

Do inside directors affect sustainability performance? A test of a contingency approach

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Do inside directors affect sustainability performance? A test of a contingency approach

ABSTRACT: As boards are increasingly responsible for addressing sustainability and accountable for the extent to which they do so, this study's point of departure is to examine the impact of inside directors on sustainability performance. By creating an aggregate measure that accounts for economic, environmental, and social metrics, this study finds that insiders are negatively related to sustainability performance. However, when the variables of compensation linked to environmental and social metrics, sustainability training, and comprehensive company codes of conduct are introduced, their interactive effects positively moderate the insider-sustainability performance relationship. Implications of findings are discussed, along with future research directions and limitations.

Keywords: Boards of directors, corporate governance, performance, sustainability

Business response to sustainability—or firms meeting the needs of their current stakeholders, while maintaining their ability to meet the needs of their future stakeholders, by consistently delivering positive outcomes across economic, environmental, and social dimensions—is attracting the attention of boards of directors (Wagner, Hespenheide & Pavlovsky 2009). However, board composition can potentially limit or constrain the degree to which directors influence a firm's sustainability performance. Inside directors (“insiders”), for example, are those directors that are employees of a firm and are top corporate officers (Johnson, Daily & Ellstrand 1996). Insiders do bring value to boards; namely, their valuable information and firm-specific knowledge (Coles, Daniel & Naveen 2008). Yet, because of management's short-term orientation (Marginson and McAulay, 2008), insiders on the board, who represent management interests, might undermine or hinder the commitment required to the decisions that are needed to meet current and future stakeholder needs—including those that influence positive outcomes in environmental and social dimensions. In other words, insiders are expected to favour economic interests over environmental and social interests. Hence, if a firm substantively attempts to pursue a tripartite objective that includes economic, environmental, and social considerations, and relies on the board to oversee and advance this objective, are there conditions under which inside directors might therefore positively affect sustainability performance?

This paper makes three key contributions. First, drawing on agency theory (Jensen & Meckling 1976), incentives (e.g. shareholdings in the firm) are expected to more closely align management interests and shareholder interests so that economic performance is maximized. Incentives tied to economic performance, however, could undermine environmental and social outcomes, detracting from a firm's

overall sustainability performance. By studying incentives that are linked to environmental and social metrics, this study advances the incentives stream within corporate governance research. Second, research reveals that companies that seek to advance the principles of sustainability are putting in place training and development programs for management—including top company officers who are board members (Ricart, Rodriguez & Sanchez 2005). This study expands empirical findings on the value of creating awareness about sustainability issues, determining if training on sustainability positively moderates the relationship between insiders and sustainability performance. Lastly, firms are using company codes of conduct to embed expected employee behaviours towards stakeholders and to promulgate a sustainability ethic (Ricart et al. 2005), yet little research examines the influence of such codes on the relationship between insiders and firm outcomes. To test the value of such approaches, this paper determines if a comprehensive company code of conduct positively moderates inside board members' influence on sustainability performance.

THEORY AND HYPOTHESES

Following the progenitors of agency theory (Fama & Jensen 1983), Fairfax (2010) builds a case that insiders can offer value to the board. More specifically, Fairfax (2010) contends that a board's effectiveness largely depends on the quality of information used. Because they have superior knowledge about the firm, and have intimate knowledge of the firm's financial context, and its industry and environment (Baysinger & Hoskisson 1990), insiders are expected to have an informational advantage over independent directors. This informational advantage by insiders is predicted to translate into effective decision-making—and even monitoring (Baysinger & Hoskisson 1990). However, there is a counter argument that questions the extent to which insiders will influence *sustainability* performance.

First, while it is recognized that insiders are moral agents and may have motivation to respond to non-financial issues, and that they might profess concern over the longer-term interests of the firms they govern, it is unclear as to what extent these would take precedence over short-term economic results. For example, evidence demonstrates that corporate executives serving on boards believe they have a primary responsibility to maximizing shareholder returns. In fact, those surveyed put forth that they believe that their legal duties favour shareholders—and maximizing their returns—over all other stakeholders and

society (Rose 2007). To achieve this, they would even cut down a mature forest or release unregulated toxins into the environment in order to increase profits (Rose 2007). Results such as this question the extent to which insiders will give equal attention to environmental and social issues.

