Corporate social disclosures in the context of national cultures and stakeholder theory

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Abstract
Purpose – The purpose of this study is to investigate whether corporate social disclosure levels relate to national cultures.
Design/methodology/approach – The sample consisted of 600 large companies from 22 countries. Cultural measures were applied: a measure for secrecy, as proposed by Hope et al. and a newly constructed measure for generic types of cultures (Gannon), both derived from Hofstede’s national culture dimensions. Two other dimensions, masculinity and long-term orientation, not part of secrecy and generic types of culture measures, were also tested separately.
Findings – A number of significant statistical relationships between corporate social disclosures and cultural measures are identified. The results are consistent with the associations suggested by stakeholder theory and a country-specific stakeholder orientation. It is concluded that corporate social disclosure levels are likely to be influenced by national cultures.
Research limitations/implications – The results of Van der Laan Smith et al. are largely supported. Culture is clearly related to corporate social disclosure levels, although cultural data may need refinement. Further, the potential limitations of the application of stakeholder theory for this type of study need to be taken into account.
Practical implications – The outcomes can be useful to the managers of multinational corporations, when preparing corporate social disclosures.
Originality/value – Instead of a comparison between two nations, as is undertaken by Van der Laan Smith et al. a scaled relationship between generic types of cultures and CSD levels is found.

Keywords Accounting, Stakeholder analysis, Disclosure, National cultures, Corporate social responsibility

Introduction
Corporate social responsibility (CSR) and its related corporate social disclosures (CSD) have been on the research agenda for more than 35 years[1]. CSR research was stimulated by the hope that society could benefit (Margolis and Walsh, 2003). The search for motives for CSD still has to provide consistent proof of any clear determinant. This paper studies culture as a determinant of CSD, and fits within the research direction as defined by Ullmann (1985), in which society-related determinants, like culture, are seen to be relevant for CSD. He concludes that corporate strategy needs...
to be taken into consideration when studying CSD. Van der Laan Smith et al. (2005) describe the relation between CSD, strategy and national cultures as follows: “For preparers (i.e. companies) it is important to understand the differential pressures for CSD in different countries in order to condition their CSD disclosure strategy accordingly as they enter foreign markets” (see Van der Laan Smith et al., 2005, p. 125).

In this study, CSD and the role of companies in society, specifically related to culture, are studied in a quantitative manner. Hofstede’s (1984a) national culture dimensions are applied, as well as combinations of dimensions in measures for secrecy (SEC) and generic types of cultures (TYP). Hofstede’s dimensions represent people’s values at work that are part of national cultures. A link to society in Ullmann’s (1985) study, and even more specifically to issues that Hofstede raises, is provided by the following quotation: “Many scholars in the area of strategic management have stressed the importance of values and attitudes in the strategy formulation process (…), even more so in the context of responding to social demands” (Ullmann, 1985, p. 552). This study mainly builds on prior work by Van der Laan Smith et al. (2005).

CSD has become global, which could mean that differences between countries exist in levels of CSD, as Guthrie and Parker (1990) confirm. The objective here is to detect aspects of national culture that have an identifiable influence on CSD, in relation to the corporation-stakeholder relationship. Stakeholder theory and the country-specific orientation on stakeholders are applied to describe the statistical evidence found.

The remainder of the paper is organised as follows. The next section contains an overview of prior research, specifically similar studies on determinants of CSD and studies that relate social or financial accounting to culture. This is followed by the theoretical framework, including related prior literature. Further sections contain hypotheses development, research method and results. The final section includes the conclusion and limitations.

Prior research
CSD studies only occasionally take an international perspective. Guthrie and Parker (1990) show in a comprehensive paper on the topic of international differences of CSD levels, differences between three countries, the USA, the UK and Australia. They explain outcomes of the research by applying political economic theory and user utility perspectives. Guthrie and Parker (1990) do not apply Hofstede’s dimensions, but show differences between CSD levels of corporations from different countries.

Mathews and Reynolds (2001) test a possible classification of CSD based on Hofstede’s dimensions, applying Gray’s (1988) classification methodology of financial reporting. This classification is also based on Hofstede’s work. They show that differences in CSD levels between countries relate to Hofstede’s (1983) dimensions.

Van der Laan Smith et al. (2005) study CSD in combination with three of Hofstede’s dimensions: masculinity (MAS), power distance (PDI) and individualism (IDV). Application of the latter two was based on Gannon (2001), who combines PDI and IDV in a classification schedule for generic types of cultures. Van der Laan Smith et al. (2005) construct a prediction model for country of origin, with CSD as predictor, in a comparison between the US and Scandinavian companies. They add the institutional factors of corporate governance and ownership structure to their theoretical framework to explain the country-specific shareholder and stakeholder orientation, based on Bradley et al. (1999). They state that ownership and corporate governance
structures in Scandinavia contribute to a stronger stakeholder orientation, compared with the USA.

Hope et al. (2008) perform a test on the relationship between auditor’s choice and secrecy. They construct a measure for secrecy in nations, which they relate to choice of auditor. The measure of secrecy applied, which is based on Hofstede (1983) and Gray (1988) is an equal addition of scores for three national culture dimensions: uncertainty avoidance (UAI), PDI and IDV.

Simnett et al. (2009) study determinants of assurance of sustainability reports. They focus on company, industry and country-related factors. The only country-related factor they apply is the distinction between stakeholder and shareholder orientation, for which the proxy legal system is used. They conclude that this orientation partly determines choices made on assurance of sustainability reports.

Theoretical framework
The theoretical framework of this study consists of stakeholder theory and Hofstede’s national cultures framework. Hofstede calls his framework “a research-based theory” (Hofstede, 1983, p. 46).

