An Empirical Investigation of the Relationship Between Change in Corporate Social Performance and Financial Performance: A Stakeholder Theory Perspective

Bernadette M. Ruf
Krishnamurty Muralidhar
Robert M. Brown
Jay J. Janney
Karen Paul

ABSTRACT. Stakeholder theory provides a framework for investigating the relationship between corporate social performance (CSP) and corporate financial performance. This relationship is investigated by examining how change in CSP is related to change in financial accounting measures. The findings provide some support for a tenet in stakeholder theory which asserts that the dominant stakeholder group, shareholders, financially benefit when management meets the demands of multiple stakeholders. Specifically, change in CSP was positively associated with growth in sales for the current and subsequent year. This indicates that there are short-term benefits from improving CSP. Return on sales was significantly positively related to change in CSP for the third financial period, indicating that long-term financial benefits may exist when CSP is improved.

KEY WORDS: corporate social performance, financial performance, stakeholder theory, transaction cost economics

Introduction

From the neo-classical economic perspective, Friedman (1962) asserts that corporate expenditures on social causes are a violation of management's responsibility to shareholders to the extent that the expenditures do not lead to higher shareholder wealth. Others contend that management's responsibility extends beyond the shareholders to include causes that benefit society as a whole. The introduction of stakeholder theory allows these seemingly opposing views of management's responsibility to be combined (Freeman, 1984). Stakeholder theory places shareholders as one of the multiple stakeholder groups managers must consider in their decision making process (Clarkson, 1995a; Donaldson and Preston, 1995; Jones, 1995; Mitchell, Agle and Wood, 1995; Wood and Jones, 1995). These stakeholder groups include internal, external, and environmental constituents. Like shareholders, the other stakeholders may place demands upon the firm, bestowing societal legitimacy. Firms must address these demands or else face negative confrontations from non-shareholder groups, which can lead to diminished shareholder value, through boycotts, lawsuits, protests, etc.

From a stakeholder theory perspective, corporate social performance is assessed in terms of a company meeting the demands of multiple stakeholders. Firms must at some level, satisfy stakeholder demands as an unavoidable cost of doing business. Freeman (1984) suggests different approaches to satisfying stakeholder demands, ranging from cost minimizing to societal maximizing. Building on Freeman's (1984) work, we suggest stakeholder theory can be complemented by both Transaction Cost Economics (Williamson, 1975, 1985) and the Resource-Based View of the firm (Wernerfelt, 1984; Barney, 1986, 1991). From a Transaction Cost Economics perspective, firms that satisfy stake-

Journal of Business Ethics **32**: 143–156, 2001.

holder demands or accurately signal their willingness to cooperate can often avoid higher costs that result from more formalized contractual compliance mechanisms (e.g. government regulation, union contracts). From a Resource-Based View perspective, firms view meeting stakeholder demands as a strategic investment, requiring commitments beyond the minimum necessary to satisfy stakeholders. By strategically investing in stakeholders' demands, firms gain a competitive advantage by developing additional, complementary skills that competitors find nearly impossible to imitate (Russo and Fouts, 1997). From either perspective, improving CSP should lead to higher financial performance, whether it is due to reduced costs or increased revenues.

With the exception of event studies,[1] research on the relationship between CSP and corporate financial performance has produced conflicting results. The conflicting findings are attributed to both theoretical and methodological issues. Reasons include: (1) lack of a theoretical foundation, (2) lack of a comprehensive systematic measure of CSP, (3) lack of methodological rigor, (4) sample size and composition limitations, and (5) mismatch between social and financial variables (Cochran and Wood, 1984; McGuire et al., 1988; Ullmann, 1985; Wood and Jones, 1995). Reason one is addressed by applying stakeholder theory to develop our testable hypotheses. The second issue is addressed by using a composite measure of CSP that is based on independent assessments of multiple stakeholder-related performance variables measured over time. Further, the performance measures are weighted to reflect the value judgements social investors.

Methodological rigor is improved by controlling for extraneous variables known to be related to firm financial performance (e.g. prior financial performance, size, and industry) and by using as our independent variable change in CSP as oppose to CSP level. Previous studies have used the level of some measure of CSP as an independent variable and one or more measures of financial performance as the dependent variable or vice versa, depending on the research question. The relationship between change in CSP and change in financial performance has yet to be examined. Analyzing the relation using change on change is a much more rigorous test of the relationship. The reasoning behind the added rigor follows. Research suggests that many financial performance measures follow a random walk (a process in which the best predictor of the value of a variable in time period $t + 1$ is the value in time period t) or mean reversion (a process in which the best predictor of the value of a variable is the mean) process. For example, net income and sales are best described as random walk series with a drift whereas some of the return ratios tend to be mean reverting. Assuming a positive relation between CSP level and financial performance exists, as some research has shown, analyzing levels against levels and more importantly CSP level against subsequent financial performance levels can produce erroneous indications of a direct relationship due to the underlying time series properties of the variables.

The forth issue, sample size and composition limitations, is addressed by using a database that provides CSP measures for a relatively large number of firms (all firms in the S&P 500). Finally, Wood and Jones (1995) argue that the stakeholder-variable mismatch can be avoided by defining CSP from the perspective of a specific stakeholder group and by using financial variables relevant to that particular stakeholder. The social investment group was selected because of their concern with the stakeholder-related performance variables used in the study, as well as financial performance.

