REVISITING CORRUPTION AND CULTURE – ARE THERE REALLY CULTURES MORE PRONE TO CORRUPTION?

IVAN A. VALDOVINOS, MIKE SZYMANSKI, KARINA GRABOWSKA

ABSTRACT

Corruption, i.e. an abuse of power by a person in a position of authority in exchange for personal benefits, is a major challenge in international business. It increases the cost of doing business and discourages foreign direct investment (Cuervo-Cazurra, 2006). Due to its importance to international business, corruption has been the subject of numerous theoretical and empirical studies which aim to ascertain its antecedents and predictors. National culture (or certain dimensions thereof, in particular) has been found to be a strong predictor of high corruption levels. In this study, we revisit Husted's (1999) and Seleim and Bontis (2009) seminal articles on the relationship between the dimensions of national culture and the perception of corruption. We retest their hypotheses using newly available measures of culture (the GLOBE Project) and a larger data set (1120 country-year observations) and go on to develop and test a follow-up hypothesis about the role of future orientation as an important predictor of the level of corruption. We juxtapose our results to the original ones and other key studies in the literature on corruption and culture.

KEY WORDS

Corruption, cross-cultural differences, cultural dimensions, transparency.

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Introduction

In 2016 it came to light that a Brazilian construction company, Odebrecht, had paid in excess of 800 million dollars in bribes to high-level officials in most countries of Latin America (Ahmed, 2018). Impeachments and arrests followed in some countries such as Peru or Panama, however Mexico was a notable exception, despite its government allegedly having enough evidence to charge officials. Corruption scandals plagued Enrique Peńa Nieto's presidency in Mexico, but this Latin American country is hardly the only country struggling with corruption. Examples like these, which display the pervasiveness of corruption at both government and company levels in several countries in the region, have singled out corruption as one of the most discussed managerial issues. Without a doubt, corruption affects

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individuals' everyday lives and has numerous negative social consequences, one of them being a negative effect on business. It has a direct and indirect effect on the cost of doing business in a given country (Cuervo-Cazurra, 2006). High levels of corruption discourage foreign direct investment and undermine the trust of corporations and individuals in the system. Finally, highly corrupt institutions discourage entrepreneurship and small and medium-sized business development (e.g. Anokhin and Schulze, 2009; Tonoyan et al., 2010).

In fact, Latin America is not the only region affected by this complex political, economic, social, and psychological phenomenon. Sah (2007) and Bardhan and Mookherjee (2006) found that some regions are more prone to corruption than others. Regions such as Latin America, South Asia, Africa and the Middle East – with notable exceptions – are usually described as particularly corruption-prone. It raises questions about whether some regions or, more specifically, cultures are more prone to corruption than others. However, economics and business literatures offer conflicting insights. There is a plethora of empirical studies but the results are very often fragmented. In this study, we revisit Husted's (1999) and Seleim and Bontis's (2009) seminal articles on the relationship between the dimensions of national culture and the perception of corruption. We retest their hypotheses using new available measures of culture and a larger sample, and move on to develop and test a follow-up hypothesis about the role of future orientation as an important predictor of the level of corruption.

In what follows, we review the most recent studies on culture and corruption. We then develop three hypotheses linking particular dimensions of culture to perceived corruption. Subsequently, we describe the applied methods and sample, and summarise the results. We continue with a brief discussion on the theoretical and practical implications of our findings.

1. Understanding culture and corruption – literature review

Interest in corruption is not new; however, due to its significance and widespread coverage it has remained an important topic of discussion among scholars. Extended media coverage has brought to light huge scandals at both government and company levels such as Odebrecht in Latin America and the 1MDB fund in Malaysia. Sah (2007) and Bardhan and Mookherjee (2006) found that some regions are more prone to corruption than others, which raises questions on the role of culture in corrupt practices around the globe. Corruption has a negative economic effect, delays economic development, hinders foreign direct investment and increases the risk for investors (e.g. Seleim and Bontis, 2009; Doh et al., 2003; Dreher and Gassebner, 2013). For such reasons, there is a plethora of empirical studies on the subject, but the results are very often fragmented.

Despite the importance of understanding how corruption spreads in individual countries, comprehending how it develops across countries might offer a broader understanding of ways to curtail such practices. In his study, Husted (1999) adds to previous literature that focused on economic and political explanations to corruption by linking the existence of corruption practices to cultural characteristics across countries using the cultural dimensions championed by Hofstede (1997). In addition to measures for economic development, income distribution and government size, he added hypotheses to measure the impact on corruption of power distance, individualism, masculinity-femininity, uncertainty

avoidance, and Confucian dynamism. He found that economic development was the most significant correlate of corruption, and among the cultural values, high levels of uncertainty avoidance, masculinity and power distance showed a positive correlation with corruption.