Second, management is emboldened to shareholders, and this requires decisions that maximize profits (Rechner & Dalton 1991). As representatives of management interests on the board, insiders perceive that their first—if not only—obligation is a duty and care to shareholders, which equates to maximizing their wealth (Rose 2007). However, this over-arching focus on profit maximization can lead to excessive short-termism (Marginson & McAulay 2008). As insiders address their responsibility to maximizing shareholder returns, they are likely to seek to influence decisions that concern shorter-term economic outcomes, rather than those that might have longer-term impacts, such as those required to impact on a firm's sustainability performance.

Thus, following Boyd (1995), this study explores the extent to which contingency variables affect the influence of corporate governance on firm outcomes. Specifically, the main research question seeks to determine if three key contingency variables—incentives, sustainability training, company codes of conduct—positively moderate the negative relationship between insiders and sustainability performance.

Incentives

Agency theory focuses on the problems that arise when ownership is separated from control (Jensen & Meckling 1976). Here, principals (shareholders) turn over control to agents (management) to act on their behalf, working to ensure that their investment is maximized. However, one specific problem that arises from the separation of ownership and control is moral hazard. Management (agents) may act unreservedly in its own narrowly defined self-interest. For example, managers may grant themselves substantial pay increases, extravagant perks, and the like, through the misuse of shareholder funds and free cash flows (Fama & Jensen 1983). Such actions decrease shareholder wealth.

One way to curb the problem of moral hazard is to better align principals' and agents' interests. For example, offering incentives to corporate officers on the board, such as shareholdings in the firm or cash bonuses, has the potential to improve short-term economic results (Peng & Roell 2008). This is because corporate officer incentives are often tied to share price performance or profitability, which is

generally linked to quarterly or annual returns (Salter 2012). Seeking to improve sustainability performance, on the other hand, creates risk and uncertainty because investments that meet environmental and social objectives may be difficult to quantify in monetary terms, may only payoff in the long-term, and may require some economic returns to be sacrificed (Bansal 2005). There is evidence to suggest, for example, that environmental performance can negatively impact short-term returns (Hart & Ahuja 1996). Further, Shrivastava and Hart (1995: 157) suggest that sustainability requires a “complete redesign of organisations and strategies”. This requires a great deal of extra managerial effort; therefore, management may prefer to expend time and resources on known pathways and strategies that have less risk and greater quantified, shorter-term financial benefits.

Given executive directors’ more general short-term focus and economic mind-set (Stevens, Steensma, Harrison & Cochran 2005), they may be reluctant to exert the effort required to improve sustainability performance in preference to seeking to influence the board to channel resources into strategies that have clear financial parameters and that lift the more immediate economic performance of the firm. Thus, all things being equal, the expectation is that inside directors are *negatively* related to sustainability performance. Therefore, they need to be motivated to account for all three dimensions of sustainability performance. One way to do this is to tie a portion of insiders’ compensation packages to environmental and social performance. As insiders are offered incentives to consider non-financial objectives or measures of performance, they are more likely to pay attention to sustainability in its broader dimensions, and are more likely to take into account strategies that can lift the non-financial performance of the firms they oversee (Kock, Santaló & Diestre 2012). Therefore:

Hypothesis 1: Compensation linked to environmental and social outcomes positively moderates the insider-sustainability performance relationship. Specifically, the negative relationship between insiders on the board and sustainability performance is positively moderated by insider compensation linked to environmental and social metrics.

Sustainability training

The literature is beginning to recognize the importance of training management about the intricacies and complexities of sustainable development. Galbreath (2009) notes that to respond effectively to sustainability, management needs to understand relevant opportunities and risks. For example,

sustainability encompasses a large variety of strategic issues, which may vary in importance given industry context and regulatory environment (Galbreath 2009). Corporate officers must be aware of these. In another example, shareholders, who are traditionally believed to concern themselves mainly with returns on their investments, are now demonstrating a growing interest in the degree to which the firms they invest in address environmental and social issues (Hanson & Tranter 2006). Lastly, to address sustainability, “processes and products need to be re-invented, controlling systems have to integrate new sets of data, external and internal communication strategies require revisions and basic values and knowledge systems need to adapt...[these challenges]...can hardly be met by applying ready-made concepts or by implementing conventional strategies with different contents” (Siebenhüner & Arnold 2007: 340). In short, change, training, and learning are required.

