czechinvest.org/data/files/fs-04-investment-incentives-68-en.pdf>

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