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Running Head: B2C and B2B, CSP, and Financial Performance

The Effect of Corporate Social Performance on the Financial Performance of Business-to-Business and Business-to-Consumer Firms

Abstract

There exists a widespread managerial belief that higher corporate social performance (CSP) increases both firm value *and* sales. Although numerous studies provide evidence of a positive effect of CSP on firm value, whether CSP can impact sales remains largely unknown. Can CSP influence sales? Is this effect contingent on the product-market profile, that is, on whether firms operate in business or consumer markets? We use a panel dataset comprising 23,769 firm-year observations to help address these questions. We find that higher CSP has a strong negative effect on sales for business-to-consumer firms but an insignificant or economically trivial effect for business-to-business firms. However, we also find that higher CSP has a positive effect on firm value for both types of firms. Taken together, these results demonstrate that higher CSP results in higher firm value but can hurt sales. We discuss the theoretical contributions and managerial implications of these findings.

Keywords

B2C and B2B firms; Corporate social performance; Financial performance; Product-market profile; Sales.

Introduction

One out of two CEOs and more than 65% of executives consider corporate social performance (CSP) to be a strategic priority (Haanaes et al., 2012; McKinsey & Company, 2014). As a result, CSP plays an increasingly important role in the strategies of firms, which often devote considerable amounts of resources to socially responsible activities (Babiak and Trendafilova, 2011; Kotler, 2011; Rangan, Chase, and Karim, 2015). This substantial engagement in socially responsible activities is partly fueled by the widespread managerial belief that CSP can increase both top-line performance (i.e., sales) *and* firm value (Economist Intelligence Unit, 2008a; 2008b).

Ample empirical evidence shows that CSP and firm value can be positively associated (Busch and Friede, 2018; Dixon-Fowler et al., 2013; Grewatsch and Kleindienst, 2017; Hou 2019; Luffarelli and Awaysheh, 2018; Wahba, 2008; Yadav, Han, and Rho, 2016). However, little research has explored the relationship between CSP and top-line performance. Our study helps fill this gap in the CSP literature. We seek to address two important questions: Can CSP influence top-line performance? Is this effect contingent on the product-market profile, that is, on whether firms operate in business or consumer markets?

Answering these questions is important for several reasons. First, prior CSP studies have often argued that higher CSP increases firm value *because* it increases sales. However, despite suggestions that CSP and sales are related, the CSP-sales link has remained largely untested (for a notable exception,[ii] see Lins, Servaes, and Tamayo, 2017). Prior studies have instead examined the effects of CSP on other important measures of performance, such as market value (Luo and Bhattacharya, 2006), returns on assets and equity (Testa et al., 2018), corporate reputation (Melo and Garrido-Morgado, 2012), idiosyncratic risk (Chen, Hung, and Lee, 2018), and cost of capital (Harjoto and Jo, 2015). Second, prior related research offers opposing predictions concerning the effect of CSP on a firm's top-line performance. Third, even though it is well documented that customers in business markets differ greatly from those in consumer markets in ways that relate to CSP (Lilien, 2016; Lilien and Grewal, 2012), prior studies have typically omitted to account for product-market profile from their theoretical and empirical models (for notable exceptions, see Flammer, 2015; Johnson, Redlbacher, and Schaltegger 2018; Servaes and Tamayo, 2013). Fourth, answering these questions advances the understanding of the responses to CSP and actual preferences of customers—an important stakeholder group. Finally, this study provides evidence to substantiate or refute the widespread managerial belief that there is a positive link between CSP and top-line performance.

We use a panel dataset comprising 23,769 firm-year observations to help address the aforementioned questions. The results of our analyses show that the association between CSP and sales is either statistically insignificant or negative and is contingent on firms' product-market profiles. Specifically, we consistently find a statistically significant, economically large and negative relationship between CSP and top-line performance for business-to-consumer (B2C) firms. The parameter estimates of our main model indicate that, on average, a one-standard-deviation increase in CSP is associated with a 3% decrease in sales for B2C firms, corresponding to approximately $134 million. For business-to-business (B2B) firms, however, we find no consistent association between CSP and sales. We find that the effect of CSP on sales is either insignificant or negative and economically trivial, depending on the model specification. A two-stage least squares model demonstrates that our results are not artifacts of endogenous relationships and that reverse causality between CSP and sales does not bias our results.

