The Relationship between Virtuous CEOs and Corporate Social Responsibility

María Ángeles Frende-Vega, University of Cadiz (Spain)
Carmen Camelo-Ordaz, University of Cádiz (Spain)
José Ruiz-Navarro, University of Cádiz (Spain)

March 2010

Send correspondence to María Ángeles Frende-Vega, Faculty of Social Science and Communication, Department of Business and Administration, University of Cádiz, Avda. de la Universidad, s/n, 11405 Jerez de la Frontera (Cádiz, Spain), Phone/Fax: +34 956 037 086/+34 956 037 817 (Email: mangele.frende@uca.es).
ABSTRACT

This study tests the effects of virtuous CEOs on corporate social responsibility views (narrow vs broad). Using the data envelopment analysis (DEA) technique, we find that virtuous CEOs correlated positively with a broad view of corporate social responsibility (CSR). We also examine the moderating role the board of directors plays in the relationship between virtuous CEOs and CSR but finds no positive association. Our results indicate that CEOs matter and that their virtuous values may be a major source of motivation for their behavior with respect to their firms’ CSR orientation.

Keywords: board of directors, social responsibility, virtuous values, CEOs, stakeholders.
The relationship between virtuous CEOs and corporate social responsibility

Since the creation of the modern corporation academic and business persons have debated corporate social responsibility (CSR) issues (Adams and Ferreira, 2007; Berglöf and von Thadden, 2000). Two theoretical views in this area of study have been presented as opposing and contradictory (Adams, Licht, and Savage, 2008): narrow and broad. At one extreme is the narrow CSR view which regards a corporation as a nexus of bilateral contracts between the suppliers of different asset, where the stockholders hold a predominant position. As Milton Friedman wrote, “there is one and only one social responsibility of business – to use its resources and engage activities designed to increase its profits so long as it … engages in open and free competition, without deception or fraud (Friedman, 1962: 133). On the other hand, the broad CSR view asserts that managers have a duty to all individual or groups that contribute to wealth creating capacity and activities, and who are therefore also its potential beneficiaries and/or risk bearers (Clarkson, 1995). These individuals or groups include stockholders but also non-stockholder stakeholders, such as customer, supplier, employees, and community.

Most research has centred around evaluating and judging these alternative ways of understanding CSR, with the objective of taking a position that favors one approach or the other (Aglietta, 2000; Licht, 2004). However, this research has not done well in elucidating why companies differ in their CSR orientation (Adams et al., 2008; Hitlin and Piliavin, 2004; Winn and Brenner, 2001). Accordingly, the first objective of the current study is to examine whether virtuous values of CEOs influence whether CSR is reflected in the company’s vision statement. CSR.

A firm’s intentions and actions regarding CSR are not made by an abstract organization; they are formulated that organization’s leaders. This idea is integral to upper
echelon theory wherein a company’s decisions reflect the personal preferences of its top managers (Finkelstein and Hambrick, 1996; Hambrick and Mason, 1984). Therefore, an understanding of CEOs’ values, (including the virtues to which they subscribe) may help explain why companies differ in their CSR orientation (i.e. whether the orientation is narrow or broad;(Adams et al. 2008; Winn and Brenner, 2001).

The influence of the CEO’s values on corporate decisions is a topic of interest since Hambrick and Brandon (1988) and Hambrick and Mason (1984). Since this earlier work, studies have focused on the impact of managers’ values on strategic choices (Kotey and Meredith, 1997), on the role such values play in the processes of corporate evaluation of social questions (Sharfman, 1997), on the ethical dimension of decision-making (Fritzsche and Oz, 2007), on corporate social responsibility (Camelo-Ordaz and Frende-Vega, 2005; DiNorcia and Tigner, 2000; Hemingway, 2005), and on corporate philanthropy (Jones, 2004). However, there notable scarcity of empirical work. Some authors call for more studies on this topic, with the object of improving the understanding of the role that top managers’ values play in firm-stakeholder relationships (Bird, 2001; Winn and Brenner, 2001).

