THE RELATIONSHIP BETWEEN CORPORATE DIVERSIFICATION AND CORPORATE SOCIAL PERFORMANCE

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Does diversification affect firm response to stakeholder demands and social issues? Despite extensive interest in corporate diversification in the strategy literature, the relationship between diversification and corporate social performance (CSP) remains largely unexplored. In this study, I propose that the level of diversification will be positively related to the CSP of firms. However, when diversified firms have a strong focus on short-term profit, it may discourage firm response to stakeholder demands and investment in social issues, thereby negatively moderating the positive relationship between the level of diversification and CSP. Empirical testing on a sample of U.S. firms generally supports my predictions.

INTRODUCTION

In the strategy literature, corporate diversification has been touted as a solution for competitive advantage, growth, and the survival of firms (Montgomery, 1994; Penrose, 1959; Rumelt, 1974). As a result, corporate diversification has become one of the most heavily studied topics in the strategy literature. For example, researchers have extensively investigated the antecedents of diversification, ranging from individual- to economy-level variables (Chatterjee and Wernerfelt, 1991; Hoskisson and Hitt, 1990; Montgomery and Hariharan, 1991; Wernerfelt, 1984). In contrast, research on the consequences of diversification has almost been exclusively limited to diversification’s impact on corporate financial performance (Markides and Williamson, 1994; Palich, Cardinal, and Miller, 2000; Rumelt, 1974).

While corporate financial performance is an intuitive measure to understand how well a firm is doing, it often fails to provide information on long-term firm performance and viability (Kaplan and Norton, 1996). Recently, a number of strategy scholars have argued that corporate social performance (CSP) can serve as a complementary measure of firm performance, particularly as a predictor of long-term performance and viability (Kacperczyk, 2009; Ogden and Watson, 1999). While CSP is gaining increasing empirical support as a useful predictor of long-term firm performance and viability, strategy scholars have not yet given much thought as to how corporate diversification is related to CSP. In this paper, I examine how product and geographic diversification are related to the CSP of firms. I believe that understanding this relationship will provide us with a more complete picture of how corporate diversification affects firm performance.

Keywords: corporate social performance; product diversification; geographic diversification; stakeholder theory; stakeholder management

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Understanding the diversification-CSP relationship is important not only because CSP can serve as a complementary measure of firm performance but also because diversified firms have an extensive impact on the welfare of numerous stakeholders in society. Many have argued that large diversified firms are the most influential force in the world today, influencing “the lives of virtually everyone “from the cradle to the grave” (Climard and Yeager, 1978: 259). The extensive impact of diversified firms on society and various stakeholders suggests that diversification is an important corporate phenomenon from the standpoint of the stakeholder theory, as well. This study’s dependent variable, CSP, is an effective measure of firm response to stakeholder demands and social issues (Kacperczyk, 2009) and thus provides a useful means to understand diversified firms’ responses to stakeholder demands. Therefore, by examining diversified firms’ responses to stakeholder demands, this paper aims to address one of the most fundamental inquiries of the stakeholder theory of the firm (Agle, Mitchell, and Sonnenfeld, 1999; Freeman, 1984; Kacperczyk, 2009; Mitchell, Agle, and Wood, 1997): why do some firms pay more attention to stakeholder demands than others?

In the stakeholder theory literature, stakeholders are defined as individuals or groups of individuals who affect and are affected by a firm’s business operation (Freeman, 1984; Jones, 1980). Therefore, according to this definition, the number and diversity of stakeholders that are relevant to a firm should be closely related to the range of the firm’s business operation. Given that the level of diversification is a good indicator of the range of a firm’s business operation, the level of diversification will serve as a useful predictor of firm response to stakeholder demands. However, scholars have not paid much attention to how corporate diversification may affect firm response to stakeholder demands and social issues. Only recently have McWilliams and Siegel (2001) discussed the possibility that diversification may be related to CSP without empirically testing their propositions. In a further quest to understand this subject, Wang and her colleagues developed an analytical model of how product diversification can benefit stakeholders through risk reduction (Wang and Barney, 2006; Wang, Barney, and Reuer, 2003). However, empirical evidence on the relationship between diversification and CSP is largely missing, except for the case of international diversification (Bansal, 2005; Brammer, Pavelin, and Porter, 2006; Christmann, 2004; Sharfman, Shaft, and Tihanyi, 2004). Given that understanding differences between related and unrelated (product) diversification has been central to diversification research, the exclusive focus of the existing diversification-CSP literature on international diversification is surprising. In addition, most previous empirical studies have focused on the relationship between international diversification and a subcategory of CSP, such as environmental performance and charitable giving, with few exceptions (e.g., Bansal, 2005; Strike, Gao, and Bansal, 2006).

In this paper, I theorize and empirically test why diversified firms may pay more attention to a broader range of stakeholder demands and social issues. I propose that diversification will increase the range of stakeholder demands and social issues related to a firm’s operation, and that diversified firms have several incentives to respond to them: 1) diversification aggravates managerial risk aversion, and therefore induces managers to respond; 2) diversification lowers managerial employment risk, and thus allows managers to allocate more attention and firm resources; and 3) diversification creates an economy of scope for CSP investment, thereby giving a stronger economic incentive to diversified firms to invest in CSP. Therefore, the level of diversification will be positively related with CSP. However, the short-term profit focus of diversified firms may discourage investment in social issues, thus negatively moderating the positive relationship between the level of diversification and CSP.