Even though culture is not the only explanation for corruption, culture encompasses many traits of citizenship and the concept has been used to predict the general response of a particular group to situations considered of dubious nature (Davis and Ruhe, 2003; Park, 2003; Pena López and Sánchez Santos, 2014). Since Husted's study, others have contributed to the cultural discussion on corruption by adding measures from Project Globe (see House, Javidan, Hanges, and Dorfman, 2002) to Hofstede´s cultural dimensions such as performance orientation, future orientation, assertiveness, institutional collectivism, gender egalitarianism and human orientation (Bontis and Seleim, 2009). In this study, we consider the data from the Globe project to be more recent and reliable.

The study of corruption is not limited to the country level. Johan and Najar (2010) present a study on equity funds in which they found that lower levels of corruption are correlated with lower fixed fees and higher performance-related fees for fund managers. More recently, Biggerstaff, Cicero, and Puckett (2015) found that CEO benefits might affect their motivation to engage in corporate misbehaviour and might signal an unethical corporate culture. Corporate culture is indeed an important variable in corrupt organisations (Campbell and Göritz, 2014), but one that is difficult to measure given that managers and employees differ in their perception of it.

Furthermore, since corruption has the potential to cause a delay in economic growth and hinder foreign direct investment, authors have focused on the relationship between corruption and its negative impact on the economy. Many of these studies focus on accounting choice and management of earnings (Houqe and Monem, 2016; Lewellyn and Bao, 2017; Mazzi, Slack, and Tsalavoutas, 2018; Mazzi, Slack, Tsalavoutas, and Tsoligkas, 2019). Such research centres on the idea that managers exercise accounting discretion to distort a company's financial results, or practice the selective disclosure of information to alter the perception of a firm's future potential in order to mislead stakeholders to derive benefits.

It has been argued that the measures proposed by Hofstede and his conclusions might not be as relevant today as in the past. Additionally, newer and arguably more reliable data is now available (i.e. GLOBE project variables) and should not be ignored.

This study expands Husted's (1999) and Seleim and Bontis's (2009) seminal works by retesting their hypotheses in light of new available measures of culture and larger samples, and moves on to develop and test a follow-up hypothesis about the role of future orientation as an important predictor of the level of corruption. We use secondary archival data and apply statistical modelling techniques to data ranging from 1995 to 2013. We take the effect of cultural discrepancy contrasting cultural values with cultural practices into consideration (see Gelbrich et al., 2016). Our study contributes to extant literature by questioning the reliability and usefulness of cultural measures for the study of corruption phenomena.

2. Hypotheses development

According to Transparency international, corruption is the abuse of entrusted power for private gain. Using a larger and more recent sample, we retested Husted's (1999) hypotheses on the relationship of culture

and corruption (uncertainty avoidance and power distance) and we added future orientation to consider data provided by the GLOBE project and not considered in the seminal article. Additionally, we controlled for economic development, government size and economic inequality. We built our hypotheses on the previous studies to retest their findings.

2.1. Economic development and corruption

Extant literature argues that economic development is an important correlate to corruption (Seleim and Bontis, 2009; Husted, 1999), given that economic development creates conditions in which officials would be less tempted to accept briberies or partake in misconduct (i.e. increases in wages and education). We therefore expect that corruption would be more pervasive in developing economies (Park, 2003), hence:

Hypothesis 1a (H1a). *The higher the level of economic development, the lower the corruption level in the country.*

The role of the government is another variable used to predict corruption levels. The logic here is that larger government units are prone to larger bureaucracy that facilitates misconduct (Husted, 1999). The unlikelihood of being caught creates incentives to misconduct, hence:

Hypothesis 1 b (H1b). *The larger the government's share of GDP, the higher the corruption level in the country.*

When it comes to the effect of economic inequality on corruption, we follow Husted's (1999) original logic that corruption tends to generate and preserve higher inequalities in the distribution of income (Johnston, 1989; Alam, 1995). Even though economic inequality was not found to be significantly correlated with corruption levels, we leave this hypothesis in, hence:

Hypothesis 1c (H1c). *The greater the economic inequality, the higher the corruption level in the country.*

2.2. Uncertainty avoidance and corruption

According to Hofstede (1997, p. 113), uncertainty avoidance is "the extent to which members of a culture feel threatened by uncertainty or unknown situations". In high uncertainty avoidance cultures, individuals might feel the need to use informal channels to reduce uncertainty, especially when trust in institutions is low. Through bribery, firms might be able to guarantee contracts that otherwise would go to the competition. In this sense, corruption is perceived as a way of reducing uncertainty (Husted, 1999, 2002; Macrae, 1982; Mohammad and Husted, 2019), hence:

Hypothesis 2a (H2a). *The greater the level of uncertainty avoidance in a nation, the higher the level of corruption.*

2.3. Power distance and corruption

High power distance represents a high level of dependence of subordinates on their superiors (Husted, 1999); these societies emphasise autocratic and paternalistic behaviours and are organised in classes (Bontis and Seleim, 2009). Those characteristics give superiors a sense of entitlement, feeling free to abuse others. On the contrary, in low power distance societies, superiors and subordinates see each other as equal in power which leads to cooperation and respect (Seleim and Bontis, 2009), hence:

Hypothesis 2 b (H2b). *The greater the level of power distance in a nation, the higher the level of corruption.*

2.4. Future orientation and corruption

Cultures differ in their perception of time and the importance of planning. Cultures

which prefer long-term planning and are able to delay gratification score highly on future orientation, while cultures oriented on immediate gratification are ranked low on future orientation (Javidan and House, 2001). We follow Seleim and Bontis (2009) and hypothesise that:

Hypothesis 3 (H3). *The lower the level of future orientation in a nation, the higher the level of corruption.*

3. Methods and data

To test our hypotheses, we collected secondary archival data and applied statistical modelling techniques. The data comes from three sources: (1) the corruption levels were obtained from the Corruption Perception Index reports (Transparency_International, 2019) published in 1995-2013 and available at https://www.transparency.org/research/cpi; (2) the culture measures were obtained from the GLOBE centre (House, Hanges, Javidan, Dorfman, and Gupta, 2004) as available at https://globeproject.com; (3) country-level control variables were retrieved from the World Bank dataset available at https://data.worldbank.org.

3.1. Sample

Data was collected on the level of corruption across the world in 1995-2013 as reported in the Corruption Perception Index (Transparency_International, 2019). In total, there are 2469 year-country observations. Table 1 shows the sample breakdown by years.

Table 1. Corruption Perception Index countries' data breakdown by year

Year	N	%	Cum. %
1995	41	1.66	1.66
1996	54	2.19	3.85
1997	52	2.11	5.95
1998	85	3.44	9.4
1999	99	4.01	13.41
2000	90	3.65	17.05
2001	91	3.69	20.74
2002	102	4.13	24.87
2003	133	5.39	30.26
2004	146	5.91	36.17
2005	159	6.44	42.61
2006	163	6.6	49.21
2007	180	7.29	56.5
2008	180	7.29	63.79
2009	180	7.29	71.08
2010	179	7.25	78.33
2011	183	7.41	85.74
2012	176	7.13	92.87
2013	176	7.13	100
Total	2,469	100	

Source: Own elaboration.

However, when the CPI dataset was matched with the results of the GLOBE study (House et al., 2004) and control variables obtained from the World Bank, we were left with 1120 complete observations, which constitute the final sample.

3.2. Variables

The dependent variable in our study is *Corruption* which is a reverted CPI score for a given country in a given year. The higher the CPI score, the less corrupt the country is; therefore, to ease the analysis and interpretation of the result, we reverted the scale.

The independent variables in our study are cultural dimensions as defined and measured in the original GLOBE study (House et al., 2004). All are measured on a linear 1-7 scale. The nine dimensions are as follows: (1) *Uncertainty Avoidance* is the extent to which a society relies on social norms, rules, and procedures to alleviate the unpredictability of future events; (2) *Assertiveness* is the degree to which individuals are assertive, confrontational, and aggressive in their relationship with others; (3) *Gender Egalitarianism* is the degree to which a collective minimises gender inequality; (4) *Performance Orientation* is the degree to which a collective encourages

group members to improve performance and strive for excellence and rewards them for doing so; (5) *Humane Orientation* is the degree to which a collective encourages individuals to be fair, altruistic, generous, caring, and kind to others and rewards them for doing so; (6) *In-Group Collectivism* is the degree to which individuals express pride, loyalty, and cohesiveness in their organisations or families; (7) *Institutional Collectivism* is the degree to which organisational and societal institutional practices encourage and reward the collective distribution of resources and collective action; (8) *Power Distance* is the extent to which the community accepts and endorses authority, power differences, and status privileges; (9) *Future Orientation* is the extent to which individuals engage in future-oriented behaviour such as planning, investing in the future, and delaying gratification. All dimensions are measured as *cultural practices* (the current state of culture in the nation) and as *cultural values* (the desired state).

The control variables used in our study are: (1) *Gross Domestic Product per capita* (measured in 2011 dollars) which is a proxy for the economic development of the nation; (2) *Government Expenditure* (measured as a percentage of the total GDP); (3) *GINI Economic Inequality Index*. Tables 2 and 3 present correlations between the dependent, control, and cultural variables (separately for cultural values and cultural practices).

