

Full Length Research Paper

The Impact of National Culture on Economic Productivity and Competitiveness

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The 21st century offered new challenges for the national economy. One of the most controversial aspects of globalization was the worldwide spread and dominance of the American culture. The cultural dimensions that characterize a nation had a major impact on national competitiveness, although in the globalization age the nations are tending to lose their own identity and culture. Competitiveness always was the motive which generates economic growth through productivity. The multicultural dimension of the world is a well-known and acknowledged fact. It is manifested both inside the borders of a nation, and outside them, and there are certain nations which are called „immigration countries” in which an own culture is impossible to bring into the debate, rather a conglomerate of cultures. The main idea of the paper was to identify the impact and the link, with the help of CORREL index, between cultural dimensions – power distance, individualism, masculinity, uncertainty avoidance measured by Geert Hofstede – and national competitiveness of a country measured by World Economic Forum through global competitiveness index (GCI). The results exhibited a significant impact of cultural dimensions on national competitiveness.

Key words: national competitiveness, cultural dimensions, power distance, individualism, masculinity, uncertainty avoidance.

INTRODUCTION

The culture is, in most of the cases, the main explanation of the fact that one country is developed quicker than other. The country development can be influenced by its own culture; only that a cultural model that can provide the success of a country does not exist. Each country has a stronger culture with very intense accents either of individualism or collectivism, big or small power distance, uncertainty control and masculinity or femininity.

Geert Hofstede said that “the world is a more dangerously divided places today than it was at the end of the Cold War. This despite the spread of free trade and the advent of digital technologies that afford a degree of global connectivity undreamed of by science fiction writes fifty years ago.” (Hofstede and Hofstede, 2005) It should not be forgiven that the culture is a cardinal factor, being, at the same time, an important variable in the success equation of the multinationals companies. The culture, the habits and the attitudes became points of major interest on the global market. Their importance is

obvious by the many "blunders" that are being made in the international business.

The hypothesis of the study is that cultural dimensions—power distance index, individualism/collectivism, uncertainty avoided and masculinity/femininity – have a very significant impact on the national competitiveness. Many studies emphasize that a country with a big score of individualism is a competitive one. At least since the 18th century, economists have recognized that good institutions are conducive to good economic performance. The appreciation of the benefits of good institutions has grown recently, in the light of both the challenges of transition and development together with the significant growth of empirical knowledge. But now economics can move further, and recognize that different institutions are appropriate in different circumstances. This is the goal of the new comparative economics, generally, and the goal of comparative management for the firm, specially (Shleifer et al. 2003).

The new comparative economics have a new field of debate. The traditional field deals mostly with the comparison of socialism and capitalism, but the new approach emphasizes more on the impact of culture on the national competitiveness.

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The literature on competitiveness offers a wide variety of definitions of the term. The National Competitiveness Council has chosen a definition that is at once simple to understand, while simultaneously incorporating those key elements which combine to produce a competitive economy: "Competitiveness is the ability to achieve success in markets leading to better standards of living for all. It stems from a number of factors, notably firm level competitiveness and a supportive business environment that encourages innovation and investment, which combined lead to strong productivity growth, real income gains and sustainable development" (Global Competitiveness Report, 2003 - 2004).

The competitiveness of a nation is from Porter's (2005) point of view national productivity. An increase in competitiveness of one country does not come at the expense of another. On the contrary, gains in productivity and efficiency in different countries can and must be integrated and mutually reinforcing (Beeg, 1999). In order to measure the national competitiveness the study uses global competitiveness index (GCI). GCI is the main competitiveness indicator to be used by World Economic Forum, developed by Professor Xavier Sala-i-Martin, at Columbia University. This index, which followed two other measures of national competitiveness – growth competitiveness index and business competitiveness index – responds to the more advances in economic research and to the rising importance of the international dimension, as well as the increasing diversity of countries covered by the report. With the formulation of this index, the World Economic Forum takes into account that the nature of international competitiveness is the subject of continuous changes. The fast development of information and communication technology and the associated decline in communication costs have led to a sharp increase in the speed of economic integration in the world. Firms are increasingly forced to base their decisions and strategies on a global perspective. This applies both to the marketing and the sourcing activities of firms. The growing number and importance of multinational enterprises mirrors these developments. Against this background, many economies feel forced to respond creatively to these challenges.