Using panel data of large U.S. firms, I found that the levels of unrelated and international diversification have a positive relationship with CSP, while the level of related diversification does not. In addition, results show that the positive relationship between unrelated diversification and CSP is negatively moderated by the diversified firm’s focus
on short-term profitability. This positive relationship gives rise to an interesting question regarding the value of unrelated diversification, which has often been criticized because of its negative impact on short-term financial performance. If CSP can serve as a relevant predictor of long-term firm performance and viability, the positive relationship between unrelated diversification and CSP suggests that unrelated diversification may contribute to the long-term performance and viability of firms, a benefit that has been overlooked in the diversification literature. Also, the positive relationship suggests that unrelated diversification has some merits from the social welfare perspective. Implications of these findings are discussed in the Conclusion.

THEORY AND HYPOTHESES

The relationship between the level of diversification and the range of social issues relevant to the firm

One of the central inquiries of the stakeholder theory of the firm is to understand why firms respond to the demands of stakeholders (Agle et al., 1999; Freeman, 1984; Kacperczyk, 2009; Mitchell et al., 1997). In the stakeholder theory literature, stakeholders are defined as individuals or groups of individuals who affect and are affected by a firm’s business operation (Freeman, 1984; Jones, 1980). According to this definition, the number and diversity of stakeholders that are relevant to a firm should be closely related to the range of the firm’s business operation. Considering that a firm’s presence in diverse product and geographic markets increases the firm’s range of business operation, the level of product and geographic diversification can serve as a good indicator of the range of the firm’s business operation. Therefore, the definition of stakeholders suggests that the level of product and geographic diversification should be closely related to the range of stakeholder demands and social issues relevant to a firm.

A challenge in measuring firm response to stakeholder demands is that it is difficult to directly observe and quantify this response. Alternatively, firm response to stakeholder demands and social issues can be captured by observing a firm’s CSP (Kacperczyk, 2009) as CSP measures the level of firm engagement in a number of social, ethical, and legal issues and is a multidimensional concept covering firm response to a wide range of stakeholder demands related to the firm’s operation (Carroll, 1979; Rowley and Berman, 2000). For example, a firm’s CSP is measured by collectively considering the firm’s performance across a wide range of areas such as environmental protection, humanitarian contributions, governance transparency, labor policy, employee relations, workforce diversity, and product-related responsibility (Bansal, 2005; Brammer et al., 2006; Griffin and Mahon, 1997).1

The positive relationship between the level of diversification and the range of social issues that are relevant to a firm is inferred from the fact that stakeholders in different industries and geographic markets attach varying levels of significance to different social issues (Adams and Hardwick, 1998; Brammer and Millington, 2008; Russo and Fouts, 1997). For example, stakeholders of the chemical industry may consider environmental protection as the most critical social issue for firms, whereas stakeholders of the financial service industry may regard governance transparency as the most important issue. Therefore, diversified firms that operate in both the chemical and financial industries (e.g., GE, Mitsubishi, Samsung, etc.) most likely face pressures of more diverse stakeholder demands and social issues than focused firms that operate only in either industry. That is, in the language of stakeholder theory, diversified firms will face a larger number of salient stakeholders with power, legitimacy, and urgency than will focused firms (Mitchell et al., 1997).2

This logic further suggests that the positive relationship between the level of diversification and the range of relevant stakeholder demands and social issues will be more pronounced for unrelated than for related diversification. Firms pursuing unrelated diversification have a presence across industries that are widely different, and as a result, they face more diverging stakeholder

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1 Although the term CSP may be used to indicate firm performance in an individual social issue category (e.g., environmental protection, humanitarian contributions), in such cases it is correct to use a more specific term to denote firm performance in individual social issues (e.g., environmental performance, corporate donation). Use of the generic word ‘social’ in the term CSP also suggests that the concept of CSP covers a wide range of social issues and is not limited to a single or a subset of social issues.

2 I appreciate an anonymous reviewer’s advice on the connection between the argument of the study and the theoretical concepts from the stakeholder theory literature.
demands and social issues than firms pursuing related diversification. For instance, the focus of stakeholder demands on GE Capital (financial service) is most likely very different from demands on GE Energy (power generation/manufacturing) and from demands on NBC Universal (broadcasting/entertainment), all of which are GE subsidiaries. In contrast, related diversifiers face much more coherent stakeholder demands, and therefore remain focused on a relatively narrow range of social concerns. For example, the Coca-Cola Company, a firm pursuing related diversification, faces similar demands from environmental activist groups across its carbonated beverage, sports drink, and bottled water markets (e.g., water source conservation). Regulatory and consumer demands are also similar across related product markets. Therefore, the range of social issues relevant to a firm will be much more strongly and positively related with the level of unrelated versus related diversification.

The level of international diversification will have a similar positive relationship with the range of stakeholder demands and social issues because stakeholders in different countries and regions prioritize different social issues. Such differences can often be ascribed to differences in cultural and religious backgrounds. For example, stakeholders in certain countries regard gender equality at work as a very important issue, whereas those in other countries are barely aware of this issue (Connell, 2005; United Nations Development Program, 2003). For another example, some East Asian countries have had much stronger demands on firms regarding responsibility for employees (e.g., lifetime employment), compared to Western countries (Ahmadjian and Robinson, 2001). Relevant social issues and stakeholder demands on firms differ by the level of economic development of the country, as well. Environmental protection is considered to be a very important social issue in economically developed countries, while not as much so in less developed countries (Becker and Henderson, 2000). Therefore, if a firm expands its presence in the global market, it will face stakeholder pressures on more diverse social issues than a geographically focused firm. Again, in the language of stakeholder theory, geographically diversified firms will face a larger number of salient stakeholders with power, legitimacy, and urgency than will domestic firms (Mitchell et al., 1997).

Why do diversified firms respond to stakeholder demands and social issues?