Stakeholder theory
Stakeholder theory is part of a group of societal systems-based theories. Stakeholder theory is originally a management theory (see Freeman, 1984). It can be instrumental, descriptive or normative, according to Donaldson and Preston (1995). In the present study the descriptive perspective of the theory is applied. Deegan and Unerman (2006) and Gray et al. (1996) make a different subdivision in the theory. In their view, there are two variants. One variant is related to accountability, which is: “The duty to provide and account (by no means necessarily a financial account) or reckoning of those actions for which one is held responsible” (Gray et al., 1996, p. 38). The accountability variant is assumed to have little explanatory power in a CSR context, according to Gray et al. (1996). Deegan and Unerman (2006) mention that the accountability variant is similar to the ethical or normative perspective of the theory. The second variant is organisational stakeholder theory. Deegan and Unerman (2006) describe the organisational and managerial variants of stakeholder theory as both being instrumental.

Like Gray et al. (1996), Van der Laan Smith et al. (2005), suggest that the organisational perspective of stakeholder theory describes the relation between the corporation and its stakeholders. They find that factors from stakeholder theory are also applicable in explaining the CSD differences between corporations from different countries.

There is an ongoing discussion in management literature on the validity of the application of stakeholder theory in the different stakeholder theory research variants (Philips et al., 2003 and Agle et al., 2008). Their discussion focuses on the separation of managers’ ethics, from managers’ actions, with the application of stakeholder theory. The so-called separation thesis says that instrumental and ethical stakeholder theory can be applied separately. Philips et al. (2003) oppose the separation thesis (see Greenwood, 2008). In many studies, social accounting scholars implicitly accept the separation, as stakeholder theory has been applied widely in empirical research on company-stakeholder relations. Deegan and Unerman (2006) discuss the separation thesis for the field of social and financial accounting. They suggest that separation
causes empirical research to provide only a partial view on company-stakeholder relations. They state that separation means that companies deal with stakeholders in either an ethical or instrumental manner, but that a combination of these is more likely. In this study, stakeholder theory is applied in a pragmatic and empirical manner. The outcomes only describe managerial practice, not managers’ ethics.

Ullmann (1985) discusses stakeholder issues in an instrumental manner, using a three-dimensional model. The three stakeholder dimensions used by Ullmann are stakeholder power, strategic posture and economic performance. Roberts (1992) tests Ullmann’s dimensions. Ullmann says about stakeholder power that “stakeholders control resources critical to the organization” (Ullmann, 1985, p. 552). Roberts (1992) states that stakeholder power means that a “firm will be responsive to the intensity of the stakeholder demands” (Roberts, 1992, p. 599). Stakeholder power is regarded as the most important attribute of stakeholder-corporation relationships (see Van der Laan Smith et al., 2005, p. 127).

Mitchell et al. (1997) provide a model for stakeholder identification, based on stakeholder salience. Stakeholder salience is seen as a combination of the stakeholder attributes of power, urgency and legitimacy. Mitchell et al. (1997) say that stakeholder power means that a stakeholder can get the company to do something that it would not otherwise have done. Urgency in the manager-stakeholder relationship is where stakeholders want their wishes to be fulfilled quickly. Legitimacy in the stakeholder-manager relationship is where certain actions fit within the expectations and demands of the other party, manager or stakeholder, and where the actions are reasonable within a subsystem. The combination of the three attributes prioritises what constitutes the interests and needs of salient stakeholders for a company.

Van der Laan Smith et al. (2005), state that stakeholder salience attributes are more pronounced in an international context. They apply the attributes as situational factors, which influence managers’ behaviour. Further, manager’s characteristics are relevant in relation to the corporation’s stakeholders as they explain the managers’ perception of the importance of stakeholders’ claims and how managers deal with those claims.

The country-specific orientation on shareholders or stakeholders is relevant for this study. Code-law countries are more stakeholder-orientated, according to Ball et al. (2000). Van der Laan Smith et al. (2005) find that the level of CSD is related to the country of origin of the corporation and specifically to the orientation of the country. A stakeholder orientation, is called communitarianism, by Bradley et al. (1999). This term relates to corporate worldview of communitarianism, which contrasts with contractarianism. Contractarianism implies a shareholder orientation. Also Simnett et al. (2009) apply this distinction and demonstrate its relevance for assurance on CSD in an international comparison.

Hofstede’s national culture dimension framework
Hofstede’s work on national culture dimensions was initially performed in the 1960s. The study was carried out for IBM among its staff at offices worldwide. Hofstede originally identifies four dimensions that represent people’s values at work related to the country where they work. Hofstede refers to the dimensions as “differences”. Other authors, who apply Hofstede’s work, use the term “dimensions”, for example Van der Laan Smith et al. (2005). The four dimensions are PDI, IDV, MAS and UAI. A fifth

Gray (1988) makes several remarks on the relationship between national culture dimensions and secrecy. In that study, in relation to financial disclosures the accounting value of secrecy is seen as being the opposite of transparency. Gray (1988) states that secrecy can be related to the UAI, PDI and IDV dimensions. UAI relates to secrecy, because low provision of information supports the approach “to avoid conflict and competition and to preserve security” (see Gray, 1988, p. 12). A relationship between secrecy and PDI was explained through the wish to preserve the status quo with regard to power inequalities. His reasoning behind relating IDV to secrecy is explained by a low level of IDV, or collectivism, which results in a high level of information to internal stakeholders. Gray does not use the word stakeholders, but calls them “those closely involved with the firm rather than external parties” (Gray, 1988, p. 11). A collectivistic corporate attitude is assumed to be collectivistic up to the level of the corporation and not to a wider circle of secondary stakeholders in society. Gray (1988) states that MAS is less likely to be related to secrecy with financial disclosures, although he argues that transparency is more likely in the case of an orientation on “quality of life”.

