Cultural Determinants of Corporate Governance: a Multi-Country Study

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Abstract

The purpose of this study was to investigate the determining factors of country-level and firm-level corporate governance (CG) by assessing firms' legal, cultural and specific variables. We selected the transparent proxies from Leuz, Nanda and Wysocki (2003) to measure corporate governance. For this study, we adopted two approaches regarding the culture of countries: Hofstede (2017) and Schwartz (2008). The sample comprised listed companies in 2016, in the stock markets of Brazil, Argentina, Mexico, Chile, Colombia, Peru, and the United States. As major findings, we can say that Culture plays a central role in the development of CG. All Schwartz's cultural dimensions, with the exception of Egalitarianism, were statistically significant. As for Hofstede's dimensions, and after the factor analysis, the Patron Manager factor (which grouped Power distance, Individualism, Masculinity and Uncertainty Avoidance) and the Short-term Hedonistic factor (which grouped Long Term Orientation and Indulgence) presented a negative, significant relationship with Transparency. This paper breaks new ground by developing culture indicators of the countries and aggregating legal and firm-level variables to these indicators to advance the understanding of GC in the firms and nations.

Keywords: Corporate governance, transparency, cultural studies, legal system.

1. Introduction

In the past decades, studies as those by La Porta, Lopez-de-Silanes, Shleifer and Vishny (2000), Licht, Goldschmidt, and Schwartz (2005), and Doidge, Karolyi, and Stulz (2007) showed that the legal and economic aspects of a country influence governance practices.

Fan, Titman, and Twite (2011) found significance in country-level factors, such as the degree of banking development, bonds and stock market, and the level of corruption that affects the level of debt and the likelihood of bankruptcy of companies. The authors found that the legal system, the tax system, and the preferences of capital providers may explain aspects of firms' capital structure, which helps to differentiate companies' characteristics according to their country of origin.

Several studies (Klapper & Love, 2004; Hillier, Pindado, Queiroz & La Torre, 2010; Kumar & Zattoni, 2013; Mendonça & Terra, 2017) have investigated countries' perspectives and how their differences explain the way CG is adopted in local companies. Van Essen, Engelen, and Carney (2012) found that country-level variables (legal system, corruption level, shareholder protection, anti-director rights index, charge and financial system protection) explain about 25% of heterogeneity in companies' performance.

However, finance literature has still faced difficulties to assess which variables affect the development of CG in firms. Licht, Goldschmidt, and Schwartz (2005) related culture with the legal system, finding significance (positive and negative relationship according to the dimension studied) between the cultural dimensions and the legal system, especially in the CG context. They inferred that the culture of a nation may influence the laws and the governance itself.

Therefore, and according to Griffin, Guedhami, Kwok, Li and Shao (2014; 2017), to introduce the culture of the country as a determining CG factor may be the differential to better adjust the existing governance models and to understand the behavior of financial markets of each country. Also, it can help to recognize important aspects for investors understand how they evaluate CG mechanisms when making decisions.

Griffin et al. (2014) discussed how the legal and financial system explain less than 50% of variations among countries. In their latest study, Griffin et al. (2017) captured about 90% of explanatory power in their model of fixed effects when working with two cultural dimensions (individualism and uncertainty avoidance). This result had never been obtained before in similar empirical studies on the same theme. They found that culture interacts with other factors to determine firm-level governance.

Based on this perspective, this paper proposes to study country-level CG with the legal factors that can be significant to the development of CG. In addition, it approaches the perspective of cultural aspects to verify if, besides legal indicators, the general culture of a country can also influence governance levels, specially transparency.

2. Theoretical Framework

2.1. Corporate governance and transparency mechanism

To minimize the impacts of agency costs pointed out by Jensen and Meckling (1976), CG outstands in the stock market. The stock market, besides the good practice disseminated, fulfills the role of establishing rules to protect the investors and to align their interests within the organization (IBGC, 2015).

As the investor is so important, several countries have drawn up manuals of good practice to guarantee the rights of those interested in investing in their markets and, therefore, enlarging it and attracting foreign investment to these markets. In Brazil, B3i (former BM&F Bovespa) has a manual of guidelines to guide companies and investors regarding CG. The Brazilian Institute of CG (IBGC) has a code with the best CG practices, which explains CG concepts, laws, principles, and the most common conflicts of interest in the stock market. Its first version was drowned in 1999.