While the level of diversification may be positively related with the range of stakeholder demands and social issues relevant to a firm, the relationship between the level of diversification and CSP does not necessarily have to be positive. If diversified firms ignore growing stakeholder demands and social issues, the relationship between the level of diversification and CSP can be negative. However, according to findings of the diversification and CSP/stakeholder management literature, diversified firms are more likely to respond to stakeholder demands and social issues.

First, diversification aggravates managerial risk aversion, which is one of the major factors that determine the level of managerial attention to stakeholder demands and social issues (Deckop, Merriman, and Gupta, 2006; McGuire, Dow, and Argheyd, 2003). Hayes and Abernathy (1980: 71) explain that diversification pushes managers toward ‘an extreme of caution’ in their decision making. As a result, diversification induces managers to pursue safe strategic decisions and engage in risk management; indeed, a good example of both entails responding properly to stakeholder demands and social issues (Barnett and Salomon, 2006; Godfrey, 2005; Godfrey, Merrill, and Hansen, 2009). Several studies have found that proper and timely responses to stakeholder demands and social issues significantly reduce firm risk and are often motivated by managerial risk aversion or managerial goals to reduce risk (Deckop et al., 2006; McGuire et al., 2003; Spicer, 1978). For example, investments in environment-friendly manufacturing, labor relationships, and corporate governance significantly lower firm risk from costly problems with regulations, activists, and consumers (Dechant et al., 1994; Henriques and Sadorsky, 1996; Shrivastava, 1995). Also, corporate charitable donation and philanthropy efforts reduce firm risk by building valuable goodwill (Godfrey et al., 2009). Diversification’s impact on managerial risk aversion suggests that diversification will promote more careful managerial responses to stakeholder demands and social issues.

Second, managers of diversified firms will become more responsive to stakeholder demands and social issues because diversification effectively
reduces managerial employment risk. Using natural experimental data, Kacperczyk (2009) showed a strong case that decreases in managerial employment risk increase managerial attention to social issues. She explained that managers facing lower employment risk are under lower pressure from shareholders, and therefore tend to allocate more firm resources to stakeholder demands and social issues than those facing higher employment risk (Kacperczyk, 2009). This finding reveals another linkage between diversification and managerial attention to stakeholder demands and social issues. It has long been known that diversification reduces managerial employment risk through two mechanisms. The first is that diversification lowers the bankruptcy risk of the firm (and thus, the employment risk of managers) because cash flows from different industries are imperfectly correlated; therefore; the higher the level of diversification, the lower the managerial employment risk (Amihud and Lev, 1981; Montgomery, 1994). The second mechanism is ‘management entrenchment,’ or as Shleifer and Vishny (1989) explain, diversification increases a firm’s reliance on managers’ particular skills in that diversification requires manager-specific investments; therefore, increased diversification makes it more costly for shareholders to replace the current management, thereby effectively reducing managerial employment risk. The negative relationship between managerial employment risk and managerial attention to stakeholder demands and social issues suggests that managers will become more attentive to stakeholder demands and social issues as the level of diversification increases.

Third, diversified firms can spread the costs and benefits of CSP-related investments across their subsidiaries, and therefore have a stronger economic incentive to invest in social issues than focused firms (McWilliams and Siegel, 2001). For example, a positive firm image generated from CSP-related investments can be effectively leveraged across a number of different products and markets (Drumwright, 1996; Lichtenstein, Drumwright, and Braig, 2004). Thus, as the level of diversification increases, per-subsidiary cost of CSP-related investment decreases, while benefits at the corporate level increase. Considering that today’s firms are facing increasing pressure to properly address social concerns related to their business, they already have some incentives to invest in social issues (Cortese, 2002). As diversification strengthens the economic incentives for CSP-related investment, such investment makes more sense to diversified firms, and thus these firms are more likely to respond to stakeholder demands and social issues than focused firms.

In addition to building a positive firm image that can be leveraged across subsidiaries, CSP-related investments strengthen and protect the brand of the firm. Recently, several studies found that investment in social issues generates an insurance that protects valuable company brands against negative publicity (Godfrey, 2005; Godfrey et al., 2009). The insurance effect, as an economic incentive, is particularly relevant for firms pursuing diversification. As the level of diversification increases, diversified firms face more diverse stakeholder demands and social issues, and as a result, may become more prone to negative CSP-related accidents. Also, potential damage to the brand poses a serious threat to many diversified firms that share a common brand across their subsidiaries, given that all subsidiaries sharing the same brand will be affected by the damage. Therefore, to the extent that diversifiers consider brand as a valuable resource, diversified firms have a strong economic incentive to invest in social issues.

I expect that the level of diversification will be positively related with the CSP of firms considering that (1) the level of diversification is positively related with the range of stakeholder demands and social issues that firms face, and that (2) diversified firms have several reasons to respond to these stakeholder demands and social issues. Furthermore, I propose that the positive relationship between the level of diversification and CSP will be stronger for unrelated versus related diversification. First, the range of social issues will be more strongly and positively associated with the

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3 Kacperczyk (2009) explains that shareholders and stakeholders compete for managerial attention. The outcome of this competition depends on how strong the stakeholders’ influence is on managers’ employment. When employment risk is high (strong shareholder influence), shareholders win managerial attention, and managers cannot respond to stakeholder demands and social issues properly. In contrast, when employment risk is low (weak shareholder influence), managers can balance attention between shareholders and stakeholders and can pay more attention to stakeholder demands and social issues, resulting in strong CSP of the firm.