Literature review

The different way in which the culture concept is understood and used in different regions of the world – a way that certainly reflects the main political preoccupations of respective societies regarding both their historical legacy of unsolved problems and the problems which are a result of world evolution – is identifiable also by different meanings attributed to the concept of multiculturalism (Salat, 2001).

The threatening of the original cultures in world globalization is quite unavoidable. The only solution, in

Amartya Sen's (2001) opinion, which is not available, is to stop the globalization of trade and economy, because it is hard to oppose the influences of economic trade and division of labor in a competitive world, sustained by the massive evolution of technology, which gives to the modern technology a competitive side from the economic point of view.

According to these facts, Francis Fukuyama (1989) says: "It is a typical way to divide the world in regions, but it is not significant, because it does not take into consideration the different cultural attributes of those regions, especially from Asia and Europe. I think that, for example, family customs from Hong Kong or Taiwan have more common characteristics with Italy than with Japan. Also, the German cultural capacity to self-organize the society beyond family bindings, with no help from the government, makes them more like Americans than French people ... Some countries – especially Japan, USA and Germany – have a greater capacity to generate new forms of voluntary association, a so called spontaneous sociability" (Gardels, 1997). But, most studies associate and analyze countries by the cultural dimensions of Hofstede, showing groups of countries characterized by collectivism or individualism, by a great or small distance from state power, by masculinity or femininity, by a higher or lower degree of avoiding uncertainty.

A dangerous obsession or merely an obsession, competitiveness has all the necessary characteristics for being placed in the center of researches, lectures and debates that take place in the politic/public area, as well as in the business area, posing similar problems, dilemmas or contradictions (Krugman, 1994). Being closely linked with the notion of competition, the concept of competitiveness expresses at the highest level the capacity of individuals, companies, national economies, products, services, etc. to maintain in the internal and international competition and to obtain (produce) economic advantages from this. In order to increase competitiveness the countries manage their environments according to what can be called the four fundamental forces. These four dimensions shape the country's competitiveness environment. They are often the result of tradition, history or value systems and are so deeply rooted in the "modus operandi" of a country that, in most of the cases, they are not clearly stated or defined. However, it is possible to integrate these dimensions in an overall systemic theory, which means it also describes the relationships among the four axes. This theory does not aim to quantify the competitiveness of a country, but rather to highlight a "competitiveness profile", which characterizes an economy and anticipates how it may behave (Garelli, 2002).

In a world where change is the rule and not the exception, the key to international competitiveness is given by the ability of management to adjust to change and volatility at an ever faster rate. The rapid pace of

change means that new global managers need detailed knowledge of their operations. Global managers must know how to make the products, where the raw materials and parts come from, how they get there, the alternatives, where the funds come from, and what their changing of relative values does to the bottom line. They must also understand the political and economic choices facing key nations and how those choices will affect the outcomes of their decisions.

Carbaugh (1995) claims that international competitiveness it is relatively easy to be defined at the level of individual companies. A company is competitive when it can produce high quality goods and services at a lower price than its internal or external rivals. (...) For a nation, international competitiveness can be defined in several ways. However, all of them have a common feature: (...) their ability to efficiently use the opportunities on the international market. In making decisions for the global company, managers search their array of plants in various nations for the most cost-effective mix of supplies, components, transport and funds. All this is done with the constant awareness that the options change and the choices must be made again and again.