With the term “uncertainty avoidance” Hofstede means the level of acceptance of uncertainty. Hofstede suggests that in societies with a high level of uncertainty avoidance, an increase of uncertainty is neutralised by the issuance of laws and regulations. UAI is linked in earlier studies, with risk avoidance, by managers, in relation to their agency contracts (Ndubizu and Olesegun Wallace, 2003). Geletkanycz (1997) relates uncertainty avoidance to a lower entrepreneurial activity in society (Geletkanycz, 1997, p. 620). Bradley et al. (1999) associates communitarian societies with aversion of entrepreneurial risk (see Bradley et al., 1999, p. 64). It can be argued that UAI is related to a weaker market orientation, i.e. social or stakeholder orientation of society.

Hope et al. (2008) apply the operationalisation of secrecy (SEC), which is an equal addition or deduction of the dimensions involved: SEC = UAI + PDI − IDV. They also add MAS in an alternative measure with similar results: SECalt = UAI + PDI − IDV − MAS. The dimension MAS stands for assertiveness and competitiveness. Low masculinity relates to the appreciation of “quality of life”. Van der Laan Smith et al. (2005) describe femininity, according to Hofstede, as the opposite of masculinity and it indicates a focus on relationships, co-operation and environment. A low-masculine society is a socially orientated society, which is a society with a stakeholder orientation.

Gannon (2001) applies PDI and IDV when identifying management culture metaphors, which are based on the following four types of cultures:

(1) *Market pricing (MP)*: High PDI, high IDV. The USA is an example of this type of culture.

(2) *Equality matching (EM)*: Low PDI, high IDV. For example, Scandinavian countries.
Authority ranking (AR): High PDI, low IDV. Many Asian and African cultures.

Community sharing (CS): Low PDI, low IDV. This type does not exist in reality on a national level, which makes it irrelevant for present purposes.

The analysis by Van der Laan Smith et al. (2005), indicates that a high score on IDV can relate to both a stakeholder and shareholder orientation of society, combined with a high or a low level of PDI. The US ranks first on IDV, but scores medium high on PDI, which makes it a less socially orientated country. Scandinavian countries rank high on IDV and low on PDI. Individual citizens are seen as being equal, but strive for individual goals, which are not always economic goals[3]. Scandinavian countries have equality matching cultures. According to Gannon (2001), CS cultures do not exist in reality on a national level. The concept of community sharing cannot be applied nationally, as Gannon argues (2001, p. 16), the national perspective always differs the smaller the community perspective.

The LTO dimension refers to a forward-looking perspective rather than an historical perspective. Such a future orientation is related to thrift and perseverance. The opposite - short-term - orientation means a focus on social status, being fixed in the present and past. Although the naming of the dimension suggests something generally applicable, this dimension is strongly related to Confucian values. It scores highly in China and in countries with a large Chinese influence, but also in some other countries[4]. Trotman and Bradley (1981) relate social behaviour of corporations to an emphasis on long-term decision-making. Freeman and McVea (2002) clearly relate a corporation’s stakeholder management to a long-term orientation of the corporation. Some doubts can be raised about LTO being part of a social orientation, because of the strong link with Confucian values. These values contain other values than a long-term orientation. Hofstede and Bond (1988) refer to Confucius’ teachings as “practical ethics”. A remarkable principle of Confucianism is hierarchy, which is mentioned by Hofstede and Bond (1988). Hierarchy can also be related to PDI, which can be argued as being non-social. Further, the basic social organisation in Confucianism is the family, which is not dissimilar to a social orientation for society as a whole.

Hypotheses development
The search for cultural dimensions that have an influence on CSD is conducted by hypothesising that there are theoretically reasonable differences in levels of CSD between corporations with different scores for particular national culture dimensions or SEC and TYP measures. A separate hypothesis is created for each of the cultural measures and national culture dimensions tested. The relationship between CSD and culture is based on the reasoning that differences exist between the social or stakeholder orientation of countries. National culture dimensions, as societal values, are reflected in situational factors, which equate to the stakeholder salience attributes, and in management characteristics. Van der Laan Smith et al. (2005, p. 132) argue that: “In a society concerned with social issues, we argue that... stakeholder groups have more power, possess greater legitimacy, and have their claims viewed with greater urgency”.

H1. Secrecy, as a combination of national culture dimensions, is negatively related to corporate social disclosure levels.
Secrecy, as the opposite of transparency, is negatively related to financial disclosures, according to Gray (1988). In this study, secrecy in the case of CSD stands for a non-stakeholder orientation of society. External stakeholders in particular are excluded from social information about the corporation.

The operationalisation of Hope et al. (2008) is applied, which says that SEC is the combination of the UAI, PDI and IDV dimensions in the SEC = UAI + PDI − IDV. The IDV component is assumed to contribute negatively to secrecy, as collectivism excludes secondary stakeholders from the information that is available to the collectivist circle of primary stakeholders. PDI is assumed to be related, positively to secrecy, as a low level of information to secondary stakeholders of the corporation helps to preserve the status quo of power relations. UAI relates positively to secrecy, as secrecy is helpful in preserving security.

H2. Generic types of cultures, as a combination of the national culture dimensions individualism and power distance, are related to corporate social disclosure levels.