Given these results and the cost of socially responsible activities, we address two additional questions. The first is whether the CSP-sales link differs across specific CSP domains. In line with the aforementioned results, we find that the associations between CSP and the sales of B2B and B2C firms are either statistically insignificant or negative in all but one of the seven domains we examine.[i] Specifically, we find that in the domain of employee diversity, CSP is associated with higher sales for both B2B and B2C firms, suggesting that the belief that higher CSP increases sales is not entirely misplaced. The second additional question we examine is whether CSP can impact firm value when the moderating effect of the product-market profile is taken into empirical consideration. Consistent with the results of aforementioned research, we observe a generally positive link between CSP and firm value. We also find that this relationship typically holds for both B2B and B2C firms, suggesting that shareholders tend to regard CSP as a strategic asset for both types of firms. We discuss the contributions and implications of these findings in the last section of this article.

Conceptual background and hypotheses

CSP and financial performance

The link between CSP and financial performance has received considerable attention in the management literature. Evidence for a positive relationship is mixed (for reviews, see Carroll and Shabana, 2010; Grewatsch and Kleindienst, 2017). Margolis and Walsh (2003) reviewed 127 studies and showed that approximately 40% found a positive relationship between CSP and firm

performance, and Peloza (2009) showed that approximately 60% of 159 studies reported a positive relationship. Given the important role that CSP now plays in the strategies of firms, explaining this lack of consensus is a fundamental area of inquiry. Scholars have thus called for research to investigate some of the factors that can affect the strength and sign of the relationship between CSP and financial performance (Carroll and Shabana, 2010; Dixon-Fowler et al., 2013; Grewatsch and Kleindienst, 2017). In this study, we answer this call by exploring the CSP-sales link and whether this link is moderated by the product-market profile.

Product-market profile

The dichotomy between B2B and B2C firms (i.e., the product-market profile) is well-established (for discussions, see Lilien, 2016; Lilien and Grewal, 2012). In business markets, organizational buyers purchase goods and services on behalf of the businesses, organizations, and institutions for which they work. Conversely, in consumer markets, individual consumers purchase goods and services for their own consumption and that of other individual consumers. As noted previously, prior research has typically omitted product-market profiles from theoretical and empirical models. Since prior studies on CSP have typically used secondary datasets that conflate B2B and B2C firms, the influence of CSP on firm performance for each type of firms has not been fully captured.

CSP, product-market profile, and top-line performance

CSP should positively affect firms' top-line performance *if* it increases the quantities sold and/or the prices customers are willing to, or actually, pay. Evidence from numerous surveys and experiments suggests that this might be the case in consumer markets (Du, Bhattacharya, and Sen, 2011; Lerro et al. 2018; Lii, Wu, and Ding, 2013; Trudel and Cotte, 2009). According to these studies, the relationship between CSP and the top-line performance of B2C firms should be positive. However, prior work also contends that surveys and experiments might often overstate the actual effect of CSP because their results can be affected by social desirability bias, hypothetical consumption decisions, and artificially induced awareness of socially responsible endeavors that are imaginary (Auger and Devinney, 2007; Öberseder, Schlegelmilch, and Gruber, 2011; Webb, Mohr, and Harris, 2008). In line with this argument, numerous qualitative studies show that higher CSP has little to no influence on the demand and willingness to pay of individual consumers and that the large majority does not think of CSP as an important purchase criterion (Bray, Johns, and Kilburn, 2011;