According to the United Nations (UN 2008), changing management attitudes to appreciate the challenges of sustainability is key to firms’ on-going success, not an optional add-on. However, the literature also acknowledges that inside directors bring certain cognitive perspectives and biases, and a business orientation that can favour the *status quo*, such that they are likely to be biased towards efficiency and short-term results (Hambrick, Geletkanycz & Fredrickson 1993). One way to overcome these biases and orientations is to offer corporate officers (including officers that sit on the board) training about sustainability (Ricart et al. 2005). This could address, among other things, the nature of investments required for sustainability, insights into how competitors are responding to sustainability, how to effectively balance sustainability outcomes, changing interests of shareholders (e.g. their increasing interests in environmental and social outcomes), and the long-term economic and reputational benefits of implementing environmental and social strategies. Therefore, training in the area of sustainability is likely to alter the economic-based biases of insiders and expand the cognitive skills needed to incorporate stakeholder-orientated thinking into their decision-making. Hence:

Hypothesis 2: Sustainability training positively moderates the insider-sustainability performance relationship. Specifically, the negative relationship between insiders on the board and sustainability performance is positively moderated by sustainability training offered to corporate officers residing on the board.

Company code of conduct

Generally, a company code of conduct is a formal document in which a firm declares its ethical responsibility toward various stakeholders and describes a set of rules to guide the behaviour of all employees towards those stakeholders. According to Ählström (2010: 73), a comprehensive code of conduct not only embodies behavioural expectations of employees towards stakeholders, but is also “a document with written rules on environmental and social issues set up by the corporation”; in other words, company codes of conduct that are comprehensive in nature codify a sustainability ethic. Although a company code of conduct is not legally binding and is voluntary in nature, it is expected to change employee mind-sets about sustainability and value creation (Engen & DiPiazza 2005). Hence, comprehensive company codes of conduct are expected to influence how inside directors perceive and respond to sustainability. This influence is expected to take two prominent forms.

First, identity theory suggests that organisations develop meaning structures, and that these meaning structures provide the historical and cultural resources as well as the available organisational discourses for processes of identity formation (Deetz 1994). As a consequence, organisations have tended to become more active in manufacturing identification (Alvesson & Willmott 2002). They aim at directing the processes of self-identity formation and reproduction in a direction that serves the organisation, channelling the identification processes of employees in order to make them internalize the various identities associated with and implied by the organisation. This leads to the second aspect of influence, control.

Incorporating issues of categorization and positioning employees into processes of control is one of the ways in which organisations become active in managing identification (Alvesson & Willmott 2002). The term “unobtrusive forms of control” relates to a mode of control that intends to influence and regulate knowledge about the social conditions in organisations, along with the positioning of the individual within them (Willmott 1993). Following Alvesson and Willmott (2002), dominating actors in organisations, such as management, use various means of subtle control, or “soft power” (Schwartz 2001), to direct employee behaviour. While a company code of conduct is not granted any agency (Jensen, Sandström & Helin 2009), it is not automatically adopted and followed in organisations; it is

used strategically by management to influence employees' identities within the organisation, such that behaviour is controlled in a direction that positively serves the organisation.

Given that company codes of conduct are targeted at all employees, the expectation is that in their absence, insiders are less likely to give due attention and consideration to the expectations of behaviour related to environmental and social matters of the firm. Alternatively, the presence of a comprehensive company code of conduct would be expected to shift insider attention to sustainability. Therefore:

Hypothesis 3: A comprehensive company code of conduct positively moderates the insider-sustainability performance relationship. Specifically, the negative relationship between insiders on the board and sustainability performance is positively moderated by a comprehensive company code of conduct.

METHODS

Sample

This study uses firms that were Australian Securities Exchange (ASX) 300 listed from 2002-2009 and that have been rated by the Sustainable Investment Research Institute (SIRIS), an independent specialist research group providing sustainability and governance investment research in the Asia-Pacific Region. For each of the companies in the ASX300 index, SIRIS profiles multiple indicators relating to environmental and social dimensions, which are rated on a scale from 0 (worst) to 100 (best).

