

Culture, corruption and economic development: The case of emerging economies

TATJANA HORVAT¹ , PHILIPP MAYRLEITNER²,
ROMANA KOREZ VIDE^{3*}  and VITO BOBEK^{4,5} 

¹ University of Primorska, Faculty of Management, Koper, Slovenia

² Samsung SDI Battery Systems Ltd, Premstätten, Austria

³ University of Maribor, Faculty of Economics and Business, Razglova 14, 2000 Maribor, Slovenia

⁴ University of Applied Sciences FH Joanneum, Graz, Austria

⁵ University of Maribor, Faculty of Economics and Business, Maribor, Slovenia

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ABSTRACT

This paper aims to examine specific cultural attributes which may be favourable to economic development or restrictive to corruptive behaviour. The indicators of GDP growth and GDP per capita, the Human Development Index (HDI), Hofstede's cultural dimensions and the Corruption Perception Index (CPI) were used within a two staged analysis on the sample of selected emerging economies between 1995–2015. The findings of the research outline the complexity of this topic and numerous interrelations among the involved variables. The paper emphasises the importance of understanding the cultural traits of societies and the motives for corruption, to be able to take appropriate measures to promote economic and human development and to combat corruption. Future studies could assess differences within cultural clusters of the emerging economies to allow further insights on a comparative level, increasing the possibility to find answers why different regions develop faster than others.

KEYWORDS

culture, corruption, economic growth, economic development, human development, emerging economies

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* Corresponding author. E-mail: romana.korez@um.si

1. INTRODUCTION

In the last decades, economists have started to consider cultural aspects in economic growth theories and the influences of corruption to explain differences within the development pace of economies (e.g., [Casson – Godley 2000](#); [Chambers – Hamer 2010](#); [Franke – Nadler 2008](#); [Frederking 2002](#)). Within the evolution of growth theories and development studies the importance of cultural variables has become more evident than ever. However, only a few researchers have linked culture directly to economic growth, such as [Dieckmann \(1996\)](#) who tried to determine the interrelation of culture and economic growth by using a cross-sectional growth model and [Papamarcos – Watson \(2006\)](#), who analysed this relationship by regressing culture and economic growth without establishing any economic control variables. [Acemoglu \(2008: 20\)](#) and [Casson – Godley \(2000: 2\)](#) emphasised that inclusion of cultural variables in the economic development analyses could provide further answers why some nations progress and the others stagnate. According to [de Jong \(2015\)](#), a profound analysis of economic development requires culture to be a major consideration within the research.

Extensive literature exists on the relationship of corruption and economic growth, as economists started investigating the attributes of these factors more profoundly in the 1990s (e.g., [Mauro 1995](#); [Mo 2001](#); [Paldam 2002](#)). However, just a few studies include corruption, economic development and culture as variables (e.g., [Getz – Volkema 2001](#); [Sanyal – Samanta 2002](#)). In recent years a few scholars have picked up the topic of cultural influences on corruption (e.g., [Murdoch 2009](#); [Seleim – Bontis 2009](#); [Barr – Serra 2010](#); [Pillay – Dorasamy 2010](#)) but existing research is still limited.

Several empirical studies explore the relationships between distinct cultural traits or corruption and economic performance of single countries or smaller regions. Unfortunately, most of the findings do not reveal the structural relationships of the variables involved. Besides that, the literature focussing on the impact of these variables on the developing and emerging economies, respectively, is scarce. Hence, there is a deficiency of macroeconomic models that can be utilised as a theoretical groundwork for empirical studies investigating the emerging economies. This finding encourages further empirical investigation of the influence of culture and corruption on the human development and economic growth in the emerging economies. It is expected that besides corruption, cultural dimensions have a strong influence on the economic prosperity of a nation. As economic prosperity is expected to influence human development within a country in a positive manner, further investigation is needed to provide insights, if the cultural factors as well as corruption also have an impact on the well-being of the population. Additionally, the influences of cultural attributes on the level of corruption in the country have to be further explored.

The purpose of our paper is to investigate the impacts of culture and corruption on economic development by means of incorporating economic growth and human development. Moreover, cultural components of corruption are explored. Section 2 of the paper is devoted to the literature review. Section 3 explains the methodology, the sampling and the data collection procedure. In the subsequent sections the research results are discussed and a conclusion with policy implications, research limitations and suggestions for further research is depicted.



2. LITERATURE REVIEW AND HYPOTHESES

Economic development is a wider conception than economic growth. Economic development measures nation's wealth as well as how it is generated, whereas economic growth is vital for economic development but is not a sufficient stipulation, as it does not ensure development (Jain et al. 2009). Development reflects the economic as well as social progress and entails economic growth. Zuvekas (2000: 8) underlined that economic development is termed as growth which is complemented by changes that are found in the political and social structure of a market as well as within its own economic formation.