Gannon (2001, p. 15) identifies the MP culture as a “generic type of culture”. This is characterised by a high level of PDI combined with a high level of IDV. He states that MP is found in the US. Van der Laan Smith et al. (2005) relates the USA and its MP culture to a shareholder orientation of society. Countries with equality matching cultures, are seen by Gannon (2001) as countries with a stakeholder orientation, which differs from the shareholder orientation of an MP culture. These cultures have a high level of IDV and a low level of PDI. AR societies are the third type, which have a low level of IDV and a high level of PDI.

In this study the operationalisation of TYP relates to Gannon (2001) and is similar to SEC. TYP is the operationalisation of a level of social orientation of society. Individualism positively contributes to TYP, as the opposite, collectivism relates to a narrow view of group interests, which is regarded as non-social on a society-level. This results in the equation TYP = IDV − PDI.

H3. Masculinity, as a national culture dimension, is negatively related to corporate social disclosure levels.

Masculinity represents the opposite of a social orientation of a society, according to Hofstede (2001, p. 279). Greater masculinity in a society is related to a weaker social orientation. Levels of CSD are positively related to a social orientation. Consequently, it is hypothesised that masculinity is negatively related to levels of CSD.

H4. Long-term orientation in national cultures is positively related to corporate social disclosures levels.

This dimension looks similar to management’s long decision horizon, as measured by Trotman and Bradley (1981). Given the reasoning by Bradley et al. (1999) that long-term orientation of society is related to a stakeholder or social perspective, CSD is likely to be positively related to LTO.

The dimension of LTO is strongly related to Confucian or Chinese values. LTO in society is the equivalent of LTO in business, it can be linked with a stakeholder, or social perspective. As Confucianism is much broader than LTO only, a study for the
separate relationship between LTO and CSD determinants may experience interference by other aspects of Confucianism.

**Research method**

The CSD scores of a sample number of companies are studied. The research object is the CSD level of the sample companies, which is defined in the next section. The research subjects are 600 corporations from 22 countries, from ten industrial sectors, as is shown in Tables I and II. The CSD data are similar to Kinder Lydenberg Domini (KLD) data and they are provided by Sustainalitics, formerly part of SiRi group. The US provider of CSR data, Kinder Lydenberg Domini (KLD), used to be part of the SiRi Group. The influence of Hofstede’s national culture dimensions is determined through a comparison of means between the groups and ordinary least squares regression models. This section describes the sample, the CSD data and the details of the statistical method.

**Description of the sample**

The full database of global profiles of Sustainalytics, formerly marketed under the name of the SiRi group, is the basis for the CSR data. The data-set was compiled by a content analysis of the corporation’s external reports and interviews. A description of the assessment methods is available. The collection of the applied data is a combined effort by the SiRi group of research institutes. Sustainalytics aims at scoring CSR data

<table>
<thead>
<tr>
<th>Countries</th>
<th>n</th>
<th>Generic type of culture</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Australia</td>
<td>9</td>
<td>NA</td>
</tr>
<tr>
<td>2 Austria</td>
<td>5</td>
<td>NA</td>
</tr>
<tr>
<td>3 Belgium</td>
<td>7</td>
<td>Other</td>
</tr>
<tr>
<td>4 Canada</td>
<td>15</td>
<td>NA</td>
</tr>
<tr>
<td>5 Denmark</td>
<td>7</td>
<td>EM</td>
</tr>
<tr>
<td>6 Finland</td>
<td>7</td>
<td>EM</td>
</tr>
<tr>
<td>7 France</td>
<td>38</td>
<td>NA</td>
</tr>
<tr>
<td>8 Germany</td>
<td>38</td>
<td>EM</td>
</tr>
<tr>
<td>9 Greece</td>
<td>3</td>
<td>NA</td>
</tr>
<tr>
<td>10 Hong Kong</td>
<td>10</td>
<td>NA</td>
</tr>
<tr>
<td>11 Ireland</td>
<td>7</td>
<td>EM</td>
</tr>
<tr>
<td>12 Italy</td>
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<td>Other</td>
</tr>
<tr>
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<tr>
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<td>EM</td>
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<td>Other</td>
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<td>18 Spain</td>
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<td>Other</td>
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<td>MP</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>600</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:** EM is equality matching; MP is market pricing; AR is authority ranking; NA is not available in Gannon (2001)

**Source:** Gannon (2001)

Table I.
Country spread of sample and generic types of culture
from all companies included in the “World Index” of MSCI Barra (2010). KLD data are used in the majority of CSR and CSD studies (Orlitzky et al., 2003) and are useful data, as Sharfman (1996) demonstrates. The availability of CSR data is the bottleneck in CSR and CSD research, which makes these data the starting point for the sample selection (Sharfman, 1996). Many studies have used the KLD data.

The 600 companies were selected on the basis of maximum data availability. All 600 companies are considered to be large, based on market capitalisation by MSCI Barra’s criteria (MSCI Barra, 2010). For this study, only the 2006 scores are taken, which is the most recent complete dataset of Sustainalytics. Out of the sample of 600 corporations, 167 are from the USA. As this is a rather large share of the total sample, tests are added to adjust for the possible disturbance.

Data on the scores for the four original national culture dimensions are available for all 600 corporations: MAS, PDI, IDV and UAI. LTO is also available for 404 corporations. The LTO scoring is performed in a smaller number of countries than the original.

Tables I and II show the country and sector spread of the sample corporations.

**Description of the CSD data**

The 2006 SiRi database contains 13 out of a total of 186 scoring items on CSD per corporation. These 13 items are used to create a new score per corporation, which is the CSD level used. This CSD level is the equal addition of all 13 original scores per CSD item. No weighting is applied for any of the scores. This method is similar to Hillman and Keim’s (2001) method to compute multiple-entry scores of KLD scoring items.

