# DOES NATIONAL CULTURE INFLUENCE FIRM'S CSR ENGAGEMENT: A CROSS-COUNTRY STUDY

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## ABSTRACT

This paper explores the relationship between national culture and CSR. To test the hypotheses, we employ binary logistic regression with a sample of 1,189 firms collected from DJSI and Compustat Global Vantage databases. Findings of this research suggest that all the four cultural dimensions of Hofstede (1980) can predict firm's CSR commitment, indicating individualism and uncertainty avoidance have positive influence on firm's CSR commitment, while power distance and masculinity have negative influence on it. Finally, this study compares the findings with Ringov & Zollo, (2007) and Ho, et al., (2011) to draw a conclusion and implications.

**Keywords:** national culture, corporate social responsibility (CSR), institution-based view, DJSI

## INTRODUCTION

Although the definition and measurement of corporate social responsibility (CSR) still vary in the extant literature, scholars all around the globe have increasingly become aware of the CSR relevant issues for the past two decades [1]. If we look at the previous literatures on CSR in general within the field of management, bulk of existing literature on empirical CSR examines the influence of CSR on firms' financial performance and vice versa, while there is only a handful of studies that focus on exploring the antecedents of CSR. Thus, in the last decade, few scholars attempted to correct this imbalanced theory development. Among these studies, the determinants of CSR found to be firm-level factors such as firm size [13] [2], firm's prior financial performance [6]; industry-level factors such as intensity of competition [12]; and national-level factors such as laws [11], NGO density [2], societal culture [14], etc. A large scale empirical study on national-level institutions reveals that approximately one-third (35%) of total explainable variance in firms' CSR engagement belong to national-level factors, while firm and industry effects account for 55% and 10% of the explainable variations, respectively [5]. Among the literature focusing on national-level institutions' impact on CSR, plenty of studies mainly focused on the influence of formal institutions, i.e. legal institution, financial institution, etc., on firm's CSR engagement, with little attention to informal institutions, i.e. national culture, norms, etc. In this paper, we adopt the institution-based view and place more interest on the cultural dimension to attempt to answer the question "Does National Culture Influence Firm's CSR Engagement?" Hypotheses were tested with a sample of cross-national 1,189 firm data from S&P Global 1200 and DJSI databases. The current paper compares and extends the findings of [3] [10] by employing a different methodology to shed some lights on the new directions of the impact of national culture on firm's CSR for the future

studies. This paper is organized into five sections. In the next section, we briefly review key literature related to CSR and develop our hypotheses. In the third section, we introduce the methodology of this study and report the empirical results. The fourth section we report the findings of the present study, and draw a conclusion based on the findings in the final section.

## LITERATURE REVIEW AND HYPOTHESES

### Corporate Social Responsibility and National Culture

The present study aiming to empirically examine the cultural antecedents of CSR leads us to review the key literature focusing on the issues such as "what are the main drivers of CSR" [1] [2], "what kind of relationship between national culture and CSR would be" [3] [10], and "whether national culture substantially has changed over decades or not" [4]. Of extant studies that explore antecedents of CSR, most of them emphasize the impacts of formal institutions, such as law, on CSR [1] [2] [9] and pay little attention to informal institutions, such as culture [7] [10] [14]. To the best of our knowledge, we found only two papers that fully include all cultural dimentions, i.e. power distance, individualism, masculinity, and uncertainty avoidance [3] [10], and the two other papers that include two dimensions of national culture, i.e., power distance and individualism [5] [14]. All of the four studies, however, report inconsistent findings, which leaves the pattern of the relationship between national culture and firm's CSR engagement inconsistent. Considering the imbalanced development of CSR theory, we will put more concern on exploring how the cultural variables influence firm's CSR engagement.

### Hypothesis Development

Findings of [14] show that cultural dimensions of institutional collectivism and power distance predict social responsibility value of the top management team (TMT) members. Some studies argue that culture can influence firm's CSR engagement. For example, [7] found that consumer pressure on firms to act ethically is highest in French and German consumers compared to the US. On the basis of Hofstede's national culture studies, [3] [10] examined the impact of national culture on firm's CSR engagement. Thus, building on previous literature on national culture, we propose our hypotheses as below.

Power distance value reflects the degree to which the members of a society believe that power should be concentrated in the hand of leaders, and these people should be obeyed without question [3] [10] [14]. Therefore, high power distance value decreases the dialogue between the management team and employees, and also decreases consumer pressure on businesses with regard to CSR related issues. Thus the hypothesis one is as follows.

**H1**: Power distance will be negatively related to firm's CSR engagement.

In a high individualistic culture, firms generally do explicit CSR activities, such as donation to the church [8]. Since the above mentioned voluntary activities are part of CSR proxies [5], we predict that there is a positive relationship between individualism and CSR.