Historical evidence shows that the non-economic determinants of economic development have at least as much influence on the development of a nation as the economic ones (capital formation, marketable surplus of resources, the conditions for foreign trade, the nature and structure of the economic system, etc.). Non-economic factors are to a large extent cultural as well as policy based, shaped by history and time (Chand 2013). Economists have been examining the influences of cultural aspects on the development of economies since Weber's (1930) classical work 'The Protestant ethic and the spirit of capitalism'. This work proposed the well-known thesis that Protestantism was funnelling the development of capitalism because of hard work, human capital accumulation and thrift. Weber's work is often mentioned to be the implicit start of research on the cohesion of cultural aspect – in the meaning of norms as well as values – and economic development. Recent econometric analyses and historical studies have found that different levels in countries' development can be related to social values, such as future orientation and achievement motivation (de Jong 2015: 528).

Researchers have developed different definitions and measures regarding the concept and dimensions of culture. Hofstede (1997) defines culture as the collective programming of mind that distinguishes the members of different social groups. In addition to Hofstede's study of intercultural differences (Hofstede 2001), several additional cultural frameworks, models and measurement tools have been developed to better understand the structures of culture (e.g., Hall 1966; Trompenaars – Hampden-Turner 1998; House et al. 2004). Overall, it can be observed that most researchers postulate specific mechanisms or channels through which cultural factors have an impact on economic growth and development, respectively. These could be for example the influence of culture on trade relationships (Huang 2007), the impact of cultural factors on political decisions, such as the accession to the EU (Živko – Zver 2006), and the influences of cultural values on individuals' behaviour at the workplace (House et al. 2004).

In the last decade of the 20th century researchers started to put significant focus on the issues of corruption (e.g., Mauro 1995; Shleifer – Vishny 1993). Corruption involves the existence of weak public institutions as well as governmental officials who have the decision power and willingness to misuse their authority for rent-seeking actions. Even though the overall social costs of corruption are very challenging to quantify, economists largely recognised that corruptive transactions and the costs involved are a huge burden to the societal and economic development (Rose-Ackerman 2005: 10). Corruption causes bias investment, distorts competitive environment and fiscal policies (Getz – Volkema 2001: 11) and triggers disincentive consequences (Goudie – Stasavage 1997: 1–9). Considering the effects of corruption on the human development of countries, scholars put forward that societies with a low level of human development have a higher probability of engaging in corruptive behaviour (UNDP 2017; Anand – Sen 2000). Besides poorly installed institutions and bad governance, corruption has



been held accountable for the failure of many developing or emerging economies (Treisman 2000). Therefore, corruption does impose a high risk of hampering development and economic growth (Mauro 1995; Goudie – Stasavage 1997; Getz – Volkema 2001; Swaleheen – Stansel 2007).

Corruption is affected by several social, cultural, political and economic attributes, characterising certain structures which are predominant in countries (Ata – Arvas 2011: 163; Méndez – Sepúlveda 2006; Mo 2001: 76; Paldam 2002: 215; Tanzi 2000). Several cultural elements, such as manners, attitudes and ethics have significant influence on the behaviour and decision making of individuals (Getz – Volkema 2001: 9). When studying the influences of corruption, cultural aspects are important, since decisions of individuals to involve into corrupt practices are influenced by culture.

Based on the literature review, we developed three hypotheses. To find out, if there is a difference in the effect of culture and corruption on economic growth as well as human development, and to find out if culture affects corruption, the following null and alternative hypotheses were formulated:

H1₀: *There is no influence of culture and corruption on economic growth in emerging markets.*

H1₁: *There is an influence of culture and corruption on economic growth in emerging markets.*

H2₀: *There is no influence of culture and corruption on human development in emerging markets.*

H2₁: *There is an influence of culture and corruption on human development in emerging markets.*

H3₀: *There is no influence of culture on the corruption level in emerging markets.*

H3₁: *There is an influence of culture on the corruption level in emerging markets.*

3. METHODOLOGY AND DATA

Most of the empirical findings in the existent literature do not reveal the structural relationships among variables of culture, economic growth, human development and corruption. Our research, by contrast, is making use of a descriptive quantitative research design – multiple linear regression analysis, as it is the most applicable research method to answer our research question. Particularly, multidimensional relationship among the discussed variables demands the conduct of multiple regression analysis. We develop regression models and test them to find the causal relationships among the variables. The culture and corruption (independent variables) were employed to explore whether they influence economic growth and human development (dependent variables). When we researched whether the cultural factors influence the degree of corruption, culture was depicted as the independent and corruption as the dependent variable.

Our multiple regression model is the following:

$$Y = \beta_0 + \beta_1(X_1) + \beta_2(X_2) + \varepsilon \quad (1)$$

where Y = the dependent variable, X_1, X_2 = independent variables, β_0 = intercept of the line, β_1, β_2 = slopes of the lines and ε = the error, associated with the observation.

Based on this model, regression models M1, M2 and M3 were formulated:



$$\text{Economic growth} = \beta_0 + \beta_1(\text{Culture}) + \beta_2(\text{Corruption}) + \varepsilon \quad (2)$$

$$\text{Human development} = \beta_0 + \beta_1(\text{Culture}) + \beta_2(\text{Corruption}) + \varepsilon \quad (3)$$

$$\text{Corruption} = \beta_0 + \beta_1(\text{Culture}) + \varepsilon \quad (4)$$

The relationship between the independent and the dependent variable was verified by correlation analysis. Variance inflation factors as well as the collinearity statistics tolerance were computed to determine if multicollinearity exists.