Table 2. Correlation matrix – culture practices

	4.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1.	CPI												
2.	Government Expenditure	0.40											
3.	GDP per capita	0.82	0.32										
4.	GINI	-0.50	-0.40	-0.51									
5.	Assertiveness	0.06	0.21	0.17	-0.08								
6.	Institutional Collectivism	0.44	-0.08	0.35	-0.33	-0.39							
7.	In-group Collectivism	-0.77	-0.39	-0.69	0.39	-0.01	-0.35						
8.	Future Orientation	0.68	-0.01	0.57	-0.30	0.10	0.52	-0.53					
9.	Gender Equality	0.23	0.40	0.16	-0.04	0.03	-0.05	-0.30	0.02				
10.	Humane Orientation	-0.12	-0.31	-0.10	0.05	-0.49	0.40	0.02	0.08	-0.10			
11.	Performance Orientation	0.52	-0.17	0.44	-0.17	0.17	0.46	-0.31	0.68	-0.30	0.09		
12.	Power Distance	-0.39	-0.04	-0.31	0.06	0.17	-0.42	0.48	-0.58	-0.22	-0.35	-0.36	
13.	Uncertainty Avoidance	0.78	0.17	0.65	-0.39	-0.01	0.51	-0.70	0.83	0.08	0.03	0.64	-0.46

Source: Own elaboration.

Table 3. Correlation matrix – culture values

		1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1.	CPI												
2.	Government Expenditure	0.40											
3.	GDP per capita	0.82	0.32										
4.	GINI	-0.50	-0.40	-0.51									
5.	Assertiveness	-0.06	-0.40	-0.11	0.06								

6. Institutional Collectivism	-0.33	0.09	-0.21	0.29	-0.33							
7. In-group Collectivism	0.05	0.10	-0.04	0.09	-0.02	-0.04						
8. Future Orientation	-0.54	-0.29	-0.52	0.50	0.09	0.25	0.29					
9. Gender Equality	0.52	0.44	0.50	-0.27	-0.34	0.03	0.14	-0.54				
10. Humane Orientation	0.47	0.27	0.46	-0.34	-0.18	-0.14	-0.03	-0.28	0.39			
11. Performance Orientation	0.18	0.25	0.12	0.02	-0.12	0.24	0.50	0.14	0.29	0.14		
12. Power Distance	0.06	-0.01	0.01	0.14	0.07	-0.21	-0.01	-0.08	-0.19	-0.17	-0.26	
13. Uncertainty Avoidance	-0.79	-0.25	-0.73	0.50	0.13	0.33	0.11	0.63	-0.59	-0.41	-0.12	0.08

Source: Own elaboration.

4. Results

To test our hypotheses, we applied the fixed effect (generalised least squares) statistical modelling technique. Fixed effects models allowed us to control for constant, but unmeasured, differences due to year-specific factors (e.g., Allison, 2009; Hansen, 2007; Szymanski, Fitzsimmons, and Danis, 2019). We built 11 models: (1) a base model in which we included the three main control variables, namely GDP per capita, Government Expenditure, and GINI coefficient; (1-9) a series of 9 models, each consisting of the controls and one cultural dimension variable; (10) a full model, including the three controls and all cultural dimension variables. We ran these models using both cultural values (results presented in Table 5) and cultural practices (results presented in Table 6).

Table 4. The effect of cultural values on perceived corruption (GLS regression results)

	Base Model	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Full Model
GDP per capita	-1.24***	-1.39***	-1.35***	-1.38***	-1.30***	-1.30***	-1.33***	-1.38***	-1.39***	-0.89***	-0.88***
	(0.03)	(0.05)	(0.04)	(0.05)	(0.05)	(0.05)	(0.05)	(0.04)	(0.04)	(0.05)	(0.04)
Gov't Expend.	0.01***	-0.00	-0.00	0.01	0.01	0.01*	0.01	0.01**	0.01	-0.01	-0.01*
	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.00)	(0.00)
GINI	0.02***	0.03***	0.02***	0.03***	0.02**	0.03***	0.03***	0.04***	0.04***	0.01	0.00
	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Assertiveness		-0.41***									-0.43***
		(0.10)									(0.08)
Instit'l Collect.			0.69***								0.04
			(0.11)								(0.11)
In-group Collect.				-0.41*							-0.50**
				(0.17)							(0.17)
Future Orient.					0.99***						0.21***
					(0.17)						(0.07)
Gender Equality						-0.52***					0.58***
						(0.15)					(0.15)

Humane Orient.							-0.99*** (0.27)				-0.97*** (0.21)
Performance								-1.06*** (0.19)			-0.93*** (0.19)
Power Distance									-0.79*** (0.17)		-1.04*** (0.14)
Uncertainty Avoid.										1.74*** (0.10)	1.87*** (0.11)
Fixed Year Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	694	694	694	694	694	694	694	694	694	694	694
R2	0.70	0.70	0.71	0.70	0.71	0.70	0.70	0.71	0.70	0.79	0.84

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Comment: In all regression models, the dependent variable is Corruption, which is a negative (reversed) CPI score, so that a positive coefficient means "more corruption," and a negative coefficient means "less corruption."