Carrington, Neville, and Whitwell, 2010; Mohr, Webb, and Harris, 2001). A recent choice experiment confirms these findings (Boccia, Manzo, and Covino, 2019). Individual consumers often perceive goods and services marketed as socially responsible to be of poorer quality and more expensive (Eckhardt, Belk, and Devinney, 2010; Mohr, Webb, and Harris, 2001; Öberseder, Schlegelmilch, and Gruber, 2011), and they tend to feel that firms seek to deceive them and cover up (or "greenwash") questionable practices by appearing socially responsible (De Vries et al., 2015; Leonidou and Skarmeas, 2017; Skarmeas and Leonidou, 2013; Skarmeas, Leonidou, and Saridakis, 2014). Consequently, consumers might often be unwilling to pay a premium for socially responsible goods and services. Furthermore, since consumers are often unaware of the level of firms' CSP (Sen, Bhattacharya, and Korschun, 2006; Servaes and Tamayo, 2013), CSP might not influence individual consumers. According to these studies, diverting resources from sales-building activities to CSP should negatively impact the top-line performance of B2C firms. Considering the inconsistent results of previous research, we offer and test two opposing predictions concerning the effect of CSP on the top-line performance of B2C firms.

Hypothesis 1a. *There is a positive association between corporate social performance and sales for business-to-consumers firms.*

Hypothesis 1b. *There is a negative association between corporate social performance and sales for business-to-consumers firms.*

Regarding B2B firms, little empirical research has examined how organizational buyers perceive and respond to the level of CSP of the firms from which they purchase. A small number of surveys and experiments indicate that organizational buyers might view higher CSP somewhat positively, preferring to purchase from firms that are more socially responsible (Biong, 2013; Hietbrink, Berens, and van Rekom, 2010; Homburg, Stierl, and Bornemann, 2013). According to these studies, the relationship between CSP and sales should be positive for B2B firms. However, because of the methods they employ, these studies might overestimate the importance of CSP for organizational buyers. As previously discussed, their results can be affected by, for example, social desirability bias. It is thus possible that the purchase intentions of organizational buyers do not directly translate into actual purchasing decisions. According to these studies, diverting resources from sales-building activities to CSP should thus negatively impact the top-line performance of B2C firms. Considering the inconsistent results of the previously cited research, we offer and test two opposing predictions concerning the effect of CSP on the top-line performance of B2B firms.

Hypothesis 2a. *There is a positive association between corporate social performance and sales for business-to-consumers firms.*

Hypothesis 2b. *There is a negative association between corporate social performance and sales for business-to-consumers firms.*

Data, model specification, and variables

Data

We use a comprehensive dataset containing CSP and financial data, which we create by combining data from two databases. We obtain CSP data from the KLD Stats database—the most widely used database in the CSP literature (Kang, 2015; Kang, Germann, and Grewal, 2016; Servaes and Tamayo, 2013; Ting and Yin, 2018). This database provides annual data on firms' strengths and concerns in seven CSP domains: corporate governance, employee relations, environment, human rights, community, product quality, and diversity. Kang, Germann, and Grewal (2016) and Servaes and Tamayo (2013) offer more detailed descriptions of this database. Financial and accounting data are obtained from the Compustat database. Our sample covers the period 2005-2013 and starts in 2005 for two reasons.[iii] First, prior to 2005, the universe of firms covered by the KLD Stats data changed substantially. For instance, in 2003, the 2000 firms from the Russell 2000 Index were added to the KLD database. Second, prior to 2005, substantial changes were made to the way CSP information was recorded in the database, making comparisons across years difficult. In particular, a considerable number of strengths and concerns were added and removed from the database (for a list, see Table 2 in Kang, Germann, and Grewal, 2016). After merging the data from the KLD Stats and Compustat databases, we obtain an unbalanced panel dataset consisting of 23,769 firm-year observations for 4,332 unique firms.

Model specification

$$Sales_{i,t} = \alpha + \beta_1 CSP_{i,t} + \beta_2\left(CSP_{i,t} \times PMP_i\right) + \sum_{c \in C} \beta_c c_{i,t} + \delta_t + \eta_i + \varepsilon_{i,t} \qquad (1)$$