To decide upon the appropriate sample of the emerging economies various sources were used. When formulating sample, ‘Emerging market clusters’ were considered, such as BRICS (composed of Brazil, Russia, India, China, South Africa), MINT (including Mexico, Indonesia, Nigeria, Turkey), the N-11 (Next Eleven, comprising Bangladesh, Egypt, Indonesia, Iran, Korea, Mexico, Nigeria, Pakistan, Philippines, Turkey, and Vietnam) and Outreach 5 (Brazil, China, India, Mexico and South Africa). As the term ‘Emerging Markets’ is highly depending on the definition, up-to-date country classifications published by financial indices, as the ‘MSCI ACWI + Frontier Markets (FM) Index’ (MSCI 2020) and ‘FTSE Country Classification of Equity Markets’ (FTSE Russell 2020) were taken into consideration. The selected sample was compared to some other sources, such as the Bloomberg’s (2013) ‘Top 20 Emerging Markets’ publication. In the first step, a total of 32 countries were selected for our sample. After checking for the availability of data, Namibia, Qatar, Taiwan, and the United Arab Emirates had to be excluded. Hence, the following 28 countries were chosen as the ultimate sample: Bangladesh, Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Iran, Malaysia, Mexico, Morocco, Nigeria, Pakistan, Peru, Philippines, Poland, Russia, Saudi Arabia, South Africa, South Korea, Thailand, Turkey, Vietnam and Zambia.

As secondary data were used to perform the statistical analysis, appropriate measures were allocated for each variable involved. Culture was broken down into six dimensions according to Hofstede’s (2001) model of intercultural differences:

1. *Power distance (PDI)* indicates the extent to which individuals of a nation are willing to accept large differences in power among people and groups within a society. Countries with a low degree of power distance consider effective leaders as such who do not need a substantial amount of power, in contrast to their subordinates. This is usually referred to a flat hierarchical system. On the other hand, in countries with a high-power distance level people believe that a person with authority should have significantly more power in comparison to their fellows.
2. *Uncertainty avoidance (UAI)* dimension reveals to what degree people consider unstructured (unknown, novel, different) situations as either comfortable or uncomfortable. Uncertainty avoiding cultures try to diminish the possibility of such conditions by strict laws and rules, safety and security measures as well as on the philosophical and religious level by a belief in absolute truth. The opposite, uncertainty-accepting cultures, are more tolerant of opinions different from what they are used to. They try to have as few rules as possible, and on the philosophical and religious level they are relativist and allow many currents to flow side by side.
3. *Individualism versus collectivism (IDV)* is the degree to which individuals integrate themselves into groups. Individualistic societies are characterized by loose ties between individuals, as everyone is expected to look after herself or himself and her or his immediate



family. Individualistic cultures emphasize personal responsibility and achievement. Overall, it can be said that individuals in this cultural cluster are self-oriented rather than group focused. In collectivistic societies people are integrated into a sturdy, cohesive group, mostly entailing the enlarged family, which maintains the protection of the members in exchange of absolute loyalty. Individualism is marked by traits such as competitiveness, initiative, assertiveness and self-assurance, whereas collectivistic traits include dependence, conformity and self-sacrifice.

4. *Masculinity versus femininity (MAS)* describes the distribution of emotional roles between genders. In both types of societies, masculine and feminine, “women are supposed to be modest, tender and concerned about the quality of life”. However, in masculine societies “men are supposed to be assertive, tough and focused on material success”. In feminine societies people value strong social relevance, the quality of life, as well as the welfare of others. Thereof, it can be concluded that the societies, where especially men are supposed to be assertive, are considered as masculine and more modest and caring societies are considered as feminine.
5. The cultural dimension of *long-term orientation (LTO)* differentiates between the individuals’ importance on the present versus the future, regarding the focus of people’s efforts. Long-term oriented cultures promote pragmatic virtues oriented towards future rewards. This implies persistence, savings as well as the adaption to altering circumstances. Short-term oriented societies encourage virtues which are related to the past as well as the present, such as respect for tradition, national pride, and preservation of ‘face’ and fulfilling social obligations.
6. The *indulgence versus restraint (INR)* dichotomy represents societies which allow relatively free gratification of basic and natural human drives regarding having fun and joy in life. Restraint emblematises a society which represses the gratification of needs, besides regulating it by the means of strict social norms.

Corruption was quantified by the Corruption Perception Index (CPI) (Transparency International 2016), which ranks countries from 0 to 100, provided that 0 indicates a highly corrupt perceived environment and 100 signals a corruption free country. Economic development, as the dependent variable, was sub-divided into economic growth and human development. GDP per capita in PPP and annual GDP growth rates were retrieved from the ‘World Bank’s Development Reports’ (World Bank 2017, 2017a). To monitor the non-economic development of a country, the Human Development Index (HDI) (UNDP 2016, 2017) was applied. The HDI is a summary of measures assessing the achieved development level in the key dimensions of a long and healthy life, being knowledgeable and having a decent standard of living. The three dimensions are measured upon the life expectancy at birth, the average years of schooling in regard of adults and the school entering age for children as well as the Gross National Income (GNI) per capita for the ‘Standard of living dimension’. The HDI ranks nations between the ranges of 0.0–1.0. The higher the number, the more developed the country is regarding human aspects.