The problem of constant change disturbs some of the managers. It always had. But today's global managers have to anticipate it, understand it, deal with it, and turn it to their company's advantage. The payoff to thinking globally is a quality of decision making that enhances the firm's prospects for survival, growth, and profitability in the evolving world economy. The transformations of the world economy and culture have dramatic implications for business. American management for example, is learning that the United States can no longer be seen as a huge economy that does a bit of business with secondary economies around the world. Rather, the United States is merely one economy, even if a very large one, that is part of an extremely competitive, integrated world economic system. To succeed, U.S. companies need great flexibility; they must be able to change corporate policies as quickly as the world market creates new opportunities and challenges. Big Steel, which was virtually the antithesis of this modern model of business practice, paid the price for failing to adjust to the transformation of the world economy. Similarly, non-U.S. companies are finding that they must increasingly turn to foreign markets for source capital and technology in order to sell their products (Shapiro, 2003).

METHODOLOGY

Research model

In order to emphasize the link and the correlations between the four cultural dimensions – power distance, individualism, masculinity, uncertainty avoidance – and competitiveness the study appeals to the CORREL – correlation index calculation and to the correlogram representation with the highlight tendency that is manifested between the correlated elements.

The correlation index – CORREL:

$$C_{y/x} = \frac{n \sum xy - \sum x \sum y}{\sqrt{\sum x^2 - \frac{(\sum x)^2}{n}} * \sqrt{\sum y^2 - \frac{(\sum y)^2}{n}}}$$

where,

n = the number of the elements/index/variable, x and y=elements/indexes/variables to be considered if, $C_{y/x}$ is positive and tends to 1, there is a strong direct connection between variables, $C_{y/x}$ is close to zero, may it comes from 1 or -1, than the connection between variables is weak and $C_{y/x}$ is negative and tends to -1 there is a strong inverted connection between variables.

Data analysis

The intention through this study is to capture the actual correlations between the variables by appending to concrete values achieved by different countries, using as source the studies published by the World Economic Forum (Global Competitiveness Report 2008-2009) – for growth competitiveness index and Geert Hofstede web site – for national cultural dimensions. After analyzing the results reached by Hofstede on the 68 countries he studied, it can be identified groups of countries having certain common culture features, which however act differently according to values, rules, religion and educational system that each of them poses (Table 1).

The means for each cultural dimension and the standard deviations that the study calculates show that the results of all countries are in the standard deviation interval. Generalizing, it can be argued that 95% from all analyzed countries have values/results in standard deviation interval for each cultural dimension (Table 2). Also, after a simple analyze of the data it can be noticed that in Asia and in the Arabian Countries the power distance index is very high, while in North America, Australia and New Zealand it is much lower. Power distance is related to people's acceptance that the power in institutions and organizations is distributed unequally.

The same countries and regions (Australia, New Zealand and North America) are the most individualist countries; individualism or collectivism relates to people's self/concept "I" or "we".

Masculinity – which reflects preferences for achievement and material success as opposed to emphases on relationship and the quality of life – is likely the same in all analyzed regions with values between 50 and 60.

Uncertainty avoidance refers to the degree that the members of a society feel comfortable with uncertainty and ambiguity. From this point of view the Latin American Countries are in the top of the countries with a higher score – 81. The smaller score is obtained for Asia – a region with a very strong implication of religion in business environment.

From data analysis it can be observed that over the mean the standard deviation is very small. Moreover, at least 95% of the countries have GCI in the standard deviation interval (2.89, 5.85) (Table 3). This interval includes 130 countries from 133 and only 3, with smaller value than 2.89, are out of the standard deviation interval. Also, no country has GCI more than 5.85. Switzerland is situated on the first place with 5.60 value of the GCI according to the Global Competitiveness Report 2009 – 2010 (Table 4).

Case study

Correlation between power distance index and GCI

The correlation index value of -0.60512 shows an indirect and strong connection between the two variables, which means that in the countries where the power distance is

Table 1. Cultural dimensions of Geert Hofstede.

County / Average score	Power distance Index	Individualism	Masculinity	Uncertainty avoidance index
Europe	47	65	53	67
Asia	78	21	56	39
LAC	67	27	56	81
Africa	63	37	50	52
North America	40	85	57	47
Australia and New Zealand	29	85	60	50
Arab World	80	38	52	68

Source: www.geert-hofstede.com

Table 2. Mean, variance, standard deviation and standard deviation interval for cultural dimensions.