Dependent variable

According Baumgartner and Ebner (2010), due to the nature of sustainability, the measurement of the economic viability dimension needs to consider a future-orientated indicator. Thus, following Rose and Thomsen (2004), market value measurements are deemed better to capture future prospects; therefore, the market-to-book ratio (M/B) was used, calculated from data obtained from FinAnalysis. For the environmental and social dimensions, the SIRIS rating system was used (see Table 1 for a summary of indicators). The environment and social outcomes used the SIRIS ratings of 100 (best) to 0 (worst) for each indicator in the respective dimension.

[Insert Table 1 here]

The literature acknowledges that though sustainability performance consists of three dimensions, these dimensions can be considered an integrated whole (Hahn, Figge, Pinske & Preuss 2010). Thus, to

derive a composite index of sustainability performance, this study relied on the work of Krajnc and Glavič (2005). To do this, because the units of measure differ, each item was first normalized to a value of between 0 and 1 for the economic, environmental, and social dimensions. Once normalized, the five year (2005-2009) mean was taken to derive a sustainability performance score for each dimension. Lastly, proponents suggest that truly sustainable firms give equal treatment and consideration to each dimension of sustainability (Hahn et al. 2010). Hence, following the sustainability literature and based on the recommendation of Krajnc and Glavič (2005: 204), scores for the individual dimensions were therefore given equal weight and added together to create a composite sustainability performance measure.

Independent and moderating variables

Data collected for the independent and moderating variables was obtained from DatAnalysis, FinAnalysis, and SIRIS for the period 2002-2004 and three year averages were calculated. Insider presence was measured by dividing the number of inside directors by board size. For the moderating variables, first, to assess managerial incentives, SIRIS data was used. Specifically, SIRIS rates the extent to which senior officers' (including those that are board members) compensation is tied to environmental and social performance. Using strict criteria, SIRIS rates compensation on a scale from 0 to 100 (with quantitative evidence receiving higher scores). For sustainability training, company annual and supplemental reports (i.e. board of directors, CSR, sustainability) were sourced and examined. Following Ricart et al. (2005), if evidence was found that training on sustainability was provided to top corporate officers (including officers who were board members), the training variable was coded 1, 0 otherwise.¹

Lastly, to determine the presence of a valid code of conduct in the context of this study, two criteria were used. First, the code had to be a *company* code of conduct rather than a supplier code etc. Second, the code had to include rules and standards on environmental and social dimensions. This was determined by reviewing each firm's company code of conduct, and determining if the codes had sections in the table of contents targeting employee health and safety, human rights, environmental protection,

¹ First, keywords searched included "sustainability" and "training" and "induction training" and "sustainability". Second, where matched keywords were identified, the documents were examined further to determine if such training was provided to top corporate officers, including those on the board. This was generally evidenced if firms described providing sustainability training to their "top corporate officers on the board", "officers on the board", or "executives on the board".

engaging local communities, and dealing with stakeholders, which are expected to be included as areas of environmental and social foci in comprehensive company codes of conduct (Ählström 2010). Where the code met the two criteria, it was coded 1, 0 otherwise. Finally, to avoid collinearity in the regression analysis, interaction variables were mean-centred.

Control variables

Because of the sample size, care was taken in choosing control variables to ensure model parsimony. To control for firm size, the natural logarithm of total assets was taken. Slack in more fungible financial resources is expected to offer management the opportunity to take advantage of emergent business and investment needs such as those that environmental and social programs and activities are likely to require. Therefore, financial slack was calculated as current assets minus current liabilities (Brealey & Myers 1996). Due to their power, CEO duality was controlled for by assessing the presence or absence of the role in each year (where CEO duality = 1, 0 otherwise). Inside director shareholdings in the firm are expected to positively impact economic performance. However, holding shares in the firm could be detrimental to overall sustainability performance. To control for any confounding effects, the sum of all shares held by insiders was divided by total shares outstanding. To control for their effects on sustainability performance, the proportion of outside directors on the board was included. However, even after mean centring, variance inflation factors (VIF) and tolerance values (TOL) indicated a very high level of collinearity with inside directors (VIF = 20.49; TOL = .049). This is considered too high for regression analysis (O'Brien 2007). Hence, outsider shareholdings (sum of all shares held by outside directors divided by total shares outstanding) was substituted, which eliminated the multicollinearity problem.