The SiRi database contains eight categories. These categories are “ethics”, “community”, “corporate governance”, “customer”, “employees”, “environment”, “contractors” and “miscellaneous”. Six of these categories contain two CSD scores, which are the availability of public data and the external verification of reported data for the category. The “corporate governance” category contains one CSD item, the compliance with GRI guidelines on Corporate Governance, which is the thirteenth CSD item. Because there are no CSD scoring items within the CSR category “miscellaneous”, the category is omitted.

**Statistical tests**

Bivariate Pearson correlations between the cultural dimensions and measures are applied to describe the data. T-tests are applied to determine differences in CSD scores.
between companies that score high or low on the cultural measures and dimensions tested. The t-test is designed to identify differences in CSD levels, where cultural measures and dimensions differ. High scores on cultural measures and dimensions are higher than the median score for the sample and low scores are lower than the median of the sample. Further t-tests are applied to determine differences in CSD means between distinctive groups of corporations from countries with generic types of cultures. Tests are carried out with corporations from countries where Gannon (2001) and Van der Laan Smith et al. (2005) explicitly mention which generic type of culture applies to the country in question. These cultures are indicated in Table I. The total number of corporations that are either from countries with a generic type of culture of MP, AR and EM is 375.

Regression models are designed to test the robustness of the outcomes of the t-tests. In these tests CSD levels are the dependent variables and dimensions or constructed cultural measures are the independent variables. Seven models are constructed. The first test is performed with the four original dimensions as independent variables, as multicollinearity is expected for LTO, because of its correlation with PDI and IDV. A second test, with the smaller sample of 404 corporations, also includes LTO. These two tests are compared to see whether long-term orientation contributes to the explanatory power of the model with the original set of dimensions. The third model is similar to the first, but without US companies, because of the large proportion of the tested sample represented by US companies. The large proportion of US companies in the sample could disturb the search for country-specific determinants, i.e. national culture dimensions that relate to CSD.

To improve a model that tests national culture dimensions in relation to financial disclosures, Hope (2003) suggests adding a control variable for the legal system in a country, code or common law. A fourth model takes into consideration the legal system applicable to the corporations’ home country, in relation to CSD. A fifth model is included to test the effect on the outcomes of corporations from small countries. The small countries are those with less than ten corporations in the sample. Two models are tested which apply the measures SEC and TYP, plus the dimensions that are not components of the measures SEC and TYP.

Results

Descriptive statistics

Bivariate Pearson correlations between Hofstede’s dimensions and the combined measures SEC and TYP and CSD are given in Table III, including statistical significances. Statistically significant correlations are found between CSD and MAS, CSD and IDV, CSD and LTO and CSD and TYP.

The relations between cultural dimensions are not studied, but it is remarkable that most dimensions are significantly correlated with the other dimensions, except between PDI and MAS. Only in two cases is the strength of the correlations rather high, 0.8691 between LTO and PDI and -0.8854 between LTO and IDV. The sign of the correlations between LTO and PDI and LTO and IDV show that LTO is likely to be inversely related to TYP as TYP is defined as IDV-PDI. These correlations were expected in the case of large Confucianism influences on LTO. This level of correlation could cause multi-collinearity, which can lead to a lower predictive power of an OLS regression model with the dimensions as independent variables. The lack of significance with regard to the correlations between UAI and CSD and SEC and CSD is related to UAI; UAI is a component of SEC.
### Table III. Descriptive statistics. Pearson correlations

<table>
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<tr>
<th></th>
<th>CSD</th>
<th>MAS</th>
<th>IDV</th>
<th>PDI</th>
<th>UAI</th>
<th>LTO</th>
<th>SEC</th>
<th>TYP</th>
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<td>0.1374</td>
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</tbody>
</table>

**Notes:** CSD is corporate social disclosures; MAS is masculinity; IDV is individualism; PDI is power distance; LTO is long-term orientation; SEC is secrecy; TYP is generic types of cultures. *n* is the sample size; *n* differs for LTO, as LTO data are only available for a limited number of countries. All significance numbers that are shown as 0.0000 are not exactly 0, but these represent numbers smaller than 0.0001. Pearson is the bivariate Pearson correlation.

**Main results**

Tables IV and V report the results of the *t*-tests for selected groups of corporations. Table IV shows the results of the *t*-tests for differences of CSD means of corporations with high and low cultural scores. In Table V the results of the *t*-tests of CSD mean differences between generic types of culture are shown. Each separate *t*-test is discussed here. The CSD mean of the low MAS selection of corporations is significantly higher than the high MAS selection. Corporations from countries with a high IDV score show a significantly higher CSD mean compared to corporations from countries with low IDV scores. Corporations from low PDI countries have a significantly higher CSD
<table>
<thead>
<tr>
<th>Measure dimension</th>
<th>df</th>
<th>t-statistic</th>
<th>Significance (two-tailed)</th>
<th>Median</th>
<th>CSD mean, if measure or dimension ≥ median</th>
<th>CSD mean, if measure or dimension &lt; median</th>
<th>Expected direction of the difference</th>
<th>Direction of the difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAS</td>
<td>598</td>
<td>-2.792</td>
<td>0.005</td>
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<td>57.4881</td>
<td>63.0486</td>
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<td>IDV</td>
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<td>0.004</td>
<td>76</td>
<td>61.4754</td>
<td>56.2245</td>
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<tr>
<td>PDI</td>
<td>564</td>
<td>-1.682</td>
<td>0.093</td>
<td>40</td>
<td>57.5653</td>
<td>60.5830</td>
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<td>Negative</td>
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<tr>
<td>UAI</td>
<td>576</td>
<td>-0.219</td>
<td>0.827</td>
<td>48</td>
<td>58.8084</td>
<td>59.1968</td>
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<td>Negative</td>
</tr>
<tr>
<td>LTO</td>
<td>402</td>
<td>-4.610</td>
<td>0.000</td>
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<td>66.9947</td>
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<tr>
<td>SEC</td>
<td>564</td>
<td>-1.921</td>
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<td>57.3562</td>
<td>60.7428</td>
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<tr>
<td>TYP</td>
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<td>41</td>
<td>60.9077</td>
<td>56.9177</td>
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<td>Positive</td>
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</table>