The connection between top managers’ values and companies’ decisions depends on the power CEOs wield (Finkelstein and Hambrick, 1996). Prior studies do not address this effect. Therefore, the second objective and contribution of this paper is to analyze whether or not the strength of the association between the CEO’s values and CSR depends on the power of the CEO; examining the composition and structure of the company’s board of directors can help determine this association (Finkelstein and Hambrick, 1996).

A third contribution the current paper makes is using the data envelopment analysis (DEA) technique to measure corporate social responsibility. The measurement of corporate social responsibility orientation is a difficult task and very few studies have attempted it. Bendheim, Waddock, and Graves (1998) apply the DEA to analyze whether there are
differences between sectors in the attention given to various stakeholders by firms. They suggest that DEA can be used to assess whether the companies are being responsible to all of their stakeholders (Bendheim et al., 1998). The DEA resolves many of the conceptual problems associated with studying a company’s relationships with its stakeholders using a single measure (Bendheim et al., 1998; Jones, 1995).

Theory and Hypotheses

Narrow and Broad views of CSR

The debate on CSR polarizes between two theoretical perspectives (Letza, Sun, and Kirkbridge, 2004; Vinten, 2001): narrow and broad. The defenders of the narrow CSR perspective hold that the company should focus on building the wealth of its owners, the stockholders. The normative condition here is that managers must always act to maximize the profits of the firm since this is presumed to be the goal of the stockholders (Berman, Wicks, Kotha, and Jones, 1999). However, the non-stockholder stakeholders may control key resources that the company must have to implement its strategic decisions. Since firms face both conflicting claims from their stakeholders and limited resources, they must attend to those groups that are best positioned to help or hinder them from achieving corporate goals (Freeman, 1984). The non-stockholder stakeholders are thus seen as part of the economic context that must be managed by the company to ensure its profits and, ultimately, the returns to its stockholders. Attention to the non-stockholder stakeholders is thus instrumental and contingent on the value that these entities represent for the company (Jones, 1995). In essence, in this approach the ultimate social responsibility of the firm is maximizing stockholders’ wealth and the interests of the remaining stakeholders are only satisfied to the minimum degree necessary to meet the expectations of stockholders (Kaler, 2003).
The other extreme is the broad CSR perspective. Its principal claim is that the company, in its management and governance, has an important responsibility to all its stakeholders and not just to its stockholders. Here the aim is to achieve a more equitable distribution of the profits and costs derived from the company’s activities. This view widens the scope of the company’s responsibility toward groups not considered a company responsibility within the narrow CSR approach (Evan and Freeman, 1993; Kaler, 2003). The intention is not that the narrow CSR view is to displace the stockholders from their privileged position: rather, the goal is that the rest of the stakeholders are to receive the same type and degree of attention as the shareholders (Kaler, 2003). In this vein, Evan and Freeman (1993) made the Kantian recommendation that managers’ have the responsibility to consider all stakeholders as a purpose of the firm and not consider them as only a means to achieve the firm’s objectives. These claims carry with them certain implications when it comes to defining and understanding the governance of corporations. Firstly, the company is a vehicle for coordinating the interests of all its stakeholders (Evan and Freeman, 1993). Secondly, certain multi-fiduciary duties are attributable to the company’s managers, in the sense that they must act in conformity with the interests of all the stakeholders, and one set of interests does not have prima facie priority over any other (Donaldson and Preston, 1995).

Nevertheless, every company has limited resources which prevents it from satisfying all the demands of all of its stakeholders. From an ethical point of view, companies cannot be forced to pay out more than they are really able to from the resources they possess. Given this reality, the claim of the broad CSR perspective is that, within the boundaries of the resources available to it, the company should satisfy the needs of all of the stakeholders to the maximum extent possible, without there being inequality between them (Kaler, 2003).