Lastly, industry was controlled for by grouping firms into three categories related to environmental and social impact, namely high impact (consumer discretionary, consumer staples, energy, industrials, and materials), medium impact (financials, health care, and utilities), and low impact (information technology, property trusts, and telecommunications services) industries (FTSE Group 2010). For measurement, high impact industries were coded 3, medium impact coded 2, and low impact coded 1. With the exception of industry, all other variables included the means from 2002-2004.

RESULTS

Means, standard deviations, and correlations are presented in Table 2. Multicollinearity was checked by assessing tolerance values and variation inflation factors (VIF). The lowest tolerance value was .619 while the highest VIF was 1.617, suggesting that multicollinearity did not create problems with statistical tests (O'Brien 2007). Finally, in order to test the hypotheses, some firms had to be eliminated because they were not included in the ASX300 listing across the entire period under study. This was mainly due to acquisitions and delistings. Hence, the final sample size was 241.

[Insert Table 2 here]

The hypotheses were tested with moderated regression analysis (Table 3). Model 1 contains only the control variables. As expected, firm size ($\beta = 0.41$; $p < 0.001$) and industry ($\beta = 0.19$; $p < 0.001$) are positively and significantly related to sustainability performance. Financial slack is negatively ($\beta = -0.18$; $p < 0.01$) related to sustainability performance. This could suggest that over the period studied, firms had excess resources that were not being used to advance sustainability strategies and outcomes. As expected, insider shareholdings is negative and significant ($\beta = -0.16$; $p < 0.05$). Lastly, of note, although the relationship between outsider shareholdings and sustainability performance is not significant, it is negative ($\beta = -0.10$; n.s.).

[Insert Table 3 here]

The addition of the main effects in Model 2 explains significantly more variance than Model 1 ($\Delta R^2 = 0.24$; $p < 0.001$). Insiders are negatively associated with sustainability performance ($\beta = -0.16$; $p < 0.01$), suggesting that in the absence of contingency variables, they are likely to influence board decisions in a way that that does not favour sustainability performance. Alternatively, compensation linked to environmental and social metrics ($\beta = 0.13$; $p < 0.05$) and sustainability training ($\beta = 0.44$; $p < 0.001$) are positive and significantly related to sustainability performance. A comprehensive company code of conduct, while positive, is not significant ($\beta = 0.04$; n.s.).

The three interaction terms in Model 3 test the moderating hypotheses. The addition of the interaction terms in Model 3 explains significantly more variance than Model 2 ($\Delta R^2 = 0.03$; $p < 0.05$). As shown in Table 3, the insider-compensation interaction is positive and significant (β -interaction = 0.28; p

< 0.05), offering support for Hypothesis 1. Similarly, the insider-sustainability training interaction is positive and significant (β -interaction = 0.23; $p < 0.05$), supporting Hypothesis 2. Lastly, modest support for Hypothesis 3 is found as the insider-comprehensive company code of conduct interaction is also positive and significant (β -interaction = 0.11; $p < 0.10$).

DISCUSSION

This study offers three main contributions. First, it advances research on inside directors by taking a contingency approach. Second, the literature discusses the “balance” problem with respect to sustainability. When using agency theory and learning, and identity and control literatures to study this problem, perhaps surprisingly, that, in line with “paradox” theories, simultaneously employing “competing” mechanisms could lead to greater balance environmental, social, and economic performance. Third, the findings have practical implications for the evaluation of insiders’ impact on performance and the policies that these evaluations give rise to. Each of these contributions is discussed below.

The first important implication is that this study advances research on inside directors. Following contingency approaches to corporate governance (Boyd 1995), this study examined compensation linked to environmental and social metrics, sustainability training, and comprehensive company codes of conduct as positive moderating influences on the insider-sustainability performance relationship. The results are in the affirmative and confirm previous studies that suggest that the value of insiders is contingent upon certain conditions (e.g. Coles et al. 2008). A key implication of the findings is that advancing research on insiders could be fruitful for researchers (cf. Fairfax 2010). However, what needs to be better understood are the obstacles that might impede the value of insiders from being realised, and the mechanisms that can change—or at least shift—entrenched insider behaviours and biases so that they positively influence sustainability performance, as well as other firm outcomes.