This study addresses the research question: Do companies financially benefit from improving corporate social performance? More specifically, the study investigates the relationship between change in CSP and concurrent and subsequent changes in financial performance. Analysis of change in CSP is an important issue for managers who are primarily interested in seeing if and when investment in CSP provides financial benefits to the firm.

Corporate social performance

Wood (1991a) proposed the following definition of CSP:

> A business organization's configuration of principles of social responsibility, processes of social responsiveness, and policies, programs, and observable outcomes as they relate to the firm's societal relationships (p. 693).

Building on this definition, Wood and Jones (1995) propose that stakeholder theory is the key to understanding the structure and dimensions of the firm's societal relationships. They redefine the policies, programs, and outcomes as "internal stakeholder effects, external stakeholder effects, and external institutional effects" and argue that stakeholders set norms for corporate behavior, experience the effects of corporate behavior, and evaluate corporate behavior. We adopt Wood and Jones' modification of Wood's definition of CSP. To operationalize this definition, we use outcome measures on five relationships that firms have with stakeholders. While our CSP measure is not comprehensive of all stakeholders, it is consistent with Wood and Jones's internal and external stakeholders. The outcome measures reflect firm relations with employees, consumers, environment, community, and society as whole (See the Methodology section for further discussion of these dimensions).

Stakeholder theory and corporate social performance

Stakeholder theory posits that firms possess both explicit and implicit contracts with various constituents, and are responsible for honoring all contracts (Freeman, 1983, 1984; Donaldson and Preston, 1995; Jones, 1995). As a result of honoring contracts, a company develops a reputation that helps determine the terms of trade it can negotiate with various stakeholders (Bowen et al., 1995; Bull, 1987; Cornell and Shapiro, 1987; and Jones, 1995). While explicit contracts legally define the relationship between a firm and its stakeholders, implicit contracts have no legal standing and are referred to in the economic literature as self-enforcing relational contracts. Since implicit contracts can be breached at any time, Telser (1980) argues that implicit contracts become self-enforcing when the present value of a firm's gains from maintaining its reputation (and, therefore, future terms of trade) is greater than the loss if the firm reneges on its implied contracts. To further understand the relationship between a firm and its stakeholders, we present two perspectives of a firm: the transaction cost economic view and the resource-based view.

A transaction cost economics view of the firm and its stakeholders

Jones' (1995) contract metaphor draws heavily from transaction cost economics (Williamson, 1975) to describe the on-going relationship between the stakeholders and the firm. Depending on the stakeholders' profile and demands, contracts can prove costly to write, monitor, and enforce. As contractual costs increase, firms possess greater incentives to engage in opportunistic behavior. Stakeholders who recognize this dilemma will actively monitor compliance, or possibly lobby for legislation/regulation, which requires mandatory compliance.

The cost of opportunism can be clarified by employing a game theoretic model (Rasmusen, 1992; Quinn and Jones, 1995). Firms have a choice between cooperating with stakeholders or "defecting", i.e., undertaking opportunistic action. When a firm acts opportunistically, stakeholders may respond by confronting the firm either directly (e.g., strikes, boycotts) or via a more powerful group or organization (e.g., government, unions). Because of stakeholder confrontations, firms may not only be forced to "undo their opportunism", but also to develop a reputation among stakeholders of closely monitoring performance to guard against future opportunism.

Disentangling enlightened self-interest and social responsiveness proves difficult, especially as both sets of motivations can lead to positive outcomes for both stakeholders and the firm. Nonetheless, Jones (1995) argues that firms who voluntarily adopt socially responsive actions strengthen their reputation as a desirable transactional partner. His work acknowledges the importance of firms actively seeking out stake-

holders and engaging them in constructive dialogue. Similarly, Williamson (1975) argues for the importance of establishing relational contracting, whereby firms recognize that an individual contract is in fact one portion of an ongoing series of recurring contracts with another party. In a recurring contract, firms recognize they will lose follow-on business if they engage in opportunistic behavior in a current contract. Similarly, firms who want to avoid government intervention, or other forms of costly monitoring can do so by voluntarily avoiding opportunistic behavior and making this known to stakeholders.

As a recent example, Celgene Pharmaceuticals acquired the right to market Thalidomide – perhaps the prescription drug with the most negative reputation ever. While seeking FDA approval, Celgene met with a Thalidomide victims support group and asked the group for specific recommendations on the circumstance under which the drug, if approved, should be marketed. Celgene agreed to and in some cases exceeded each recommendation made by the support group. By being proactive, Celgene converted one important stakeholder group from opposing the firm to cautiously supporting its work (Indianapolis Star, 1998). The FDA may have easily delayed its approval or possibly imposed more stringent conditions had Celgene chosen to ignore the victims support group. Worse, the company could have faced protests and boycotts, not only for thalidomide, but also for the other drugs they market.

