

**THE IMPACT OF HUMAN RESOURCE MANAGEMENT ON CORPORATE
SOCIAL PERFORMANCE STRENGTHS AND CONCERNS**

Dr. Sandra Rothenberg
Saunders College of Business
Rochester Institute of Technology
108 Lomb Memorial Dr.
Rochester, NY 14623
srothenberg@saunders.rit.edu, 585-475-6032, FAX: 585-475-5989

Dr. Clyde Eiríkur Hull
E. Philip Saunders College of Business
Rochester Institute of Technology
108 Lomb Memorial Dr.
Rochester, NY 14623
cchull@saunders.rit.edu, 585-475-6794, FAX: 585-475-5989

Zhi Tang
E. Philip Saunders College of Business
Rochester Institute of Technology
107 Lomb Memorial Dr.
Rochester, NY, 14623-5608
ztang@saunders.rit.edu, 585-475-5991, Fax: 585-475-5989

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Abstract

Although high-performance human resource practices do not directly affect corporate social responsibility (CSR) strengths, they do positively affect CSR strengths in companies that are highly innovative or have high levels of slack. High-performance human resource management (HRM) practices also directly and negatively affect CSR concerns. Drawing on the resource-based view and using secondary data from an objective, third-party database, we develop and test hypotheses about how high-performance HRM affects a company's CSR strengths and concerns. Our findings suggest that HRM and innovation are important capabilities because they create and enhance other capabilities.

KEYWORDS: HUMAN RESOURCE MANAGEMENT, HRM, CSR, CSP STRENGTH, CSP CONCERN, SOCIAL PERFORMANCE, CSR

INTRODUCTION

That high-performance human resource management (HRM) practices are profitable is well established, but its positive effects on social performance have not been noted. Prior research suggests that these practices might help corporate social performance (CSP) (Florea, Cheung, and Herndon, 2013; Pil and Rothenberg; 2003). But our study is the first we know of to empirically examine this issue.

High-performance HRM practices are a set of human resource practices that, by enhancing employee skills, increasing participation in decision making, and motivating autonomous employee efforts, can yield a sustainable competitive advantage that is reflected in better financial performance (Way, 2002; Appelbaum, Bailey, Berg, & Kalleberg, 2000; Sun, Aryee, & Law, 2007). Thus high-performance HRM is a capability that can help firms succeed (Richard, Roh & Pieper, 201). According to the resource-based view, competitive advantage arises from combining resources available to the firm in ways that are valuable and hard for the competition to match (because they are rare, costly to imitate, and non-substitutable) (Barney, 1991). Human *resource* management (HRM) is a *meta-capability*, a capability to create capabilities by combining human resources in valuable ways that are hard for competitors to match – and HRM may be the most important source of competitive advantage (Lado & Wilson, 1994; Guest, 2011; Florea, et al., 2013).

It is important to understand the relationship between human resource practices and corporate social performance. High-performance human resource practices, needed for strong financial performance, are also needed for good social performance (Florea, et

al., 2013; Martínez-del-Río, Céspedes-Lorente, and Carmona-Moreno, 201). Firms increasingly face pressure to measure and report their performance not just in terms of financial performance, but in terms of social and environmental performance as well (Clarke, 2001). Since high-performing HRM is a capability essential to high performing organizations (Barney, 2001; Barney & Wright, 1998; Florea, et al., 2013; Guest, 20), any deep understanding of the contributors to social performance must include an understanding of the role of HRM practices on CSP (Taylor, Oslund, & Egri, 2012). Our investigation of the impact of HRM on corporate social performance is a response to a need for a broader definition of performance in the HRM-performance relationship (Janssens & Steyaert, 20). Without an understanding of how HRM affects *social* performance, we will suffer a significant gap in our understanding of the HRM-performance relationship.

While HRM practices can be viewed as an aspect of CSP, HRM varies separately from overall CSP and may have significant effects on the CSP-financial performance relationship (Rodgers, Choy & Guiral, 2013, Tang, Hull & Rothenberg, 2012). Florea, et al. (2013) in their theoretical study explicitly separate how a company treats its employees from how it treats other stakeholders, but our study is the first we know of to empirically observe the effects of high-performance human resource practices on CSP.

We measure the effects of a set of high-performance HRM practices on both the strengths and concerns of corporate social performance, using secondary data from an objective, third-party database. We explore the proposition that these HRM practices will increase a company's propensity to "do good works" and reduce its inclination to engage in socially irresponsible behavior. In the next section, we review the relevant literature

and present our hypotheses. In the following section, we present our methodology. Our results are next, and we conclude with a discussion of our findings and their implications.

LITERATURE REVIEW AND THEORETICAL DEVELOPMENT

Social Performance

Researchers and practitioners have increasingly focused on CSP (Husted, et al., 2010). There is little doubt that external stakeholders, customers, local communities, and governments, want and expect better CSP, so being able to deliver improved CSP is a valuable capability (Rodgers, et al., 2013). For example, growth in legislation related to environmental issues, increases in waste disposal costs, decreased availability of raw materials, and shifts in customer preferences have dramatically increased interest in environmentally conscious business (Lawrence & Morell, 1995; Porter & van der Linde, 1995; Post & Altman, 1995; Shrivastava, 1995), and this trend shows no signs of fading (Grow & Hamm, 2005; Bourgeois et al., 2010; Walls, Phan, & Berrone, 2011). As social problems become more prominent in the minds of stakeholders, companies will increasingly be asked to mitigate their socially irresponsible behavior and, in some cases, even be asked to help solve the problems they helped create (Luxmore & Hull, 2011; Lim, 2013).