A second reason this study is important is that it explores balance when addressing sustainability. For example, the findings suggest that insiders and insider shareholdings are negatively and significantly associated with sustainability performance. What this might indicate is that insiders (with or without shareholdings) generally prioritize economic performance over environmental or social performance. However, certain mechanisms (e.g. compensation linked to environmental and social metrics,

sustainability training, and comprehensive company codes of conduct) might persuade or influence insiders to consider a broader performance dynamic—one that necessitates meeting broader stakeholder interests so that environmental and social performance can be achieved. Therefore, an implication of the findings is that firms might need to be considerate of the management incentives (and other mechanisms) they use to influence sustainability performance.

The third contribution is that practical implications arise from the findings. Recent corporate governance reforms have meant it has become almost axiomatic that independent boards are the most effective boards. However, the empirical evidence does not support this proposition. A number of studies find conflicting evidence—if any—that independent boards lead to better outcomes, especially financial ones (e.g. Finegold, Benson & Hecht 2007). Hence, for policy makers, the findings suggest that evolving corporate governance reforms that call for greater board independence might need to be more questioned, and the value of insiders more carefully examined.

LIMITATIONS AND FUTURE RESEARCH

As with all empirical research, this study is not without limitations. First, reverse causality was not directly tested. However, by considering moderating effects, some of the causal relationships are represented more explicitly and reverse causality is made less likely. Second, although a case for their inclusion was made, the study is limited to three moderating variables. While the results are promising, there are potentially many other variables that moderate the insider-sustainability performance relationship. For example, future studies could explore more traditional boards of directors' variables such as age, level of education, tenure, and functional or occupational background, determining if these influence positively (or negatively) the impact that insiders have on sustainability performance. Third, previous research on insiders suggests network ties are a determining factor as to whether or not insiders add value in terms of sustainability to boards and to the firms they oversee (Coles et al. 2008). That this study did not examine the outside directorships of insiders is also a limitation. Future corporate governance and sustainability performance studies could include this dimension.

REFERENCES

- Ählström J (2010) Corporate response to CSO criticism: Decoupling the corporate responsibility discourse from business practice. *Corporate Social Responsibility and Environmental Management* 17: 70-80.
- Alvesson M & Willmott H (2002) Identity regulation as organisational control: Producing the appropriate individual. *Journal of Management Studies* 39: 619-644.
- Bansal P (2005) Evolving sustainability: A longitudinal study of corporate sustainable development. *Strategic Management Journal* 26: 197-218.
- Baumgartner RJ & Ebner D (2010) Corporate sustainability strategies: Sustainability profiles and maturity levels. *Sustainable Development* 18: 76-89.
- Baysinger B & Hoskisson R (1990) The composition of boards of directors and strategic control: Effects on corporate strategy. *Academy of Management Review* 15: 72-87.
- Boyd B (1995) CEO duality and firm performance: A contingency model. *Strategic Management Journal* 16: 301-312.
- Brealey RA & Myers SC (1996) *Principles of corporate finance*. McGraw-Hill, New York.
- Coles JL, Daniel ND & Naveen L (2008) Boards: Does one size fit all? *Journal of Financial Economics* 87: 329-356.
- Deetz SA (1994) The micro-politics of identity formation in the workplace: The case of knowledge intensive firms. *Human Studies* 17: 23-44.
- Engen T & DiPiazza S (2005) *Beyond reporting: Creating business value and accountability*. World Business Council for Sustainable Development, Switzerland.
- Fairfax LM (2010) The uneasy case for the inside director. *Iowa Law Review* 96: 127-193.
- Fama EF & Jensen MC (1983) Separation of ownership and control. *Journal of Law and Economics* 26: 301-325.
- Finegold D, Benson GS & Hecht D (2007) Corporate boards and company performance: Review of research in light of recent reforms. *Corporate Governance: An International Review* 15: 865-878.
- FTSE Group (2010) *FTSE4Good Index series inclusion criteria*. FTSE Group, London.