A resource-based view of the firm and its stakeholders

Underlying the resource-based view of the firm is the premise that differences in firm performance directly occur as a result of the collection of resources firms acquire (Wernerfelt, 1984, Barney, 1986, 1991). Firms can enjoy a sustained competitive advantage if they possess resources that are valuable, rare, inimitable, and non-substitutable (Barney, 1991). Resources include both tangible and intangible assets, such as leadership, market agility, and a positive social reputation (Mahoney and Pandian, 1992; Coff, 1997). Direckx and Cool (1989) contend that resources are both path-dependent and cumulative; one builds a positive reputation over a long period of time, a time frame that cannot be easily shortened by competitors. Similarly, know-how or expertise typically requires years to develop, limiting a competitor's ability to readily copy a process or skill (Kogut and Zander, 1992). In addition, resources built on know-how or expertise can be readily re-combined into new resources; this continual creation makes copying by competitor's nearly impossible (Cohen and Levinthal, 1990).

Assuming that all firms in a specific industry must (more or less) satisfy the same types of stakeholders, meeting stakeholder demands in and of itself does not provide any source of sustainable competitive advantage. Stakeholders frequently advocate industry-wide compliance mechanisms, because these mechanisms lower their contract writing and monitoring costs. Firms that view stakeholder demands as a cost to be minimized will tend to adopt proven industry standard compliance mechanisms. Hart (1995) argues, however, that equivalent resources (in this case equivalent to the industry-wide compliance mechanisms) can provide a source of sustainable competitive advantage if they can be acquired more cheaply or more quickly than they can be acquired by their competitors. By viewing stakeholder demands as a strategic investment, firms find they can develop firm specific responses that satisfy stakeholders and provide additional capabilities.

By moving from only compliance into active support of a stakeholder demand, Russo and Fouts (1997) argue that firms can create and exploit resources that provide a sustainable, competitive advantage. Russo and Fouts (1997) provide an example where a firm has two choices to meet the stakeholder demand for reducing pollution. They could install off-the-shelf filtering equipment or they could change their design process to reduce pollution. Installing the filtering equipment will result in compliance. However, the resource based view of the firm

argues that a firm opting to reduce pollution by changing their design process (active support) may enjoy a sustainable competitive advantage over a firm that only installs a filtering equipment (compliance).

Russo and Fouts' (1997) arguments are applicable beyond environmental stakeholders. Enhancing employee job satisfaction has been credited for improving productivity. For example, Eastman Kodak was experiencing problems with its black and white film division in the late 1980's (Frangos and Bennett, 1994). To address this problem, a policy was adopted, empowering employees by giving them greater input into the decision making process. Empowering employees increased employee morale and led to a $50 million cost savings through a reduction in inventory waste (Frangos and Bennett, 1994).

Corporate social performance and financial performance

Recognizing that a company has contracts with multiple stakeholders is instrumental to obtaining an understanding of the relationship between CSP and financial performance. Because stakeholders have expectations that may conflict, limited resources dictate that corporations must evaluate the costs and benefits of making tradeoffs. To understand a firm's effectiveness at making tradeoffs, a composite outcome measure is needed that reflects the multiple contracts with stakeholders. The measure must represent the various factors of CSP and the importance placed on those CSP factors by the stakeholder group of interest (Ruf et al., 1998). The major stakeholder group interested in current and future financial benefits, i.e. firm value, is the stockholder. While the neo-classical stockholder is interested in only financial performance, there has been an increase in stockholder groups interested in social performance (Gould, 1994; Shapiro, 1992). To ensure that the CSP measure is consistent with the financial benefits expected by this stakeholder group, we developed our composite CSP measure using a group of individuals with both financial and social expectations with respect to firm valuation. Furthermore, the social expectations of this group include firm relations with multiple stakeholder groups.

Firm value is a function of growth and profitability (Palepu et al., 1996). Many different measures might be employed to assess profitability and growth. We elected to use growth in sales as our growth measure and return on equity and return on sales as our profitability measures. Growth in sales was selected because of the importance that sales and sales forecasts play in developing firm valuation models. Return on equity is probably the most widely reported profitability measure (Hawkins, 1998) and is the measure of great interest to shareholders (Berstein and Wild, 1998). Return on equity can be decomposed into return on sales, asset turnover, and financial leverage. Palepu et al. (1996) assert that any change in return on equity is seen first in a change in profit margins, i.e., return on sales. Hence, return on sales was also selected as a profitability measure because of its sensitivity as an overall indicator of profitability and because it is not subject to the criticisms that is are often leveled at using return on investment.

Prior studies indicate that financial performance varies by industry and firm size. Industry and size are used as control variables. Because financial ratios tend to be mean reverting, i.e., high (low) observations tend to be followed by lower (higher) observations, we also include return on equity (return on sales) from the previous year as a control variable when return on equity (return on sales) is used as the dependent variable. For similar reasons, we also include the previous year's sales as a control variable for those models in which sales growth is the dependent variable.

Based on the above discussion, the formal hypothesis stated in alternate form is:

H_1: Change in CSP is positively related to current and future changes in financial performance after controlling for size, industry, and prior year's financial performance.

Methodology

This section describes how the composite score for CSP was constructed, how the financial measures were calculated, and the statistical model used to test the hypothesis.