	Power distance index	Individualism	Masculinity	Uncertainty avoidance index
Mean (M)	57.71	51.14	54.85	57.71
Variance	379.24	724.80	11.47	215.23
Standard deviation	19.47	26.92	3.38	14.67
Standard deviation interval (M – 2SD, M + 2SD)	(18.77 , 96.65)	(-2.7 , 104.98)	(48.09 , 61.61)	(28.37 , 87.05)

Table 3. GCI Average.

Country / Average Score	GCI
Europe - Average	4.61
Asia - Average	4.24
LAC - Average	3.55
Africa - Average	3.48
North America - Average	5.46
Australia and New Zealand	5.15
Arabian World	4.16

Source: World Economic Forum

Table 4. Mean, variance, standard deviation and standard deviation interval for cultural dimensions.

	GCI
Mean (M)	4.37
Variance	0.56
Standard deviation (SD)	0.74
Standard deviation interval (M – 2SD, M + 2SD)	(2.89 , 5.85)

high the national competitiveness is low, like Romania, Venezuela, Poland and Slovakia and in the countries in which the power distance is low, the national competitiveness is high such as Switzerland, Finland, Holland and USA (Figure 1).

Also, from the graphic representation an indirect correlation results, because the value of the “a”

parameter from linear equation is -19,566.

Correlation between individualism and GCI

The correlation index estimated to distinguish the connection between individualism and competitiveness is

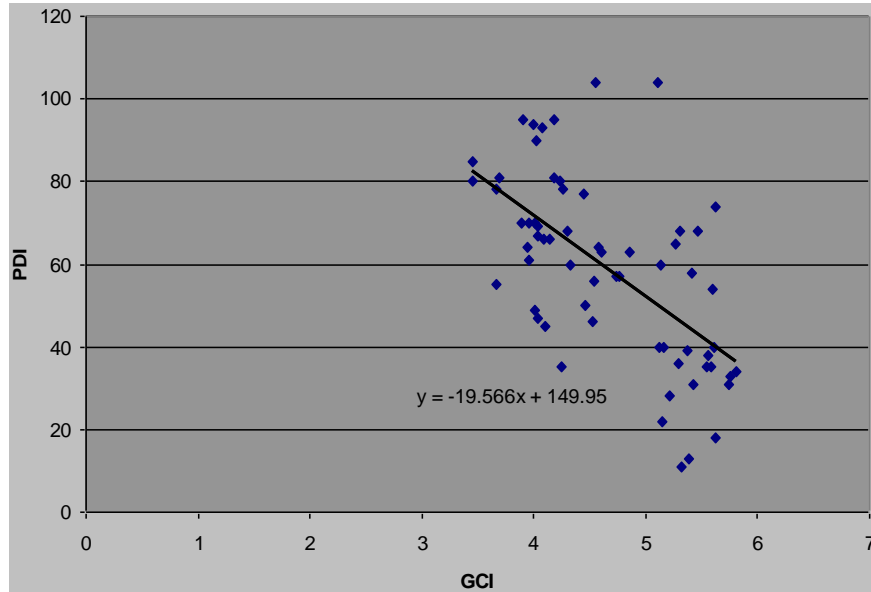


Figure 1. Correlation between power distance index and GCI.