A majority of 95 studies of the link between CSP and financial performance found a positive relationship (Margolis & Walsh, 2001). Achieving high levels of CSP strengths is not necessarily expensive, but may have significant benefits. CSP has been linked to increased operational efficiency and reduced costs (Hart & Ahuja, 1996), new market opportunities (Porter & van der Linde, 1995), improved quality (King & Lenox,

2001), attracting and retaining high-quality employees (Backhaus, Stone, & Heiner, 2002; Stites & Michael, 2011; Greening & Turban, 2000; Margolis & Walsh, 2001; Riordan, Gatewood & Bill, 1997), avoiding costly legal conflicts, and helping firms differentiate themselves (Hull & Rothenberg, 2008; Klein & Dawar, 2004; McWilliams & Siegel, 2001; Reinhardt, 1998). Employees, customers, governments, and the media tend to respond favorably to firms achieving high levels of CSP (Agle et al., 1999). This favorable response leads in turn to better financial performance (Surroca et al., 2010). Recent evidence (Tang, Hull & Rothenberg, 2012; Rodgers, et al., 2013) suggests that a focus on treating employees well tends to increase the financial benefits of strong CSP.

These benefits of strong CSP make it important to understand what factors lead to improved CSP. Increased stakeholder demands have certainly led to improved social performance (Rodgers, et al., 2013). Evidence indicates that stakeholder demands, regulatory and direct NGO pressure, and other external relationships lead to the adoption of new environmental technologies and improved environmental performance (Arora & Carson, 1999; Bansal & Roth, 2000; Luxmore & Hull, 2011; King & Lenox, 2000; Jaffe & Palmer, 1997; Jaffe & Stavins, 1995; Dijken et al., 1999; Swan & Newell, 1995).

Research on CSP and financial performance shows a positive, reciprocal relationship between CSP and financial performance. That is, strong financial performance contributes to higher levels of CSP and vice versa (Margolis & Walsh, 2001; Waddock & Graves, 1997). Other factors that affect CSP have included organizational structure (Delmas & Toffel, 2005; Zyglidopoulos, 2003), leadership (Egri & Herman, 2000), culture (Bansal, 2003; Collier & Esteban, 2007), and strategy

(Aragon-Correa, 1998). HRM practices are an integral component of these internal factors. Thus it makes sense that HRM practices affect a firm's CSP.

Because findings regarding the antecedents to and results of CSP are so notoriously mixed, scholars have long sought a straightforward way of breaking down the model to produce more reliable results. Arguing that CSP concerns (e.g., polluting) are substantially different from a simple inverse of CSP strengths (e.g., proactively addressing social issues in ways that go beyond expectations), Mattingly and [Berman \(2006\)](#) show that measuring CSP concerns and strengths separately will reduce the confusion surrounding the antecedents and effects of CSP. Other studies support such a distinction, in part because firms scoring high on CSP strengths also often score high on CSP concerns ([Chen & Delmas, 2011](#); [Delmas & Doctori-Blass, 2010](#); [Griffin & Mahon, 1997](#)). Building on this research, we explore how a firm's other capabilities and resources influence how HRM practices affect CSP strengths and concerns.

The Resource-Based View and Corporate Social Performance

The resource-based view (RBV) suggests that a firm's resources and capabilities are the antecedents of its competitive strategy and of certain strategic outcomes ([Barney, 1986, 1991](#); [Grant, 1991](#)). Combinations, or bundles, of complementary capabilities are particularly effective at driving competitive advantage ([Barney, 1986, 1991](#)). Prominent among these capabilities is the capability to manage human resources well to create and strengthen the other capabilities of the firm ([Barney, 2001](#); [Barney and Wright, 1998](#); [Florea, et al., 2013](#); [Guest, 2011](#); [Richard, et al., 2013](#)). Building on the resource-based

view, some have argued that the complementary resources and capabilities of a specific firm affect the strength or direction of the CSP-CFP link (Arya & Zhang, 2009; Christmann, 2000; Darnall et al., 2008; Darnall & Edwards, 2006). Bundles of resources and capabilities are more effective in combination as lasting sources of competitive advantage or disadvantage (Barney, 1991). The configuration of a firm's resources drives its strategic actions, both positive and negative. Thus, the resource-based view suggests that some resources and capabilities may encourage CSP strengths and diminish weaknesses. Other resources and capabilities may have the opposite effect, and some may actually encourage both. If the human resources of the firm are not well-managed, it is difficult to create or exploit other resources and capabilities (Guest, 2011; Florea, et al., 2013). Thus, high-performing HRM practices are a meta-capability that creates and enables other capabilities.

RBV research has led to an understanding that competitive advantage arises from corporate culture, reputation and human resources (Russo & Fouts, 1997; Surroca, Tribo, & Waddock, 2010; Tuttle, 2013). HRM, which affects all of these, is thus an important capability. As CSP strengths and levels of concern may both affect corporate culture and reputation, these also represent significant capabilities. Using one capability to build another, using HRM to build CSP strengths or reduce CSP concerns, is a powerful approach to building a core competency. But it is important to remember that the RBV emphasizes bundles or configurations of capabilities and resources. Thus, in this study we explore the possibility that HRM is most effective at driving both CSP strengths and CSP concerns according to how complementary resources and capabilities are configured.

