Culture Dimensions and Corporate Social Responsibility Disclosure

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Abstract
This study examines the effect of national culture on corporate social responsibility reporting by country. We aim to enhance our understanding of the level of corporate social responsibility disclosure in different countries by focusing on the impact of national culture variables in general and by using the degree of financial freedom and the level of international financial reporting standards adoption as control variables. Based on published data for 30 countries and by employing the Global Leadership and Organizational Behavior Effectiveness (GLOBE) study model, which considers nine cultural dimensions, the results indicate that human orientation, assertiveness and performance orientation significantly impact corporate social responsibility disclosure. In addition, a country’s financial freedom has a significant effect as a control variable. This study provides insight into the corporate social responsibility literature by documenting that cultural variable influence the degree of disclosure in general and corporate social responsibility disclosure specifically and by adding two new variables to the model: financial freedom and the level of international financial reporting standards adoption.

Keywords: corporate social responsibility; national culture; reporting; country-based analysis
1. Introduction

Corporate social responsibility reporting has increased in the last couple of decades within and across countries all over the world (Michelen et al., 2015; Momen and Parker, 2013; Stewart et al., 2018; Zsoka and Vajkai 2018, Uyar et al., 2019; Weerathunga et al., 2020). Before the adoption of international financial reporting standards by most countries, the cross-country differences in the level of disclosure were mainly attributable to different accounting standards and requirements (Nobes, 1998). Later, researchers started to look for new factors that might influence the level of financial disclosure in general and the level of corporate social responsibility disclosure in particular (e.g., Momin and Paker, 2013; Taskumis 2007). Factors influencing the level of corporate social responsibility disclosure have been mainly discussed in the context of stakeholder, legitimacy and institutional theories (Haniffa and Cook, 2002; Hope, 2003; Harris et al., 2004; Cho and Patten, 2007; Islam and Deegan, 2008; Momin and Paker, 2013; Luo and Tang, 2015). The effect of national culture on the level of corporate social responsibility disclosure has been the subject of research interest since the beginning of the current century. Ho and Wong (2001) called for more assessment and investigation on the effect of culture on corporate disclosure; since then, several studies have examined the relationship between cultural dimensions and the level of corporate disclosure (Hope 2003; Taskumis 2007; Hooghemistra et al., 2015; Luo and Tang 2015; Khelif and Khelif, 2016). This influence is expected to be higher on corporate social responsibility disclosure due to the nature of published information relating to the environment, voluntary endeavors and social responsibility practices in general.

Other factors could interfere with or play a role in determining the level of corporate social responsibility disclosure at the country level. These factors have mainly been discussed within the institutional theory framework, such as the regulatory environment in which a firm operates and the degree of openness of a country to other countries. The effects of these factors on the level of voluntary disclosure have been examined and investigated in several types of studies (Taskumis, 2007; Hope; 2008). In this paper, two variables within the institutional theory context are examined as control variables to see whether the degree of the financial openness of the country or the level of international financial reporting standards adoption could play an
intermediary role in influencing the relationship between national culture and the level of corporate social responsibility disclosure.

This study is an attempt to provide new empirical evidence on the effect of the cultural dimensions introduced by the Global Leadership and Organizational Behavior Effectiveness (GLOBE) model on the level of corporate social responsibility disclosure across countries. In addition, it adds to the literature through the investigation of two new factors that might interfere with the relationship between national culture and the level of the corporate social responsibility disclosure: the level of adoption of international financial reporting standards by country and the level of a country’s financial freedom. The rest of the paper includes a literature review of national culture and corporate social responsibility reporting, followed by the study’s methodology, analysis and results, as well as the discussion, conclusion and suggestions for future research.

2. Literature Review

This section analyses theoretical and empirical studies investigating the relationship between national culture and disclosure in general with a focus on research examining the impact of national culture on corporate social responsibility reporting. Therefore, three sub-sections are included: research related to national culture, research about corporate social responsibility disclosure, and research investigating the relationship between national culture and corporate social responsibility disclosure.