We consider the interaction effect between CSP and the product-market profile in a model with firm fixed effects and standard errors clustered at the firm level. Our main model is shown in equation (1), where δ_t represents fixed effects for each year *t*, η_i represents fixed effects for each firm *i*, and *c* represents the set of control variables $c \in C$ discussed in the subsection that follows. A β_1 coefficient

significantly different from zero indicates that CSP impacts sales. A β_2 coefficient significantly different from zero indicates that the CSP-sales link is contingent on the product-market profile. The main effect of the product-market profile (*PMP*) is omitted from this model because it is time invariant and naturally absorbed by the inclusion of firm fixed effects. We specify firm fixed (vs. random) effects because a Hausman specification test indicates that a fixed effects model should be preferred, and we wish to control for firm-specific factors that could affect sales. Since a considerable body of literature uses financial performance and CSP variables occurring in the same period, *Sales* and *CSP* are contemporaneous in our main model. In the robustness tests, we show that the results of this model are similar when we lag *CSP* by one year. The robustness tests also address other potential concerns with this model, including endogeneity.

Variables

Our main dependent variable, *Sales*, is the natural logarithm of firm sales (Compustat item: sale).[iv] Sales is arguably the best financial measure with which to capture the responses to CSP and actual CSP preferences of customers in business and consumer markets, as other measures of financial performance capture unrelated effects. For instance, measures of profitability and firm value also capture the effects of CSP on operating costs and shareholder sentiments, respectively. We use other measures of financial performance as dependent variables in a series of additional analyses reported later.

Our two independent variables are *CSP* and *PMP*. *CSP* is our main measure of a firm's level of CSP. To construct this measure, we follow recent research (Block and Wagner, 2013; Harjoto and Jo, 2015; Mishra, 2017; Servaes and Tamayo, 2013) and subtract the sum of all the concerns from the sum of all the strengths for the seven CSP domains covered in the KLD Stats database (i.e., corporate governance, employee relations, environment, human rights, community, product quality, and diversity). Our CSP measure therefore captures firms' overall CSP based on the seven previously mentioned CSP domains. This operationalization of CSP has been shown to display high construct validity (Kang, 2015; Sharfman, 1996). We show that our results hold when we use alternative measures of CSP in a series of robustness tests. To capture firms' product-market profiles, we use a well-established classification based on four-digit SIC codes following Srinivasan, Lilien, and Sridhar (2011).[v, vi] *PMP* is a binary indicator variable that equals 1 if a firm principally operates in business markets and 0 if a firm principally operates in consumer markets.

We include six control variables in our main model to ensure that the effect of CSP on sales is not confounded by the effects of other variables that could substantially affect sales. These variables have also been used as control variables in prior related studies (Flammer, 2015; Kang, Germann, and Grewal, 2016; Luffarelli and Awaysheh, 2018; Luo and Bhattacharya, 2006; Servaes and Tamayo, 2013). *Advertising Intensity* is the ratio of advertising expenditures to sales (Compustat items: xad / sale).[vii] *R&D Intensity* is the ratio of R&D expenditures to sales (Compustat items: xrd / sale). Following established practices (see Koh and Reeb, 2015), we set missing values for R&D and advertising expenditures in the Compustat database to zero to compute *R&D Intensity* and *Advertising Intensity*. *Leverage* is the ratio of debt in current liabilities plus long-term debt to the book value of total assets (Compustat items: [dlc + dltt] / at). *Cash* is the natural logarithm of cash and short-term investments (Compustat item: che). *Firm Size* is the natural logarithm of the market value of equity (Compustat items: prccf × csho).[viii] *Herfindahl Index* is the sales-based Herfindahl index for all firms in the Compustat database at the four-digit SIC level. Our results hold when we add other potentially important control variables to our main model in a series of robustness tests. Table 1 provides summary statistics for the variables described in this subsection.

——————Insert Table 1 about here——————

CSP-sales link and the moderating effect of the product-market profile

Main results

Our main results are presented in Table 2. In the basic model (Table 2, Model 1), we regress *Sales* on *CSP* and *PMP*. Then, we include the *CSP* × *PMP* interaction term (Table 2, Model 2), firm fixed effects (Table 2, Model 3), and control variables (Table 2, Model 4). In all these models, the main effect of CSP on sales (i.e., β_1) is either insignificant or marginally significant and negative. These results demonstrate that the widespread belief that there is a generally positive association between CSP and sales is not supported by empirical evidence.