**H2**: Individualism will be positively related to firm's CSR engagement.

As interpreted in the previous literature, in cultures with high masculinity score, people tend to prioritize masculine values such as their career development, business success, etc. In contrast, cultures with low masculinity score, people tend to value harmony with the group and society in which they are embedded, such as companies, any form of unions, etc. Thus we propose the third hypothesis as follows.

**H3**: Masculinity will be negatively related to firm's CSR engagement.

In cultures stressing high uncertainty avoidance, people place great importance on keeping everything accountable or certain. As a business strategy that helps firms to develop long term sustainable relationship with its stakeholders, engaging CSR can be one of the effective ways to reduce the environmental uncertainties of the firms. Therefore we propose our last hypothesis as follows.

**H4**: Uncertainty avoidance will be positively related to firm's CSR engagement.

## METHODOLOGY AND ANALYSES

### Methodology

Basically, we collected firm-level and industry-level data from two databases, namely Dow Jones Sustainability Index (DJSI) and the Compustat Global Vantage database, specifically S&P Global 1200 index. We obtained country-level data from the CIA World Factbook web page. And the cultural scores for each country were obtained from [4]. Our initial sample consists of 1,195 firms from S&P Global index and 319 firms from DJSI as of 2010. We found that 249 firms out of 319 DJSI firms were also incorporated into S&P Global 1200 index as of 2010. Therefore (319-249) 60 DJSI firms that are not incorporated into S&P Global 1200 are eliminated from the sample. After the preliminary data inspection for missing entries, our final sample consists of 1189 firms and 245 of them are incorporated into DJSI. These firms were collected from 29 different countries around the world. Our sample of 1,189 firms account for roughly 70% of total global market capitalization.

According to S&P Global 1200 index criteria, stocks with relatively small market capitalization or insufficient liquidity are excluded. As such, these criteria enable us to select comparable firms to test our hypotheses. Obviously, we would not like to compare IBM or Coca Cola with a small local firm, let's say, in China which has 50 employees and total asset of $100 million. On the other hand, DJSI selects its firms based on the ranking of sum of the scores on three dimensions of CSR namely social, economic, and environmental scores. The methodology is based on the application of specific criteria to assess the opportunities and risks deriving from economic, environmental and social dimensions of each of the eligible companies in the Dow Jones Global Index (DJGI) investable stocks universe of around 3000 firms. These criteria consist of both general criteria applicable to all industries and criteria applicable to companies in a specific industry group. Usually top 10 percent of DJGI are selected as DJSI firms. There is an advantage for collecting our sample from two independent databases by which we can overcome strict percentage limitations such as top 10 percent of DJGI.

We use categorical data to measure our dependent variable, CSR and non-CSR, and continuous data for the independent variables, cultural scores for each country [4]. Following the footsteps of [3] [10], in this paper we try to control the effects from all three levels: firm level effect such as firm size and firm's prior financial performance; industry level effect; and national level effect such as prosperity of the country. The binary logistic regression in SPSS v14 was used to test the proposed hypotheses.

## Results

Overall, the regression model of this paper classifies 80.1 percent of the observations correctly. Model goodness-of-fit test and model chi-squares are provided right below in Table 1. It reports the results of the binary logistic regression analysis and reveals strong support of the proposed hypotheses. While Model 1 includes only control variables in the regression, Model 2 includes both independent and control variables. As seen from Model 1, we found that firm size is significant at (p<.001), but there is not any significance found for leverage. Surprisingly, we found a negative significant relationship between national prosperity and CSR, and firm's prior financial performance and CSR, as opposed to the findings of previous studies [2] [10] .

The results of the binary logistic regression in Model 2 confirm the hypotheses, and the directions are also in line with our expectations. In testing H1 and H3, we found negative and significant coefficients on power distance H1 and masculinity H3 and respective values of Exp (B) are less than 1, which further confirm that they are negatively related with the odds of CSR and its confidence interval reveals that the direction of these findings will stay the same for the whole population. Thus, H1 and H3 are supported by the empirical analysis. This finding is noteworthy because it confirms that negative effects of high power distance (H1) culture such as accepting questionable business practices as normal outweighs any potential positive impact on CSR.