Even though the World Bank has published annual GDP growth rates since the 1960s, the GDP per capita (in PPP) is only available since 1990. Besides that, the HDI as well as Hofstede’s cultural dimensions were formulated around 1980, whereas the CPI was first presented in 1995 by Transparency International. Hence, the earliest possible starting point of the timeframe is the year 1995. As the CPI is just available from 1995 onwards, this study focused on the 21-year period from 1995 to 2015.



4. RESULTS

In the first stage, the correlation analysis with Pearson Correlation coefficient was performed to evaluate how the variables are influencing each other, and determine, if some of them need to be excluded from the multiple-linear regression model as they would interfere too strongly with each other and distort the results or induce redundant outcomes. Table 1 indicates a relatively strong correlation, particularly regarding uncertainty avoidance (UAI) and GDP per capita ($r = 0.461$). In addition, UAI correlates significantly ($r = 0.534$) with HDI. There are also strong correlations among the level of corruption and GDP per capita ($r = 0.523$) and among the level of corruption and HDI ($r = 0.651$).

When observing the cumulative outcomes of the whole timeframe, almost all cultural dimensions correlate with GDP per capita significantly on a marginal positive level

Table 1. Extract from correlation analysis (1995–2015)

	Cor-CPI	Eco1-GDP PPP	Eco2-GDP%	Hum-HDI
Cul1-PDI	-0.269**	0.024	0.097*	-0.086*
	0.000	0.568	0.018	0.036
Cul2-IDV	0.294**	0.167**	-0.077	0.229**
	0.000	0.000	0.063	0.000
Cul3-MAS	0.007	0.087*	-0.013	0.041
	0.865	0.036	0.757	0.318
Cul4-UAI	0.329**	0.461**	-0.231**	0.534**
	0.000	0.000	0.000	0.000
Cul5-LTO	0.095*	0.224**	0.195**	0.300**
	0.022	0.000	0.000	0.000
Cul6-INR	0.204**	0.124**	-0.147**	0.124**
	0.000	0.003	0.000	0.003
Cor-CPI		0.523**	-0.065	0.651**
		0.000	0.115	0.000
Eco1-GDP PPP			-0.147**	0.810**
			0.000	0.000
Eco2-GDP%				-0.083*
				0.043

Notes: ** Correlation is significant at the 0.01 level (2-tailed); * Correlation is significant at the 0.05 level (2-tailed).

Source: Authors' calculations.



($r = 0.024-0.224$). In addition, GDP growth is significantly interrelated with the cultural dimensions of power distance (PDI) ($r = 0.097$), uncertainty avoidance (UAI) ($r = -0.231$), long-term orientation (LTO) ($r = 0.195$) as well as indulgence (INR) ($r = -0.147$). All cultural variables, including power distance ($r = -0.086$), individualism ($r = 0.229$), uncertainty avoidance ($r = 0.534$), long-term orientation ($r = 0.300$) and indulgence ($r = 0.124$), display low but significant correlation coefficients regarding human development. The same results can be found regarding corruption (COR) which exhibits positive correlations with individualism (IDV) ($r = 0.294$), uncertainty avoidance (UAI) ($r = 0.329$), long-term orientation (LTO) ($r = 0.095$) and indulgence (INR) ($r = 0.204$) and a negative correlation with power distance (PDI) ($r = -0.269$). Most important, it needs to be pointed out that significant correlations exist among the cultural variables themselves, but just on a moderate level ($r = 0.12 < 0.5$).

The regression model M1 tests the first hypothesis regarding the influence of culture and corruption upon the economic variable of GDP growth. This version of the model 1 did not present highly significant results regarding R^2 values as it explained just about 9% of the variability (Table 2). This is not a surprise, as existent literature highlighted that GDP growth does not provide significant models in most previous studies.

Nonetheless, M1, using GDP growth as dependent variable, identified some significant cultural variables, namely uncertainty avoidance (UAI) and long-term orientation (LTO) with beta coefficients of -0.221 (UAI) and 0.184 (LTO). This model was not affected by multicollinearity issues (Tolerance = 0.998; VIF = 1.002) (Table 3).

In contrast to the limited outcomes of the M1, using GDP growth as dependent variable, the examination of the influence of culture and corruption on the level of GDP per capita revealed more interesting results. Overall, this variation of M1 displayed significant outcomes by means

Table 2. M 1 Summary - Eco2-GDP% (1995-2015)

Model	R	R Square	Adjusted R square	Std. error of the estimate
1	0.295	0.087	0.084	3.349180

Note: Predictors: (Constant), Cul4-UAI, Cul5-LTO.

Source: Authors' calculations.

Table 3. M1 Regression coefficients - Eco2-GDP% (1995-2015)

Model		Unstandardized coefficients		Standardized coefficients Beta	T	Sig.	Collinearity statistics	
		B	Std. error				Tolerance	VIF
1	(Constant)	4.427	0.559		7.924	0.000		
	Cul4-UAI	-0.039	0.007	-0.221	-5.600	0.000	0.998	1.002
	Cul5-LTO	0.028	0.006	0.184	4.657	0.000	0.998	1.002

Note: Dependent variable: Eco2-GDP%.