2.1. National culture

Kroeber and Parsons (1958) offer the following American anthropological definition of culture: ‘transmitted and created content and patterns of values, ideas, and other symbolic—meaningful systems as factors in the shaping of human behaviour and artefacts produced through behaviour’. In addition, they suggest that the term social system is used to reflect interactions among people. In addition, according to Hofstede (2001, p.9) national culture is ‘collective programming of the mind which distinguishes the member of one group or category of people from another’. However, GLOBE researchers define culture as values, beliefs, identities and shared motives that result from the common experience of members of collectives and are transmitted across generations (House et al., 2002).
Based on these definitions, culture is a social concept with an equivocal meaning. However, many researchers and scholars try to classify it within operational definitions for use in different academic disciplines. Their concepts are always hypothesised by defining different cultural dimensions (Chelminski 2007; Nowak 2016), which have been provided by cultural models. The most commonly used models within the context of accounting studies are the GLOBE model and the Hofstede model; Hofstede (2001) identifies five main dimensions of culture: individualism, power distance, uncertainty avoidance, masculinity and long-term orientation. Meanwhile, the GLOBE project, which is the most recent study, identifies nine cultural dimensions: power distance, uncertainty avoidance, humane orientation, collectivism I: (institutional), collectivism II: (in-group), assertiveness, gender egalitarianism, future orientation and performance orientation. Other cultural models, such the one by Trompenaars and Hampden-Turner (2011) put culture into seven dimensions: universalism vs particularism, individualism vs communitarianism, specific vs diffuse, neutral vs emotional, achievement vs ascription, sequential time vs synchronous time and internal direction vs outer direction. This model, along with other cultural models, such as the Gestland model and the Hall model, are less used by researchers (Nowak, 2016).

Enormous studies examine the cultural dimensions of these models within the context of business and accounting research. For instance, Hope (2003) investigates the relative roles of national culture and legal origin in determining firm-level disclosure internationally. Using a sample of 42 countries, the study documents that national culture dimensions (as defined by Hofstede and Schwartz, 2000) and legal origin are both essential in explaining firm-level disclosure. Meanwhile, Taskumis (2007) examines the influence of national culture on accountants’ applications of accounting rules, including the differences between Greek and United States (US) firms regarding recognising contingent liabilities and assets, based on Gray’s (1988) framework. The results suggest that US firms are more conservative than Greek firms. Later studies, such as the one by Hooghemistra et al. (2015), investigate the influence of national culture variables on the level of disclosure of internal control information. This paper argues that national culture will influence managers’ perceptions of the costs and benefits of the amount of information disclosed. Analysing data for 1559 firms from 29 countries for the period of 2005–2007, the results suggest that national culture impacts the level of corporate disclosure directly, as well as indirectly.
via the level of investor protection in the country. Luo and Tang (2015) investigate the effect of culture dimensions on the corporate carbon reporting tendency, combining five cultural variables, which were used in the Hofstede (1980) and GLOBE models: masculinity-femininity (MAS), power distance (PD), uncertainty avoidance (UA), individualism-collectivism (IND) and long-term orientation (LTO). Based on a sample of 1762 companies from 33 nations, the results suggest that cultural variables of masculinity, power distance and uncertainty avoidance are keenly associated with carbon disclosure propensity regardless of using the Hofstede model and GLOBE model.

2.2 Corporate social responsibility disclosure

Financial reporting will continue to be a rich field for accounting research due to several factors and variables that influence the quality and the quantity of the disclosed information (Kalue et al., 2016; Sepasi et al., 2017; Karaman et al., 2020). Financial reporting has evolved through the decades from the publication of basic accounting figures to full annual reports that include financial statements, notes and policies. The latest trends in financial reporting focus on non-financial information and voluntary disclosure, such as corporate social responsibility reporting and sustainability reporting (Hiss, 2009; Hussein and Hammami, 2009; Harski, 2012; Kalu et al., 2016; Wang et al., 2018; Romero et al., 2018; Poddar and Narula 2018; Zainol, 2020). Although corporate social responsibility reporting has been increasing in the past two decades, it is still in its early stages compared to financial reporting. Tschopp and Huefner (2015) compare the evolution of corporate social responsibility reporting and financial reporting, revealing that corporate social responsibility reporting has reached a good standing point compared to the first issued report, but it is still missing comparability and relevance. This lack of comparability is due to the use of different corporate social responsibility reporting standards, such as those from the Global Reporting Initiative, Accountability and the United Nations Global Compact.

Researchers suggest that different reasons motivate companies towards corporate social responsibility reporting (Fernando, 2014; Chantziaras et al., 2020). Mahoney et al. (2013) classify the reasons for corporate social responsibility reporting into two categories: signalling and greenwashing. According to the signalling approach, companies try to use corporate social responsibility reporting to mark their commitments to corporate social responsibility activities. According to the greenwashing approach,
companies try to project a good impression, although is not based on reality. In general, researchers attribute different levels qualitative and quantitative disclosure to several theories, such as the agency, stakeholder, legitimacy and institutional theories (Boiral et al., 2019). Each theory provides different motivations for the level of exposure based on the relationship between the company and its shareholders, international institutions and society (Mommin and Parker, 2013; Cheung et al., 2010; Cho and Patten, 2007; Negulescu and Doval, 2016; Darell and Schwartz, 1997; Campbell, 2007; Fernando, 2014; Yu and Zheng, 2020).