According to IBGC, transparency can be defined as the need to provide accurate and untimely information to interested parties, not only those required by law, but also including factors beyond the financial performance, such as managerial strategies and actions, to increase organizations' value.

Thus, transparency can be understood as the main means of communication between the company and the external investor; therefore, it is an essential dimension to be studied. However, countries have approached transparency differently. Some more developed markets have laws that help to deal with the information provided, while others give more freedom regarding how the company can deal with this dimension (OECD, 2017).

Teti, Dell´Acqua, Etro and Resmini (2016) discussed the importance of companies disseminating information, particularly companies located in countries with a weak legal system, since the more fragile the system, the more investors will seek for information about the organizations.

Bushman, Piotroski and Smith (2004) presented evidence on why corporate transparency varies among countries. Their multivariate regression showed that governance transparency is primarily related to the legal system, while financial transparency would be linked to the political regime. The authors applied regressions in several countries and concluded that, in common law countries, governance transparency is higher, noting that financial transparency is greater in countries with little participation of the State and banks.

2.2. Culture and its dimensions

One of the most quoted researchers on the theme "culture" – Geert Hofstede – defines culture as a "the collective programming of the mind distinguishing the members of one group or category of people from others" (Hofstede, 2017).

To measure the country's culture, Hofstede (1980) proposed a model with four basic dimensions, which are: Power distance, Uncertainty Avoidance, Individualism versus Collectivism, and Masculinity. Later, Hofstede (2001) added Long-term Orientation as a fifth dimension. In 2017, the union of Itim International and The Hofstede Centre gave rise to Hofstede Insights, which discriminates a sixth dimension, Indulgence.

Hofstede's cultural dimensions are widely accepted and used as foundation for several studies on culture. Ferreira, Serra and Pinto (2014) indicated how Hofstede's dimensions are in the lead regarding studies about culture within the field of management.

According to Hofstede (2001) and Hofstede Insights (2017), the dimensions consist of:

- Power Distance It is a degree of how much less powerful members of a civilization accept and expect unequal distribution of power in a society.
- Uncertainty Avoidance: It is the degree of risk perceived by the members of a culture in uncertain situations. It reflects the feeling of discomfort towards unstructured situations.
- Individualism versus Collectivism: It is the extent to which people feel they have to take care of themselves, of their families or organizations they belong to.
- Masculinity versus Femininity: It is the degree to which a culture appreciates more status and acquisition of goods versus people, feelings, and quality of life.

- Long-term Orientation versus Short-term Normative Orientation: Long term involves future-oriented values, as savings and persistence; short term involves the values regarding tradition and compliance with social obligations.
- Indulgence versus Restraint: Indulgence represents a society that allows relatively free gratification of basic and natural human movements related to enjoying life and having fun.

Hofstede quantifies a value for each dimension, but he also says such measures are relative and only intended for comparisons, that is, they can promote studies that incorporate culture in their analysis by comparing several countries.

Hofstede's cultural dimensions are more widely known; however, other equally valid models can be found, as Schwartz, Trompenaars and Globe Project (Ferreira, Serra & Pinto, 2014). To better achieve this research's goal, we will also approach the seven dimensions proposed by Schwartz.

Schwartz (2008) developed a theory with a different base from Hofstede by establishing a set of dimensions to individual values. His guidelines conceptualize what problems society faces and which preferences are polarized to deal with such issues. The author established seven dimensions. According to Hilal (2003), the meaning of Schwartz's dimensions consists of:

- Embeddedness: consists of a group of values that are important in collectivist societies. Personal independence is less significant in this type of society.
- Autonomy: while intellectual autonomy focuses on self-determination, affective autonomy is based on hedonism. It is the counterpart of embeddedness and it is concentrated on the individual.
- Hierarchy: focuses on the legitimacy of hierarchical roles and the legitimacy acceptance of people following their selfish, individual interests.
- Egalitarianism: relates to the preference of equal treatment for all and to transcend self-interest, representing the social welfare.
- Harmony: is the preservation and adaptation to the social and material environment. It concerns protecting the environment and nature and fighting for a more balanced world.
- Mastery: is the opposite of harmony. There is a preference for individual and material success at the expense of the environment and resources.