Source: Authors' calculations.



of the adjusted R square value of 0.469, indicating that this group of independent variables can explain 47 % of the variability of GDP per capita across the emerging economies (Table 4).

The highest beta values (β) within the variables UAI, PDI, LTO and MAS were shown at COR $\beta = 0.438$ and UAI $\beta = 0.397$, following with PDI ($\beta = 0.246$), LTO ($\beta = 0.205$) and MAS ($\beta = 0.110$) (Table 5).

Therefore, the first null hypothesis was rejected for these five observed variables, accepting the alternative hypothesis that the degree of perceived corruption, UAI, PDI, LTO and MAS do have an influence on the GDP per capita within the emerging economies. It needs to be pointed out that the collinearity statistics have proven that the tolerance level is ranging from moderate multicollinearity of 0.844 to almost none (0.955) as well as a VIF (Variance Inflation Factor) of $1.019 < 1.185$ (Table 5). It is indicated that no significant multicollinearity interferes with the results of the model 1.

In the further research the second hypothesis, questioning the influence of cultural traits and corruptive behaviour on the human development level, was tested. Based on the findings shown in Table 7, we found that multicollinearity has influenced model 2. Version 1 of the model 2 is found to be the most undistorted (Tables 6 and 7). In the first instance particularly corruption ($\beta = 0.533$) mostly influences the degree of human development. Above that, when considering

Table 4. M1 Summary – Eco1-GDP PPP (1995-2015)

Model	R	R Square	Adjusted R Square	Std. error of the estimate
1	0.688	0.474	0.469	6573.824171

Note: Predictors: (Constant), Cor-CPI, Cul4-UAI, Cul1-PDI, Cul5-LTO, Cul3-MAS.

Source: Authors' calculations.

Table 5. M1 Regression coefficients – Eco1-GDP PPP (1995-2015)

Model		Unstandardized coefficients		Standardized coefficients Beta	t	Sig.	Collinearity statistics	
		B	Std. error				Tolerance	VIF
1	(Constant)	-31408.557	2506.437		-12.531	0.000		
	Cor-CPI	322.341	24.068	0.438	13.393	0.000	0.844	1.185
	Cul4-UAI	178.576	14.673	0.397	12.170	0.000	0.850	1.177
	Cul1-PDI	163.637	21.136	0.246	7.742	0.000	0.892	1.121
	Cul5-LTO	81.168	11.997	0.205	6.766	0.000	0.981	1.019
	Cul3-MAS	78.734	21.478	0.110	3.666	0.000	0.995	1.005

Note: Dependent variable: Eco1-GDP PPP.

Source: Authors' calculations.



Table 6. M2 Regression coefficients – Hum-HDI (1995–2015)

Model		Unstandardized coefficients		Standardized coefficients Beta	t	Sig.	Collinearity statistics	
		B	Std. error				Tolerance	VIF
2(1)	(Constant)	0.174	0.023		7.394	0.000		
	Cor-CPI	0.005	0.000	0.533	19.557	0.000	0.844	1.184
	Cul4-UAI	0.002	0.000	0.416	15.331	0.000	0.852	1.174
	Cul5-LTO	0.001	0.000	0.269	10.668	0.000	0.984	1.017
	Cul1-PDI	0.001	0.000	0.165	6.244	0.000	0.892	1.121

Note: Dependent variable: Hum-HDI.

Source: Authors' calculations.

cultural traits, particularly uncertainty avoidance ($\beta = 0.416$), long-term orientation ($\beta = 0.269$) and power distance ($\beta = 0.165$) have the highest impact on human development.

When considering the version 3 of the model 2, also indulgence ($\beta = 0.116$) and individualism ($\beta = 0.096$) exhibit statistically significant but low beta coefficients (Table 7). Thus, considering the VIF as well as collinearity tolerance and comparing the outcomes of this version with previous regression steps, it can be noted that these variables seem to have a moderating effect upon the other variables.

In general, the version 3 of the model 2 explains 65 per cent of the variability of the response data (Table 8).

Hence, the second null hypothesis was rejected, accepting the alternative hypothesis that cultural dimensions and corruption have a significant effect on the level of human development.

The third hypothesis was formulated to test the impact of culture on corruption. Considering the countries in the sample, cultural variables explain about a third (30%) of the variation within the level of corruption (Table 9).

The regression coefficients indicate that uncertainty avoidance ($\beta = 0.287$), individualism ($\beta = 0.270$), indulgence ($\beta = 0.293$) and long-term orientation ($\beta = 0.221$) significantly impact the level of corruption in the emerging economies (Table 10).

Versions 2 and 3 of the M3 were excluded, as the collinearity statistics indicated multicollinearity among the masculinity (tolerance = 0.699) and power distance (tolerance = 0.787) variables, distorting the outcomes of the other variables, when considering a tolerance level below 0.750 as critical. Table 11 indicates the multicollinearity effects on the independent variables of individualism, indulgence and uncertainty avoidance.