Source: Own elaboration.

Table 5. The effect of cultural practices on perceived corruption (GLS regression results)

	Base Model	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Full Model
GDP per capita	-1.24*** (0.03)	-1.40*** (0.05)	-1.26*** (0.04)	-0.96*** (0.05)	-1.00*** (0.04)	-1.39*** (0.05)	-1.44*** (0.05)	-1.12*** (0.04)	-1.28*** (0.04)	-0.96*** (0.04)	-0.75*** (0.04)
Gov't Expend.	0.01*** (0.00)	0.00 (0.01)	-0.01 (0.01)	0.01** (0.00)	-0.02*** (0.00)	0.01 (0.01)	0.00 (0.01)	-0.02*** (0.01)	0.00 (0.01)	-0.01* (0.00)	-0.02*** (0.00)
GINI	0.02*** (0.00)	0.03*** (0.01)	0.01* (0.01)	0.03*** (0.01)	0.02*** (0.00)	0.03*** (0.01)	0.03*** (0.01)	0.03*** (0.01)	0.03*** (0.01)	0.01* (0.00)	0.02*** (0.00)
Assertive-ness		0.68*** (0.16)									0.94*** (0.14)
Instit'l Collect.			-1.41*** (0.13)								-0.01 (0.12)
In-group Collect.				1.33*** (0.08)							0.69*** (0.08)
Future Orient.					-2.02*** (0.10)						-0.80*** (0.16)
Gender Equality						0.01 (0.16)					-0.47*** (0.12)
Humane Orient.							-0.60*** (0.12)				0.18 (0.10)
Performance								-1.98*** (0.12)			-1.28*** (0.15)

Power Distance									1.28*** (0.13)		-0.53*** (0.13)
Uncertainty Avoid.										-1.85*** (0.07)	-0.57*** (0.14)
Fixed Year Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	694	694	694	694	694	694	694	694	694	694	694
R^2	0.70	0.70	0.74	0.78	0.80	0.69	0.71	0.78	0.73	0.85	0.88

Standard errors in parentheses
$^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$

Source: Own elaboration.

Firstly, it should be noted that the directions and statistical significance of GDP per capita and government expenditure are as predicted in Husted's (1999) study. The effect of the GINI coefficient is unstable and not statistically significant in all models. Therefore, Hypothesis 1a and Hypothesis 1b were confirmed, while Hypothesis 1c was not confirmed.

Secondly, in terms of cultural dimensions, uncertainty avoidance has a positive and statistically significant effect on the corruption level in a country, but only when cultural values are considered; thus Hypothesis 2a was confirmed. Interestingly, the effect becomes negative when cultural practices are considered. In terms of power distance, the effect is consistent across both cultural values and practices, but the effect is negative; thus Hypothesis 2b was not confirmed.

Thirdly, the analysis of the effect of future orientation on the levels of perceived corruption yielded contradictory results. When cultural values are considered, the higher the future orientation, the higher the levels of corruption; conversely, when cultural practices are considered, the effect is still statistically significant but becomes negative.

4.1. Robustness tests

We performed a battery of robustness tests to ensure the reliability of our findings. First, we divided our large sample into two subsamples, i.e. 1995-2006 and 2007-2013. We assumed that the financial crisis which started in 2007 might have affected some of our control variables such as GDP per capita, wealth distribution and/or government expenditures. The direction and significance levels of all cultural variables of interest remained unchanged. The sole exception was the effect of future orientation (cultural practice) in the 2007-2013 sample. Tables 7-10 present the subsample regression results.

Table 6. The effect of cultural values on perceived corruption (GLS regression results, subsample 1995-2006).