*CEOs’ Values and their effects on CSR orientations*
Various scholars refer to values as broad attitudes (McGuire, 1969:151), “conceptions of the desirable” (Kluckhohn, 1951: 395), “beliefs about desirable or undesirable ways of behaving or desirable end states” (Feather, 1995: 1135), and “cognitive constructs that explain individual preferences” (Renner, 2003: 127). Despite the lack of consensus on the meaning of the term personal values, it does appear that there is unanimity on certain aspects of the topic (Batson and Powell, 2003; Hitlin and Piliavin, 2004). Two of these aspects are especially relevant for this study. The first is the observation that values guide individuals in the assessment and selection of behaviors and events, leading several scholars to suggest that managers’ behavior itself is essentially the result of their values (Renner, 2003). The second significant aspect relates to the structure of values. The number of values that an individual possesses is relatively limited, and each value has its own importance. The importance attributed to each value constitutes the individual’s system or structure of values, and it is the system as a whole that really influences the individual’s behaviour (Feather 1995; Schwartz, 1994). Given that the system of values that affects an individual’s actions, the study of isolated values is not very significant (Schwartz, 1994). There are several types of values (e.g. Rokeach, 1973, Schwartz, 1992), but in this study we focus on virtuous ones. Although still in the early stages of development, systematic investigations of virtuous phenomena are beginning to emerge (e.g. Dutton et al., 2002).

In general terms, virtuous values imply the internalization of moral rules that produce social harmony (Baumeister and Exline, 1999; Rutledge and Karim, 1999) and, therefore, emphasize altruism, cooperation, and concern for the welfare of others (Cheng, Peng, and Saparito, 2002). Hence they are reflected in attitudes of concern for others (Gandal, Roccas, Sagiv, and Wrzesniewski, 2005; Kanungo, 2001) as well as in acceptance and tolerance when this behaviour is not a part of their job or work responsibilities (McNeely and Meglino, 1994). Simon (1993) maintains that individuals with this value system orientation are less
disposed to evaluate costs and benefits carefully when processing social information
because....(explain rationale please). In support, Korsgaard, Meglino, and Lester (1997) found
that individuals exemplifying virtuous behavior tended to be less concerned with personal
gains compared to their less virtuous behaving counterparts and any risks associated with
those gains. Similarly, Batson and Shaw (1991) suggest that people who strongly endorse
virtuous values engage in helping others even when there are material incentives to do
otherwise.

Whetstone (2005) notes that top managers with virtuous values can resist pressures,
even at a great sacrifice. Harrell and Harrison (1994) show that not all managers are
motivated by self-interest and that they are therefore ready to sacrifice personal rewards in
order to benefit others. This does not mean that these managers do not seek to obtain profits,
but rather that they will do this within the ethical precepts of equity and justice (Schneider,
Ehrhart, Mayer, Saltz, and Niles-Jolly, 2005). In a study of 174 working professionals
attending part-time graduate programs, Fritzshe and Oz (2007) reported a positive association
between self virtuous and ethical behaviour. This explains why some executives act in one
way when a different option is the one that clearly favours their own and/or their their
company’s financial interests (Rutledge and Karim, 1999). Principles for ethical behavior
likely guide CEOs who have this value orientation and, consequently, these CEOs will apply
the same weighting of importance to the interests of all their stakeholders before undertaking
a course of action.

Thus, there seems to be a compatible relationship between broad CSR and virtuous
values of managers.

**H1:** CEOs’ virtuous values positively predict their organization’s broad CSR
orientation.
The Moderating Role of the Board

Although CEOs obviously direct their company, the board of directors as a supervising and monitoring body can reduce the ability of the CEO to reflect his or her personal preferences in the decisions and actions of the company (Finkelstein and Hambrick, 1996). For this reason, the specific composition and structure of the board can exercise influence on the discretion of the CEO, and that one effect of this is to modify the relationship between the CEO’s virtuous values and the orientation of the corporate governance. The question that has received the most attention from researchers with respect to the structure of the board has been that of duality, wherein the CEO is also the Chairman of the Board. In the current study, the composition of the board refers to the types of directors and the board’s size.