HRM as a Predictor of CSP

In the resource-based view of the firm, a firm's internal resources, particularly human resources, are critical contributors to competitive success (Barney, 1986, 1991, 2001; Barney & Wright, 1998; Grant, 1991). Human resource management is the most logical capability to use to develop the human capital resources of a firm and use them to build core competencies (Wright, 2001). Developing human resources can increase a firm's ability to adapt to external change by facilitating the accumulation of organizational knowledge and increasing creativity and risk taking (Wright et al, 2001; Lado & Wilson, 1994; Levine & Tyson, 1990; MacDuffie, 1995), which leads to increased performance.

One body of research in this area points to “high performance” HRM practices as being critical in this process. But there is little consensus regarding the specific practices to be included in the configuration of high-performance human resource practices (Li-Yun, 2007). In general, however, there are three main areas of high-performance HRM practices: (1) people-flow and skills, such as job security and training (2) appraisal and rewards, and (3) employment relations, such as worker participation and job design (Li-Yun, 2007).

These three areas of the HRM system support one another to create a high-performance work system. Worker participation programs, for example, need to be supported by human resource policies, such as lifetime employment guarantees, restrictive worker selection, and reduced status barriers (MacDuffie & Krafcik, 1992). The bundling of the knowledge, skills, and abilities of individual employees with high-

performance HRM practices is what creates valuable, rare, costly to imitate and non-substitutable human capital ([Ployhart & Moliterno, 2011](#)), a core competency, which leads to increased performance ([Luthans & Sommer, 2005](#); [Huselid, 1995](#); [MacDuffie, 1995](#)). High-performance HRM practices help companies identify and train the right employees, retain good employees, and assure continued investment in and motivation of employees ([Lado & Wilson, 1994](#); [Wright, 2001](#); [Kochan et al., 1991](#); [MacDuffie, 1991](#); [Osterman, 1994](#); [Batt & Appelbaum, 1995](#); [Dougouliagos, 1995](#); [McCaffrey, 1995](#)).

Some of the limited research on the impact of HRM on social performance looks at HRM practices that are concerned with social performance, and not HRM practices in general. Research on Total Quality Environmental Management, for example, focuses on the use of HRM practices in Total Quality Management, such as worker empowerment and team-based work, to the environmental arena ([James, 1996](#)). Other research has focused on environmentally targeted training and performance appraisals and rewards ([Millman & Clair, 1995](#); [North & Daig, 1996](#)). While most research in this area is anecdotal, [Ramus \(2001, 2002\)](#) and [Ramus and Steger \(2000\)](#) found empirical support for the hypothesis that environmental-focused training, rewards, and recognition will have a positive effect on environmental activities such as environmental innovation.

But HRM practices need not be focused on social issues in order to contribute to social performance, although the research in this area is limited (More generally focused employee-participation programs, a practice typical of high-performance HRM practices, have been shown to reduce energy use and toxic air emissions ([Kornbluh et al., 1989](#); [Bunge et al., 1995](#)). Advanced manufacturing firms reported that production workers are

more important to their pollution prevention efforts than R&D, suppliers, customers, and consultants ([Florida, 1996](#)).

These studies show that the capabilities that contribute to strong financial performance are often the same skills needed for strong corporate social performance ([Henriques & Sardorsky, 1999](#); [Buysse & Verbeke, 2003](#), [Pil & Rothenberg, 2003](#)). High-performance HRM practices make any other competency easier to build and use ([Florea, et. al, 2013](#)). The reason these HRM practices are such an important competency is that they can spawn or enhance any other capability the firm might wish to develop or use ([Barney, 2001](#); [Barney & Wright, 1998](#); [Florea, et al., 2013](#); [Guest, 2011](#); [Wright, 2001](#)). Combining capabilities to build competitive advantage has long been central to the resource-based view of the firm ([Barney, 1999](#)). A resource such as the know-how required to find and follow more socially responsible approaches can be expected to be used more if it is combined with the capability of high-performance HRM practices that motivate and encourage employees. The recent finding that taking good care of employees before turning to external social responsibility issues leads to better firm performance ([Tang, Hull & Rothenberg, 2012](#)) corroborates this argument: HRM practices clearly affect the value of social performance initiatives, meaning that high-performance HRM practices make the pursuit of social performance initiatives:

- More *valuable* than they would be for rivals with fewer high-performance HRM practices (weaker HRM).
- Easier to pursue than for rivals with fewer high-performance HRM practices (weaker HRM) and thus both more *rare* and *costly to imitate*.

We do not see how high-performance HRM practices would make social performance less or *non-substitutable*. However, social performance appears to be gaining importance over time (Husted, et al., 2010; Lim, 2013; Rodgers, et al., 2013; Russo & Fouts, 1997), suggesting that buyers who value social performance enough that they won't accept other attributes in substitution are becoming a significant portion of the market. The resource-based view of the firm says that to make a core competency, resources and capabilities combine to make a gestalt that has the four attributes just referred to: valuable, rare, costly to imitate, and non-substitutable (Barney, 1991). No one resource or capability needs to be all four – it is the competency they make in combination that must meet this requirement. It appears that high-performance HRM practices tend to add the other three to the non-substitutable attribute already possessed by social responsibility. We thus conclude that high-performance HRM practices are likely to make the pursuit of social performance a strong potential element of a firm's strategy, while an absence of these practices may leave social performance initiatives looking like weak, and thus unlikely, tactics.