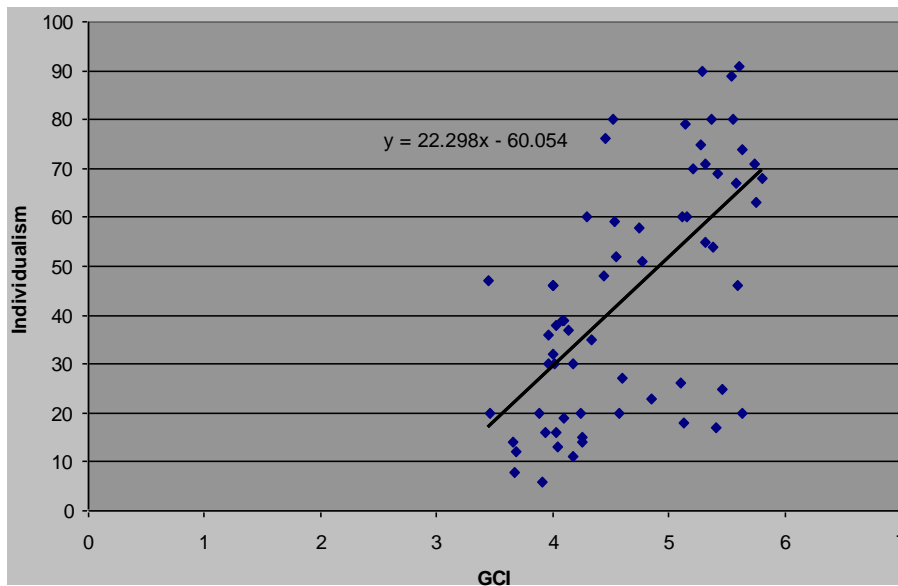


Figure 2. Correlation between individualism and GCI.

0.627065, with a strong and direct connection, that shows that the individualist countries are more competitive, and the collective countries are less competitive (Figure 2). From the first group (of individualist and competitive countries) take part Australia, United Kingdom, Denmark and Sweden and from the collective and less competitive countries take part Mexico, Philippine, Romania, Taiwan and Portugal.

According to the standard deviation interval and the mean for individualism it can be argued that some countries like Japan, Malaysia and Singapore are

exceptions to the rules; although they are characterized by high collectivism, they have a high national competitiveness.

Correlation between masculinity and GCI

If the first two cultural dimensions generate strong connections, either if they are direct or indirect, it can not be said the same thing about masculinity, taking into consideration the correlation index value of -0.08894.

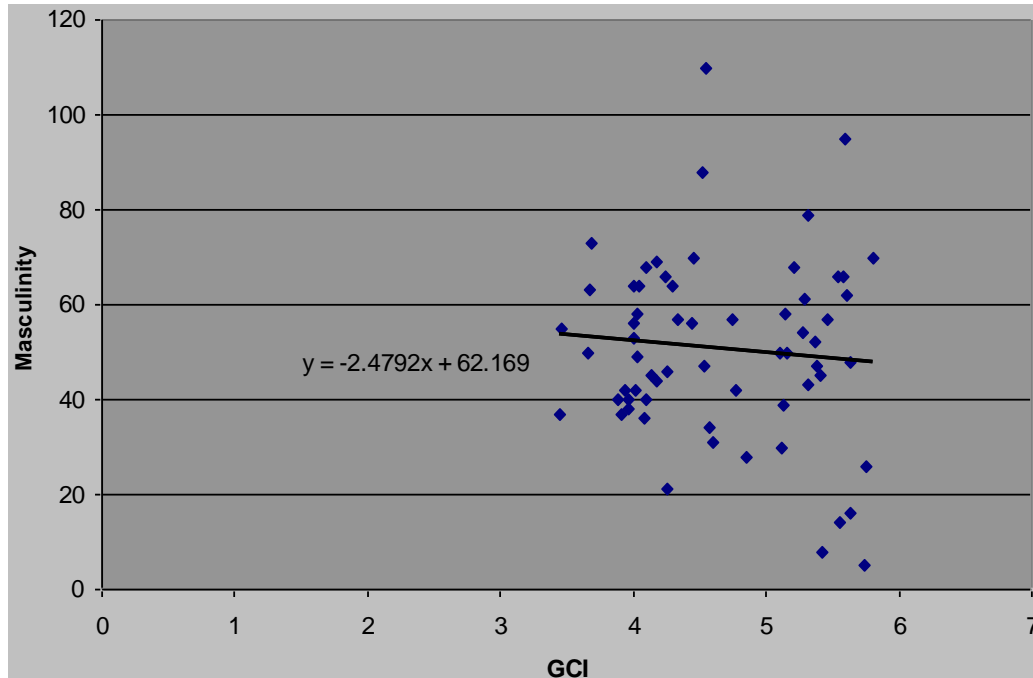


Figure 3. Correlation between masculinity and GCI.