Other researchers argue that, despite the criticism that corporate social responsibility reporting is not a suitable way to enhance the quality of information and the disclosure quality (Michelon et al., 2015), the demand for corporate social responsibility reporting from stakeholders is increasing (Bonsón and Bednarova, 2015). According to the survey conducted by KPMG (2013), 76% of companies in the Americas were reporting on corporate social responsibility, along with 73% in Europe and 71% in the Asia Pacific region. KPMG (2015) provides analysis regarding the development of corporate social responsibility reporting by comparing 2015 reporting to 2013 reporting; the results reveal vast improvement among Asian companies. The results also show that, among the greatest 250 companies (G250), 92% are reporting on corporate social responsibility.

In summary, regardless of whether the motivations behind corporate social responsibility practices and reporting were greenwashing, legitimization or responding to stakeholder and societal requirements, companies all over the world strive to publish corporate social responsibility reports. Accordingly, corporate social responsibility reporting has become the latest trend in financial reporting, capturing the attention of scholars and researchers in all business disciplines.

2.3 National culture and corporate social responsibility disclosure

Researchers have investigated the relationship between culture and business practices for decades (Uyar, 2016). However, there are always gaps in this area of research due to the sustainable development of cultural values and business practices (Harski, 2012). As mentioned earlier in this paper, financial reporting has evolved tremendously during the last couple of decades, opening a space for more research examining the effect of national culture on accounting disclosure. Therefore, this paper aims to study the
impact of country culture variables, as specified by GLOBE, on corporate social responsibility disclosure at the country level. Within this context, several studies attempt to examine the effect of national culture on accounting disclosure in general. Nowak (2016) seeks to explain how culture can influence accounting, presenting all the operational definitions of cultural dimensions, as they have been defined in different cultural models. The study concludes that, although the concept of culture is ambiguous, it can be operationalized, and cultural dimensions can be measured quantitatively; furthermore, it asserts that quantitative assessments of cultural dimensions can be used in accounting. Gray and Vint (1995) examine the relationship between culture and disclosure in 27 countries; the results show a significant relationship between cultural values and disclosure behaviours. Zarzeski (1996) examines 256 annual reports, finding a relationship between secrecy culture and disclosure. Meanwhile, Qu and Leung (2006) explore the relationship between culture and voluntary exposure in 120 companies in China, revealing that culture changes as voluntary disclosure changes.

More recent studies, such as the one by Hooghiemstra et al. (2015), use cross-country analysis to examine the effect of national culture on internal control disclosure. Based on a sample of 1559 firms from 29 countries, national culture directly affects such disclosure. More specifically, Kalu et al. (2016) investigate the determinants of carbon releasing reporting and reduction in corporate realty firms in Nigeria. Based on the agency, signaling, stakeholder and institutional theories, the study determines four factors for carbon emission reduction disclosure: economic, social, financial market and institutional factors. The study recommends that policies, programs and incentives to enhance climate change mitigation in developing countries could be built around these factors to encourage private sector participation. Within the same context, Luo and Tang (2015) examine the impact of national culture, represented by Hofstede and GLOBE measures, on companies’ voluntary participation in carbon reporting via the Carbon Disclosure Project (CDP). Based on a sample of 1762 companies from 33 nations, the cultural dimensions of masculinity, power distance, and uncertainty avoidance are keenly and persistently related to carbon reporting tendency.

In summary, by reviewing the literature on national culture and accounting disclosure in general, it can be noted that, among several cultural models, the
Hofstede and GLOBE models are the most prominent. This study employed the GLOBE model’s cultural dimensions to examine the effect of national culture on corporate social responsibility reporting across countries because they cover most of the dimensions mentioned in other models.

3. Hypotheses Development

As this paper studies the impact of culture dimensions on CSR, corporate social responsibility reporting is the dependent variable. The level of corporate social responsibility reporting was adopted from a KPMG study, which measures corporate social responsibility reporting per country as percentages ranging from 0% to 100%. National culture dimensions are the independent variables. As noted above, the GLOBE study identifies nine dimensions for national culture. The GLOBE index values for each dimension for each of the studied countries are depicted in Table 1. The GLOBE’s definitions of each dimension are described below.