——————Insert Table 2 about here——————

We also find a negative and significant β_2 coefficient in Models 2-4 (Table 2), indicating that the impact of CSP on sales differs for B2B and B2C firms.[ix] We probe this interaction by conducting a spotlight analysis (for a discussion, see Spiller et al., 2013). Specifically, using the parameters of our main model (Table 2, Model 4), we first compare how *Sales* differs between B2B and B2C firms

at one standard deviation below and one standard deviation above the mean value of *CSP* (point estimate tests). We find that at a level of *CSP* one standard deviation below the mean, B2B firms have significantly lower sales than B2C firms ($\bar{x}_{\text{Sales B2B}} = 6.712$ vs. $\bar{x}_{\text{Sales B2C}} = 6.737$; $p < 0.05$). Conversely, at a level of *CSP* one standard deviation above the mean, B2B firms have significantly higher sales than B2C firms ($\bar{x}_{\text{Sales B2B}} = 6.694$ vs. $\bar{x}_{\text{Sales B2C}} = 6.676$; $p < 0.05$).

Next, we examine *Sales* at one standard deviation above and one standard deviation below the mean value of *CSP* for B2C and B2B firms (slope tests). Our model shows that B2C firms with a *CSP* score of -2.945 (one standard deviation below the mean) have significantly higher sales than B2C firms with a *CSP* score of 2.094 (one standard deviation above the mean; $\bar{x}_{\text{Sales at -1Std. Dev.}} = 6.737$ vs. $\bar{x}_{\text{Sales at +1Std. Dev.}} = 6.676$; $p < 0.002$). For B2C firms, a one-standard-deviation increase in *CSP* is associated with a 3% decrease in sales, corresponding to $134 million.[x] As shown later, these results are robust to numerous model specifications; thus, they support Hypothesis 1b but not Hypothesis 1a. For B2B firms, the examination of the interaction between *CSP* and *PMP* in Model 4 shows that an increase in the *CSP* score is associated with an economically small and only marginally significant decrease in sales. Specifically, B2B firms with a *CSP* score one standard deviation below the mean have marginally higher sales than B2B firms with a *CSP* score one standard deviation above the mean ($\bar{x}_{\text{Sales at -1Std. Dev.}} = 6.712$ vs. $\bar{x}_{\text{Sales at +1Std. Dev.}} = 6.694$; $p < 0.08$). These results do not support Hypothesis 1a and partially support Hypothesis 1b; however, they are not robust to different model specifications. We find no consistent negative association between CSP and sales for B2B firms in the robustness tests presented later. More precisely, we find that the effect of CSP on sales for B2B firms is either insignificant or negative and economically trivial, depending on the model specification.

Test of an alternative account

An alternative account of the results presented in our main model (Table 2, Model 4) is that the significant interaction between *CSP* and *PMP* is caused by differences in *CSP* between B2B and B2C firms and not by *PMP* per se. In other words, it is possible that B2C firms have higher CSP scores than B2B firms and that higher CSP scores negatively affect top-line performance, irrespective of the product-market profile. We conduct a *t*-test to examine whether *CSP* differs by product-market profile. The results of this analysis show that, on average, *CSP* does not differ significantly between B2B and B2C firms ($\bar{x}_{\text{B2B}} = -0.433$ vs. $\bar{x}_{\text{B2C}} = -0.391$; $p > 0.30$), suggesting that the significant interaction between CSP and PMP cannot be attributed to differences in CSP scores between B2B and B2C firms.

Is the belief that higher CSP increases sales and firm value misplaced?

The results reported previously show that higher CSP tends to have a negative effect on the top-line performance of B2C firms but either an insignificant or negative and economically small impact on that of B2B firms. Given these results and the cost of socially responsible activities, two additional questions arise. The first is whether the CSP-sales link differs across various specific CSP domains. The second is whether CSP can impact firm value when the moderating effect of the product-market profile is taken into empirical consideration. We address these questions in this section. Specifically, we explore the effects of CSP in seven specific domains on *Sales* and examine the effect of the interaction between *CSP* and *PMP* on firm value.