H1 High-performance HRM practices positively affect CSP strengths.

H2 High-performance HRM practices negatively affect CSP concerns.

Innovation as a Moderator of the HRM-CSP Relationship

Over time, core competencies become stale. Market needs change, reducing the value of an offering. Competition draws on evolving technologies to find inexpensive ways to imitate or substitute what was once a rare or even unique offering.

The capability to innovate, like HRM, is a meta-capability. Innovation is the draws on resources and other capabilities to create new core competencies that let a company continue to succeed instead of going out of business (Hamel, 199, 2009). High-performance HRM practices are as likely to affect a firm's innovation activities as they are any other activities, and innovation has a well-documented positive relationship with social performance (McWilliams & Siegel, 2000; Hull & Rothenberg, 2008). Given that any major new initiative, particularly one intended to affect the firm's reputation (Russo & Fouts, 1997; Hull and Rothenberg, 2008), may be considered an innovation, it is difficult to see how a company could increase its social responsibility without some innovation. Thus we consider innovation to be a critically important moderator of the HRM-social performance relationship.

One of the outcomes of developing human capital through HRM practices is increased innovation and creativity, and ample empirical evidence supports the positive relationship between high-performance work systems and innovation (Schuler & Jackson, 1987; Darroch & McNaughton, 2002; Forrester, 2000; Leonard-Barton & Sensiper, 1998; Nonaka & Takeuchi, 199). Schuler and Jackson (1987) argue that firms engaged in innovation need creative employees who have high technical and research competencies, are flexible and tolerant of risk, are able to assume responsibilities and have long-term orientations. They identified job security as a means of driving employee involvement, thus fostering innovation. Those HRM practices that positively influence a firm's innovation performance are likely to encourage social or environmental innovation and performance (McWilliams & Siegel, 2000; Hull & Rothenberg, 2008). Innovation is likely to help motivated companies find new, better ways to pursue CSP strengths – it

makes new, previously impossible approaches possible, adding value, rarity (even uniqueness), barriers to imitation, and non-substitutability to any initiative (Hamel, 1996, 2009). Thus companies that build CSP strengths through high-performance HRM practices will be better able to build them if they are also innovative. Innovative companies, which tend to be more socially responsible than their less innovative rivals (McWilliams & Siegel, 2000), will be even more socially responsible when high-performance HRM practices are in place to support their efforts to build CSP strengths. Innovative companies may also be able to draw upon high-performance HRM practices in their efforts to avoid CSP concerns. The ability of companies with high-performance HRM to innovate to find new ways to avoid CSP concerns may also play a factor here. Thus, innovation is likely to interact with high-performance HRM to increase a company's CSP strengths and decrease its CSP weaknesses.

H3 High-performance HRM practices have a stronger positive effect on CSP strengths in high-innovation firms than in low-innovation firms.

H4 High-performance HRM practices have a stronger negative effect on CSP concerns in high-innovation firms than in low-innovation firms.

Slack as a Moderator of the HRM-CSP Relationship

Unlike HRM or innovation, organizational slack is not a capability. It is, however, an indicator of the degree to which the firm has resources and capabilities available for bundling into competencies such as those associated with social responsibility.

Organizational slack is “a cushion of actual or potential resources which allow an organization to adapt successfully to internal pressures for adjustment or to external pressures for change in policy, as well as to initiate changes in strategy with respect to the external environment” (Bourgeois, 1981: 30). The resource-based view suggests that firms with high levels of slack should use those extra resources to develop new capabilities, such as CSP strengths ([Surroca, Tribo, & Waddock, 2010](#)). We know that slack has a positive effect on social performance ([Amato & Amato, 2011](#); [Bowen, 2002](#); [Sharma, 2000](#)). The more slack resources a firm has, the more it can spare for CSP-related activities. Without slack, it is difficult to find the resources even the most highly motivated employees would need to improve the firm’s social performance. Slack is critical for firms using high performing work practices to elicit ideas for improved social or environmental performance. Work teams or suggestion systems may elicit ideas, but lack of human or financial resources may prevent them from being implemented, thus limiting their ability to improve performance and reducing the employees’ future engagement ([Liu et al., 2009](#)). Kornbluh, Crowfoot, and Cohen-Rosenthal (1985), for example, found in a survey of manufacturing plants, that lack of capital and unwillingness to allocate capital were major reasons why the environmental suggestions from US employee work groups were rejected. Thus firms with low levels of slack may not be able to dedicate resources to the pursuit of CSP strengths, however well managed their human resources are. Firms with low levels of slack may not be able to spare resources to eliminate CSP concerns either. But firms with considerable slack may actively encourage employees to contribute to CSP strengths and eliminate CSP

concerns. And these efforts will be most effective, and perhaps more likely, in companies with high-performance HRM. Thus:

H5 High-performance HRM practices have a stronger positive effect on CSP strengths in firms with high levels of slack than in firms with low levels of slack.

H6 High-performance HRM practices have a stronger negative effect on CSP concerns in firms with high levels of slack than in firms with low levels of slack.