Therefore, the third alternative hypothesis is accepted, as cultural traits have shown a significant influence on the perceived corruption level.

It can be stated that our research findings represent valuable and significant insights into the interrelations of culture and corruption affecting the economic growth and human development but do not allow generalizations on the examples of other countries.



Table 7. M2 Regression coefficients – Hum-HDI (1995-2015)

Model		Unstandardized coefficients		Standardized coefficients Beta	t	Sig.	Collinearity statistics	
		B	Std. error				Tolerance	VIF
2(1)	(Constant)	0.174	0.023		7.394	0.000		
	Cor-CPI	0.005	0.000	0.533	19.557	0.000	0.844	1.184
	Cul4-UAI	0.002	0.000	0.416	15.331	0.000	0.852	1.174
	Cul5-LTO	0.001	0.000	0.269	10.668	0.000	0.984	1.017
	Cul1-PDI	0.001	0.000	0.165	6.244	0.000	0.892	1.121
2(2)	(Constant)	0.164	0.023		7.018	0.000		
	Cor-CPI	0.005	0.000	0.501	17.695	0.000	0.766	1.306
	Cul4-UAI	0.002	0.000	0.416	15.523	0.000	0.852	1.174
	Cul5-LTO	0.002	0.000	0.315	11.304	0.000	0.788	1.269
	Cul1-PDI	0.001	0.000	0.144	5.378	0.000	0.852	1.174
	Cul6-INR	0.001	0.000	0.106	3.702	0.000	0.742	1.348
2(3)	(Constant)	0.130	0.025		5.186	0.000		
	Cor-CPI	0.004	0.000	0.477	16.550	0.000	0.724	1.381
	Cul4-UAI	0.002	0.000	0.418	15.755	0.000	0.852	1.174
	Cul5-LTO	0.002	0.000	0.319	11.549	0.000	0.787	1.271
	Cul1-PDI	0.001	0.000	0.172	6.210	0.000	0.786	1.273
	Cul6-INR	0.001	0.000	0.116	4.052	0.000	0.736	1.360
	Cul2-IDV	0.001	0.000	0.096	3.566	0.000	0.823	1.216

Note: Dependent variable: Hum-HDI.

Source: Authors' calculations.

Table 8. M2 Model summary – Hum-HDI (1995-2015)

Model	R	R Square	Adjusted R Square	Std. error of the estimate
5	0.807	0.651	0.647	0.068744

Note: Predictors: (Constant), Cor-CPI, Cul4-UAI, Cul5-LTO, Cul1-PDI, Cul6-IND, Cul2-IDV.

Source: Authors' calculations.

5. DISCUSSION

The results of our multiple linear regression analysis provided proof that cultural dimensions and corruption impact the economic growth and human development of the emerging



Table 9. M3 Summary – Cor-CPI (1995–2015)

Model	R	R Square	Adjusted R square	Std. error of the estimate
3	0.550	0.302	0.295	10.3058

Note: Predictors: (Constant), Cul4-UAI, Cul2-IDV, Cul6-IND, Cul5-LTO, Cul3-MAS, Cul1-PDI.
Source: Authors' calculations.

Table 10. M3 Regression coefficients – Cor-CPI (1995–2015)

Model		Unstandardized coefficients		Standardized coefficients Beta	t	Sig.	Collinearity statistics	
		B	Std. error				Tolerance	VIF
3(1)	(Constant)	6.355	2.264		2.807	0.005		
	Cul4-UAI	0.176	0.022	0.287	7.930	0.000	0.977	1.023
	Cul2-IDV	0.200	0.027	0.270	7.478	0.000	0.977	1.023
	Cul6-IND	0.160	0.021	0.293	7.479	0.000	0.833	1.201
	Cul5-LTO	0.119	0.021	0.221	5.648	0.000	0.838	1.194

Note: Dependent variable: Cor-CPI.
Source: Authors' calculations.

economies and that countries' cultural traits impact the perceived corruption levels. Hence, the outcomes of this research support all three alternative hypotheses. The GDP growth is found to be significantly correlated with the degree of uncertainty avoidance and long-term orientation. All cultural indices, except power distance, are significantly correlated with the level of GDP per capita. Human development, in addition to corruption, is influenced by all cultural elements, except masculinity. Of course, there is a considerable amount of cultural diversity captured by these indices within the sample of the emerging economies.

Our findings indicate the complexity of cultural characteristics affecting not only economic development but also corruption, which seems to be highly interwoven with socio-cultural aspects. The results highlight uncertainty avoidance and long-term orientation to be the most significant influential factors of economic growth, in terms of GDP per capita. De Jong (2015: 526) highlights especially the transition phase of economies, transforming from an underdeveloped to an advanced industrialized nation. Correspondingly, thrift and the emphasis towards upcoming prospects shape this period of 'need for achievement' extraordinarily. This is undermined by the findings of Hofstede et al. (2010: 221), presenting strong positive correlations of future orientation linked to proximate progressions of growth within the rudimentary developed economies. Even though, this analysis finds a sturdy relationship among these cultural dimensions and stages of economic development. They discovered that these cultural traits are not linked to specific countries or religious affiliations.