Measurement of corporate social performance

The measurement of CSP in this study is based on the methodology developed by Ruf et al. (1998). In this approach, the dimensions of social performance are identified. A questionnaire is then administered to a group of respondents to evaluate the relative importance of the dimensions using the Analytic Hierarchy Process, which "provides a fundamental scale of relative magnitudes expressed in dominance units in the form of paired comparisons" (Saaty, 1980). The aggregation of the results of the questionnaire represents the overall measure of the relative importance of the dimensions for the entire group of respondents, where $w_1, w_2, \ldots w_k$ represent the aggregated weights assigned to k dimensions of social performance. An independent evaluation of the firm's performance on each dimension is determined next, where $a_1, a_2, \ldots a_k$ represent the performance of a given company on the k dimensions of social performance. The product of the performance score on a given dimension and the weight of that dimension is then computed. The process is repeated for each dimension. Finally, the composite measure of CSP is computed as the sum of the products. Mathematically, the composite measure of CSP for a given company can be described as follows (for a comprehensive discussion of this method, see Ruf et al. (1998)):

$$\text{CSP} = \sum_{j=1,k} w_j \times a_j.$$

This method of measuring CSP has also been used by Graves and Waddock (1994).

In the current study, we are interested in measuring the change in CSP (ΔCSP). To compute ΔCSP, for every firm, the change in social performance rating for each dimensions of CSP was computed for the respective years (1990 to 1991). Let $(a_1, a_2 \ldots a_k)$ represent the performance rating, in time period t, of a given company on the k dimensions of CSP. Let $(b_1, b_2 \ldots b_k)$ represent the performance rating, in time period $t-1$. A composite measure of change in CSP is then computed as:

$$\Delta\text{CSP} = \sum_{j=1,k} w_j \times (a_j - b_j)$$

where w_j is the relative importance weight of dimension j.

The important elements in developing the composite measure described above are (1) the identification of the dimensions of CSP, (2) the selection of respondents to evaluate the relative importance of the dimensions, and (3) the independent evaluation of firm performance for each dimension. The current study uses eight dimensions of CSP to reflect firm relations with stakeholders. These dimensions were identified and assessed in the Kinder, Lydenberg, and Domini, Inc. (KLD) database and represent the firm relations with employees, consumers, environment, community, and society as a whole. The eight dimensions scored are: product liability, community relations, environmental protection, women's and minority issues, employee relations, nuclear power involvement, military contracting, and South African involvement.[2]

KLD's social performance measures are considered appropriate for several reasons. First, KLD's social measures reflect the concerns historically held by social investors (Kurtz et al., 1992) and include all those identified as important in surveys of social fund managers for the time period investigated (Rockness and Williams, 1988; Harte et al., 1991). Second, companies are evaluated on criteria for each social dimension independent of other firm characteristics. Third, firms are rated over time allowing researchers to assess change in social performance.

To assess the relative importance of the eight social performance dimensions, a questionnaire was sent to social investors. While it is impossible to identify and survey stockholders of specific firms, the next best alternative was to survey a group of individuals who have both financial and social performance expectations. The questionnaire was mailed to social investors

with holdings in the Domini Social Equity Trust. The Domini Social Equity Trust uses the KLD social database for selecting firms, and hence, the social investors have implicitly agreed that these are social measures of interest when evaluating CSP. Furthermore, as subscribers to the social fund, the respondents are knowledgeable of each social performance measure.

The questionnaire was mailed to 400 social investors. The first mailing and a follow up mailing generated 194 (49%) responses. Eight surveys were returned incomplete and six were returned with incorrect addresses. The first section of the questionnaire provided a definition of the social issues (See Appendix A), followed by a list of questions designed to elicit pair-wise comparisons of the eight social performance measures. The second section of the questionnaire was designed to gather demographic and descriptive information about the respondents.

The last step in the development of an aggregate measure of social performance is to assess the performance of the firms. In order to perform appropriate statistical analyses, it is necessary that such evaluation be performed on a sufficiently large number of firms. Most individuals are unlikely to have the capability to evaluate a large number of firms on their performance on the eight categories identified earlier. Hence, it is necessary to use other sources that are capable of providing an independent evaluation of the performance of the firms on the eight different dimensions. The source of the independent evaluation on the eight social performance dimensions was from the KLD social database.

The KLD database provides ratings for approximately 650 firms, including the firms in the S&P 500. To enhance consistency in the evaluations, a research staff member evaluates each company using pre-specified criteria. Unclear judgments are discussed and made by a research team. Furthermore, evaluations are conducted at the same time each year for companies within an industry. This improves consistency of intra-industry assessments and over-time assessments. Five of the eight dimensions (product liability, community relations, environmental protection, women's and minority issues, and employee relations) are rated on a 5 point scale (–2 to +2), while the remaining three dimensions are rated on three point scale (–2 to 0). Wood and Jones (1995) have criticized the KLD database for using what they refer to as "numerically crude" scores and for qualitative judgements used to evaluate the firms. In defense of the KLD database, in the absence of quantitative performance measures, any numerical measure can be criticized for being numerically crude. In addition, given the nature of the assessment, it is difficult not to use qualitative judgements in evaluating social performance. Furthermore, while they are critical of some aspects of the KLD database, even Wood and Jones (1995) agree that the KLD database is the "best-researched and most comprehensive" database for social performance. Thus, given the advantages of using the database (use of multiple dimensions, comprehensive, longitudinal data on a large number of firms, independent assessment of social performance on multiple dimensions, etc.), the benefits derived from the KLD database far out-weigh the problems associated with it.