METHODOLOGY

Sample and Data Collection

We collected our sample from the Environmental, Social and Governance factors (ESG) database provided by Morgan Stanley Capital International (MSCI). MSCI ESG Indices are the continuation of indices developed over the past 20 years by Kinder, Lydenberg, & Domini (KLD), which became part of MSCI following MSCI's acquisition in June, 2010 of RiskMetrics, which had owned KLD since 2009. For each year beginning with 1991, this database provides a table of data on a collection of approximately 650 companies that comprise the Domini 400 Social SM Index and S&P 500®. In 2001, KLD expanded its coverage to include all companies on the Russell 1000®. In 2003, KLD added full coverage of the Russell 3000®. This database, now MSCI ESG, covers such major CSR dimensions as Employee Relations, Corporate Governance, Community, Environment, Human Rights, and Product. For some of these dimensions, a few items have been changed since 1995: gay and lesbian policies for

Corporate Governance; property, plant and equipment for the Environment dimension; and a positive Human Rights record in South Africa, Burma, and Mexico. We thus set our data collection period from 1995-2007 to avoid unbalanced variance, caused by different numbers of items within a dimension across time periods, in the panel data analysis. 239 firms with complete data were identified.

We matched this dataset with financial data from the Compustat financial database. Owing to the limited Research and Development (R&D) data available from this dataset, the sample size was reduced to 130 firms with complete KLD/MSCI and financial data. We thus have 130 firms in the final sample, with a 12-year period for each firm. In order to establish the causality of the hypothesized relationship, we use a one-year lag between independent variables and the dependent variable, i.e., we use this year's independent variable values to predict the next year's dependent variable's variation. Thus, the actual research period is only 11 years. The number of observations is 1,430.

Measures

CSP Strengths and CSP Concerns. The CSP dimensions included in this study are Community Charity, Corporate Governance, Environment, Human Rights, and Product Quality and Safety. Each dimension includes a variety of items to measure a firm's strengths and concerns in this dimension. Each item is evaluated as either "1" (the firm has demonstrated this strength or concern in the specified year) or "0" (otherwise). In earlier research (e.g., [McWilliams & Siegel, 2000](#); [Waddock & Graves, 199](#)), the composite CSP measure, i.e., the arithmetic difference between all CSP strengths and concerns items, is often used. However, new studies (e.g., [Chen & Delmas, 2011](#); [Delmas](#)

& Doctori-Blass, 2010; Mattingly & Berman, 2006) investigate CSP strengths and concerns separately because strengths and concerns are not necessarily the opposite ends of one construct. Given the growing body of evidence that suggests CSP is not a one-dimensional variable ranging from bad to good, it seems prudent to consider strengths and concerns separately. We thus add up the CSP strengths items in the database to derive the CSP Strengths (CSP+) measure, while adding up the CSP concerns items in the database to obtain the CSP Concerns (CSP-) measure. This calculation corresponds well to the first step of calculating the composite CSP measures in previous studies ([Hull and Rothenberg, 2008](#); Tang, Hull & Rothenberg, 2012). But instead of aggregating CSP strengths and concerns, we keep them separate, which should provide more information regarding the effect of human resource management.

HRM. As our HRM measure, we adopt the Employee Relations measure from the MCSI dataset, which captures different aspects of HRM: worker involvement, employment practices, benefits, and health and safety. While it doesn't include all aspects of a high-performance HRM system, it does cover the three main areas as defined above: (1) people flow and skills, (no-layoff policy, union relations) (2) appraisal and rewards (profit sharing, retirement benefits) and (3) employment relations (employee involvement, health and safety) ([Li-Yun, 2007](#)). There is also an "Other" category which would include items not measured in the above six, but would most likely fit in one of the three categories. This measure contains seven strength items and five concern items, with each item getting a "1" if the firm has that strength or concern in that year and a "0" otherwise. We deduct the sum of the concern items from the sum of the strength items to derive the HRM measure.

Innovation. We adopt the ratio of Research and Development Investment (R&D) over firm total assets to assess the innovation level of a firm. R&D has been widely employed to measure the level of a company's innovativeness and it has been argued to strongly affect CSR-related relationships ([McWilliams & Siegel, 2000](#)). The more innovative a firm is, the less need for the firm to engage in CSR because it has less need to establish a differentiation factor through CSR activities ([Hull & Rothenberg, 2008](#)). As large firms may have more resources for innovations, we adjust R&D by total assets to accurately reflect the R&D investment scale in a firm.

Slack. Organizational slack comprises the actual or potential resources that an organization has beyond those needed to maintain the current operations and processes ([Bourgeois, 1981](#)). The more slack a firm has, the more resources it can use for CSR activities. We measured organizational slack by including the ratio of long-term debts to total capital in our model ([Chatterjee 1990; Reuer & Ragozzino 2005; Singh, 1986](#)). The lower the ratio, the less outside debt the firm needs to incur, meaning the firm has more slack. Therefore, this ratio is an inverse measure of firm slack.

We also controlled for the following variables that have been verified to affect the CSP-CFP relationship in previous CSP studies.

Firm Size (Number of Employees). Size of the workforce has been found to affect social performance ([Hill et al., 1992; Johnson & Greening, 1999](#)). In this study, we used the logged employee number in the analysis to gauge the size of the workforce in a company.

Return on Assets (ROA). Prior financial performance limits the willingness and capability of a firm to build CSP strengths and avoid CSP concerns. The better the firm's

recent performance, the more capable the firm is of sparing resources on social activities (McWilliams & Siegel, 2000). We thus control for last-year performance, i.e., ROA_{t-1} , to capture the effects derived from prior profitability.

Firm Size (Assets). Firm size, measured in terms of assets, has been found to interact with CSP (Waddock & Graves, 1997; McGuire et al., 1988). We controlled for the logarithm of total assets in our model to gauge any effects imposed by firm assets.