- Galbreath J (2009) Addressing sustainability: A strategy development framework. *International Journal of Sustainable Strategic Management* 1: 303-319.
- Hahn T, Figge F, Pinske J & Preuss L (2010) Trade-offs in corporate sustainability: You can't have your cake and eat it. *Business Strategy and the Environment* 19: 217-229.
- Hambrick DC, Geletkanycz MA & Fredrickson JW (1993) Top executive commitment to the *status quo*: Tests of its determinants. *Strategic Management Journal* 14: 401-418.
- Hansen D & Tranter B (2006) Who are the shareholders in Australia and what are their ethical opinions? An empirical analysis. *Corporate Governance: An International Review* 14: 23-32.
- Hart SL & Ahuja G (1996) Does it pay to be green? An empirical examination of the relationship between emission reduction and firm performance. *Business Strategy and the Environment* 5: 30-37.
- Jensen MC & Meckling WH (1976) Theory of the firm: Managerial behaviour, agency costs and ownership structure. *Journal of Finance* 3: 305-350.
- Jensen T, Sandström J & Helin S (2009) Corporate codes of ethics and the bending of moral space. *Organisation* 16: 529-545.
- Johnson JL, Daily CM & Ellstrand AE (1996) Boards of directors: A review and research agenda. *Journal of Management* 22: 409-438.
- Kock CJ, Santaló J & Diestre L (2012) Corporate governance and the environment: What type of governance creates greener companies? *Journal of Management Studies* 49: 492-513.
- Krajnc D & Glavič P (2005) A model for integrated assessment of sustainable development. *Resources Conservation & Recycling* 43: 189-208.
- Marginson D & McAulay L (2008) Exploring the debate on short-termism: A theoretical and empirical analysis. *Strategic Management Journal* 29: 273-292.
- O'Brien RM (2007) A caution regarding rules of thumb for variance inflation factors. *Quality & Control* 41: 673-690.
- Peng L & Roell A (2008) Executive pay and shareholder litigation. *Review of Finance* 12: 141-181.

- Raisch S, Birkinshaw J, Probst G & Tushman ML (2009) Organisational ambidexterity: Balancing exploitation and exploration for sustained performance. *Organisation Science* 20: 685-695.
- Rechner P & Dalton D (1991) CEO duality and organizational performance: A longitudinal analysis. *Strategic Management Journal* 12: 155-160.
- Ricart JE, Rodriguez MA & Sanchez P (2005) Sustainability in the boardroom. *Corporate Governance* 5: 24-41.
- Rose JM (2007) Corporate directors and social responsibility: Ethics versus shareholder value. *Journal of Business Ethics* 73: 319-331.
- Rose C & Thomsen S (2004) The impact of corporate reputation on performance: Some Danish evidence. *European Management Journal* 22: 201-210.
- Salter MS (2012) How short-termism invites corruption ...and what to do about it. Working Paper 12-094, Harvard Business School.
- Schwartz MS (2001) The nature of the relationship between corporate codes of ethics and behaviour. *Journal of Business Ethics* 32: 247-262.
- Shrivastava P & Hart S (1995) Creating sustainable corporations. *Business Strategy and the Environment* 4: 154-165.
- Siebenhüner B & Arnold M (2007) Organisational learning to manage sustainable development. *Business Strategy and the Environment* 16: 339-353.
- Smith WK & Lewis MW (2011) Toward a theory of paradox: A dynamic model of organizing. *Academy of Management Review* 36: 381-403.
- Stevens JM, Steensma HK, Harrison DA & Cochran PL (2005) Symbolic or substantive document? The influence of ethics codes on financial executives' decisions. *Strategic Management Journal* 26: 181-195.
- Stoney C & Winstanley D (2001) Stakeholding: Confusion or utopia? Mapping the conceptual terrain. *Journal of Management Studies* 38: 603-626.
- UN (2008) *Toward global corporate citizenship*. United Nations leading companies retreat. Summary

report. Boston College Centre for Corporate Citizenship.

Wagner S, Hespeneide E & Pavlovsky K (2009) The responsible and sustainable board. *Deloitte Review* 4: 61-71.