**Notes:** CSD is corporate social disclosures; MAS is masculinity; IDV is individualism; PDI is power distance; LTO is long-term orientation; SEC is secrecy; TYP is generic types of cultures. Sample size for all tests, except LTO is 600. Sample size for LTO is 404. Sample size differs for LTO, as LTO data are only available for a limited number of countries. The significance number shown as 0.0000 is not exactly 0, but this represents a number smaller than 0.0001.
### Table V.

T-tests of CSD means of generic types of cultures

<table>
<thead>
<tr>
<th>Test</th>
<th>df</th>
<th>t-statistic</th>
<th>Significance (two-tailed)</th>
<th>MP CSD mean</th>
<th>AR CSD mean</th>
<th>EM CSD mean</th>
<th>Expected direction of the difference</th>
<th>Direction of the difference</th>
</tr>
</thead>
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<tr>
<td>MP-AR</td>
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<td>2.046</td>
<td>0.046</td>
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<td>52.5159</td>
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<td>Positive</td>
</tr>
<tr>
<td>AR-EM</td>
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<td>-2.064</td>
<td>0.041</td>
<td>NA</td>
<td>52.5159</td>
<td>61.1770</td>
<td>Negative</td>
<td>Negative</td>
</tr>
<tr>
<td>MP-EM</td>
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<td>0.807</td>
<td>60.6048</td>
<td>NA</td>
<td>61.1770</td>
<td>Negative</td>
<td>Insignificant</td>
</tr>
</tbody>
</table>

**Notes:** CSD = corporate social disclosures; MP = market pricing; AR = authority ranking; EM = equality matching.
mean than high corporations from PDI countries. For UAI, no significant difference between CSD means was found in this test\cite{5}. The CSD mean of corporations from low LTO scoring countries is significantly higher than the CSD mean of corporations from high LTO scoring countries. The difference, though, has a negative sign, whereas the expected difference was positive.

The tests in Table V are performed with corporations from countries about which Gannon (2001) and Van der Laan Smith \textit{et al}. (2005) explicitly mention their generic type of culture.

Table V shows that corporations from EM countries have a statistically significantly higher combined CSD mean than corporations from AR countries. Also, corporations from MP countries have a statistically significantly higher combined CSD mean than corporations from AR countries. Corporations from EM countries have a higher combined mean than corporations from MP countries, but this difference is not statistically significant.

Tests of hypotheses
The outcomes of the \( t \)-statistic tests are the primary input for hypothesis testing.

\textit{H1}. Prior literature on the relationship between corporate disclosures and culture and the stakeholder-theoretical concept of a social orientation of societies suggests a negative relationship between SEC and CSD levels. Secrecy, is suggested by Gray (1988), as a combination of the national culture dimensions of PDI, IDV, and UAI. There is evidence that corporations from countries with a low level of secrecy provide a higher level of CSD compared with corporations from countries where SEC scores higher. This suggests a negative association between SEC and CSD levels, but because of a lack of a significant correlation between SEC and CSD, it can be concluded that the relation is not likely to be linear. The SEC component of UAI presumably has a nonlinear relationship with CSD and causes the lack of linearity. Nevertheless, the hypothesis can be confirmed.

\textit{H2}. Based on theory and prior literature, the concept of generic types of cultures is operationalised as TYP, which is a combination of positive IDV and negative PDI scores. The proposed model, the characteristics of the components of the model and an implied positive association with the social orientation of society suggest a positive relation between the operationalised types of cultures measure and CSD levels. The validity of the equation is confirmed, but clear CSD differences between the cultures are only partly found. In particular, the CSD level differences between EM and MP cultures, which are found by Van der Laan Smith \textit{et al}. (2005), are not confirmed. \textit{H2} can partly be confirmed for the equation TYP = IDV – PDI. Instead of a comparison between two nations a scaled relationship between generic types of cultures and CSD levels is found.

\textit{H3}. Theoretical reasoning suggests that MAS is likely to be negatively related to a social orientation of societies and therefore has a negative relationship with levels of CSD. Tests on MAS show clear differences in means of CSD levels between corporations from high and low masculine cultures. High MAS corporations show different CSD levels in comparison with low MAS corporations. Combined with the positive significant Pearson correlation between CSD and MAS, there is a strong indication for a linear relationship between CSD and MAS. \textit{H3}, which suggests that companies in countries with a high masculinity show lower levels of CSD in
comparison with companies from countries with low masculinity, can be confirmed. This supports one of the hypotheses of Van der Laan Smith et al. (2005).