Industry Effect. As our sample is composed of firms in a variety of industries, ROA can be affected by industry growth rate and the instability of this growth rate. Adopting the logic proposed by Palmer and Wiseman (1999), we calculated the three-year moving average of industry sales and net income growth rate by using the Compustat industry data as identified by the first three SIC digits. We then calculated the three-year standard deviation of these two growth rates to gauge the instability of industry growth. The industry growth variable we use in the model is formed by averaging the two growth rates. The industry stability variable is formed by averaging the two instability items. When a firm is in an industry with relatively high growth rate, the munificence in such an environment can make up for the lack of organizational slack or supplement existing slack, rendering the firm more capable of building CSP strengths. However, if its primary industry has instable growth rate, the firm may need to preserve organizational resources for future uncertainty, and fewer resources, if any, will be spent on CSP issues.

Analysis

We applied the GLS random-effects (RE) model to estimate the hypothesized relationships. We chose the RE model over the fixed-effects (FE) model because the RE model is a safer choice when we have no reason to believe that the omitted variables only vary over time or between cases. When both situations may exist, RE can give relatively more robust estimates. In estimating our hypothesized relationships, we performed the Hausman test to compare the FE model results with the RE model results. The Hausman test checks a more efficient model (RE) against a less efficient but consistent model (FE) to make sure that the more efficient model gives consistent results. The *p*-value attained for Prob>chi2 test was 0.69, well above 0.05. Thus the RE model provides a parsimonious and consistent estimate for our sample.

To double check the robustness of our results, we conducted the FE analysis on the same model. This was the first of several analyses to examine the robustness of our estimation. The objective of this analysis was to see if employing an FE model would change any of our test results and the resultant conclusions. If our estimates are consistent with a panel data analysis method that employs different assumptions regarding the interdependence of the independent variables, the results can be considered more robust. We found that the FE method produces results very similar to those of the RE method. Thus our estimation is robust with respect to the chosen panel analysis modeling method.

We also checked if our data analysis results are sensitive to the choice of industry contingency effect variables, i.e., industry growth rate and industry instability. In the original analysis, we used the composite measure calculated from both sales and net income to estimate the industry effect variables. In the robustness check, we use the

growth rate and instability of sales and net income separately in the same panel analysis to see if doing so yields any difference in the results. There is no significant difference in our data analysis results, and thus as far as the choice of industry contingency effect variables in our control variables, our conclusion is robust.

Further, as the MSCI ESG database is a third-party evaluation of firm HRM and CSR, rather than the firms' own evaluation, by default, the common method variance should not be severe. However, we did draw from a second database, i.e., COMPUSTAT, for our moderation variables such as R&D, slack, and size, and important control variables such as ROA. Thus the effect of possible common method variance should be largely eliminated. To make certain, we conducted Harman's test to provide a reference for any possible common method bias. We entered the CSR and HRM items into one factor analysis, with principal method and varimax rotation. The first factor only explains 11% of the total variance, which means that the total variance of the KLD data can't be explained by one principal factor. Common method bias thus should not be mainly responsible for our findings.

Finally, we ran the Finite Distributed Lag (FDL) model to examine whether the effects of any of our predictors on CSP strengths and concerns last more than a year. In the original analysis, we assumed only one year lag for our predictors to take effect on CSP. We subsequently tested for a two-year lagged effect of our predictors on CSP. FDL is a panel analysis model that predicts the current value of a dependent variable based on any, including lagged (past period), values of an explanatory variable (Wooldridge, 2008). We modeled the second year ($t-2$) effects of our predictors and moderators on CSP strengths and concerns. With the two-year lag, our independent

variables have the same effect (or lack of effect) on CSP strengths and concerns as their one-year lag equivalents. Thus we have reason to believe that the hypothesized relationships supported by the findings of this study persist across more than one year.

RESULTS

Means, standard deviations, and correlations of the relevant variables for this study are summarized in Table 1, which shows that CSP+ has a positive relationship with HRM ($r = .14, p < .001$), as predicted in H1. CSP- has a negative relationship with HRM ($r = -.05, p < .01$), which provides preliminary support for H2. Both CSP+ ($r = .21, p < .001$) and CSP- ($r = .44, p < .001$), are positively related to lgEmp. Another observation of the correlation matrix is that no correlation is higher than 0.50, and thus multicollinearity should not be a major concern in later panel data analysis.

Insert Table 1 about here

Table 2 presents the panel data analysis results. With CSP+ and CSP- as the dependent variables separately, Model 1 and Model 4 only included the organizational and industrial covariates, while Model 2 and Model 5 further added the main independent variable, HRM. Table 2 shows that HRM has an insignificant negative effect on CSR+ ($B = -0.02, p > 0.05$) and thus, H1 is not supported. However, HRM has a significant negative effect on CSR- ($B = -0.18, p < 0.001$); thus, H2 is supported.