4 I appreciate an anonymous reviewer’s comments on the insurance effect of CSP-related investments as an economic incentive for diversified firms.
level of unrelated than that of related diversification because firms face more diverse stakeholder demands and social issues when they pursue unrelated diversification. Second, unrelated diversification is considered to have a stronger effect on managerial risk aversion than related diversification (Hoskisson and Hitt, 1988). If unrelated diversification aggravates managerial risk aversion more strongly than related diversification, the former will promote more careful managerial responses to stakeholder demands and social issues than the latter. Third, unrelated diversification lowers managerial employment risk more effectively than related diversification because the correlation of cash flows is much weaker in unrelated industries than in related industries. Given that lower employment risk will promote a stronger managerial response to social issues (Kacperczyk, 2009), unrelated diversification will promote a stronger managerial response to social issues than related diversification. Fourth, unrelated diversifiers have stronger economic incentives to invest in social issues because the insurance effect is more useful to them, as they are at a higher risk of experiencing problems related to social issues. Also, investment in social issues helps firms build a more symbolic, abstract brand, which is particularly relevant to unrelated diversifiers, who need a more easily transferrable brand across diverse products (Park, Milberg, and Lawson, 1991). Considering these reasons, I propose that unrelated diversifiers will face more diverse stakeholder demands and social issues and will be more responsive to them than related diversifiers. Thus, the level of unrelated diversification will have a stronger positive relationship with CSP.

Hypothesis 1: The level of unrelated diversification is positively associated with the corporate social performance of firms.

Hypothesis 2: The level of unrelated diversification is more positively associated with the corporate social performance of firms than is the level of related diversification.

International diversification and CSP

The level of international diversification will be positively related with CSP as well, because, first, it is positively related with the range of stakeholder demands and social issues that firms face. As explained earlier, different countries and regions prioritize different social issues (Becker and Henderson, 2000; Connell, 2005). Therefore, firms pursuing international diversification will face more diverse stakeholder demands and social issues than domestic firms.

Second, international diversification will give managers similar incentives to invest in social issues. International diversification lowers managerial employment risk by diversifying geographic sources of revenue (Fatemi, 1984; Levy and Sarnat, 1970) and by strengthening management entrenchment (Shleifer and Vishny, 1989). International diversification relies heavily on managers’ idiosyncratic ability and experience, which are manager-specific assets that cause management entrenchment (Sambharya, 1996). Therefore, international diversification will release managers from shareholder pressures and will enable managers to pay more attention to stakeholders and social issues.

Third, international diversification gives the scope economy advantage to firms. Firms pursuing international diversification can leverage intangible assets across their global subsidiaries (Caves, 1996). Investment in social issues generates a positive brand image, which can be transferred across global markets. Therefore, international diversifiers also have the scope economy advantage of spreading the costs and benefits of CSP-related investments. In addition, having a brand image of a good (or socially responsible) company may help multinational firms overcome the liability of foreignness. Zaheer (1995) explains that the lack of local legitimacy and hostility toward foreign firms are the major sources of liability of foreignness for multinational firms. A socially responsible company image may help firms overcome these problems.

Fourth, firms pursuing international diversification are under particularly strong pressure from stakeholders (Christmann, 2004), which makes behaving in a socially responsible manner less of an option and more of an imperative (Henriques and Sadorsky, 1996). An international presence enhances the visibility of a firm’s actions to influential monitoring bodies and, as a result, firms with a strong international presence become a popular target of international activist groups. For example, Nestle, a highly prominent multinational company, has become the most frequently targeted firm of international environmental groups.
that address water waste issues (Porter and Kramer, 2006). As firms pursuing international diversification are under strong pressure from influential corporate monitoring bodies (e.g., high-profile NGOs, international media), behaving in a socially responsible manner is not an option, but an imperative for them (Christmann, 2004; Henriques and Sadorsky, 1996). Therefore, firms pursuing international diversification have strong incentives to pay more attention to stakeholder demands and social issues than do domestic firms. Hence, Hypothesis 3: The level of international diversification is positively associated with the corporate social performance of firms.

Moderation effect of the firm’s focus on short-term profit

The diversification literature notes that diversified firms often have a strong focus on short-term profit maximization (Baysinger and Hoskisson, 1989; Hayes and Abernathy, 1980; Hill, Hitt, and Hoskisson, 1988; Hoskisson and Hitt, 1988; Hoskisson, Hitt, and Hill, 1991). When a diversified firm has a strong focus on short-term profit maximization, it may reduce investment in items that do not immediately contribute to short-term profit. A good example of such items is research and development (R&D) investment. Hoskisson and colleagues (Baysinger and Hoskisson, 1989; Hoskisson and Hitt, 1988) found that diversified firms’ strong focus on short-term profit maximization leads to reduction in R&D investment among those firms.

Diversified firms’ focus on short-term profit may have a negative effect on firm response to stakeholder demands and investment in social issues for the same reason (Hill et al., 1992). While investment in stakeholder demands and social issues lowers firm risk and generates other long-term benefits, it can compromise short-term profit of the firm (Deckop et al., 2006). Several previous studies have suggested that investment in social issues may have a negative impact on short-term profit by diverting firm resources from other more practical uses (Kacperczyk, 2009; Ogden and Watson, 1999). Therefore, if a diversified firm has a strong emphasis on short-term profit, it may invest fewer resources in responding to stakeholder demands and social issues. Thus, the positive relationship between the level of diversification and CSP can be negatively moderated by the firm’s focus on short-term profit.

Hypothesis 4: The positive relationships between the level of diversification and CSP are negatively moderated by the firm’s focus on short-term profit.

METHODS

Sample and data source

The sample for this study starts from 1,000 of the largest U.S. firms in terms of market capitalization. I chose large firms because these are more likely to pursue diversification, both product-wise and geographically (Markides and Williamson, 1996). The social performance data for sample firms were collected from the Kinder, Lydenberg, Domini (KLD) Social Ratings database, which is a popular source of CSP measure in academic research (Chatterji, Levine, and Toffel, 2009). To construct other explanatory and control variables, I collected financial data from Compustat’s North America database and Compustat’s Executive Compensation (Execucomp) database. Since the Execucomp database provides data from 1993 to 2006, the sample period is limited, accordingly. After the three databases were matched, the effective sample size was reduced to 511 firms. The effective sample size in the analysis was 3,044 observations.