First, uncertainty avoidance is described as ‘the extent to which members of an organisation or society strive to avoid uncertainty by reliance on social norms, rituals, and bureaucratic practices to alleviate the unpredictability of future events’ (House et al., 2002, p.5). Although Hope (2003) finds that there is a negative relationship between uncertainty avoidance and disclosure, people try to avoid transparency in order to feel more secure. Luo and Tang (2015) find a positive relationship between uncertainty avoidance and voluntary carbon reporting. Likewise, Gray and Vint (1995) find a positive relation between uncertainty avoidance and disclosure practices. Salter and Niswander (1995) also test Gray’s hypotheses, finding a positive relationship between secrecy and uncertainty avoidance. Therefore, hypothesis 1 (H1) is as follows:

\textit{H1: There is a positive (negative) relationship between uncertainty avoidance and corporate social responsibility reporting.}
Second, power distance is defined as ‘the degree to which members of an organisation or society expect and agree that power should be unequally shared’ (House et al., 2002, p. 5). According to Salter and Niswander (1995), there is a positive relationship between secrecy and power distance. Power distance increases feelings of potential threats and untrustiness; this is supported
by the results of Noravesh et al. (2007), whose study in Iran reveals a positive relationship between power distance and secrecy. Therefore, H2 is as follows:

**H2: There is a negative relationship between power distance and corporate social responsibility reporting.**

Third, gender egalitarianism is ‘the extent to which a company or a society decreases gender role diversity and gender discrimination’ (House et al., 2002, p.5). Luo and Tang (2015) find a positive relationship between gender egalitarianism and carbon reporting propensity. Salter and Niswander (1995) examine the relationship between masculinity, and the results reveal a negative relationship. Noravesh et al. (2007) support this negative relationship through observations that masculinity is associated with less attention to environmental issues compared to low masculinity countries. Therefore, H3 is as follows:

**H3: There is a positive relationship between gender egalitarianism and corporate social responsibility reporting.**

The fourth and fifth dimensions are discussed under the concept of collectivism. According to the GLOBE study, there are two types of collectivism; social collectivism ‘reflects the degree to which organizational and societal institutional practices encourage and reward collective distribution of resources and collective action’, and in-group collectivism (IGC) reflects ‘the degree to which individuals express pride, loyalty, and cohesiveness in their organizations and families’ (House et al., 2002, p.5). According to Jaggi and Low (2000), communities with high individualism are more motivated toward openness and transparency. Luo and Tang (2015) examine the relationship between collectivism and carbon reporting using the Hofstede model; the results suggest a negative relationship between collectivism and carbon disclosure. One of the implications of Qu and Leung’s (2006) study is that the individualistic characteristics of new, young managers of Chinese companies lead them to be more open and take more risks. Hooghiemstra et al. (2015) examine the relationship between internal control disclosure and culture, revealing a negative relationship between managers from collectivist countries and managers from individualist countries. Therefore, H4 and H5 are as follows:

**H4: There is a negative relationship between social collectivism and corporate social responsibility reporting.**
H5: There is a negative relationship between in-group collectivism and corporate social responsibility reporting.

Sixth, assertiveness is ‘the level to which individuals in organisations or communities are assertive, confrontational and aggressive in a sociable relationship’ (House et al., 2002, p.6). According to Reed et al. (2016), assertive people tend to have more conflict regarding the rights of other people, which increases their privacy-related behaviours. They also examine the relationship between GLOBE cultural variables and online self-disclosure behaviours, revealing a positive relationship between assertiveness and privacy. Therefore, H6 is as follows:

H6: There is a negative relationship between assertiveness and corporate social responsibility reporting.

Seventh, future orientation is ‘the degree to which individuals in organisations or societies engaged in future-oriented behaviour such as planning and investing in the future and delaying gratification’ (House et al., 2002, p.6). The quality of financial reporting and disclosure can enhance investment in the future (Biddle and Hilary, 2006). As such, people who engage in future-oriented behaviour should care more about financial reporting than others. Therefore, H7 is as follows:

H7: There is a positive relationship between future orientation and corporate social responsibility reporting.