Types of Directors

The literature has traditionally distinguished two types of directors—executive or internal directors and external or independent members—and the balance between these two types represents one dimension of the board since not all boards enjoy the same degree of independence in controlling and evaluating the CEO (Mallette and Fowler, 1992). While both internal and external directors are responsible for overseeing corporate decision-making, most researchers and advocates of board reform typically assume that internal directors will be more conciliatory toward their CEO. A board dominated by internal directors will always face problems in its degree of control since the CEO is in a strong position to influence an executive director’s career advancement within the firm (Ryan and Wiggins, 2004). In contrast, outside directors tend to evaluate organizational decisions more objectively and they may be less willing to accommodate the CEO’s personal preferences regarding corporate decisions (Daily, Certo, and Dalton, 1999; Walters, Kroll, and Wright, 2007).
H₂: The positive relationship between a virtuous CEO and adoption of a broad CSR view is stronger when inside versus outside directors dominate the board.

Size of the Board

Research in social psychology suggests that a team of excessive size would lead to a dispersion of responsibilities within the group and to social slackness (Golden and Zajac, 2001). Several authors have argued that serious problems of participation can arise among the members of a large board, and that this situation leads to diminished motivation for board members to perform their duties (Judge and Zeithaml, 1991). There may also be serious problems of coordination, communication, and cohesion among members—it may prove difficult to maintain fluid interpersonal relationships, a situation that may lead to the formation of independent subgroups. All these factors would have a negative effect on the board’s ability to carry out effective deliberations and to adequately supervise the CEO’s decisions (Zahra, Neubaum, and Huse, 2000). Accordingly, if larger boards face these kinds of problems, the CEO with a large board should tend to have more power over the board and to be better able to reflect his/her own values in the firm’s decisions and policies.

H₃: The positive relationship between virtuous CEO and adoption of a broad CSR view is stronger when the board is large rather than small.

Duality

Duality exists when the chairman of the board and the CEO are the same individual. Having additional titles can serve as a source of structural power, with the additional title of board chair consolidating the power held by the CEO (Finkelstein, 1992). Some theorists have argued that this situation diminishes the ability of the board to fulfil its monitoring function because it becomes difficult for the board to make an objective evaluation of the
CEO’s decisions (Daily and Johnson, 1997). Several authors have suggested that the CEO may use the position of leadership on the board to dictate the agenda of meetings and otherwise minimize dissent (Langevoort, 2001). Such a concentration of power in the person of the CEO is not likely to enhance the ability of the board to operate independently of management and to monitor CEO decision-making as effectively as it should. Therefore, the CEO might be more likely to impose his/her personal values on the decisions taken in the name of the company.

**H4:** The positive relationship between a virtuous CEO and adoption of a broad CSR view is stronger under conditions of duality versus non-duality.

**Method**

**Sample and Data**

The study’s target population comprised all firms in the 2003 Standard & Poor’s 500 Index. The Kinder Lynder and Domini (KLD) database for 2003 provided the data on the degree to which firms attend to the interests of their various stakeholders. The advantages of this database are fully explored in the literature (Bartkus and Glassman, 2008; Coombs and Gilley, 2005; Mattingly and Berman, 2006), but include....(provide a sampling of these advantages). Consistent with this past research the current study concentrates on the following items: relationships with the community, attitude with respect to the natural environment, characteristics of the product, corporate governance, and relationships with employees, which respectively represent five groups of stakeholders: the general community, ecologists, customers, stockholders, and employees.