2.3. Legal structure of the countries versus corporate governance

La Porta et al. (2000) presented how the legal structure of a country affects the country's CG. Stulz (2005) argued that investing in companies from countries with weak political rights is less profitable than investing in companies from countries with better political rights. That is because certain corporate activities reduce the risk of expropriation by the State.

La Porta et al. (1998) argued about the legal origin of each country and its effects on organizations and laws. They found out greater protection in countries with common law and the opposite in countries that follow the propositions of French civil laws.

Bhasa (2004) argued that the country's individuality demands unique CG models. The author approached situations where the mere copy of a successful model does not succeed in other countries due to some legal or political divergences, concluding that new paradigms and practices of governance must arise in accordance with each country's characteristics to establish governance models.

2.4. Studies that associate culture and Corporate Governance

Based on the idea of how laws are drawn up, Licht, Goldschmidt and Schwartz (2005) studied the relationship between the culture of a country and its laws. They found a strong relationship between culture and legal system, and the effect is even more shocking when related to GC rules. The authors demonstrated that culture systematically relates to CG guidelines. They highlighted new ways to analyze the variations of governance around the world and found possible explanations to certain differences among countries.

To strengthen the idea that culture impacts the legal system, Kwok and Tadesse (2006) studied the hypothesis that the cultural dimension uncertainty avoidance would be more related to bank-based financial systems. Their paper presented a cross-section study with 41 countries and confirmed the hypothesis proposed, showing that countries with strong culture of uncertainty avoidance tend to have a bank-based financial system.

Studies like those of Licht, Goldschmidt and Schwartz (2005), Griffin et al. (2017), Volonté (2015), García-Sánchez, Rodríguez-Ariza and Frías-Aceituno (2013) showed how culture complements legal effects at country level regarding the formulation of GC and its rules, not only in those companies formally presented in the countries, but also those within the organization itself. Such authors presented culture as an essential factor to be considered by those who draw up the laws.

Thus, while understanding which culture dimensions affect CG, laws and rules can be better established. Also, particularities of each country can be considered, allowing investors to understand which aspects are more important according to the context of each country and to make decisions to allocate investments.

3. Methodology

We obtained the firm-level data – control variable and earning management variables – from Economatica database. Freedom House provided the data on the political rights of each country. The information about the legal system came from the WGI (Worldwide Governance Indicators) website, and we extracted the economic data from the World Bank. The variables that measure cultural dimensions were presented by Hofstede, in his website Hofstede Insights (2017) and by Schwartz, whose dimensions were published in a paper by the author (Schwartz, 2008).

In this study, we chose earnings management as measurement of transparency due to its importance in the studies of Leuz, Nanda and Wysocki (2003), Fernandes and Ferreira (2007), Correia, Amaral and Louvet (2011), Kolozsvari and Macedo (2016), which adopted similar variables.

The sample of this study is comprised of companies with stocks or depositary receipts traded in 2016 in the stock markets of Brazil, Argentina, Mexico, Chile, Colombia, Peru, and the United States of America. Using the Economatica database, we identified the home country of each company in the sample. Those countries with less than 10 companies were excluded of the final sample of this study. Companies from countries without information of cultural dimensions were also excluded of the sample. Moreover, financial companies, investment funds, companies without information of assets, liabilities and revenues of 2015 and 2016 were eliminated of the sample.

The final sample contains 3,687 companies of the following countries: Argentina, Brazil, Canada, Chile, China, Colombia, France, Greece, Mexico, Peru, Taiwan, the Netherlands, the United Kingdom and the United States of America. It is important to note that the sample of this study does not necessarily includes a representative sample of each of these 14 countries, since we included in the sample only those companies with depositary receipts traded at the Stock Exchanges of Brazil, Argentina, Mexico, Chile, Colombia, Peru, and the United States of America.

The variables of the study are as follow. Table 1 describes the formula of our dependent variable – earnings management.

Table 1
Calculation of the Dependent Variable Earnings Management

Variable	Measurement	Description
TRANSP1	$TRANSP1 = \frac{\sigma(LDIRit)}{\sigma(CFOit)}$	It measures the smoothing of reported operating earnings using the cumulative values of each company.
TRANSP2	$TRANSP2 = \rho(\Delta ACC;\ \Delta CFO)$	It measures the smoothing and correlation between accruals and operating cash flows.
TRANSP3	$TRANSP3 = \frac{\lvert ACC \rvert}{\lvert CFO \rvert}$	It measures the variation of reported profits, that is, the accrual magnitude (ACC).
TRANSPM	Mean of the previous three variables	It gives a general and more complete view about transparency in organizations.