Eighth, humane orientation (HO) is ‘the level to which individuals in organisations or communities motivate and reward individuals for being fair, selfless, socially, generous, caring, and kind to others’ (House et al., 2002, p.6). A humane orientation involves caring and providing support to other people; therefore, such people are always looking to decrease the threats to others (Reed et al., 2016). Accordingly, this kind of protection can be achieved through full disclosure to protect stakeholders’ interests. Hooghiemstra et al. (2015) reveal a positive correlation between investor protection and disclosure. Similarly, Luo and Tang (2015) find a positive relationship between humane orientation and carbon dioxide reporting. Therefore, H8 is as follows:

H8: There is a positive relationship between humane orientation and corporate social responsibility reporting.
Ninth, performance orientation is ‘the degree to which individuals in organisations or societies encourage and reward set of individuals for performance improvements supremacy’ (House et al., 2002, p.6). Luo and Tang (2015) find a negative relationship between performance orientation and carbon dioxide. Reed et al. (2016) reveals that, in societies characterised by performance improvement, people’s egos increase their fear of disclosing their faults, leading to a positive relationship between performance orientation and privacy. Therefore, H9 is as follows:

\[ H9: \text{There is a negative relationship between performance orientation and corporate social responsibility reporting.} \]

The third group of variables are the control variables, namely, international financial reporting standards and financial freedom. Some countries require all companies to fully comply with international financial reporting standards. In other countries, the reporting standards are only required for some companies and/or not all standards are required. In this research, international financial reporting standards adoption was ranked on a four-point scale (0 = international financial reporting standards are not permitted in the country to 3 = international financial reporting standards are fully adopted by all companies). See Table 1 for the level of international financial reporting standards adoption for each country in the sample. In general, the more adoption of international financial reporting standards the higher level of disclosure. Accordingly, we argue that countries with high international financial reporting standards adoption levels would encourage companies to publish more information than what is required by those standards in response to the demands of various parties, consequently enhancing the level of corporate social responsibility reporting.

Financial freedom is a measure of banking efficiency and the degree of independence from government control and interference in the financial sector. A state’s ownership of banks and other financial institutions, such as insurance companies and capital markets, would decrease the degree of financial freedom by reducing competition and lowering the level of available service. The Heritage Foundation’s 2017 financial freedom index calculates the level of financial freedom by considering the following broad areas:
• the extent of government regulation of financial services;
• the degree of state intervention in banks and other financial firms through direct and indirect ownership;
• the extent of financial and capital market development;
• government influence on the allocation of credit; and
• openness to foreign competition.

The index ranked countries according to their degree of financial freedom as percentages ranging from 0% to 100%. See Table 1 for the degree of financial freedom for each country in the sample. For this variable, we argue that companies operating in countries with higher financial freedom and less government intervention face higher competition, which increases the demand for reporting by several parties and makes companies strive to publish more information on various issues. Consequently, countries with more financial freedom would enhance the corporate social responsibility reporting by companies operating in those countries.

4. Methodology

This section explains the data sources, the research sample, and how we operationalized the dependent, control, and independent variables.

4.1 Research data and sample

This study examines the effect of domestic culture variables, as stated by the GLOBE model, on corporate social responsibility reporting across countries, taking into consideration the impact of two control variables: the level of international financial reporting standards adoption and the level of financial freedom. Therefore, the data were mainly collected from secondary sources that published country information.

For the dependent variable, data on the level of corporate social responsibility reporting were collected from the KPMG Survey of Corporate Social Responsibility 2013, which was the eighth edition of this survey. It covered 41 countries, and the corporate social responsibility index reflected the percentage of companies who reported on corporate social responsibility in each country.

For the independent variables, as mentioned above, there are many models for measuring cultural dimensions, but we used the GLOBE study, as it is...
the most recent study on cultural dimensions, we obtained our data from House et al. (2004).

For the control variables, data related to international financial reporting standards adoption were collected from www.iasplus.com (Deloitte’s official website), which publishes whether each country has fully adopted, partially adopted or it does not use international financial reporting standards. Data on the degree of financial freedom that companies enjoy in a certain country were collected from the 2017 Index of Economic Freedom, published by the Heritage Foundation. The operational definitions of these variables are explained in the next section.

Data for all of the variables were only available for 30 countries, and any country missing a single value for any of the variables was excluded from the present study. Consequently, the final sample of this research was 30 countries (see Table 1).