	1995-2006										
	Base Model	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Full Model
GDP per capita	-1.33*** (0.04)	-1.49*** (0.06)	-1.44*** (0.06)	-1.47*** (0.06)	-1.39*** (0.06)	-1.42*** (0.07)	-1.41*** (0.06)	-1.46*** (0.06)	-1.48*** (0.06)	-0.99*** (0.06)	-0.99*** (0.06)
Gov't Expend.	0.01** (0.01)	-0.00 (0.01)	-0.00 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01* (0.01)	0.01 (0.01)	-0.01 (0.01)	-0.01* (0.01)
GINI	0.03*** (0.01)	0.02** (0.01)	0.01 (0.01)	0.03*** (0.01)	0.02 (0.01)	0.03*** (0.01)	0.03*** (0.01)	0.03*** (0.01)	0.03*** (0.01)	0.00 (0.01)	-0.00 (0.01)

Assertive-ness		-0.46*** (0.13)									-0.43*** (0.11)
Instit'l Collect.			0.85*** (0.15)								0.17 (0.14)
In-group Collect.				-0.37 (0.22)							-0.55* (0.21)
Future Orient.					1.01*** (0.21)						0.44* (0.22)
Gender Equality						-0.35 (0.19)					0.68*** (0.19)
Humane Orient.							-1.02** (0.35)				-0.91*** (0.27)
Perform-ance								-0.99*** (0.25)			-0.95*** (0.25)
Power Distance									-0.85*** (0.21)		-0.90*** (0.18)
Uncertain-ty Avoid.										1.70*** (0.13)	1.76*** (0.14)
Fixed Year Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	426	426	426	426	426	426	426	426	426	426	426
R2	0.73	0.73	0.75	0.73	0.74	0.73	0.73	0.73	0.73	0.81	0.85

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: Own elaboration.

Table 7. The effect of cultural practices on perceived corruption (GLS regression results, subsample 1995-2006)

	1995-2006										
	Base Model	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Full Model
GDP per capita	-1.33*** (0.04)	-1.51*** (0.06)	-1.35*** (0.05)	-1.07*** (0.06)	-1.05*** (0.05)	-1.47*** (0.06)	-1.56*** (0.06)	-1.19*** (0.06)	-1.38*** (0.06)	-1.01*** (0.05)	-0.83*** (0.05)
Gov't Expend.	0.01** (0.01)	0.00 (0.01)	-0.01 (0.01)	0.02* (0.01)	-0.03*** (0.01)	0.01 (0.01)	-0.00 (0.01)	-0.03*** (0.01)	0.00 (0.01)	-0.01* (0.01)	-0.03*** (0.01)
GINI	0.03*** (0.01)	0.03*** (0.01)	0.01 (0.01)	0.02*** (0.01)	0.01* (0.01)	0.03*** (0.01)	0.02** (0.01)	0.02** (0.01)	0.03*** (0.01)	0.01 (0.01)	0.01 (0.01)
Assertive-ness		1.01*** (0.19)									1.23*** (0.18)
Instit'l Collect.			-1.48*** (0.16)								0.16 (0.16)
In-group Collect.				1.30*** (0.10)							0.68*** (0.10)

Future Orient.					-2.07*** (0.13)						-1.13*** (0.20)
Gender Equality						-0.16 (0.21)					-0.58*** (0.15)
Humane Orient.							-0.83*** (0.15)				0.00 (0.12)
Perform-ance								-1.84*** (0.16)			-1.28*** (0.18)
Power Distance									1.30*** (0.16)		-0.66*** (0.16)
Uncertain-ty Avoid.										-1.81*** (0.09)	-0.38* (0.16)
Fixed Year Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	426	426	426	426	426	426	426	426	426	426	426
R2	0.73	0.74	0.77	0.80	0.83	0.72	0.74	0.79	0.76	0.86	0.89

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: Own elaboration.

Table 8. The effect of cultural values on perceived corruption (GLS regression results, subsample 2007-2013)

	2007-2013										
	Base Model	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Full Model
GDP per capita	-1.20*** (0.04)	-1.39*** (0.07)	-1.37*** (0.07)	-1.41*** (0.07)	-1.33*** (0.08)	-1.35*** (0.08)	-1.38*** (0.07)	-1.41*** (0.07)	-1.42*** (0.07)	-0.90*** (0.08)	-0.90*** (0.07)
Gov't Expend.	0.02** (0.01)	0.01 (0.01)	0.01 (0.01)	0.02 (0.01)	0.01 (0.01)	0.02* (0.01)	0.01 (0.01)	0.02* (0.01)	0.02* (0.01)	-0.00 (0.01)	-0.01 (0.01)
GINI	0.02** (0.01)	0.02** (0.01)	0.02* (0.01)	0.03** (0.01)	0.02* (0.01)	0.03** (0.01)	0.02* (0.01)	0.02** (0.01)	0.03** (0.01)	0.01 (0.01)	0.01 (0.01)
Assertive-ness		-0.44*** (0.13)									-0.46*** (0.11)
Instit'l Collect.			0.49** (0.17)								-0.10 (0.16)
In-group Collect.				-0.50 (0.26)							-0.44 (0.25)
Future Orient.					0.67** (0.26)						-0.10*** (0.03)
Gender Equality						-0.31 (0.22)					0.58* (0.23)

Humane Orient.							-0.49 (0.40)				-0.81* (0.32)
Perform-ance								-0.95*** (0.26)			-0.83** (0.26)
Power Distance									-0.85*** (0.24)		-1.16*** (0.21)
Uncertain-ty Avoid.										1.55*** (0.16)	1.84*** (0.18)
Fixed Year Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	268	268	268	268	268	268	268	268	268	268	268
R2	0.70	0.72	0.71	0.71	0.71	0.71	0.71	0.72	0.72	0.78	0.84

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: Own elaboration.