Where: $PAIT_{it}$= Profit after income tax of company i at time t; CFO_{it}= Cash flow of the operations of company i at time t; ACC = (AC- i at time t; ACC= (ΔAC - ΔCASH) – (ΔCL - ΔSD - ΔTP) – DEP; ΔAC = variation of total current assets; ΔCASH = variation of available cash and short-term investments; ΔCL = variation of total current liabilities; ΔSD = variation of short-term debt included in the current liabilities; ΔTP = variation income tax payable; DEP = depreciation and amortization expense. Source: Adapted from Leuz, Nanda, & Wysocki (2003)

In this study, we adopted two groups of independent variables: the first group related to Hofstede's cultural dimensions and the second involved Schwartz's cultural dimensions.

The control variables are divided into two categories: Legal variables and firm-level variables, which are detailed in Table 2.

Legal variables: are the following sub-items: (a) Political rights (PR): Stulz (2005) shows that companies in an environment with weak political rights should adopt the best level of CG as a form compensation. This index ranges from 1 to 7: when closer to 1, the rights are freer, and, when closer to 7, the rights are more restrict; (b) Rule of Law: It represents the country's classification according to its effectiveness to implement laws and regulations.

Table 2
Control Variables

Control Variables	Source:	Author	Expected Ratio
		Legal Variables:	
Political Rights (PR):	Freedom House.	Stulz (2005); Griffin et al. (2017)	-
Rule of Law (RL)	WGI.	Griffin et al. (2014) La Porta et al. (1998)	+
		Firm-level Variables:	
Size (SIZE)	Economatica	Griffin et al. (2017); Leuz, Nanda and Wysocki (2003); Volanté (2014)	-
Debt (DEB)	Economatica	Griffin et al. (2017); Volanté (2014)	+
Sales Growth (SG)	Economatica	Griffin et al. (2017); Volanté (2014) Volanté (2014)	-
ADR	Economatica	Griffin et al. (2017)	+

Firm-Level Variables: are the ones involving exclusive attributes of each company, which are: (a) company size: calculated by the natural logarithm of total assets; (b) debt, which is the ratio of total liabilities to total assets; (c) sales growth, which is the ratio of the 2016 revenue to the 2015 revenue; and (d) the emission of ADRs, to verify if the companies of the sample issue shares at the North-American stock markets, which is a dummy variable with 1 to yes and 0 to no.

With regard the econometric model of this study, Griffin et al. (2017) inspired the proposed model. However, other authors contributed with some ideas, such as: (1) to use the dependent variable "transparency" (results management) based on Leuz, Nanda and Wysocki (2003); (2) to test the Hofstede's cultural dimensions (2017) combined with Schwartz's (2008); (3) to add legal variables as proposed by La Porta et al. (2000) and other authors, proving the originality of this investigation.

$$TRANSP = \beta_0 + \beta_i DH + \beta_j VL + \beta_k NF + \varepsilon \qquad \text{(HOFSTEDE)}$$

$$TRANSP = \beta_0 + \beta_i DS + \beta_j VL + \beta_k NF + \varepsilon \qquad \text{(SCHWARTZ)}$$

Where:β_0: interceptor; HD: Independent variables regarding Hofstede's cultural dimensions; SD: Independent variables regarding Schwartz's cultural dimensions; LV: Legal control variables; FV: Firm-level control variables.

4. Results and Discussion

Table 3 presents, by country, the descriptive statistics of financial data. Regarding the proxy for governance (Transparency), the countries with the highest values are the Netherlands (1.057) and Canada (0.885), while the countries with the lowest indexes are Colombia (0.476) and Mexico (0.490). Considering the observations of Latin America, the country with more ADRs is Argentina (0.254), and Peru (0.038) is the country with less ADRs in the sample considered in this research.