Of the total number of firms, companies whose CEO was appointed in 2002 or later were deleted from the sample, assuming that a term of at least one year is necessary to provide evidence that the CEO imposes distinctive personal values on the governance of
his/her company (Gabarro, 1987). Further, companies that, for reasons of internal policies, told the researchers that they did not respond to any type of interview or survey were not included. The definitive sample is therefore composed of 438 companies.

To obtain information on the values of CEOs and on the structure and composition of the board, a questionnaire was sent to those CEOs in the study sample. Of the total questionnaires sent, 61 CEOs responded. This rate of response is in line with responses obtained in similar studies and is considered acceptable when the unit of analysis is the CEO (Agle et al., 1999).

**Measures**

*Independent variable: CEOs’ values.* We choose items that are customarily associated with virtuous behaviour (Bird, 2001; Flynn, 2008; Mendoca, 2001; Whetstone, 2005). Specifically, the following values were included: helpful, social justice, a world of peace and equality. CEOs responded by indicating how important each of these values were “as a guiding principle in their lives” on a five-point Likert scale ranging from 1: not at all important to 5: very important.

*Dependent variable: CSR orientation.* The DEA was used to assess CSR orientation. This multidimensional assessment is possible for two basic reasons (Bendheim et al., 1998; Jones, 1995). First, the DEA allows for the empirical analysis of numerous dimensions simultaneously, such as the relationships of companies with their various stakeholders groups. Second, broad CSR can be assimilated to a Pareto-optimal function (Bendheim et al., 1998) because companies are capable of maximizing the stakeholders’ interests (outputs) with the finite resources (inputs) available to them (Kaler, 2003).
The DEA is a mathematical scheduling technique that allows the relative efficiency of the use of resources to be determined from various inputs and outputs. The technique identifies the frontier of best practices (BP). In this study, the BP companies are those that follow a broad CSR because they have proved capable of maximizing the interests of all the stakeholders with the resources available. In contrast, the companies falling outside this frontier follow in the line with a narrow CSR view. The latter companies only attend to the interests of certain groups of stakeholders—generally those referred to as the “primary” stakeholders (Clarkson, 1995).

In this research, the outputs of a firm are the scores for each dimension of KLD (stakeholder groups) that it receives. They range between -2, suggesting poor stakeholder’s attention, and +2, indicating superior stakeholder’s attention. Because the application of the DEA is not possible when negative values are applicable, the scores obtained by the KLD were transferred to a Likert scale of 5 points, where 1 represents the worst value (-2) and 5 the best (+2). In a broad CSR view the most desirable situation is to have the highest possible scores for all stakeholders; thus, those valuations designate the outputs of the analysis (Bendheim et al., 1998).

As Bendheim et al. (1998) recognize, the selection of the inputs is difficult because the scope and amount of resources the companies utilize when obtaining those outputs is complicated and hard to measure. However, given that the DEA needs at least one input, a score of 1 is assigned to all the companies (Bendheim et al. 1998). Consequently, the DEA model used in this research is oriented toward the outputs and the measurements produced are measurements of efficiency of results. To value the corporate governance orientations that a company follows a linear program is solved whose principal result is a scale greater than or equal to 1, denoted as $\phi_x$, that measures the “radial” expansion of the company “X”. The formulation of the program to evaluate company “X” is given by:
Maximize $\phi x$

Restrictions:

$$\sum_{i=1}^{n} E_i \lambda_i - SE_x = \phi_x E_x$$

$$\sum_{i=1}^{n} C_i \lambda_i - SC_x = \phi_x C_x$$

$$\sum_{i=1}^{n} G_i \lambda_i - SG_x = \phi_x G_x$$

$$\sum_{i=1}^{n} CO_i \lambda_i - SCO_x = \phi_x CO_x$$

$$\sum_{i=1}^{n} P_i \lambda_i - SP_x = \phi_x P_x$$

$$\sum_{i=1}^{n} \lambda_i = 1$$

$\lambda_x, SE_x, SC_x, SG_x, SCO_x, SOP_x \geq 0$

Where:

$E, C, G, CO,$ and $P$ represent the scores of company “i” for each of the stakeholder groups: employees, customers, ecologists, community, and stockholders.