Table 9. The effect of cultural practices on perceived corruption (GLS regression results, subsample 2007-2013)

	2007-2013										
	Base Model	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Full Model
GDP per capita	-1.20*** (0.04)	-1.41*** (0.07)	-1.28*** (0.07)	-0.97*** (0.08)	-1.07*** (0.07)	-1.44*** (0.07)	-1.46*** (0.07)	-1.16*** (0.06)	-1.28*** (0.07)	-1.01*** (0.06)	-0.83*** (0.07)
Gov't Expend.	0.02** (0.01)	0.01 (0.01)	-0.00 (0.01)	0.02* (0.01)	-0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	-0.01 (0.01)	0.01 (0.01)	0.00 (0.01)	-0.01 (0.01)
GINI	0.02** (0.01)	0.02** (0.01)	0.01 (0.01)	0.03** (0.01)	0.02* (0.01)	0.02* (0.01)	0.02* (0.01)	0.03*** (0.01)	0.03*** (0.01)	0.01 (0.01)	0.02* (0.01)
Assertive-ness		0.31 (0.23)									0.48* (0.21)
Instit'l Collect.			-1.23*** (0.19)								-0.27 (0.19)
In-group Collect.				1.16*** (0.13)							0.46*** (0.13)
Future Orient.					-1.72*** (0.16)						-0.06 (0.27)
Gender Equality						0.45 (0.25)					-0.16 (0.19)
Humane Orient.							-0.51** (0.17)				0.23 (0.15)
Perform-ance								-2.07*** (0.18)			-1.29*** (0.22)

Power Distance									1.10*** (0.20)		-0.23 (0.21)
Uncertainty Avoid.										-1.74*** (0.11)	-0.93*** (0.22)
Fixed Year Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	268	268	268	268	268	268	268	268	268	268	268
R2	0.70	0.71	0.74	0.78	0.79	0.71	0.71	0.80	0.73	0.85	0.87

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: Own elaboration.

Second, we applied another estimation technique to ensure that the results do not depend on the analytical method. We applied ordinary least-square (OLS) regression models (with a categorical observation-year variable), but the direction and significance levels of variables of interest remained stable. Finally, we added more control variables, such as the Law and Order Index (Gallup, 2018) and Democracy Index (Kekic, 2007) scores. The directions of the effects remained stable but the effect of future orientation (cultural value) became only marginally significant (at $p < 0.1$).

4.2. Limitations

This study is by no means free of limitations. First, because of the chosen research design, we were only able to capture correlations, but were not able to establish a causal relationship between corruption and culture. Nevertheless, the full models including culture-related variables had significantly greater explanatory power than the baseline models. Second, because GINI coefficient data was not available for numerous countries, our sample size suffered as a result. Had more data points been available, we would have achieved a better model fit. Finally, we applied only one measure of the dependent variable, i.e. the Corruption Perception Index.

5. Discussion

Our results partially support previous findings reported by Husted (1999) and Seleim and Bontis (2009). However, we observed a negative correlation between power distance and corruption, while in Husted's study the effect was positive, which raises several questions about the reliability of other studies done using Hofstede's (1997) cultural measures. When it comes to using GLOBE's (House et al., 2004) cultural dimensions, we failed to replicate certain findings of Seleim and Bontis (2009), thus again raising more questions about the reliability of other studies on the link between corruption and culture. It must be stressed that we are not questioning the previous results, as both studies used different samples, thus exact replication was not possible. On the other hand, the juxtaposition of all these findings together is baffling. What is particularly interesting is the change of direction of power distance and future orientation when cultural values are contrasted with cultural practices. A similar effect was reported by Gelbrich et al. (2016) who studied the effect of cultural discrepancy, i.e. the difference between values and practices, on the perceived level of corruption. While they found that higher levels of cultural discrepancy are correlated with higher levels of corruption, they did not explain why the cultural discrepancy may exist in the first place. Thompson and