Data analysis was performed using the R statistical package (http://www.R-project.org) version 3.4.2, using multiple linear regression m functions. In the multivariate regression stepwise model building process, all variables were considered for initial inclusion. However, the stepwise technique only retains the significant variables related to corporate social responsibility reporting. Variable selection was based on the Akaike information criterion. This method identifies the best subset of variables related to corporate social responsibility after removing redundant or collinearly related variables (Hegyi and Garamzegi, 2010). The model combining the relationship between corporate social responsibility reporting and financial freedom can be represented as follows:

corporate social responsibility = f (cultural dimensions, financial freedom, and international financial reporting standards adoption)

4.2 Descriptive statistics

This section summarises the descriptive statics of the dependent and independent variables as shown in Table 2; the dependent variable had a mean of 77.07 and a very large variation (SD = 15.62) among countries, with a minimum of 43 and a maximum of 99. Approximately within the same range, financial freedom varied between 30 (min) and 90 (max), with a mean of 63.67 and a standard deviation of 16.71. The remaining variables’ means
varied between 2.33 and 5.93, and their standard deviations were close to each other, varying from 0.23 to 1.12.

Table 2       Summary statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Std. dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSRR</td>
<td>30</td>
<td>77.07</td>
<td>15.62</td>
<td>43.0</td>
<td>99.0</td>
</tr>
<tr>
<td>IFRS</td>
<td>30</td>
<td>2.33</td>
<td>1.12</td>
<td>0.0</td>
<td>3.0</td>
</tr>
<tr>
<td>FF</td>
<td>30</td>
<td>63.67</td>
<td>16.71</td>
<td>30.0</td>
<td>90.0</td>
</tr>
<tr>
<td>Ass</td>
<td>30</td>
<td>3.80</td>
<td>0.71</td>
<td>2.9</td>
<td>5.8</td>
</tr>
<tr>
<td>SC</td>
<td>30</td>
<td>4.69</td>
<td>0.46</td>
<td>3.9</td>
<td>5.6</td>
</tr>
<tr>
<td>IGC</td>
<td>30</td>
<td>5.63</td>
<td>0.34</td>
<td>5.1</td>
<td>6.5</td>
</tr>
<tr>
<td>FO</td>
<td>30</td>
<td>5.37</td>
<td>0.35</td>
<td>4.5</td>
<td>6.0</td>
</tr>
<tr>
<td>GE</td>
<td>30</td>
<td>4.64</td>
<td>0.46</td>
<td>3.7</td>
<td>5.2</td>
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<tr>
<td>HO</td>
<td>30</td>
<td>5.46</td>
<td>0.23</td>
<td>4.9</td>
<td>5.9</td>
</tr>
<tr>
<td>PO</td>
<td>30</td>
<td>5.93</td>
<td>0.28</td>
<td>5.1</td>
<td>6.4</td>
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<tr>
<td>PD</td>
<td>30</td>
<td>2.74</td>
<td>0.34</td>
<td>2.2</td>
<td>3.8</td>
</tr>
<tr>
<td>UA</td>
<td>30</td>
<td>4.51</td>
<td>0.61</td>
<td>3.2</td>
<td>5.5</td>
</tr>
</tbody>
</table>

Table 3 illustrates the Pearson correlation matrix for the dependent and independent variables. Corporate social responsibility reporting was significantly and positively correlated with assertiveness (r = 0.45) and human orientation (0.43), with p-values < 0.05 for both variables. The rest of the variables correlated with corporate social responsibility reporting but not significantly. Among the not significant factors, the highest correlation was with performance orientation (r = –0.25), and there was no correlation at all with power distance (r = –0.01). The significantly correlated variables with corporate social responsibility reporting, namely, assertiveness and human orientation, were not correlated with each other, suggesting that no multicollinearity problem would occur when we conducted the regression analysis in the next part of the analysis. Multicollinearity was also addressed by monitoring VIF values and using stepwise regression.

Table 3       Correlations between variables

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<th>8</th>
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<th>10</th>
<th>11</th>
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<tbody>
<tr>
<td>CSRR (1)</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>IFRS (2)</td>
<td>-0.12</td>
<td></td>
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<td></td>
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<tr>
<td>FF (3)</td>
<td>0.14</td>
<td>0.41**</td>
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<tr>
<td>Ass (4)</td>
<td>0.45**</td>
<td>-0.4**</td>
<td>-0.26</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>SC (5)</td>
<td>-0.10</td>
<td>-0.06</td>
<td>-0.13</td>
<td>-0.33*</td>
<td></td>
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</tbody>
</table>
5. Results

5.1 Hypothesis testing

To examine the research objective, multiple regression analysis with stepwise variable choosing was employed to specify and describe the impact of the independent variables on corporate social responsibility reporting after controlling for international financial reporting standards and financial freedom. A forward stepwise steps was used to choose which variables should be kept in the final model. This method attempts to specify the ‘best’ group of predictors while omitting those variables that were excessive or which were collinearly related to others (Talpey et al., 2016).