$\phi_x$ is a decision variable that measures the proportion that company “X” lacks in order to be BP.

$\lambda_i$ is a decision variable that expresses the weighting of company “i” in the convex combination of the BP companies against which company “x” is compared.

$SE_x, SC_x, SG_x, SCO_x,$ and $SP_x$ are decision variables that represent the deficits of the scores of company “X” beyond $\phi_x$.

$n$ is the number of companies that form the sample.
Following Bendheim et al. (1998), we define a broad CSR view as the ratio between the aggregate scores of all the dimensions of stakeholders and the aggregate scores of the BP company to which it is compared; that is,

\[
DEASCORE_x = \frac{TSCORE_x}{\phi_x TSCORE_x + SE_x + SC_x + SG_x + SCO_x + SP_x}
\]

where \( TSCORE_x = E + C + G + CO + P \), such that: \( 0 \leq DEASCORE_x \leq 1 \).

Thus, if the DEASCORE = 1, company X is BP, and therefore follows a broad CSR view. However, if the DEASCORE is \( \neq 1 \), company X is not BP and, in consequence, its CSR is oriented toward the stockholders (narrow approach).

Moderator Variables: *Composition and structure of the board.*

*Board size.* This variable is measured by the number of active members who comprised the board of directors of the company.

*Type of directors:* Several studies note that the percentages of inside directors who are members of the board determine the composition of the board. Since the composition is measured by percentage (number of inside directors/total board members), its value falls between 0 and 100.

*Duality.* Duality is a binary variable that takes the value 1 if CEO duality exists and 0 if different individuals hold the two posts.

### 3.2.4 Control variables
The study controls for firm size. Larger firms are more publicly visible, which may oblige them to operate under a broad CSR perspective so as not to be penalized by the marketplace (Waddock, 2002). The Napierian logarithm of the number of employees is the functional form for the size of the company.

Results

Table 1 presents the descriptive statistics and the results of the correlation analysis. As reported in this table, the mean value of the Broad CSR variable is 0.82, which shows that most of the companies, whether for narrow or broad CSR reasons, attend to a wide range of stakeholder groups. These results are in the line with Walker (2002) who contends that around 15% of firms understand the responsibility toward their various stakeholders. Further, a large number of the companies that comprise the sample have boards dominated by outside directors (M = 82). As could be expected, virtuous values of the CEO relate significantly to broad CSR.

The binary logit regression technique tested the relationship between virtuous values of the CEO and broad CSR, moderated by the composition and structure of the board. Testing hypothesis 1 was relatively straightforward. Virtuous values were entered into the model as the independent variable. To test moderation (hypotheses 2-4), a moderated regression analysis were run which included all interaction terms between each of the moderating variables (i.e. size of board, type of directors, and duality) and the virtuous values. The results in Table 2 show strong support for hypothesis 2 (p < 0.001), suggesting that CEOs with virtuous values will govern their companies in a way that considers the requirements of all
their stakeholders, with no one group predominating. Unexpectedly, the moderating effect of the size of the board, type of directors, and duality are not significant for any of those variables. In other words, the linkage between the CEO’s values and adoption of a broad CSR mandate is not moderated by the composition and structure of the company’s board of directors. Therefore, from the results obtained, hypotheses 2-4 cannot be accepted.

Table 2 about here.

**Discussion and Conclusions**

This research sets out to achieve two main two objectives: first, to examine whether CEOs’ virtuous values influence CSR orientation; and second, to analyze whether the composition and structure of the board of directors moderates the strength of this relationship. Regarding the first objective, the study has tested empirically and confirmed that CEOs who hold virtuous values will prefer to satisfy all the groups that have a legitimate stake in the company, without one group taking priority over the others (broad CSR orientation). These results are in line with those obtained by Fritzsche (1995) and Morris, Rehbein, Hosseini, and Armacost (1995), who associated the ethical behaviour of companies with managers who hold virtuous values. Also, notes why firms not only focus on profits but which considers factors such as social, environmental, and economic costs in business decision making (Lampman, 2005).