My panel data combined three different databases (Compustat, KLD, Execucomp), which do not always provide firm-year observations in a consistent manner. A closer look at the sample data shows that the length of individual panel varies significantly due to incomplete reporting by the databases on which I relied. For example, during 1993–2006, Compustat and Execucomp provided 6,316 (12.36 observations per firm) and 6,731 (13.17 observations per firm) observations for the 511 firms in my sample, respectively. However, when those observations were combined with the KLD database, the number of observations dropped to 3,044, losing approximately 50 percent of observations. Such a drastic reduction in the number of observations after combining results with the KLD database suggests that there may be a possible sample selection problem in the KLD database. To resolve this issue, I employed the Heckman selection model later in the analysis section.
In addition, I checked whether my sample firms have an unusually short panel when compared with the KLD database. The number of observations per firm varies from one to 14, averaging 5.96 years in my sample. To compare the length of observations per firm of my sample with that of the KLD database, I extracted CSP information of all available firms across all available years from the KLD database. The number of firms that have complete CSP information in the KLD database was 5,103. For those, the number of observations per firm varied from one to 18, averaging 5.20 years (standard deviation: 4.17). This comparison shows that the firms in my sample do not have a particularly short panel compared to the average firm in the KLD database.

Variables

Dependent variable

Corporate social performance. CSP is used as a measure of firm response to stakeholder demands and social issues (Kacperczyk, 2009). I calculate the CSP of a firm as the sum of all strength items minus the sum of all concern items (Choi and Wang, 2009; Hull and Rothenberg, 2008). I use the aggregation approach because the main theoretical argument of this paper is that there is a positive relationship between the level of diversification and the range of stakeholder demands and social issues relevant to the firm. Therefore, I need a dependent variable that can capture the range of stakeholder demands and social issues relevant to the firm. Therefore, I need a dependent variable that can capture the range of stakeholder demands and social issues. For the same reason, several previous studies that researched the relationship between international diversification and CSP also relied on the aggregation approach (Bansal, 2005; Strike et al., 2006). In addition, considering all dimensions of CSP reported in the KLD database improves the construct validity of the social performance measure, since CSP is a multidimensional concept (Carroll, 1979; Griffin and Mahon, 1997; Rowley and Berman, 2000).5

Explanatory variables

Related/unrelated diversification. Since I hypothesize different relationships between related and unrelated diversification and the CSP of firms, I need separate measures of related and unrelated diversification. The entropy measure of diversification distinguishes between related and unrelated diversification. Therefore, I used the entropy measure of related and unrelated diversification.

International diversification. International diversification refers to a firm’s expansion beyond its domestic market into other regions or countries. I adopted the most commonly used measure of international diversification in the literature—the foreign sales ratio—defined as a firm’s foreign sales, divided by its total sales (Geringer, Beamish, and da Costa, 1989).

Firm focus on short-term profit. Since it is impossible to directly measure the level of a firm’s focus on short-term profit maximization, I relied on an actual short-term profit measure (return-on-equity) as a proxy of this corporate-level, short-term profit orientation. According to the illustration of an example in Hill et al. (1988), a firm’s short-term profit figure can be a useful measure for understanding the level of firm focus on short-term profit.

Control variables

Since the existence of intangible assets (e.g., R&D capability, brand strength) may affect CSP (McWilliams and Siegel, 2000), I include the market-to-book ratio. The market-to-book ratio is used rather than other measures, such as R&D and advertising expenditures, because up to 80 percent of my observations are missing that information. I also control for firm size and firm profitability (McGuire et al., 2003). Firm size is measured as the number of employees (in thousands), and profitability is measured as return on equity (ROE). I also include controls for financial leverage and statistically significant positive relationships with environmental, human rights, product, and community categories. Second, I used strengths and concerns as separate dependent variables. The results show that unrelated and international diversification strategies have positive relationships with strengths and negative relationships with concerns. Therefore, the strengths and concerns variables returned consistent results with the ‘net’ variable results.

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5 For comparison, I used variations of the dependent variable. First, I regressed individual KLD categories (governance, diversity, employee, environment, human rights, product, and community) separately on my explanatory and control variables. The results show that unrelated and international diversification strategies have positive relationships with several areas of CSP, whereas related diversification strategy does not. Specifically, unrelated and international diversification strategies have...
free cash flow (in $ millions). Several studies have found that the chief executive officer (CEO) compensation structure influences CSP (Deckop et al., 2006; McGuire et al., 2003). Therefore, I include the ratios of bonus and stock-based compensation in the total CEO compensation. Lastly, I include the mean CSP scores by industry and year to control for industry differences in CSP. I estimate the following model to obtain the regression result in Table 3:

\[
\text{CSP}_t = \beta_1 \text{unrelated diversification}_t + \beta_2 \text{related diversification}_t + \beta_3 \text{international diversification}_t + \beta_4 \text{ROE}_t \times \text{diversification}_t + Z_{it} \gamma + D_{it} \delta + \epsilon_{it},
\]

where \(Z_{it}\) is the vector of firm-level characteristics that affect CSP, \(D_{it}\) is the vector of firm and year dummies, and \(\epsilon_{it}\) is the error term. As my hypotheses propose associations rather than causal relationships, a contemporaneous lag structure is used. Alternatively, I used a one-year lag model. When a one-year lag structure was used, the result remained similar.