Willmott H (1993) "Strength is ignorance; slavery is freedom": Managing culture in modern organisations. *Journal of Management Studies* 30: 515-552.

TABLES

Table 1. SIRIS environmental and social indicators

Dimension of sustainability	Indicator areas
Environmental integrity (55 indicators in total)	<ul style="list-style-type: none"> ▪ Firms are rated on the extensiveness to which they incorporate environmental management programs in their operations, and achieve environmental quality program certifications (e.g. ISO14000). ▪ Firms are rated on the extent to which they demonstrate management over materials, energy, and water consumption and their use of renewable energy. ▪ Firms are rated on the extent to which they demonstrate management of CO₂/GHG emissions and provide evidence of CO₂/GHG emission reductions. ▪ Firms are rated on how well they manage post-consumer and solid wastes and their waste emission impact on water and land.
Social responsiveness (30 indicators in total)	<ul style="list-style-type: none"> ▪ Firms are rated on the extensiveness of occupational health and safety programs, reductions in health and safety incidents, extensiveness of employee training, and health and safety accreditation (e.g. Australian and New Zealand Occupational Health and Safety Standard 4801). ▪ Firms are rated on the extensiveness of their corporate donations and community engagement, and the extent to which they uphold human rights and fair trade practices in their business practices. ▪ Firms are rated on the extent to which they improve product quality, use product life cycle assessments, and achieve product quality accreditations (e.g. ISO 9000).

Table 2. Descriptive statistics and correlations

<i>Variable</i>	<i>Mean</i>	<i>S.D.</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>	<i>11</i>
1. Sustainability performance (normalized)	0.16	0.08	1.00										
2. Firm size (logarithm of)	2.60	1.08	0.43**	1.00									
3. Financial slack (\$M)	392.54	3336.22	-0.23**	0.40**	1.00								
4. Industry	2.22	0.95	0.18**	-0.27**	-0.02	1.00							
5. CEO duality	0.07	0.24	0.01	-0.02	0.04	-0.03	1.00						
6. Insider shareholdings (%)	5.18	1.00	-0.28**	-0.46**	-0.14*	0.07	0.10	1.00					
7. Outsider shareholdings (%)	5.50	2.47	-0.45**	-0.55**	-0.17*	0.06	0.04	0.49**	1.00				
8. Inside director proportion	0.29	0.17	-0.24**	-0.35**	-0.19**	0.06	-0.02	0.55**	0.16*	1.00			
9. Compensation linked to E&S metrics [♦]	36.64	21.43	0.26**	0.20**	0.16*	0.06	-0.13	-0.17*	-0.24**	0.09	1.00		
10. Sustainability training	0.09	0.16	0.56**	0.36**	0.17*	0.19**	-0.02	-0.20**	-0.38**	0.15*	0.15*	1.00	
11. Comprehensive company code of conduct	0.20	0.40	0.17**	0.13*	0.11	-0.14*	-0.08	0.05	-0.11	0.03	0.14*	0.18**	1.00

* $p = 0.05$; ** $p = 0.01$

♦ E (Environmental) & S (Social)

Table 3. Regression results (n=241)

	Model 1	Model 2	Model 3
<i>Controls</i>			
Firm size	0.41***	0.32***	0.31***
Financial slack	-0.18**	-0.18**	-0.18**
Industry	0.19***	0.13*	0.12*
CEO duality	-0.05	-0.02	-0.01
Insider shareholdings	-0.16*	-0.03	-0.05
Outsider shareholdings	-0.10	-0.06	-0.05
<i>Main effects</i>			
Insiders		-0.16**	-0.09
Compensation linked to E&S metrics [♦]		0.13*	0.11
Sustainability training		0.44***	0.62***
Comprehensive company code of conduct		0.04	0.06
<i>Interactions</i>			
Insiders x compensation linked to E&S metrics			0.28*
Insiders x sustainability training			0.23*
Insiders x comprehensive company code of conduct			0.11 [†]
Model <i>F</i>	9.16***	15.91***	13.11***
R^2	0.23	0.47	0.50
ΔR^2		0.24***	0.03*

[†] $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

[♦] (E) environmental & (S) social