Measures of financial performance

As stated earlier, the financial measures used in this study were return on equity, return on sales, and growth in sales. Return on equity was defined as earnings before taxes divided by total stockholders' equity. Return on sales was defined as net income before taxes divided by sales. Growth in sales was measured by the percent change in sales from one year to the next. Data to calculate return on equity, return on sales, and growth in sales were obtained from COMPUSTAT.

Similar to R&D expenditures, returns from investing in CSP are uncertain and fluctuate over time. Hence, a four-year time period is investigated. Change in return on equity, return on sales and growth in sales were determined coincident with the 1991 to 1992 ΔCSP (year 0) and for three subsequent years: 1992–1993 (year 1), 1993–1994 (year 2), and 1994–1995 (year 3). The financial measures are defined as follows:

ΔReturn on Equity =
Return on equity$_t$ – Return on equity$_{t-1}$
ΔReturn on Sales =
Return on sales$_t$ – Return on sales$_{t-1}$
Growth in Sales = (Sales$_t$ – Sales$_{t-1}$)/Sales$_{t-1}$

where

Return on Equity$_t$ = (Net income before taxes)$_t$/(Total stockholders' equity)$_t$
Return on sales$_t$ =
(Net income before taxes)$_t$/Sales$_t$
t = time period.

The control variables were selected based on prior research findings. Industry type, firm size and prior year's financial performance were used as control variables. Industry type was based on KLD's industry categorization. Size was calculated as the log of sales.

Empirical model

The general hypothesis stated earlier can be restated as:

$$\Delta FIN_{i,t} = \beta_0 + \alpha_1 Size_{I,t} + \alpha_2 \Delta FIN_{i,t-1} + \sum_{j=1}^{k-1} \beta_j I_{i,j} + \alpha_3 \Delta CSP_i + \varepsilon_{i,t}$$

Where

$\Delta FIN_{i,t}$ = Growth in sales$_I$, ΔReturn on equity, or ΔReturn on sales for firm i from time period $t-1$ to t.
β_0 = The intercept
α_1 = The regression coefficient for size.
α_2 = The regression coefficient for the prior year's financial performance.
$Size_{I,t}$ = Log of Sales of firm i at time t
K = The number of industry categories.
$I_{I,j}$ = The industry group to which firm i belongs, represented as a dummy variable.
α_3 = The regression coefficient for change in corporate social performance
ΔCSP_i = Change in CSP for firm i from 1990 to 1991

We performed separate regressions for each financial variable and for four time periods. Residual analysis was performed in all cases to examine any departures from general assumptions of linear regression (Neter et al., 1985). No such departures were observed in any of these cases. A sample of 496 firms resulted from matching the firms on KLD's SOCRATES and on COMPUSTAT.

Research results

Descriptive statistics on the financial variables used in the model are provided in Table I. To simplify the reporting of the descriptive statistics, only year 0 and year 3 are presented. Prior financial performance measures were significantly related to all the financial performance variables in year 0 and 3. Changes in return on equity is not related to ΔCSP. Changes in return on sales is significantly positively related to ΔCSP in year 3. Growth in sales is significantly positively related to ΔCSP in year 0.

The results of the regression analysis between ΔCSP and change in corporate financial performance are presented in Table II. The control model R^2 is significant indicating that the control variables (Industry type, firm size, and prior year's financial performance) explained a significant portion of the variability in all three dependent variables in all three years. In year 3, a significant positive relationship was found between ΔCSP and change in return on equity ($p < 0.03$) and change in return on sales ($p < 0.001$). Change in return on equity and change in return on sales was not related to ΔCSP for years 0, 1, and 2. For growth in sales, a significant positive relationship was found in year 0 ($p < 0.014$) and in year 1 ($p < 0.001$). Growth in sales was not related to ΔCSP in either year 2 or year 3.

Discussion

Based on stakeholder theory, we postulated that companies that improve their CSP would perform better than their competitors with

TABLE I
Descriptive statistics and corrections coefficients for year 0 and year 3

Year 0 Variables	N	Mean	Standard Deviation
ΔCSP	488	–0.004	0.168
ΔReturn on Equity	488	–0.029	0.111
ΔReturn on Sales	488	–0.010	0.050
Growth in Sales	488	0.034	0.130
Correlation	**ΔReturn on Equity**	**ΔReturn on Sales**	**Growth in Sales**
Log Size	–0.029	–0.028	0.038
Financials prior year	–0.242***	–0.214***	–0.152***
ΔCSP	–0.011	–0.018	0.122***
Year 3 Variables	**N**	**Mean**	**Standard Deviation**
ΔCSP	488	–0.002	0.169
ΔReturn on Equity	488	0.034	0.134
ΔReturn on Sales	488	–0.009	0.047
Growth in Sales	488	0.080	0.134
Correlation	**ΔReturn on Equity**	**ΔReturn on Sales**	**Growth in Sales**
Log Size	–0.030	–0.025	–0.007
Financials prior year	–0.590***	–0.570***	–0.115***
ΔCSP	0.089	0.111***	–0.058

* $p < 0.10$.
** $p < 0.05$.
*** $p < 0.01$.

respect to certain financial performance measures. While stakeholder theory provides a foundation for investigating the complex relationships between the firm and society, it does not address whether there may be a timing difference between investment in CSP and financial benefits. The results of the current study suggest that improvements in CSP have both immediate and continuing financial impacts. For this study, we refer to immediate as the year in which the change in CSP took place and the following year. We refer to continuing as any time period afterward.