**ANALYSIS**

Table 1 provides descriptive statistics for the sample data. Correlations are relatively low, with a few exceptions.

A possible problem in my dataset is the sample selection problem in the KLD database. It is possible that some firms may be selected over others, and are thus overrepresented in the KLD database. While there can be several possible scenarios that may cause this sample selection problem, two scenarios seem to be particularly plausible. First, it is possible that more prominent firms in terms of size and profit may be selected over less prominent ones. Second, firms in certain industries or observations at certain years may be selected over others. As a result, firms with certain characteristics such as size, profit, and industry, and observations in certain years may be overly represented in the KLD database. If the CSP of those firms are significantly different from the CSP of other firms, relying on the KLD database may be prone to sample selection bias.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>S.D.</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
<th>7.</th>
<th>8.</th>
<th>9.</th>
<th>10.</th>
<th>11.</th>
</tr>
</thead>
<tbody>
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<td>1. Corporate social performance</td>
<td>0.0571</td>
<td>2.6684</td>
<td></td>
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<tr>
<td>2. Unrelated diversification</td>
<td>0.2533</td>
<td>0.3681</td>
<td>0.0902</td>
<td>-0.2099</td>
<td>0.0070</td>
<td>-0.0064</td>
<td>0.0900</td>
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<tr>
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<td>0.3884</td>
<td>0.0902</td>
<td>-0.0649</td>
<td>0.0578</td>
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<td>0.0900</td>
<td>-0.0538</td>
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<td>4. International diversification</td>
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<td>0.3737</td>
<td>0.0902</td>
<td>-0.0028</td>
<td>0.0325</td>
<td>0.0557</td>
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<td>5. Firm size</td>
<td>17.470</td>
<td>103.24</td>
<td>-0.0208</td>
<td>0.0182</td>
<td>0.0164</td>
<td>0.0140</td>
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<td>6. Firm profitability</td>
<td>0.0324</td>
<td>0.0826</td>
<td>0.0902</td>
<td>-0.0572</td>
<td>0.0335</td>
<td>0.0124</td>
<td>0.0220</td>
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<td>7. Financial leverage</td>
<td>0.0324</td>
<td>0.0826</td>
<td>0.0902</td>
<td>-0.0572</td>
<td>0.0335</td>
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<td>8. Intangible assets</td>
<td>0.0324</td>
<td>0.0826</td>
<td>0.0902</td>
<td>-0.0572</td>
<td>0.0335</td>
<td>0.0124</td>
<td>0.0220</td>
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<td>9. Industry CSP</td>
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<td>0.0826</td>
<td>0.0902</td>
<td>-0.0572</td>
<td>0.0335</td>
<td>0.0124</td>
<td>0.0220</td>
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<td>10. % Earning-based compensation</td>
<td>0.0324</td>
<td>0.0826</td>
<td>0.0902</td>
<td>-0.0572</td>
<td>0.0335</td>
<td>0.0124</td>
<td>0.0220</td>
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<td>11. % Stock-based compensation</td>
<td>0.0324</td>
<td>0.0826</td>
<td>0.0902</td>
<td>-0.0572</td>
<td>0.0335</td>
<td>0.0124</td>
<td>0.0220</td>
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<td>12. % Interest-based compensation</td>
<td>0.0324</td>
<td>0.0826</td>
<td>0.0902</td>
<td>-0.0572</td>
<td>0.0335</td>
<td>0.0124</td>
<td>0.0220</td>
<td>0.0220</td>
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<td>0.0220</td>
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</tbody>
</table>
To resolve possible sample selection problems with the KLD database, I employed the Heckman correction method. First, I collected information for all firms covered in the Compustat North America database during the period of observation of the current study. After removing observations with missing information, the number of firms was 16,924, and the number of total observations was 123,914. Among them, the number of firms included in the KLD database was 1,360 and the number of observations included in the KLD database was 7,741. Then, in the first-stage probit model, I estimated the probability of being included in the KLD database by regressing a firm’s KLD inclusion status on variables that capture size, financial performance, industry, and year. More specifically, I regressed KLD inclusion probability on the number of employees, revenue, net profit, firm market value, 73 industry dummies (first two-digit Standard Industrial Classification code), and year dummies (Table 2). Inverse Mills ratios calculated from the first-stage probit model were included in the second-stage fixed-effects model as selection correction parameters.

To control for firm-level unobserved heterogeneity, I use firm fixed-effects estimation. The result of the Hausman test strongly indicates that the fixed-effects model is preferable to the random-effects model ($\chi^2 = 262.65, p = 0.0000$). The Hausman test further confirms different directions of the relationship between unrelated/international diversification and CSP variables observed in the correlation table (Table 1) and the fixed-effects regression table (Table 3). When between-firm variances were used (Table 1), the relationship between variables (correlation coefficients) was negative. In contrast, when only within-firm variances were used (Table 3), the relationship (fixed-effects regression coefficients) became positive. I also include year dummies to control for temporal heterogeneity. A likelihood ratio test shows that year dummies are strongly significant, both collectively and individually ($\chi^2 = 99.85, p = 0.0000$).

An alternative approach to control for time-invariant unobserved heterogeneity is to use change scores, also known as first differencing (Allison, 1994). While both fixed-effects and change scores equally and effectively remove time-invariant unobserved heterogeneity, I chose fixed-effects due to several issues with the change score approach. First, the serial correlation in the KLD data is likely to bias the estimation when change scores are used. Second, correlations between change scores and raw variables used to calculate change scores pose another threat. My data show that there is a significant negative correlation ($\rho = -0.1860, p < 0.05$) between the change scores and the raw scores of CSP. Therefore, I chose fixed-effects to control for time-invariant unobserved heterogeneity.