The researchers applied the R statistical program (version 3.4.2) to test the data. The following equation was used to test the hypotheses:

\[ CSRR = \alpha + \beta IFRS + \beta 2FF + \beta 3Ass + \beta 4COLL + \beta 5GE + \beta 6INColl + \beta 7FO + \beta 6HO + \beta 7PO + \beta 8PD + \beta 9UA + \varepsilon \]

Before implementing the model, the data were examined for heteroscedasticity using the Breusch-Pagan test. The results of the test showed that residuals were symmetric. We also tested for omitted variable bias using the Ramsey test and concluded that we did not need more variables. In addition, variance inflation factor was calculated to test for multicollinearity, and we found that the independent variables were not multicollinear. The results of the regression model are reported in Table 4.
Table 4  Stepwise regression of corporate social responsibility reporting predictors

<table>
<thead>
<tr>
<th>Variable</th>
<th>Estimate (β)</th>
<th>SE (β)</th>
<th>T-value</th>
<th>P-value</th>
<th>F</th>
<th>VIF</th>
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</thead>
<tbody>
<tr>
<td>Regression</td>
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<td></td>
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<td></td>
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<tr>
<td>Constant</td>
<td>–32.77</td>
<td>65.3</td>
<td>–0.502</td>
<td>0.62</td>
<td></td>
<td></td>
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<tr>
<td>FCC</td>
<td>0.291</td>
<td>0.142</td>
<td>–2.051</td>
<td>0.051</td>
<td>1.34</td>
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<tr>
<td>Ass</td>
<td>10.56</td>
<td>3.04</td>
<td>3.47</td>
<td>0.002</td>
<td></td>
<td>1.11</td>
</tr>
<tr>
<td>HO</td>
<td>33.53</td>
<td>9.26</td>
<td>3.63</td>
<td>0.001</td>
<td></td>
<td>1.11</td>
</tr>
<tr>
<td>PO</td>
<td>–22.24</td>
<td>8.5</td>
<td>–2.62</td>
<td>0.015</td>
<td></td>
<td>1.34</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.57</td>
<td></td>
<td></td>
<td></td>
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</table>

The results revealed that assertiveness, human orientation and power distance were significant at 5% level of significance after controlling for the financial freedom variable. Assertiveness and human orientation were significant and positive predictors for corporate social responsibility reporting with $\beta = 10.56$ and 33.53, respectively (p-value < 0.01), whereas professional orientation was a significant and negative predictor of corporate social responsibility reporting with $\beta = –22.24$ (p-value = 0.015). The F-value of the whole regression model was 8.32 (p-value < 0.001), indicating the efficiency of the model with the R square of 0.57, this shows that almost 57.1% of the deviations in corporate social responsibility reporting were explained by the model.

5.2 Robustness

The model was evaluated again using stepwise regression without the control variables, resulting in the same significant variables (assertiveness, human orientation and professional orientation) (see Table 5). This may be due to the slight contribution of financial freedom to the model, as it was only significant at $\alpha= 0.10$. However, removing financial freedom changed the weight of each coefficient in the new model (without financial freedom). Assertiveness and professional orientation coefficients decreased (from (10.56, –22.24) to (9.6, –15.57)), while the human orientation coefficient increased from 33.53 to 36.75. Despite the low significance of financial freedom in the model (at $\alpha= 0.10$ level), all goodness of fit indicators with financial freedom were better than in the new model (without financial freedom), such as $R^2 = 0.571$ and a residual standard error of 11.02 compared to $R^2 = 0.499$ and a residual standard error of 11.68.
Table 5 Stepwise regression analysis without the control variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Estimate (β)</th>
<th>SE(β)</th>
<th>T-value</th>
<th>P-value</th>
<th>F</th>
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<tr>
<td>R-squared</td>
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</table>