Table 3
Descriptive analysis of financial data, considering a country level

Country	Obs	Transp	CompSize	Debt	SalesGrow	ADRs*
Argentina	63	0.541541	12.51954	0.711431	1.04982	0.253968
Brazil	400	0.602034	13.1825	1.218154	0.0116393	0.055
Canada	100	0.885282	14.20855	0.502487	-0.0240425	0.8
Chile	168	0.491865	12.84922	0.566937	0.0049338	0.077381
China	72	0.571735	13.89844	0.469883	0.3522306	1
Colombia	26	0.476059	13.89662	0.550491	0.1247171	0.076923
France	10	0.852668	13.98462	0.508167	0.0800779	1
Greece	13	0.807199	13.17314	0.629251	0.0461196	1
Mexico	111	0.489842	13.98531	0.578097	0.1549335	0.216216

Peru	105	0.520426	12.40106	0.449583	0.0885122	0.038095
Taiwan	15	0.562153	15.52743	0.425824	0.0459544	1
The Netherlands	20	1.056776	15.4933	0.634691	0.0152562	1
The United Kingdom	36	0.763893	15.32438	0.639613	0.2083378	1
The United States of America	2548	0.612334	13.51837	0.612698	0.5359103	0

* Dummy variable; the value indicates its percentage.

The correlation coefficients between cultural dimensions are available in Table 4. This table shows that there are high values for correlation among the groups of cultural dimensions. For example, in the sample of this study, all the dimensions of Schwartz presented a significant correlation at 0.01 (as shown in Table 4). For the cultural dimensions of Hofstede, only the correlation between Uncertainty Avoidance and Indulgence was not significant at 0.01.

Table 4
Correlation between the Groups of Cultural Dimensions

Hofstede's Cultural Dimensions

	PD	Indiv	Mascu	LongTerm	UncAvoid	Indulg
PD	1					
Indiv	-0.9359***	1				
Mascu	-0.4289***	0.6181***	1			
LongTerm	0.5198***	-0.4718***	-0.28***	1		
UncAvoid	0.7616***	-0.8495***	-0.6788***	0.0875***	1	
Indulg	-0.2534***	0.3304***	0.2787***	-0.6658***	-0.0207	1

Schwartz' Cultural Dimensions

	Harm	Emb	Hier	Mast	AffAuto	IntAuto	Egal
Harm	1						
Bem	-0.1135***	1.0000					
Hier	-0.2172***	0.4818***	1.0000				
Mast	-0.7380***	0.1609***	0.5588***	1.0000			
AffAuto	-0.7118***	-0.5646***	-0.2363***	0.4758***	1.0000		
IntAuto	0.6194***	-0.6059***	-0.3743***	-0.4503***	-0.0733***	1.0000	
Egal	0.6330***	-0.3917***	-0.5900***	-0.8781***	-0.2935***	0.5610***	1

Notes: PD = Power distance; Indiv = Individualism; Macu = Masculinity; UncAvo = Uncertainty Avoidance; LongTer = Long-term Orientation; Indul = Indulgence; Harm = Harmony; Emb = Embeddedness; Hier = Hierarchy; Mast = Mastery; AffAuto = Affective Autonomy; IntAuto = Intellectual Autonomy; Egal = Egalitarianism; Significance Level: *0.10; **0.05; ***0.01. Number of observations: 3,687.

Observing the possibility of multicollinearity among the six cultural dimensions of Hofstede, we have built a new index for culture using the Principal Component Analysis (PCA), in line with previous research such as Correia (2008). The PCA is a statistical tool that permits the reduction of a large number of correlated variables among themselves in a small number of variables through orthogonal linear combinations, seeking to reproduce the original variance (Fávero, 2009).

In the first analysis, we found two factors. The Kaiser-Meyer-Olkin (KMO) test indicated a value of 0.608, which is an acceptable value (Fávero, 2009). The cumulated variance explained by these two factors was 82.54% and its rotated matrix is available in Table 5. To improve the explained variance, we considered a new analysis with three factors, in which the explained variance changed to 93.48% (Table 5 also shows the rotated matrix for this analysis).

Regarding the analysis of two factors, as presented in Table 5, we named them as Patron Manager and Short-term Hedonism; in the analysis of three factors, the names are: Collaborative Manager, Short-term Hedonism and F-Masculinity (Factor for Masculinity). We present the explanation for these names in the following paragraphs.