Immediate benefits from improving CSP were seen by the positive relationship between ΔCSP and growth in sales. This relationship exists for the year in which the change occurs and the subsequent year. This finding suggests that consumers are aware of and support a company's actions with respect to meeting its social responsibility. Further, it indicates that companies do achieve a competitive advantage when improving CSP even if it is only for a short time period.

The profitability impacts of improvements in CSP are not as clear. Improvements in CSP require expenditures. Expenditures by themselves reduce profits unless revenues increase at a faster rate. The results seem to indicate that the profitability impacts of CSP improvements are not

TABLE II
Regression results of the relation between change in CSP and change in financial performance[a]

Financial Measures	Control Model R^2	Full Model R^2	Incremental R^2 Due to Change in CSP	Coefficient for Change in CSP
Year 0				
ΔReturn on Equity	0.140***	0.140***	0.000	–0.009
ΔReturn on Sales	0.125***	0.126***	0.001	–0.005
Growth in Sales	0.188***	0.198***	0.010	0.080***
Year 1				
ΔReturn on Equity	0.345***	0.345***	0.000	0.011
ΔReturn On Sales	0.428***	0.430***	0.002	0.016
Growth in Sales	0.148***	0.165***	0.017	0.100***
Year 2				
ΔReturn on Equity	0.137***	0.142***	0.005	–0.049
ΔReturn On Sales	0.180***	0.185***	0.005	–0.021
Growth in Sales	0.097***	0.099***	0.002	–0.031
Year 3				
ΔReturn on Equity	0.410***	0.415***	0.005	0.060**
ΔReturn On Sales	0.411***	0.425***	0.014	0.033***
Growth in Sales	0.085***	0.086***	0.001	–0.033

** $p < 0.05$.
*** $p < 0.01$.
[a] The significance of the independent variable was tested by comparing the partial model with the full model.

immediate but may be observed in later time periods. The strongest evidence of a positive, continuing relation between improvements in CSP and improved profitability occurs in year 3. In year 3, a strong, positive, and statistically significant relationship is observed between change in CSP and change in return on sales and between change in CSP and return on equity. The relationship between change in CSP and growth in sales is not statistically significant. These results suggest improving CSP results in continuing benefits that is demonstrated by the positive relationship between change in CSP and financial performance measures in year 3.

In addition, regression analyses were conducted as a sensitivity check on our CSP measure. Two measures of change in CSP were calculated: (1) performance measures on the CSP dimensions were summed using equal weights, and (2) performance measures on five of the CSP dimensions were summed using equal weights, eliminating the three more controversial CSP dimensions (nuclear, military, and South Africa). The regression results revealed that our model had more explanatory power than both the two models using equal weights. These findings provide further support for using weights when developing a composite measure of CSP.

Conclusions and limitations

This study is built on prior research in two distinct ways. First, unlike prior studies, this study examined how change in CSP relates to changes in financial performance. This provides a better control over extraneous factors as well as providing a more sensitive test than just examining level of CSP. The measurement of change in CSP was made possible by using the aggregate measure of CSP developed by Ruf et al. (1998). Second, by using the KLD database, we were able to investigate the relationship between CSP and financial performance over a range of industries and over a sample size larger than previous studies. Although KLD's rating system provides a new measure of CSP that represents multi-dimensions of CSP as well as a consistent measure of these dimensions over time, the validity of these ratings requires further examination.

The findings of the study are limited to the time period investigated and the stakeholders surveyed. While the study demonstrated how ΔCSP from 1991 to 1992 related to current and future financial performance, this relationship may not be consistent for other time periods. For example, when the survey was conducted, the South African government had not yet been transformed, the Exxon Valdez oil spill was current news, and the effects of nuclear disasters were becoming common knowledge following the breakup of the Soviet Union. Changes in economic development, national or local security, and expectations of society will influence how CSP is defined and whether stakeholders will hold companies accountable for their actions. Future research needs to be sensitive to societal changes when defining CSP and the time period of study. A longitudinal study on the fluctuations of importance placed on the various social issues over time may provide insight into how sensitive corporations need to be regarding CSP.

With regard to the stakeholders surveyed, the current study used a surrogate stockholder group that agreed with the CSP measure but was not directly experiencing the effects of company behavior. Further, the individual social investors relied on agents to evaluate company financial and social performance as opposed to making their own evaluations. Research is needed to see if our findings would differ using other stockholder groups. Furthermore, research is needed that matches other stakeholder groups with social issues and performance measures of interest. For example, creditors may assign different weight to the various social issues and may be interested in other measures such as default risk.