Table 11. M3 Regression coefficients – Cor-CPI (1995–2015)

Model		Unstandardized coefficients		Standardized coefficients Beta	t	Sig.	Collinearity statistics	
		B	Std. error				Tolerance	VIF
3(1)	(Constant)	6.355	2.264		2.807	0.005		
	Cul4-UAI	0.176	0.022	0.287	7.930	0.000	0.977	1.023
	Cul2-IDV	0.200	0.027	0.270	7.478	0.000	0.977	1.023
	Cul6-INR	0.160	0.021	0.293	7.479	0.000	0.833	1.201
	Cul5-LTO	0.119	0.021	0.221	5.648	0.000	0.838	1.194
3(2)	(Constant)	14.544	2.710		5.367	0.000		
	Cul4-UAI	0.159	0.022	0.260	7.278	0.000	0.957	1.045
	Cul2-IDV	0.285	0.031	0.387	9.262	0.000	0.702	1.424
	Cul6-INR	0.185	0.021	0.339	8.620	0.000	0.791	1.263
	Cul5-LTO	0.122	0.021	0.226	5.915	0.000	0.837	1.195
	Cul3-MAS	-0.213	0.041	-0.219	-5.242	0.000	0.699	1.431
3(3)	(Constant)	23.822	3.833		6.215	0.000		
	Cul4-UAI	0.142	0.022	0.233	6.402	0.000	0.910	1.099
	Cul2-IDV	0.245	0.033	0.332	7.471	0.000	0.609	1.641
	Cul6-INR	0.192	0.021	0.351	8.981	0.000	0.784	1.275
	Cul5-LTO	0.125	0.020	0.233	6.137	0.000	0.835	1.198
	Cul3-MAS	-0.190	0.041	-0.196	-4.660	0.000	0.680	1.471
	Cul1-PDI	-0.120	0.035	-0.133	-3.392	0.001	0.787	1.270

Note: Dependent variable: Cor-CPI.

Source: Authors' calculations.

Acemoglu (2008: 363) argued that uncertainty avoidance (UAI) might be hampering to economic growth, which was also found in this study, indicated by a weak negative relationship. The reasoning behind Acemoglu's theory is that innovation and entrepreneurship involve considerable amounts of risks and that certain legislations could represent additional institutional barriers. These findings represent a small controversy, as UAI is negatively related to the economic growth in respect of annual GDP growth, but in fact UAI is mostly influencing the level of prosperity (GDP per capita) within an economy, which in turn has positive influence on the human development in an economy.

The results of our research also revealed that particularly corruption has the highest impact along with uncertainty avoidance, power distance and long-term orientation on the GDP per capita. The results indicate that the higher the score of CPI is (the lowest level of corruption), the higher the level of GDP per capita is found.



The failure of dimension of individualism, as it was not found to be a significant contributor to economic prosperity, is argued by Hofstede (2001: 253) with the fact, that this variable was already highly correlated with GNP per capita. Therefore, it can be assumed that most of the information involved within the variable of individualism was already held by this economic variable, meaning that any further information added by this factor was found to be insignificant. On the contrary, Hofstede (2001: 253) highlights that an increase in domestic prosperity, results in an increase in the degree of individualism, as increased availability of capital and resources lower the reliance of individuals onto the collective community. In general, it can be recapitulated that factors which usually are associated with economic aspects might in fact have socio-cultural origins (Javidan et al. 2006: 908).

Human development was found to be highly correlated with the level of economic prosperity (GDP per capita). This can be reasoned by a logical conclusion. The higher the available national incomes of a country, the more capital is available to be invested into the health care system, education, and other institutions, uplifting the level of well-being of the population. But this scenario should not be considered as a given, since many countries such as Nigeria, which is one of the wealthiest countries in Africa, still have a low degree of human development. The emphasis of boosting wealth in such societies can be brought to several stages. In prevalently occurring aggravating stages the focus is exclusively laid on forming a society which is as opulent as conceivable, regardless of income distribution and damage caused to human livelihoods. For sure, economic prosperity can be one of the most vital contributing components to achieve welfare but it is not the only factor bringing human development to societies.

In the correlation matrix it can be observed that five out of the six cultural dimensions are significantly related to the degree of corruption. Power distance showed a negative correlation in this respect, and thereof, it can be stated that countries with a low degree in power distance appear to be less corruptive than high power distance cultures, which in turn appear to have a much higher degree of corruption. Besides, individualism, uncertainty avoidance and indulgence displayed moderate correlations, which was in line with the findings in the regression model. In fact, according to the regression analysis these three cultural attributes explain the variance within the sample the most, along with long-term orientation. Particularly UAI shows to play a major role within the context of this research. In already existing empirical works at least three main circumstances were found which were argued to lead to a stimulation of corruptive behaviour. First, it needs to be alluded, that societies with a high degree of UAI tend to install many cultural and social rules as well as laws, which restrict individual conduct. Because of that, Getz – Volkema (2001: 15) assumed that within economic hardships people may tend to operate via informal networks to accomplish personal goals. This again would encourage individuals to offer bribes as well as encourage executives to accept or even demand bribes. As soon as such behavioural patterns were introduced, people in such societies are inclined to maintain these customs, as a break-out would again create a rise in the uncertainty level. Regarding international business practices, companies which already have implemented such corrupt practices along with senior officials might have the chance to withstand policy changes that would supersede this liaison (Shleifer – Vishny 1993). In fact, these conditions will impede a strong and fair competitive environment, hampering endogenous growth. Firms, which are new to the market or refrained so far from bribery, might recognise that corruption is predominant. As this involves the risk of losing competitiveness, these companies are very likely to not desist from corrupt transactions anymore in the future (Windsor – Getz 2000). Therefore, this relationship



creates a vicious circle for the societies involved and is worth further examination to understand the direct effects on the economy and how this problem can be solved.