Shah (2005) offered important insights into how and why some measures of corruption (such as the CPI) might distort our perception of the problem because of the applied methodology. In particular, CPI is based on a mix of experts' assessments (mainly done by North America/Europe based organisations) and self-assessment surveys (particularly early editions of the Index). The former might be biased because of the cultural distance between the home country of the organisation and the assessed country (in other words, the more distant the culture is, the more corrupt it seems); the latter might be biased in terms of self-assessment. Research has shown that in some cultures (e.g. Japan and other East and South-East Asian countries) self-criticism is prevalent, which results in a more critical view of the self (Heine et al., 2000). If this is truly the case, self-assessment of corruption (almost universally seen as a negative phenomenon) might be heavily skewed as more self-critical cultures report higher levels of corruption. Gelbrich et al. (2016) found that cultural discrepancy, which can also be seen as a manifestation of self-criticism, was significantly correlated with high levels of corruption. Perhaps this correlation stems from the fact that both constructs have a deeper underlying foundation of self-criticism, it being an important element of the moral assumptions prevalent in the nation. In other words, corruption might not be the effect of culture, but *perceived* corruption and *perceived* culture might be correlated.

5.1. Implications for theory

We make a modest, yet important contribution to the existing literature on corruption and culture. We confirmed the validity of some of Husted's (1999) findings, including the correlation between the wealth of the nation and its levels of corruption, and the role of uncertainty avoidance as a predictor of corruption levels. However, when it comes to the other cultural predictor of corruption, i.e. power distance, we found an effect directly opposite to what Husted found. Furthermore, we confirmed Seleim and Bontis's (2009) findings but also found another effect of future orientation as a predictor of corruption levels. Our mixed findings support Gelbrich et al.'s (2016) theories on the effect of cultural discrepancies and corruption levels. Furthermore, our mixed findings raise questions about the general validity of research on corruption using the cultural dimensions approach (Hofstede, 1997; House et al., 2004). The unreliable results of several studies (i.e. conflicting findings, lack of significance, etc.) may suggest that either (1) the analytical tools measuring culture are unreliable; or (2) there is no link between corruption and culture and previous studies merely found spurious effects. Perhaps the link is not between corruption and culture and the levels of cultural practice or values, but at the basic underlying assumption level (Schein, 1985).

5.2. Implications for practice

Corruption has been identified as a major challenge to economic and social development (e.g., Mohammed, 2013; Rose-Ackerman, 1998; Nwabuzor, 2005). Both the actual and the perceived corruption levels are great challenges for entire nations and regions because of their effect on the cost of doing business (Svensson, 2001; Cuervo-Cazurra, 2006) and are seen as a deterrent to foreign investment in the economy (Doh et al., 2003; Dreher and Gassebner, 2013). Therefore, the development of an analytical tool that could help determine the risk of corruption before entering a foreign market would be welcomed by business practitioners. Results presented by Husted (1999) and Seleim and Bontis (2009) offered some insights into the ef-

fect of culture on corruption. Unfortunately, further studies failed to confirm all their results and, as in the case of this study, found contradictory results. While not undermining the previous findings, when combined with other researchers' findings this study shows that while corruption is correlated with the level of economic development and government spending, its link to culture is very difficult to establish. It raises questions as to whether measures such as cultural distance (Kogut and Singh, 1988) are appropriate when transferring anticorruption practices. Instead, multinational corporations may need to refer to their managers' cultural cognition abilities and ethical leadership skills (Furusawa and Brewster, 2015; Hrenyk et al., 2016) to navigate the local corrupt environment.

5.3. Future research directions

We see two important ways to continue this line of research. First, we need to understand the dichotomy of cultural values and practices and their effect on corruption. As previously discussed, we suspect that there might be a correlation between the nation's self-assessment of difference between cultural values and practices, and the perceived level of corruption. Both self-reporting tools might have an underlying reason such as a biased social self-perception. Second, we encourage more research into these underlying constructs of cultures, such as – for instance – the role of religion and other forms of moral foundation.

Conclusions

Corruption, both in its pervasive (i.e. fully institutionalised and predictable) and arbitrary (i.e. uncertain and relatively unorganised) forms, constitutes a major challenge for the economic and social development of nations. There is a clear link between the level of corruption and nations' wealth (e.g. Husted, 1999; Seleim and Bontis, 2009); eradicating corruption is thus often seen as the first step towards social progress. However, despite extensive theoretical and empirical research, there is little consensus on the cultural causes of corruption. This study offers a modest, yet important insight into the relationship between cultural dimensions and levels of corruption.

Our contribution is two-fold. First, we retested Husted's (1999) study using new measures of cultures (House et al., 2004). We partially confirmed his findings but also found some inconsistencies which open new future research avenues. Second, we expanded on Seleim and Bontis's (2009) study on corruption using the same culture measures but applying the models on a larger dataset. We partially confirmed their results but also found a significant effect of future orientation. We hope these results will lead to a more detailed analysis of the link between culture (and culture-related constructs) and corruption.

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