This study took a macro approach to investigating the relationship between change in CSP and change in financial performance. A theoretical rationale was provided as to why it is reasonable to expect improvements in social performance would lead to improvements in financial performance. The findings in this study seem to provide evidence to support this hypothesis. However, we caution against conclusions of a causal relationship between improvements in social performance leading to improvements in financial performance, until the results of this study can be supported by other studies. Further research is also needed to investigate what levels of investment in CSP are beneficial. These studies could provide information for management on allocating scarce resources to competing stakeholders' demands and on evaluating cost in CSP investments.

Last, but not least, it is important to note that this study focussed on the argument that firms are opportunistic and profit oriented and that any allocation of a firms resources (for CSP or otherwise) is made for improving financial performance. While there is nothing inherently wrong with such an approach, there are other firms who take a more philanthropic approach and make social responsibility a priority regardless of the implication of such investments on financial performance.

Acknowledgements

We would like to acknowledge Steven Lydenberg for his help in this project. We would also like

to thank the anonymous advisor for his/her valuable comments and suggestions.

Appendix A: KLD's social performance definitions

Community relations refers to corporate response to the community by donations, contribution to the economically disadvantaged and support of job training.

Employee relations refers to corporate policies of no layoff plan, hiring and promoting the disabled, cash profit sharing, and good union relations.

Environmental refers to corporate development, processing, and use of products or services that minimize environmental damage or are environmentally safe.

Product-Liability refers to corporate efforts in research and development, reputation for high quality products, and avoids selling harmful products.

Women-Minorities refers to corporate hiring and promotion of women and minority employees, including family concerns such as child care and elder care.

Nuclear Power refers to the percentage of utilities generating power from nuclear power.

Military refers to corporate generation of revenue from the production of weapons.

South Africa refers to the equity interest or ownership in South Africa.

Notes

[1] Event studies have shown a consistent relationship between the announcement of a socially irresponsible event and negative abnormal returns (Frooman, 1994). For reviews of these studies, see Griffin and Mahon (1997), Wood and Jones (1995), Aupperle et al., 1985.

[2] While it is controversial whether nuclear, military and South Africa should be considered social issues, during the time period in which the social investors were surveyed, these issues were being used for screening stock by the social fund of these same investors.

References

Aupperle, K., A. Carroll and J. Hatfield: 1985, 'An Empirical Examination of the Relationship Between Corporate Social Responsibility and Profitability', *Academy of Management Journal* **28**, 446–463.

Barney, J.: 1986, 'Organizational Culture; Can It Be a Source of Sustained cCompetitive Advantage?', *Academy of Management Review* **11**, 656–665.

Barney, J.: 1991, 'Firm Resources and Sustained Competitive Advantage', *Journal of Management* **17**, 99–120.

Bernstein, L. A. and J. J. Wild: 1998, *Financial Statement Analysis: Theory, Application, and Interpretation* (Irwin/McGraw-Hill, Boston).

Bowen, R. M., L. DuCharme and D. Shores: 1995, 'Stakeholders' Implicit Claims and Accounting Method Choice', *Journal of Accounting and Economics* **20**, 255–295.

Bull, C.: 1987, 'The Existence of Self-enforcing Implicit Contracts', *Quarterly Journal of Economics*, 147–156.

Clarkson, M.: 1995a, 'A Stakeholder Framework for Analyzing and Evaluating Corporate Social Performance', *Academy of Management Review.* **20**(1), 92–117.

Cochran, P. L. and R. A. Wood: 1984, 'Corporate Social Responsibility and Financial Performance', *Academy of Management* **27**, 42–56.

Coff, R. W.: 1997, 'Human Assets and Managerial Dilemmas: Coping with Hazards on the Road to Resource-based Theory', *Academy of Management Review* **22**, 374–402.

Cohen, W. and D. L. Levinthal: 1990, 'Absorptive Capacity: A New Perspective on Learning and Innovation. *Administrative Science Quarterly* **35**, 128–152.

Cornell, B. and A. Shapiro: 1987, 'Corporate Stakeholders and Corporate Finance', *Financial Management* **16**(1), 5–14.

Dierickx, I. and K. Cool: 1989, 'Asset Stock Accumulation and Sustainability of Firm Performance', *Management Science* **35**, 1504–1514.

Donaldson, T. and L. E. Preston: 1995, 'The Stakeholder Theory of the Corporation: Concepts, Evidence, and Implications', *Academy of Management Review* **20**(1), 65–91.

Fragos, S. and J. Bennett: 1994, 'Turnaround at Kodak Park', *Business Quarterly* **58**(3), 30–38.

Freeman, R. E.: 1983, 'Strategic Management:

A Stakeholder Approach', *Advances in Strategic Management*, 31–60.
Freeman, R. E.: 1984, *Strategic Management: A Stakeholder Approach* (Pitman, Boston).
Friedman, M.: 1962, *Capitalism and Freedom* (University of Chicago Press, Chicago).
Frooman, J. S.: 1994, 'Does the Market Penalize Firms for Socially Irresponsible Behavior?', *IABS Proceedings*, 112–119.
Gould, C.: 1994, 'Social Responsibility Shake-up', *Wall Street Journal*, p. F14.
Graves, S. B. and S. A. Waddock: 1994, 'Institutional Owners and Corporate Social Performance', *Academy of Management Journal* **37**(4), 63–71.
Griffin, J. and J. Mahon: 1997, 'The Corporate Social Performance and Corporate Financial Performance Debate: Twenty-five Years of Incomparable Research', *Business and Society* **36**, 5–31.
Harte, G., L. Lewis and D. Owen: 1991, 'Ethical Investment and the Corporate Reporting Function', *Critical Perspectives on Accounting* **2**, 227–253.
Hart, S. L.: 1995, 'A Natural-resource-based View of the Firm', *Academy of Management Review* **20**, 986–1014.
Hawkins, D. F.: 1998, *Corporate Financial Reporting and Analysis: Text and Cases* (Irwin/McGraw-Hill, Boston).
Indianapolis Star, Staff: 1998, 'Thalidomide Victims Cautious But Supportive of FDA Approval', *Indianapolis Star* (20 July), B12.
Jones, T. M.: 1995, 'Instrumental Stakeholder Theory: A Synthesis of Ethics and Economics', *Academy of Management Review* (April), 404–437.
Kogut, B. and U. Zander: 1992, 'Knowledge of the Firm, Combinative Capabilities, and the Replication of Technology', *Organization Science* **3**, 383–397.
Kurtz, L., S. Lydenberg and P. D. Kinder: 1992, 'The Domini Social Index: A New Benchmark for Social Investors', in P. Kinder, S. Lydenberg and A. Domini (eds.), *Social Investment Almanac* (Henry Holt & Company, New York, NY).
Mahoney, J. T. and J. R. Pandian: 1992, 'The Resource-based View Within the Conversation of Strategic Management', *Strategic Management Journal* **13**, 363–380.
McGuire, J. B., A. Sundgren and T. Schneeweis: 1988, 'Corporate Social Responsibility and Firm Financial Performance', *Academy of Management Journal* **31**(4), 854–872.
Mitchell, R. N., B. R. Agle and D. J. Wood: 1995, Stakeholder Attributes and Firm Responsibilities and Responses. Paper presented at the annual meeting of the Academy of Management, Vancouver, Canada.
Neter, J., W. Wasserman and M. H. Kutner: 1985, *Applied Linear Statistical Models* (Richard D. Irwin Inc., Homewood, IL).
Palepu, K. G., V. Bernard and P. M. Healy: 1996, *Business Analysis and Valuation Using Financial Statement*, Chapter 4 (Southwestern College Publishing, Cincinnati, Ohio).
Quinn, D. P. and T. M. Jones: 1995, 'An Agent Morality View of Business Policy', *Academy of Management Review* **20**, 22–42.
Rasmusen, E.: 1992, *Games and Information* (Blackwell, Cambridge, MA).
Rockness, J. and P. F. Williams: 1988, 'A Descriptive Study of Social Responsibility Mutual Funds', *Accounting, Organization and Society* **13**(4), 397–411.
Ruf, B. M., K. Muralidhar and K. Paul: 1998, 'The Development of a Systematic, Aggregate Measure of Corporate Social Performance', *Journal of Management* **24**(1), 119–133.
Russo, M. V. and P. A. Fouts: 1997, 'A Resource-based Perspective on Corporate Environmental Performance and Profitability', *Academy of Management Journal* **40**, 534–559.
Saaty, T. L.: 1980, *The Analytic Hierarchy Process: Planning, Priority Setting, Resource Allocation* (McGraw Hill, New York, NY).
Shapiro, J.: 1992, 'The Movement in Social Investment Since 1970', in P. Kinder, S. Lydenberg and A. Domini (eds.), *Social Investment Almanac* (Henry Holt and Company, New York, NY).
Tesler, L.: 1980, 'Theory of Self-enforcing Agreements', *Journal of Business*, 27–44.
Ullmann, A.: 1985, 'Data in Search of a Theory: A Critical Examination of the Relationship Among Social Performance, Social Disclosure, and Economic Performance of U.S. Firms', *Academy of Management Review* **10**, 540–577.
Wernerfelt, B.: 1984, 'A Resource Based View of the Firm', *Strategic Management Journal* **5**, 171–180.
Williamson, O. E.: 1975, *Markets and Hierarchies* (Free Press, New York).
Williamson, O. E.: 1985, *The Economic Institutions of Capitalism* (MacMillian, New York).
Wood, D.: 1991a, 'Corporate Social Performance Revisited', *Academy of Management Review* **16**, 691–718.
Wood, D.: 1991b, 'Social Issues in Management: Theory and Research in Corporate Social Performance', *Journal of Management* **17**: 383–406.

Wood, D. J. and E. J. Jones: 1995, 'Stakeholder Mismatching: A Theoretical Problem in Empirical Research on Corporate Social Performance', *The International Journal of Organizational Analysis* **3**(3), 229–267.

Bernadette M. Ruf
Department of Accounting,
University of Delaware,
Newark, DE 19716-2715
E-mail: rufb@udel.edu

Krishnamurty Muralidhar
Department of Decision Sciences and Information Systems,
University of Kentucky

Robert M. Brown
Department of Accounting,
Virginia Polytechnic Institute and State University,
Blacksburg, VA 24061

Jay J. Janney
Department of Management,
University of Kentucky

Karen Paul
Department of Marketing and Business Environment,
Florida International University,
Miami, FL 33199