### RESULTS

Model 2 (Table 3) shows that the level of unrelated diversification is positively associated with CSP in a statistically significant manner ($\beta = 0.5442, p = 0.015$). In contrast, related diversification is not significantly associated with CSP. Therefore, Hypotheses 1 and 2 are supported. Lastly, in keeping with the findings of previous studies, international diversification ($\beta = 1.1537, p = 0.040, Model 4, Table 3$) has a positive relationship with CSP. Therefore, Hypothesis 3 is also supported. Model 6 (Table 3) shows that firm focus on short-term profit negatively moderates the positive relationship between the level of unrelated diversification and CSP ($\beta = -0.0040, p = 0.000$). However, the moderation hypothesis was not supported for related or international diversification. Therefore, Hypothesis 4 is only partially supported. The full model (Model 9, Table 3),

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>KLD inclusion</th>
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<tbody>
<tr>
<td>Intercept</td>
<td>-4.7669***</td>
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<tr>
<td></td>
<td>(0.1444)</td>
</tr>
<tr>
<td>Firm size</td>
<td>0.4468***</td>
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<tr>
<td></td>
<td>(0.0052)</td>
</tr>
<tr>
<td>Firm revenue</td>
<td>-0.00002***</td>
</tr>
<tr>
<td></td>
<td>(0.0000)</td>
</tr>
<tr>
<td>Firm profitability</td>
<td>0.00001**</td>
</tr>
<tr>
<td></td>
<td>(0.0000)</td>
</tr>
<tr>
<td>Firm market value</td>
<td>0.0010**</td>
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<tr>
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<td>(0.0004)</td>
</tr>
</tbody>
</table>

Industry and year dummies Included

| N firm-years | 123914 |
| N firms     | 16924  |
| Pseudo R-squared | 0.3658 |

Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. 

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DOI: 10.1002/smj
<table>
<thead>
<tr>
<th>Dependent variable: CSP</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
<th>Model 6</th>
<th>Model 7</th>
<th>Model 8</th>
<th>Model 9</th>
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</thead>
<tbody>
<tr>
<td>Intercept</td>
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<td>-0.2289</td>
<td>-0.0586</td>
<td>-0.1342</td>
<td>-0.2310</td>
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<td>-0.0098*</td>
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<td>-0.0108*</td>
<td>-0.0106*</td>
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<td>-0.0107*</td>
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<tr>
<td>(0.0044)</td>
<td>(0.0044)</td>
<td>(0.0045)</td>
<td>(0.0044)</td>
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<td>-0.0004</td>
<td>-0.0004</td>
<td>-0.0004</td>
<td>-0.0004</td>
<td>-0.0004</td>
<td>-0.0018**</td>
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<td>(0.0002)</td>
<td>(0.0002)</td>
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<td>(0.0002)</td>
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<td>(0.0662)</td>
<td>(0.0661)</td>
<td>(0.0639)</td>
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<td>0.0003**</td>
<td>0.0003**</td>
<td>0.0003**</td>
<td>0.0003**</td>
<td>0.0002**</td>
<td>0.0003**</td>
<td>0.0003**</td>
<td>0.0002**</td>
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<tr>
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<td>0.3316***</td>
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<td>-0.1056</td>
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<td>(0.3498)</td>
<td>(0.3536)</td>
<td>(0.3488)</td>
<td>(0.3475)</td>
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<td>(0.3531)</td>
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<td>% Stock-based</td>
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<td>compensation</td>
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<td>Unrelated diversification</td>
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<td>0.5426*</td>
<td>0.5984**</td>
<td>0.5226*</td>
<td>0.5256*</td>
<td>0.6320**</td>
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<tr>
<td>(0.2229)</td>
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<td>1.1447*</td>
<td>1.1668*</td>
<td>1.3114*</td>
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<td>-0.0040***</td>
<td>-0.0012</td>
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<td>Inverse Mills ratio (λ)</td>
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<td>Adjusted R-squared</td>
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<td>0.7659</td>
<td>0.7654</td>
<td>0.7655</td>
<td>0.7669</td>
<td>0.7677</td>
<td>0.7669</td>
<td>0.7669</td>
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</tr>
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</table>

Significance levels: * p < 0.05, ** p < 0.01, *** p < 0.001.
which includes all three types of diversification and interaction terms, shows that all previously supported hypotheses in partial models remain supported.

I hypothesize that unrelated diversification and international diversification is positively associated with CSP. Therefore, it is possible that firms pursuing unrelated diversification and international diversification at the same time may show even stronger CSP. To check the possible interaction effects between different diversification strategies, I add two multiplicative terms between international diversification and related/unrelated diversification. However, the result of this additional test shows that neither multiplicative term is statistically significant. The direction and significance of other explanatory variables remain unchanged when the two multiplicative terms are added.

To check whether my explanatory variables (unrelated, related, international diversification) have generalizable relationships with CSP, independent of time, I generated interaction terms between three diversification variables and all 13 year dummies. The result of this additional analysis shows that among the 39 interaction effects between diversification variables and year dummies were not statistically significant (p < 0.05). Considering that the vast majority of interactions between diversification variables and year dummies were not statistically significant, I concluded that the effect of temporal context on the diversification-CSP relationship is minimal.

Table 3 shows that the incremental R^2 values of models are relatively small when explanatory variables are included. To check whether diversification and interaction variables add to the explanatory power of the model in a statistically significant manner, I conducted likelihood ratio tests. First, likelihood ratio tests show that the fit of the models additionally including each diversification variable increased in a statistically significant manner (unrelated diversification: χ^2 = 13.49, p = 0.0002, related diversification: χ^2 = 7.77, p = 0.0053, international diversification: χ^2 = 8.94, p = 0.0028). Second, likelihood ratio tests also show that the fit of the models additionally including a statistically significant interaction variable increased in a statistically significant manner (ROE x unrelated diversification: χ^2 = 10.63, p = 0.0011). However, other interaction variables did not increase the model fit in a statistically significant manner (ROE x related diversification: χ^2 = 0.77, p = 0.3812, ROE x international diversification: χ^2 = 0.23, p = 0.6295). The likelihood ratio tests show that despite the small incremental R^2 values, diversification variables do improve the explanatory power of the model in a statistically meaningful manner.