\(H4\). Prior literature suggests that a social orientation of societies relates to a long-term orientation of corporations in society and a positive relationship with levels of CSD. The national culture dimension of LTO tested, which is related to Confucianism, has features that are negatively related to a social level of societies, especially the combination with high PDI and low IDV. The direction of the CSD mean difference between high and low LTO corporations is counter to expectation, which suggests that the association between the LTO social orientation of society is strongly related to the negative social components of Confucianism. \(H4\) cannot be confirmed. A positive relationship between CSD levels and LTO is not likely to exist. Because of the strong correlation between IDV and PDI, \(H4\) is negatively related to \(H2\). The confirmation of \(H2\) must be followed by a rejection of \(H4\), because of the correlation with IDV and PDI.

**Additional robustness tests**

The tests of the hypotheses show that three out of four original dimensions have relationships with CSD, which is consistent with the theory, except for the non-confirmed relationship between CSD and the LTO dimension. The regression models are meant to show the strength of the relationship between independent variables and the dependent variable, whether relationships are positive or negative between the independent variables, and in this case to predict CSD levels by country of origin, indirectly. Six regression models are constructed to test robustness, while considering the issue from several angles. All regression models show homoscedastic results and normally distributed dependent variables. Table VI shows the results of the regression analyses. The first model is set up with the four original national culture dimensions as independent variables and CSD as the dependent variable.

The first model contains all the data available for the largest part of the sample. This means \(n = 600\) and the test with CSD as the dependent variable and the four original national culture dimensions as independent variables:

\[
\text{CSD} = a + b_1 \text{MAS} + b_2 \text{IDV} + b_3 \text{PDI} + b_4 \text{UAI} + e
\]

The results of the test of this model, as provided in Table VI, show that the model fits except for PDI.

A second test also includes LTO as an independent variable. This test is undertaken with the smaller sample of 404 corporations. The model is as follows:

\[
\text{CSD}_{\text{incl LTO}} = a + b_1 \text{MAS} + b_2 \text{IDV} + b_3 \text{PDI} + b_4 \text{UAI} + b_5 \text{LTO} + e
\]

The goal of the set-up of this model is to assess the relevance of the dimension of long-term orientation added later. The predictive power of the model is higher than the original model, but significances change by adding this dimension. With this model there is a chance of multicollinearity, in the case of LTO, as is shown by the levels of the Pearson correlation and the discussion on Confucianism. The dimensions masculinity, individualism and uncertainty avoidance lose their significance when long-term orientation is added, in comparison with the first regression model. The significance of power distance improves. The high Pearson correlation between LTO and PDI could be a reason for the disturbance of the significances.
<table>
<thead>
<tr>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
<th>Model 6</th>
<th>Model 7</th>
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<tr>
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<td>Including LTO</td>
<td>Excluding the US</td>
<td>Including code/common law</td>
<td>Excluding small countries</td>
<td>SEC and MAS</td>
<td>TYP, MAS and UAI</td>
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<td>t</td>
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<td>0.302</td>
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<tr>
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<td>404</td>
<td>433</td>
<td>600</td>
<td>542</td>
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</tr>
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</table>

Notes: CSD is corporate social disclosures; Const. is constant; MAS is masculinity; IDV is individualism; PDI is power distance; UAI is uncertainty avoidance; LAW is common law or code law; SEC is secrecy; TYP = generic types of cultures. Coef. is coefficient. Rsq is R-square. Adj. Rsq is adjusted R-square. D. B. is Durbin-Watson. N is sample size. Significant at * p < 0.05, ** p < 0.01 or *** p < 0.001. “No” for no significance. None of the models shows any proof of autocorrelation, according to the Durbin-Watson statistic.
A major limitation of the first model is the large proportion of US companies in the sample. Of the 600 companies, 167 are from the USA. As Hofstede’s dimensions are set per country and all US companies in the sample score equally on all dimensions, a third regression is tested with the remaining 433 non-US companies:

\[ CSD_{\text{US}} = a + b_1\text{MAS} + b_2\text{IDV} + b_3\text{PDI} + b_4\text{UAI} + e \]  

(3)

With model 3 all variables are strongly significant, except for PDI, which is similar to the model with the basic data. However, the explanatory power of model 3 is better than the basic data model.

A fourth model is based on Hope’s (2003) suggestion that tests of models applying national culture dimensions in relation to financial disclosures should include a control variable for the legal system in countries, which can be classified as code or common law. Simnett et al. (2009) apply the legal system as a proxy for a shareholder or social orientation of a country. A dummy variable for LAW is added in this model:

\[ CSD_{\text{LAW}} = a + b_1\text{MAS} + b_2\text{IDV} + b_3\text{PDI} + b_4\text{UAI} + b_5\text{LAW} \]  

(4)

There is no multicollinearity expected for LAW, as common or code law systems correlate up to a maximum of 0.64 with one of the other dimensions, UAI[6].

The insignificance of variables PDI and LAW suggests that LAW is not a valuable addition to the model. The power of model 4 is better than the basic model, but less strong than the model including LTO, model 2. Model 4 shows similarities with model 3: excluding US corporations, with a common law background, or controlling for the legal system of the largest country in the sample shows similar outcomes.

The fifth model is intended to assess cultural CSD determinants for countries, which contribute to the sample only with a small numbers of corporations. Countries that contribute to the sample with less than 15 corporations were excluded. From the original 600 corporations, 366 remained in the adjusted sample:

\[ CSD_{\text{SCountry}} = a + b_1\text{MAS} + b_2\text{IDV} + b_3\text{PDI} + b_4\text{UAI} + e \]  

(5)

With model 5, only MAS and IDV contribute significantly suggesting that the selection of countries in the sample needs attention, but no clear conclusion can be drawn from these figures.

In addition to taking into account the contribution to the sample by large and small countries, sector or industry effects could also be studied. Corporations from the financial sector and the “consumer discretionary” sector, contribute around 30 per cent to the total sample. The analysis of sector or industry certainly influences CSD, as has been studied earlier, by Patten (1992), for example, but is outside the scope of the present study.