The results of the current study suggest that CEOs’ values should figure prominently when analysing the influence of corporate leaders on organizational decisions and results. In this sense, we uncover the potential impact of virtues in organization, particularly the power
of virtuous CEOs to affect a firm’s orientation and outcomes (regardless of organizational or board characteristics). On the other hand, the literature on upper echelons has frequently focused on studying the demographic variables of top managers. However, given that their values are important, the introduction of these psychological variables into the model could alleviate some of the limitations associated with upper echelons theory, as several authors have proposed (Canella and Monroe, 1997; Priem, Lyon, and Dess 1999).

In respect to this study’s second objective, assessing the moderating role of structure and composition of the board, this study cannot affirm that boards dominated by outside directors, with a relatively small number of members, or in which the CEO is not also the chairman, reduce the discretion of the CEO to govern the company according to his or her personal values. On this point the literature demonstrates that CEOs attempt to maintain their autonomy and therefore usually respond to the threat of greater control and supervision (Westphal, 1998). To retain this autonomy they may use different tactics such as maintaining friendly relationships or forming “stable alliances” with particular key directors (Maitlis, 2004). In this vein, Deutsch (2005) maintains that the CEO always dominates the board of directors independently of the board’s composition and structure. Thus, one could expect that the board members would not have any influence on the adoption of critical decisions such as CSR orientation (Kanungo, 2001).

Further, the results obtained here support the belief held by some authors that the CEO is the most powerful organizational actor, sets the tone of the corporation in its totality (Tosi, Misangyi, Fanelli, Waldman, and Yammarino, 2004), and is the undisputed leader of the company (Norburn, 1989). Thus, the influence of the CEO should be an important element in the study of upper echelons. Although examination of the role of the CEO in isolation has given way to greater attention to the top management team, this study’s findings
demonstrate that the CEO has the power to affect the decisions of the firm and, specifically, to determine the virtuousness in organizations.
References


Table 1: Number of observations, means, standard deviation (s.d.) and correlations of all variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>s.d.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Broad CSR</td>
<td>61</td>
<td>0.82</td>
<td>.388</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Virtuous values</td>
<td>61</td>
<td>2.41</td>
<td>0.78</td>
<td>.61**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Duality</td>
<td>61</td>
<td>0.72</td>
<td>0.45</td>
<td>-.20</td>
<td>-.07</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Board size</td>
<td>61</td>
<td>10.59</td>
<td>2.78</td>
<td>.16</td>
<td>.06</td>
<td>.07</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. % outside directors</td>
<td>61</td>
<td>81.81</td>
<td>13.31</td>
<td>-.09</td>
<td>.06</td>
<td>-.06</td>
<td>.03</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>6. Nº of employees</td>
<td>61</td>
<td>35867.66</td>
<td>54711.27</td>
<td>-.18</td>
<td>-.06</td>
<td>.18</td>
<td>.11</td>
<td>.15</td>
<td>1</td>
</tr>
</tbody>
</table>

** The correlation is significant to the 0.01 level (bilateral).

Table 2 Logit regression results (dependent variable: Broad CSR)

<table>
<thead>
<tr>
<th>Parameter Estimate (β)</th>
<th>Wald X²</th>
<th>Probability ≥ X²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virtuous values (VV)</td>
<td>2.45</td>
<td>14.92</td>
</tr>
<tr>
<td>Duality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Board size</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% outside directors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VV * Duality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VV * Board size</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VV * % outside directors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nº of employees</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Overall X² – Model’s Goodness of Fit = 25.80 **

** p < 0.001
* p < 0.05