Table 5
Rotated Component Matrix for the Dimensions of Hofstede

	Components in Two Factors		Components in Three Factors		
	Patron Manager	Short-term Hedonism	Collaborative Manager	Short-term Hedonism2	F-Masculinity
PD	0.853	-0.307	0.952	-0.257	-0.096
Indiv	-0.926	0.300	-0.884	0.261	0.347
Mascu	-0.730	0.168	-0.304	0.177	0.912
LongTerm	0.229	-0.895	0.326	-0.877	0.038
UncAvoid	0.969	0.115	0.798	0.145	-0.544
Indulg	-0.074	0.901	0.006	0.909	0.209

Notes: PD = Power distance; Indiv = Individualism; Macu = Masculinity; UncAvo = Uncertainty Avoidance; LongTer = Long-term Orientation; Indul = Indulgence.

Considering the signs of the variables in the factors (Table 5), the first factor of the first analysis was named as Patron Manager based on its characteristic of being positively related to Power Distance and Uncertainty Avoidance, and these are two dominant characteristics of a classic manager. On the other hand, the variable Individualism and Masculinity have a negative load in this factor (Patron Manger), and it suggests a more sustainable orientation inside companies, with a vision that considers the group. The second factor was named as Short-term Hedonism because it includes only Long-Term Orientation and Indulgence, representing a relationship between short-term pleasure or investing in future pleasure.

Therefore, in the first factor analysis, four dimensions were grouped together (Power Distance, Uncertainty Avoidance, Individualism and Masculinity) in the factor Patron Manager and two dimensions (Sort-term Orientation and Indulgence) were grouped in the factor Sort-term Hedonism. Considering the possibility of grouping Hofstede's cultural dimensions in three factors, there was an additional factor (F-Masculinity), which isolates the dimension Masculinity.

In the case of the analysis with three factors, we named the first factor as Collaborative Manager, since Masculinity, which is a symbol for the use of resources, was separated as an isolated factor. As the second factor keeps the same dimensions of the first analysis, it received the same name. The third factor was named as F-Masculinity, since it includes only the variable Masculinity.

Regarding the Schwartz's cultural dimensions, it was not necessary to develop the PCA due to its duality characteristic; we consider that the separation of the dimensions is an enough procedure to eliminate some concerns with multicollinearity. Therefore, in this study, we considered two models to represent the Schwartz's cultural dimensions: the first model includes Harmony, Embeddedness, and Hierarchy and the second model includes the opposite dimensions: Mastery, Autonomy and Egalitarianism.

After the Principal Components Analysis, we adjusted the quantitative models presented in section 3 and ran the multivariate regression analysis in order to analyze the potential relationships among culture, legal system, and transparency. The heteroscedasticity test indicated a concern related with the average of the residuals, so we used the regression analysis with robust standard errors of White. Table 6 presents the results for the four models.

Table 6
Results for the Multivariate Regression Analysis

Variable	Hofstede 1	Hofstede 2	Schwartz 1	Schwartz 2
Patron Manager	-0.0326***			
Short-term Hedonism	-0.0186***			
Political Rights	-0.0556***	-0.0524***	0.0098	-0.0019
Rule of Law	-0.0009*	-0.0009**	-0.0003	0.0003
Company Size	-0.0127***	-0.0126***	-0.0120***	-0.0120***
Debt	0.0026	0.0027	0.0019	0.0026
Sales Growth	0.0005	0.0005	0.0005	0.0006
ADRs	0.1788***	0.1793***	0.1108***	0.0405
Collaborative Manager		-0.0303**		
Short-term Hedonism2		-0.0177*		
F_Masculinity		0.0158		
Harmony			-0.1343***	
Embeddedness			-0.4293***	
Hierarchy			-0.1184**	
Mastery				0.2646**
Affective Autonomy				0.1321***

Intellectual Autonomy				0.3749***
Egalitarianism				0.1014
Constant	0.9084***	0.9088***	3.1122***	-2.8953**
N	3682	3682	3682	3682
r2	0.0437	0.0437	0.0557	0.0602
F	20.4257	18.3290	15.0712	20.1106
Rmse	0.2906	0.2907	0.2888	0.2882

Notes: in each regression analysis, we have employed the robust residuals of White; Significance Level: *0.10; **0.05; ***0.01.

In the first model that considers Hofstede's cultural dimensions (after PCA) we can observe that Uncertainty Avoidance has a negative effect on Transparency. Therefore, the higher the Uncertainty Avoidance in the countries of the sample, the lower the index of Transparency. Regarding the negative coefficient of the factor Short-term Hedonism, the results indicate, for example, that the higher the incentive to enjoy the life as a cultural characteristic (Indulgence), the lower the index of Transparency.