TABLE 1
Results of the binary logistic regression

| | **Model 1** | | **Model 2** | | **Model 2+** | | |
|---|---|---|---|---|---|---|---|
| | **B** | **(S.E.)** | **B** | **(S.E.)** | **95% C.I. for EXP(B)** | | |
| | | | | | **Low** | **Exp(B)** | **Upper** |
| *Independent variables* | | | | | | | |
| Power Distance | | | -0.06*** | (0.01) | 0.92 | 0.94 | 0.96 |
| Individualism | | | 0.22** | (0.01) | 1.01 | 1.03 | 1.04 |
| Masculinity | | | -0.02*** | (0.00) | 0.97 | 0.98 | 0.99 |
| Uncertainty avoidance | | | 0.03*** | (0.01) | 1.01 | 1.03 | 1.05 |
| *Control variables* | | | | | | | |
| GDP per capita | -0.42* | (0.24) | -2.05*** | (0.46) | 0.05 | 0.13 | 0.32 |
| Firm Size | 0.33*** | (0.07) | 0.37*** | (0.07) | 1.17 | 1.34 | 1.54 |
| Return on Asset | -0.02* | (0.01) | -0.02* | (0.01) | 0.96 | 0.98 | 1 |
| Leverage | 0.43 | (0.45) | 0.19 | (0.47) | 0.42 | 1.07 | 2.69 |
| *Constant* | -0.03 | (2.82) | 17.66 | (4.75) | | 4671… | |
| Industry fixed effect | Yes | | Yes | | | | |
| *N (Observations)* | 1189 | | 1189 | | | | |

Note for Model 2: $R^2$= .41 (Hosmer & Lemeshow), .11 (Cox &Snell), .18 (Nagelkerke). Model $\chi^2$ (17) = 138.05, p<.001; * p<.05, ** p<.01, ***p<.001; To save space, the industry-level effects are not shown in the table.

Similarly, net negative effect of masculinity (H3) outweighs any positive effect on CSR. On the other hand, in testing H2 and H4, we found positive and significant coefficient on individualism (H2) and uncertainty avoidance (H4). Moreover, their Exp(B) values greater than 1 confirms that they are

positively related to CSR, and their confidence intervals also suggests the direction of the findings remains the same for the whole population. Thus, H2 and H4 are also supported by the empirical analysis. All control variables show qualitatively similar results across Model 1 and Model 2. We controlled industry fixed effects for both models, and to save space we didn't display them in the table.

## DISCUSSION

The association between culture and CSR has been explored in [3] and [10]. Following the efforts of [3] and [10], we employed a different methodology and found inconsistent results among four studies. Table 2 shows the differences among the hypothesized directions, significance level, and final results of all four studies. For example, in Ringov &Zollo, (2007) [10] the predicted negative direction of power distance is supported at significance level $p<0.01$; in Ho et al., (2011) [3], the predicted negative direction of power distance is not supported, but it is still significant at $p<0.05$ in the opposite direction; and finally, in our study the predicted negative direction of power distance is supported at significant level $p<0.01$.

TABLE 2
Comparison among studies

| Cultural Dimensions | Ringov & Zollo, 2007 | | Ho et al., 2011 | | Ioannou & Serafeim, 2012 | | Current Study | |
|---|---|---|---|---|---|---|---|---|
| | Pred | Result | Pred | Result | Pred | Result | Pred | Result |
| Power Distance | (–) | (–)** Yes | (–) | (+)** No | (+) | (+)*** Yes | (–) | (–)*** Yes |
| Individualism | (–) | (–) No | (–) | (–)** Yes | (+) | (+)*** Yes | (+) | (+)** Yes |
| Masculinity | (–) | (–)** Yes | (–) | (+)** No | | | (–) | (–)*** Yes |
| Uncer Avoidance | (–) | (+) No | (+) | (+)** Yes | | | (+) | (+)*** Yes |

Notes: *p<0.1; **p<0.05; ***p<0.01;

There are many factors influencing the inconsistent findings across these four studies. Two possible causes from methodology may be the most critical ones. First, the samples that four studies used are different and should be clarified. In the current study, our sample is populated with comparable multinationals. The impact of national culture on firm's CSR engagement might be different according to the firm characteristics such as level of multinationality. Second, the definition and measurement of CSR of this study are not the same as the other three studies, That is, our CSR is a binary categorical variable, while that of the other three studies is a continuous one. Last, only two studies employed a longitudinal research design, while the other two employed a cross-sectional one.

## CONCLUDING REMARKS

This paper empirically examines the cultural influence on corporate social responsibility based on Hofstede's cultural dimensions. Our findings show that individualism and uncertainty avoidance have positive impacts on firms' CSR engagement, whereas power distance and masculinity have negative impact s on firms' CSR engagements, which are only partially consistent with the findings of previous studies [3][10]. The fact that findings of the three studies are inconsistent indicates further examination of the association between national culture and CSR is still needed. Some managerial implications are provided as follows. Managers working for MNEs should consider applying customized CSR strategies in different countries according to their national culture. For policy makers especially responsible for

inward foreign investment, they may evaluate the investors' potential CSR engagement in the host countries based on our findings.

The present study try to fill the theoretical gap by exploring the informal institution effects on firm's CSR (i.e. cultural effect), while we did not further explore how the interaction between institutions influences on CSR, which might also help to provide some explanatory power on firm's CSR engagement.

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