In Model 3 and Model 6, we tested the moderating effects of R&D_{t-1} and Slack_{t-1} on the relationship between HRM_{t-1} and CSP+ as well as the relationship between HRM_{t-1} and CSP-. All interaction items are mean-centered to reduce possible multicollinearity

problems. The interaction item, $(\text{HRM} \times \text{RD})_{t-1}$ has a positive relationship with CSP+ ($B = 6.52, p < .01$), indicating that innovation indeed positively moderates the relationship between high-performance human resource management practices and CSP strengths. Thus H3 is supported. However, $(\text{HRM} \times \text{RD})_{t-1}$ has a positive yet insignificant relationship with CSP- ($B = 2.38, p > .05$) and thus, H4 is not supported. $(\text{CSP} \times \text{Slack})_{t-1}$ has a significant negative relationship with CSP+ ($B = -.004, p < .05$). Our debt-to-capital ratio is an *inverse* measure for organizational slack, meaning that organizational slack positively moderates the relationship between high-performance HRM and CSP strengths. Thus H5 is supported. We found no significant relationship between $(\text{CSP} \times \text{Slack})_{t-1}$ and CSP- ($B = .00, p > .05$), so H6 is not supported.

Insert Tables 2 & 3 about here

The results of the analysis are summarized in Table 3, in which we list each hypothesis, the dependent variable, the predictor, the hypothesized direction of the effect, and whether the hypothesis was supported. The overall effect of these results strongly suggests that:

- High-performance HRM practices play a major role in shaping a company CSP strengths and concerns, directly and through interactions with other variables.
- CSP strengths are affected differently than CSP concerns by the same antecedents. What affects CSP strengths may cause the same effect in CSP concerns, cause the opposite effect, or have no effect at all.

We discuss these results in the following section.

DISCUSSION AND CONCLUSIONS

We found strong support for our prediction that human resource practices do contribute to CSP strengths. This relationship is strengthened by innovation and financial slack. While we did not predict any relationship, we also found evidence indicating that growing larger may cause a firm to have more of both CSP strengths and concerns, though high-performance HRM practices reduce the tendency for larger companies to develop CSP concerns. Our results suggest that managers concerned with corporate social performance ought to consider a broad range of proactive human resource strategies, including ones that move beyond “environmental HRM”. Having a high-performance HRM program, without a specific focus on social issues, is enough to bolster a firm’s social performance, in particular by helping it avoid developing CSP concerns. But research has pointed out the importance of both general HRM practices and HRM practices related to a specific issue or task ([Ployhart & Moliterno, 2011](#)). Future research might ask whether a combination of more traditional HRM and socially focused HRM practices would lead to better social performance in terms of both CSP strengths and concerns.

These findings are limited in a number of ways. We used an aggregate measure of HRM, since we were interested in looking at HRM as a system of high-performance work practices. This leaves unanswered, however, the question of whether certain of these practices are more important than others when it comes to CSP. This was not an inclusive list of all high-performance work practices. Most notable was the absence of training. Most of our hypothesized relationships are supported despite the lack of a “Training” item in our high-performance HRM measure, suggesting that the theory that high-performance HRM improves CSP+ and reduces CSP- is sound. But future work in this area using data

more specifically oriented toward high-performance HRM practices, potentially derived from survey data, would allow a deeper understanding of the important relationship between high-performance HRM and social responsibility. Our measures of CSP strengths and concerns are similarly limited: Some may argue that the KLD/MSCI data do not accurately measure corporate social performance, and need to be supplemented with other data.

That said, this study's findings are consistent with the RBV concept of capabilities which, bundled together, give companies a stronger advantage in pursuing a strategic objective than they do individually. We find that high-performance HRM has direct positive effects on CSP strengths, but that its effects are stronger when bundled with other capabilities and resources that also interact with CSP strengths. Though high-performance HRM does not directly affect CSP concerns, it bundles with other capabilities to reduce them. Thus our findings support the proposition that HRM's effectiveness at driving both CSP strengths and concerns depends on how complementary resources and capabilities are configured. A reasonable interpretation of these findings would be that, absent sufficient resources (slack) and the capability to innovate, HRM alone cannot help a firm develop or improve its CSP strengths, but it is sufficient alone to prevent it from developing CSP concerns. Bundled with sufficient resources (slack) and the capacity to innovate, however, HRM is a powerful driver of CSP strengths as well. It would be an interesting question from a resource-based perspective to consider whether this capability (or others) is similarly empowered to help the firm avoid negative actions in other arenas on its own, but requires bundling to allow the firm to develop an actual competency that makes a positive difference.

Our findings also support the line of research (Chen & Delmas, 2011; Delmas & Doctori-Blass, 2010; Griffin & Mahon, 1997; Mattingly & Berman, 2006), which presents theoretical and empirical support for the proposition that CSP strengths and concerns are separate variables and should be evaluated separately in any effort to understand how CSP works. Size positively affecting both CSP strengths and concerns is in itself an additional caution to any scholars who believe that a one-dimensional measure of CSP does not lead to errors caused by systematic covariance of CSP+ and CSP-. Our study sheds light on the drivers of CSR strengths and concerns, and thus what might lead to changes in one but not the other. For example, we found that high-performance HRM practices do not have a significant effect on CSP strengths, but that they do interact with innovation to increase CSP strengths. We also found that high-performance HRM practices reduce CSP concerns, but that innovation does not seem to significantly affect the HRM-CSP concerns relationship. Thus we could expect to see that a company which strengthens its HRM practices will bolster its performance with respect to CSP concerns, but will not affect its CSP strengths. However if the same company also increases its innovation, or is already a highly innovative company, *then* its CSP concerns will be decreased as a result of the strengthening of its HRM practices.