This value underlines the fact that an economy can be competitive no matter if it is characterized by masculinity or femininity. In this way, excel the Nordic countries of Europe which are strongly influenced by femininity, but which are among the most competitive, as well as Switzerland or Austria in which prevails the masculinity, but which are equally competitive.

However, even if the link is very weak, the minus sign of the correlation coefficient shows that countries characterized by femininity, may become, over time, more competitive than those based on masculinity, but this is not yet proven (Figure 3).

Correlation between uncertainty avoidance and competitiveness

Uncertainty avoidance, as a cultural dimension, reflects the way in which people belonging to a society feel threatened by the double-edged situation as well as the level at which they are trying to avoid these situations, through the stipulation of a great career stability, establishment of more formal rules, rejection of ideas and behaviors that divert from standards and acceptance of absolute possibilities and perfection acquirement; uncertainty avoidance is found in an indirect average link with the national competitiveness, connection reflected by the correlation index value of -0.37053.

It can be appreciate that the tendency of countries where a lower uncertainty exists is to control being more competitive, and for the countries in which there is a higher uncertainty control the tendency is to be less

competitive, but there is an average connection between them (Figure 4).

Conclusion

As noted, the culture has an impact on national performance. Generally speaking, in the countries where power distance is small, the individualism predominates and uncertainty control is low, competitiveness is higher compared to countries where power distance is high, collectivism dominates and uncertainty control is intense. Nevertheless, some countries are competitive through individualism, low power distance index, masculinity; others are competitive trough collectivism, high power distance index and femininity.

The present study has demonstrated that there is a strong correlation between cultural dimensions and national competitiveness. According to CORREL results there are three cultural dimensions – power distance index, individualism and uncertainty avoidance – which have a major impact on national competitiveness in order to create a strong correlation, direct or inverted. Certainly, the cultural dimensions have a major impact on national competitiveness and not vice versa. But, it is also remarkable that the national performance reflects itself into the quality of life, the ability to attract foreign direct investments, the growth of productivity and of value added per input. Those which are competitive have a profit above the average registered in the industry and they are market leaders. In conclusion, culture and competitiveness contribute to the development of the

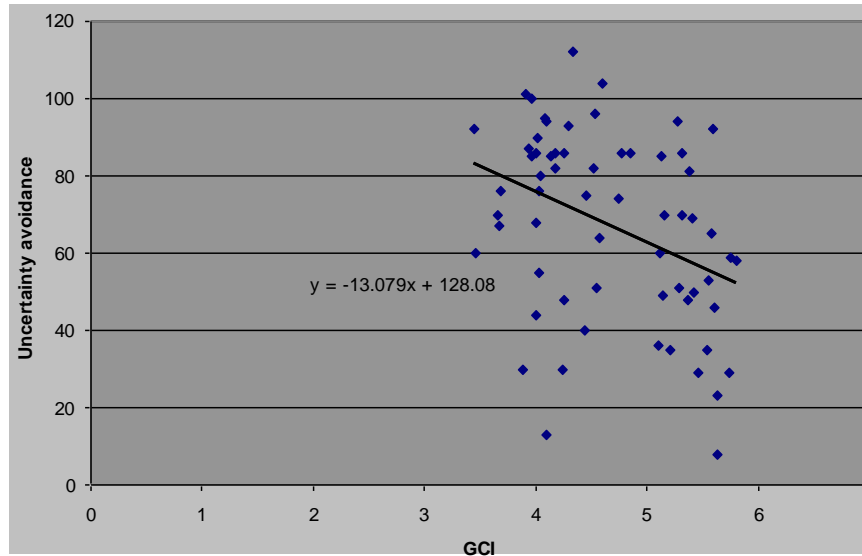


Figure 4. Correlation between uncertainty avoidance and GCI.

nation and to the identity of the nation.

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