Regarding the political rights, we found a negative relationship between this variable and Transparency, which is coherent with Stulz (2005), who found that companies in environments with weak political rights should adopt a better level of corporate governance as a compensation. The variable Rule of Law also presented a negative relationship with Transparency, and this variable represents a ranking of the countries considering their efficacy in applying laws and rules. Therefore, a better position in the ranking of the countries in the sample (regarding Rule of Law) is associated with lower levels of Transparency, but this negative relationship was not expected.

The first model (Hofstede 1) also indicates that large companies tend to present lower levels of Transparency, and this result is in line with Griffin et al. (2017) and Volanté (2014). A possible explanation is that large companies tend to manage incomes more than small firms, which can affect their transparency as calculated in this study. Moreover, another result obtained in Table 6 is that companies with ADRs have more transparency than their peers, which corroborates with the studies of Lopes and Walker (2008).

In the second model (Hofstede 2), the control variables presented an equivalent effect when compared to model 1. An interesting result is that the isolated factor F-Masculinity did not present a significant effect on transparency. The factor Collaborative Manager presented a similar effect of the factor Patron Manager, and the factors Short-term Hedonism, in both models, presented the same sign, but the significance level was stronger in the first model.

Regarding the third model (Schwartz 1), the results indicate that countries with higher levels of Harmony, Embeddedness and Hierarchy tend to present lower values for Transparency. This result is consistent with the fourth model (Schwartz 2), in which the dimensions Mastery and Autonomy showed a positive and significant relationship with transparency. The effect of the variable Egalitarianism, although positive, was not significant. The most significant effect from Schwartz's cultural dimensions was from the factor Embeddedness, with is consistent with the study of Chui, Kwok and Zhou (2016).

The contrast (or opposite direction) between Schwartz's dimensions was consistent in this study, since Embeddedness versus Autonomy (specifically Intellectual Autonomy) were the dimensions with the large impact on Transparency, and both were significant at 1%. Therefore, these results suggest that: i) societies who cares more for equality instead of hierarchy; and ii) societies where their members have more autonomy instead of being conservative individuals and highly dependent of the society, tend to present higher indexes of Transparency.

In both models that consider the variables of Schwartz, the effect of legal variables (Political Rights and Rule of Law) was not significant, and it suggests that Schwartz's cultural dimensions may incorporate a relationship with the legal characteristics of the countries in the sample. Moreover, in all quantitative models, the size of the companies presented a negative effect on Transparency.

Based on the global analysis of the four models, the results indicate that there is an important effect of the cultural dimensions on Transparency of firms located in the 14 countries of the sample. Considering the models Hofstede 1 and Hofstede 2, the legal variables were important in this analysis too, which corroborates with the studies of La Porta et al. (2000) and Stulz (2005). Finally, the variables in a firm level, especially the size of the companies and companies that issue ADRs, presented a relevant effect on the quantitative analysis.

5. Final considerations

The purpose of this study was to investigate the determining CG factors at the country-level and firm-level, assessing the firms' legal, cultural and specific variables. This study broke new ground by selecting proxies for governance and cultural dimensions with two approaches – Hofstede's and Schwartz's – and by adopting a cross-section multivariate regression for a sample of companies in the stock markets of the United States, Mexico, Brazil, Chile, Peru, and Colombia.

Regarding this methodology, we used factor analysis to prepare the culture constructs for the Hofstede's dimensions. We did not use factor analysis for Schwartz cultural dimensions, as the author works with opposing dimensions. After this step, we outlined the regression models based on the literature.

We noted that culture plays a strong role in the development of CG practices, in particular regarding firms' transparency. All Schwartz's cultural dimensions, with the exception of Egalitarianism, were significant, which means they have relevant and distinctive roles in promoting governance. As for Hofstede's models, we found out that, for example, the higher the Uncertainty Avoidance in a country's culture, the lower the Transparency; and the higher the Individualism and Masculinity as cultural traits, the lower the Transparency. We also found that the higher the Long-term Orientation of the country and its Indulgence (incentive to enjoy life), the lower the Transparency.

For future research, we suggest the adoption of the method of structural equations or of a method of chain that can estimate the impact of culture on the legal and economic system and measure this impact on each governance mechanism.

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