Another possibility is that avoiding the consequences of CSP concerns – negative publicity, lawsuits, boycotts, heightened NGO and governmental attention and so on – may be a more universal value among managers than pursuing the benefits of CSP strengths (Mattingly and Berman, 2006; Luxmore & Hull, 2011; Miles, Munilla & Covin, 2002, 2004). So CSR concerns might be something that companies *generally* prefer to avoid, slack resources or not, innovation or not. If HRM leads employees to be more

supportive of an organization's goals, then it would make sense for there to be a negative relationship between HRM and CSR concerns, regardless of slack and innovation activity. The employees might be able to keep the company from doing bad things without extra resources or innovating. Slack resources and innovation would then be more important to pursuing new CSP strengths.

Another conclusion, consistent with the RBV, that we can draw from these results is that, for any given performance outcome (such as CSP strengths or concerns), not all capabilities bundle together effectively. As has previously been argued with respect to CSP and innovation's effects on financial performance ([Hull & Rothenberg, 2008](#)), a single capability may be sufficient to produce the maximum effect, the combination being overkill. Companies that have high-performance HRM practices reduce their CSP concerns. Being innovative, contrary to our expectations, does not enhance this effect. Possibly this is because eliminating CSP concerns is a matter of motivation more than of the ability to do new things, or that innovation creates new problems while solving old ones. Innovation may eliminate CSP concerns for reasons unrelated to the effects of high-performance HRM practices. Or perhaps it is because the effects of high-performance HRM "max out" the company's ability to reduce its CSP concerns. Outside sources of innovation, rather than in-house innovation, could be tapped as needed for such issues as pollution control. We leave this question and many others for future research to address.

But from a practitioner's perspective our findings are clear: High-performance HRM practices lead to good companies, both directly and indirectly. For firms whose

concern with CSP is strategic, the importance of HRM practices is now clearer. High-performance HRM practices are essential.

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Table 1: Correlation, Mean, and SD

	1	2	3	4	5	6	7	8	9	10
Mean	1.11	1.64	6.70	14.91	1.14	-.04	32.21	.01	3.00	.20
S.D.	1.44	2.07	6.84	.26	7.16	3.41	33.99	.02	1.36	1.08
1.CSP+										
2.CSP-	^{.35***}									
3.ROA	.04*	^{-.07***}								
4.lgAssets	^{.07***}	^{.07***}	.01							
5.Industry Instability	.01	^{-.03*}	-.02	-.01						
6.Industry Growth	-.03	^{.03*}	-.00	.00	^{-.44***}					
7.Slack	^{.09***}	^{.18***}	^{-.26***}	.00	.01	.01				
8.R&D	-.01	^{-.05*}	^{-.35***}	-.00	-.01	-.01	^{-.13***}			
9.lgEmp	^{.21***}	^{.44***}	^{-.06***}	^{.05**}	-.02	.01	^{.14***}	^{-.20***}		
10.HRM	^{.14***}	^{-.05**}	^{.10***}	^{.06***}	.01	.02	-.02	^{.16***}	^{-.07***}	

Note:

- 1.†p < .10; *p < .05; **p < .01; ***p < .001, two-tailed test.
2. The slack variable is the ratio of long term debt to total capital; thus, it is a reverse measure of financial slacks.

Table 2: Panel data analysis results

DV =	CSP+			CSP-		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
ROA _{t-1}	-.00	-.00	-.00	-.00	.00	.00
lgAssets	-.03	-.03	-.05	.02	.00	.00
Industry Instability	-.01	-.01	-.01	-.00	-.00	-.00
Industry Growth	.00	.00	.00	.00	.00	.00
Slack _{t-1}	-.00	-.00	-.00	.00	.00	.00
R&D _{t-1}	-.87	-.74	-1.06	1.02	1.55	1.17
lgEmp _{t-1}	31***	31***	31***	1.05***	1.05***	1.04***
HRM _{t-1}		-.02	-.03		-.18***	-.15***
HRM×RD _{t-1}			6.52**			2.38
HRM×Slack _{t-1}			-.004*			.00
HRM×lgEmp _{t-1}			.05*			-.05*
No. of Observations	1430	1430	1430	1430	1430	1430
No. of Groups	130	130	130	130	130	130
Wald test	Chi2(7) = 21.94	Chi2(8) = 22.67	Chi2(11) = 39.57	Chi2(7) = 181.85	Chi2(8) = 209.46	Chi2(11) = 215.95
Prob > chi2	.003	.004	.000	.000	.000	.000
Note:	1. †p < .10; *p < .05; **p < .01; ***p < .001, one-tailed test. 2. Along with the report of STATA, we report marginal effect coefficients in our results. Marginal effect coefficients indicate that when one unit change happens with independent variables, how much unit change we can expect from the dependent variable.					

Table 3: Hypothesized and actual relationships

Hythesis	Dependent Variable	Predictor	Predicted Effect	Support
1	CSP+	HRM	Positive	No ($B = -0.02, p > 0.05$)
2	CSP-	HRM	Negative	Yes ($B = -0.18, p < 0.001$)
3	CSP+	HRMxInnovation	Positive	Yes ($B = 6.52, p < 0.01$)
4	CSP-	HRMxInnovation	Negative	No ($B = 2.38, p > 0.05$)
5	CSP+	HRMxSlack	Positive (Inverse Measure)	Yes ($B = -0.004, p < 0.05$)
6	CSP-	HRMxSlack	Negative (Inverse Measure)	No ($B = 0.00, p > 0.05$)
7	CSP+	HRMxSize	Positive	Yes ($B = 0.05, p < 0.01$)
8	CSP-	HRMxSize	Negative	Yes ($B = -0.05, p < 0.01$)