The sixth model contains the variables SEC and MAS. In model 6 all national culture dimensions are included. National culture dimension MAS is added separately, as SEC contains all national culture dimensions, except MAS:

\[ CSD_{\text{SEC}} = a + b_1\text{SEC} + b_2\text{MAS} + e \]  

(6)

Model 6 shows the contribution by SEC is insignificant.
The seventh model contains the variables TYP, MAS and UAI. By combining these variables all national culture dimensions are part of the model:

$$CSD_{TYP} = a + b_1TYP + b_2MAS + b_3UAI + e$$

This is the only model, for which all the variables are significant. The explanatory power is lower than for the other models.

Conclusions
This paper gives an explanation for the relationship between CSD and national cultures. The relationship described between CSD levels and national cultures is, for the majority of the hypotheses, consistent with the associations suggested by stakeholder theory. National cultures are represented by Hofstede’s national culture dimensions separately or combined in constructed cultural measures. The explanatory framework consists of a social or stakeholder orientation of societies and how corporations deal with stakeholder salience as a situational factor.

The confirmation of the first hypothesis entails a relationship between secrecy in society and CSD through a social orientation of society. The relationship between secrecy and levels of CSD can be described as negative, although this relationship is not linear. Secondary stakeholders are likely to be left out of the circle of well-informed primary stakeholders. Secrecy relates to CSD levels, but further tests do not confirm any explanatory power of secrecy.

Confirmation of the second hypothesis indicates that generic types of cultures relate to CSD levels. This newly constructed measure, based on Gannon (2001), includes a positive relationship with IDV and a negative relationship with PDI. This combination of IDV and PDI is suggested to be a descriptor of a social level of societies. The findings of Van der Laan Smith et al. (2005), which show clear CSD level differences between the USA and Scandinavia is partly confirmed. Instead of a distinction between two countries with different generic types of cultures, a scaled relationship is shown to be applicable.

With regard to the third hypothesis, it is predicted and confirmed that masculinity in a country’s society is negatively related to levels of CSD. Masculinity is negatively related to a social orientation of society, which supports the results of Van der Laan Smith et al. (2005).

The national culture dimension of long-term orientation is not related to CSD. The theoretically predicted relationship between long-term orientation and CSD is not confirmed, when assuming that long-term orientation is similar to management’s long decision horizon. It is likely that long-term orientation is not similar to management’s long decision horizon, which is clearly related to high CSD levels by Trotman and Bradley (1981). In fact, the long-term orientation dimension is expected to be similar to Chinese Confucian values. Long-term orientation might be part of this set of values, but Confucianism is certainly more than just long-term orientation. Long-term orientation correlates strongly and significantly with power distance and collectivism, as predicted. This strong correlation disturbs the predictive value of the models and variables. With these strong correlations, it is likely that the long-term orientation dimension does not have a relationship with CSD levels as initially predicted.

In earlier studies, for example Hope (2003), evidence is found for a relationship between the national culture dimensions and the legal system. In other studies, for example Simnett et al. (2009), the legal system is suggested to be a proxy for the social
orientation of countries. A relationship between CSD, the legal system and national cultures is not found in this study.

These outcomes can be useful to the managers of multinational corporations, when preparing CSD. They need to take into account the national cultures and the social orientation of countries in relation to the level of social disclosures to stakeholders.

Limitations
Limitations relate to the data and the method applied. With regard to the data, Hofstede’s dimensions were identified and established more than 30 years ago and there is no development over time with the dimension scores. It can be assumed that developing countries in particular might have experienced changing national culture dimensions. However, this study does not include data on companies from developing countries.

The observation that all companies in a country have the same score is inherent in a scoring system of national cultures. This reduces the validity of the model for specific companies. The similarity of data within the country also disturbs outcomes of national culture studies in another way. The large proportion of US companies in the CSR database reflects the importance of such companies in the world, but causes data problems. Leaving US companies out of the initial test sample improves results compared with testing the full sample including US companies. Excluding smaller contributing countries does not provide a better model. The same extension could be made for the heavy weighting in the sample of financial and consumer discretionary sectors, but industries are outside the current research scope.

Some remarks need to be made on the application of stakeholder theory. According to the separation thesis and the explanation that is given for social accounting by Deegan and Unerman (2006), what is explained by this study only relates to management’s responses to stakeholder salience. Managers’ morality in relation to stakeholders is not studied. There are theorists who question the separation of morality and management actions. However, this separation is widely accepted in social accounting, although in many cases only implicitly. The potential limitations of the application of stakeholder theory need to be taken into account, as mentioned by Philips et al. (2003).

Notes
1. It is unclear precisely when CSR research was undertaken for the first time, and when the search for relations between social and economic performances and disclosures started. For the first type, Ullmann (1985) sets 1957 as the start. Gray (2001) mentions the beginning of the 1970s for the second type.
2. Eesley and Lenox (2006) discuss the influence of secondary stakeholders.
3. Gannon mentions as individual non-economic goals, such factors as love of nature and self-development, which are social goals, rather than economic or shareholder-related.
4. Hofstede and Bond (1988) mention The Netherlands as an example of a country, other than China-related, that scores relatively high on LTO.
5. Non-tabulated results show that UAI relates to CSD levels in extreme situations: high UAI relates to high CSD and low UAI relates to high CSD. In that a case linear relationship cannot be found, but a u-shaped relationship, may be possible.
6. No separate data are given on correlations for LAW.
References


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**Further reading**


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