In fact, the results of our research could not verify the above-described phenomena. According to the findings, corrupt acts are associated with uncertainty, and thereof, corruption is inconsistent with careful planning for the future. This is undermined by the variable of long-term orientation, as societies with a high degree of future orientation were found to be less corrupt. Besides that, it needs to be highlighted that [Getz – Volkema \(2001: 21\)](#) have found similar results in their study, exhibiting a negative relationship between high uncertainty avoidance and corruption. It can be assumed that uncertainty avoiding cultures will desist from corruption in times of economic prosperity but might get into culturally rooted vicious cycles within economic plights. In other words, individuals of uncertainty avoiding cultures might be tempted under economic distress to pay bribes, to bypass rules or regulations to increase their very own economic situation and to reduce the uncertainty of financial hardship. Therefore, corruptive behaviour can be considered as an instrument to decrease uncertainty ([Husted 1999: 345](#)).

Furthermore, the statistical analysis revealed that a low degree of individualism is related to a low score on the CPI. This means in fact, the more collectivistic an emerging economy is, the higher is the corruption level within the country. This can be reasoned by the fact that collectivistic cultures are characterized by conformity, loyalty, obedience as well as tolerance ([Triandis 1994](#); cited in [Park 2003: 36](#)). In turn, collectivism enhances the dissemination of corruption through ‘whistle blowing’ ([Pillay – Dorasamy 2010: 372](#)) and the phenomena of ‘amoral familism’ ([Banfield 1958: 10](#)). [LaPalombara \(1994: 328\)](#) highlights that a transformation of these societies and their characteristics is very problematic, as they tend to violate laws which conflict with their traditional code of conduct. However, these societies are very diverse, as their principles, guidelines and laws vary from group to group inside a broader collectivistic culture ([Hofstede 2001](#)). Hence, as no uniformity exists, corrupt practices are expected to be more pervasive ([Pillay – Dorasamy 2010: 372](#)).

In a certain manner the interrelations of cultural traits as well as corruptive behaviour with economic conditions are inextricable as all factors involved do have a certain influence on each other. Therefore, it is somehow logical that economic development is impossible to be demanded just by command. Besides that, [LaPalombara’s \(1994\)](#) words should be kept in mind, as cultural characteristics are very challenging to change. In this regard [Hofstede \(1997: XIII\)](#) put the problem into a nutshell by stating “Our common world-wide problems demand concerted action, but if we have to wait until all people share the same cultural values, we will wait forever.”

6. CONCLUSION

Within the theoretical section of this paper, several theories and influential factors of economic and human development were discussed. Thereof, multiple regression analysis and correlation matrices were presented in the empirical part.

The research findings indicate that most of the variables correlate with each other proving their mutual interrelations. The results of the multiple linear regression analysis also provided proof that the cultural dimensions and corruption influence the economic development level of



the emerging economies. Hence, the outcomes of this paper support all three alternative hypotheses.

6.1. Policy implications

In times of globalization isolationism has become impossible, but still cultural traits of each society form unique framework conditions, which may encourage or hamper economic development. The economic performance of a nation can likewise be considered as an outcome of a country's distinct culture. Individuals of each culture are raised in a particular framework of cultural traits and values, forming preferences and decisions which will be made in their future life period. Accordingly, it can be said that economic development as well as the degree of corruption are culturally rooted, as these factors just display the consequences resulting from the choices made by a society.

The aim of this paper was to examine the interrelations of the discussed variables and expanding the knowledge of economic development in the emerging economies by incorporating cultural determinants and corruption in a theoretical and empirical investigation. Some scholars argued that cultural attributes have a restrictive effect on a person's personal behaviour. In this sense, one could conclude that the cultural determinants define the utmost level of development, and thereof, the cultural dimensions provide further elucidation of variances among the economic development rates. Therefore, policy decision-makers must consider the cultural landscapes and adjust strategies and policies to encourage economic development and combat corruption successfully.

6.2. Limitations and future research

The use of indices based on subjective perceptions in regard to culture and corruption is likely to be biased. Hence, this paper encompasses limitations common to many studies using similar indices. Without a doubt, cultural traits and corruptive behaviour have certain effects on the economic development of the emerging countries, but unfortunately this research could not find distinct reasons why certain economies manage to sustain development and others do not. Nonetheless, it provided new insights into the interrelations of country's cultural variables and its development. Furthermore, this study underlined the complex linkages of corruption, being influenced by numerous factors as well as affecting a range of socio-economic factors.

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