6. Discussion, Conclusions, and Managerial Implications

6.1 Discussion

The stepwise regression results revealed that only assertiveness, human orientation, and professional orientation influenced the level of corporate social responsibility reporting with and without the effects of the control variables. These results support the hypotheses related to these three cultural dimensions and were consistent, in somehow, with the results of previous studies, which have found that cultural dimensions impact the level of disclosure (Gray and Vint, 1995; Salter and Niswander, 1995; Noravesh et al., 2007; Akman, 2011; Hooghiemstra; et al., 2015; Luo and Tang, 2015; Reed et al., 2016). However, each of these studies reports significant effects for some of the dimensions, such as Noravesh et al. (2007), Reed et al. (2016) and Luo and Tang (2015), which support the effects of collectivism, performance orientation and human orientation and are consistent with our results. Meanwhile, Gray and Vint (1995) and Slater and Niswander (1995) support the effects of uncertainty avoidance, power distance, and gender egalitarianism. The slight variances in the results of the previous studies could be attributable to variations in the dependent variable. The previous studies examine the effect of national culture on secrecy (i.e. Gray and Vint, 1995; Slater and Niswander, 1995) or internal control disclosure (Hooghiemstra et al., 2015). Also, carbon dioxide disclosure was tested by Luo and Tang (2015) using different cultural models, including the Hofstede model. Overall, most of the studies mainly depended on the Hofstede model to measure culture.

The level of international financial reporting standards adoption by country did not seem to have any significant relationship with corporate social responsibility disclosure, and the effect of culture still had a higher influence on the level of corporate social responsibility reporting. This result might be
attributable to the fact that corporate social responsibility reporting is not required by international financial reporting standards; instead, companies voluntarily comply with corporate social responsibility reporting recommendations. This result is consistent with that of Akman (2011), who examines whether culture still affects the level of financial disclosure of companies after the use of international financial reporting standards. His results, based on the cultural dimensions developed by Hofstede (1991) and using a sample from Australia, France, Italy, the Netherlands, Germany, and the United Kingdom, suggest that, although the level of financial statement disclosure improved after the adoption of international financial reporting standards, the impact of culture on the disclosure level continues to play an important role. In addition, Tsakumis (2007) reports that national culture variables play important roles in accounting disclosure judgments regardless of the adopted accounting standards. Meanwhile, consistent with the hypothesis, financial freedom has a significant impact on the level of corporate social responsibility reporting. This indicates that less government interference with a country’s banks, capital, financial markets, and financial system, in general, would enhance the competition between companies in that country and lead to a higher level of corporate social responsibility reporting.

6.2 Conclusions and implications

This study empirically addresses the impact of culture dimensions on the level of CSR disclosure at nation level. The study provides empirical evidence on the relationship between national culture dimensions measured by the GLOBE model on the level of corporate social responsibility reporting for 30 countries, as reported by the KPMG Survey of Corporate Social Responsibility 2013. In addition, it adds theoretical and empirical evidence to the current literature by including two new control variables in the model. Regarding the control variables, we investigated whether the level of adoption of international financial reporting standards by a country or the level of financial freedom that the country provides to its companies interferes in the influence of culture on corporate social responsibility reporting. The findings suggest that only assertiveness, human orientation and professional orientation would influence the level of corporate social responsibility reporting with and without the effect of the control variables. However, while the adoption of international financial reporting standards shows no significant differences before and after international financial
reporting standards adoption, the degree of financial freedom of a country significantly affects the level of corporate social responsibility disclosure.

These results could imply that social practices and reporting on topics, such as corporate social responsibility, would be influenced by the national culture of the country. Therefore, governments should exert more effort and pay higher attention to impact a long-term change in the national culture, since social behaviour would change as a normal consequence of cultural change. In addition, providing companies and individuals with more financial freedom could influence their social behaviour and, in turn, influence voluntary financial reporting.

6.3 Future research Directions and Limitation of the study

Our study includes data for 30 countries due to data availability constraints. To have more inclusive results, the present study could be extended to cover more countries from different regions and different cultural backgrounds; this would open the door to further investigating the effect of culture on the level of disclosure. Moreover, while our study examined the effect of culture on corporate social responsibility disclosure, future studies could examine other kinds of disclosures, such as financial, narrative and accounting disclosures.

The availability of data was the first challenge of this research. The analysis could have been more comprehensive if data were available for more than the 30 studied countries. We also acknowledge that our study could not cover all possible cultural and institutional dimensions that might play a role in corporate social responsibility reporting and could not measure the quality of available measures. Therefore, the development and use of other dimensions could add to the understanding of corporate social responsibility reporting practices. Nevertheless, this study is a good attempt to connect several cultural variables with corporate social responsibility reporting, providing empirical evidence on the effect of culture and some institutional factors on one aspect of voluntary disclosure.
References


Websites
http://www.heritage.org/index/financial-freedom

Note
1 According to different references, culture change, which is basic enough to invalidate the country dimension index scores, would need either a much longer period (not less than 50 years) or extremely dramatic outside events (Hofstede, 2001).