As my models include several interaction terms of explanatory variables, I used centered variables before generating all multiplicative terms in order to reduce the impact of multicolinearity on my results. Furthermore, I conducted additional checks to examine the impact of multicolinearity. Specifically, I built hierarchically nested models and computed variance inflation factors (VIF) for individual variables in the models. For the full model including all interaction terms (Model 9, Table 3), the maximum VIF value was 11.05 for profitability. To check how VIF values change, I removed the interaction term between ROE and international diversification, which was not statistically significant, from the full model. After removing this statistically insignificant variable, the VIF value of the profitability variable dropped to 2.94, which is substantially lower than the cut-point of 10. Also after removing this variable, the maximum VIF value in the model dropped to 5.55 (interaction of ROE and unrelated diversification). Considering that the results from Models 6 to 9 are consistent in terms of coefficients and p-values, and that removing a statistically insignificant variable substantially lowers VIF values, I concluded that multicolinearity is not a serious threat in my regression models.

CONCLUSION AND DISCUSSION

Findings of this study suggest several implications worthy of further discussion. First, in proposing the relationship between diversification and CSP, I propose that diversified firms face and address a wider range of stakeholder demands and social issues than focused firms. The phenomenon of diversification discount (Berger and Ofek, 1995) may be partially attributable to this extra burden on diversified firms to respond to a broader range of stakeholder demands. That is, highly diversified firms not only suffer from a lack of coherence in terms of underlying resources (Wernerfelt and Montgomery, 1988) but they also have to deal with heavy stakeholder demands that add to their
financial constraints. While it is not clear how substantial the financial burden is that stakeholder demands place on diversified firms, the possible relationship between stakeholder demands and the diversification discount may deserve further attention.

Second, the finding that there is a positive relationship between the level of unrelated diversification and CSP raises another interesting question to the diversification literature, which views unrelated diversification as an inefficient, inferior diversification strategy (Berger and Ofek, 1995). This view is based on the negative relationship between unrelated diversification and (short-term) financial performance measures (Markides and Williamson, 1994; Palepu, 1985; Rumelt, 1974). However, if CSP can serve as a predictor of long-term firm performance and viability (Kacperczyk, 2009; Kaplan and Norton, 1996; Ogden and Watson, 1999), the positive relationship between unrelated diversification and CSP suggests that unrelated diversification may not necessarily be an inferior strategy for a firm. A further investigation of CSP’s effectiveness in predicting long-term firm performance and viability may help us answer this question.

Third, the findings provoke an interesting debate on the value of unrelated diversification from the social welfare perspective, as well. A basic tenet of economics is that profit maximization by individual firms contributes to the highest level of social welfare. According to this logic, related diversification is superior to unrelated diversification, not only from the shareholder value perspective, but also from the social welfare perspective because related diversification is often associated with stronger profit figures (Berger and Ofek, 1995). However, the positive relationship between unrelated diversification and CSP raises a possibility that unrelated diversification may do more good to society than related diversification. The findings ask us how we should define and evaluate social welfare created by corporate actions: should we only consider measurable monetary value created by firms, or should we also consider other, often immeasurable qualitative aspects of firm actions, which have been often denigrated as mere externalities?

Lastly, this paper’s findings speak to another closely related stream of research. The corporate crime literature has discussed a possible relationship between diversification and corporate crime. However, no previous studies have found evidence that diversification is related to corporate crime (Baucus, 1988; Clinard and Yeager, 1978; Hill et al., 1992). The non-finding in the corporate crime studies may be attributable to the following differences between corporate crime studies and this investigation. First, the concept of corporate crime is much narrower than that of CSP. The CSP of firms reflects both corporations doing good and corporate wrongdoing. Therefore, although corporate crime (wrongdoing) may affect the CSP of firms, it does not definitively determine a firm’s CSP. Second, CSP deals with the ethical, as well as the legal aspects of corporate actions, while corporate crime only deals with the legal aspect. For example, unethical corporate actions (e.g., working with a local contractor using child labor, excessive executive compensation) will most likely have a negative impact on CSP, but may not necessarily constitute corporate crime. Third, corporate crime studies do not distinguish between related and unrelated diversification when measuring this construct. As noted in the diversification literature, related and unrelated diversification have drastically different characteristics, motivations, and consequences. I addressed all three issues in this paper and found a clearer relationship between diversification and CSP, thus complementing the findings of the corporate crime studies.

This paper also contributes to the literature on antecedents of CSP. The vast majority of research on CSP has focused on understanding its financial performance relationships, a consequence of CSP. In this rich research stream, scholars have found that strong CSP can be a valuable firm resource that generates sustainable competitive advantage (e.g., Choi and Wang, 2009). This finding suggests that understanding firm heterogeneity in CSP (antecedents of CSP) is an equally important research question: if strong CSP is a valuable, difficult-to-imitate resource, understanding how and why heterogeneity in CSP arises provides valuable information to managers and shareholders. I believe that the application of more traditional strategy and management research topics (e.g., corporate diversification) to this research question can open many interesting research opportunities. I hope that the current study provides an example of such boundary spanning research, which connects CSP and other corporate phenomena. I believe that this approach will help us
gain a more complete understanding of corporate actions.

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