CSP in different domains

Building on prior work (Luffarelli and Awaysheh, 2018; Michelon, Boesso, and Kumar, 2013; Ting and Yin, 2018), we examine whether CSP in seven specific domains impacts the top-line performance of firms differently. To do so, we deconstruct our overall CSP measure into its seven constituent parts. Specifically, we use the sum of the strengths minus the concerns for each of the seven CSP domains (i.e., corporate governance, employee relations, environment, human rights, community, product quality, and diversity) recorded in the KLD Stats database as independent variables, each capturing firm CSP in one domain. We report the effects of these seven measures on *Sales* in Table 3. In line with the results of our main model (Table 2, Model 4), we find a negative and significant or marginally significant interaction between *PMP* and *CSP* for four of these measures: *Corporate Governance CSP*, *Employee Relations CSP*, *Environment CSP*, *Human Rights CSP* (Table 3, Models 1-4). The effects of *Community CSP* and *Product Quality CSP* on *Sales* are negative and significant but not contingent on the product-market profile (Table 3, Models 5-6). Interestingly, *Diversity CSP* is the only domain that is positively associated with *Sales* (for potential explanations for this effect, see Bear, Rahman, and Post, 2010; Cox and Blake 1991). This positive relationship holds for both B2B and B2C firms, suggesting that the belief that higher CSP increases sales is not entirely misplaced.

——————Insert Table 3 about here——————

CSP and firm value

So far, our results indicate that there is either an insignificant or negative relationship between *CSP* and *Sales* (except in the employee diversity domain). We now explore the association between *CSP* and three widely used measures of firm value: *Market Value of Equity*, *Enterprise Value*, and *Tobin's q*. In these analyses, we include *ROA* and the natural logarithm of *Sales* as additional control variables since both can affect firm value. The results of these analyses show that higher *CSP* positively affects *Market Value of Equity* and *Enterprise Value* for both B2B and B2C firms. These results are consistent with prior research on the impact of CSP on firm value (Busch and Friede, 2018; Dixon-Fowler et al., 2013; Grewatsch and Kleindienst, 2017; Hou 2019; Luffarelli and Awaysheh, 2018; Wahba, 2008; Yadav, Han, and Rho, 2016). Moreover, we find that the effect of CSP on these two measures of firm value is not contingent on *PMP* (Table 4, Models 1-2). For *Tobin's q*, however, we find that the effect of *CSP* is contingent on *PMP* (Table 4, Model 3): the parameter estimates of Model 3 (Table 4) show that higher *CSP* has a positive and significant effect on *Tobin's q* for B2C firms and an insignificant effect for B2B firms.

——————Insert Table 4 about here——————

Taken together, the results presented in this section and the previous section shed light on an important and thus far undocumented strategic dilemma managers might face: higher CSP is likely to result in higher firm value since shareholders seem to attach a great deal of value to CSP, but it is also likely to hurt top-line performance since customers in business and consumer markets tend to react negatively to higher CSP. Conversely, higher CSP is likely to hurt firm value but boost sales.

Robustness tests

Dependent variable

To examine whether our results are robust to the influence of potential outliers, we winsorize our dependent variable at the 99th and 95th percentiles and repeat the analysis presented in our main model. In these two analyses, the main effect of CSP is negative, and the interaction between *CSP* and *PMP* remains negative and significant (Table 5, Models 1-2). Next, we re-estimate our main model using *Market Shares*, *Gross Profit*, and *EBITDA* as dependent variables. Although these variables are closely related to *Sales*, they capture effects that are unrelated to the responses of business and consumer markets to CSP (e.g., the effect of CSP on firm costs). The results of these three models (Table 5, Models 3-5) are similar to those of our main model.

——————Insert Table 5 about here——————

CSP measure

A considerable strand of the CSP literature uses financial performance and CSP variables occurring at the same time. *Sales* and *CSP* are thus contemporaneous in our main model. A potential concern with this approach is that we do not allow for a sufficient time lag between CSP and sales. We lag *CSP* by one year and re-estimate our main model using the lag of *CSP* as an independent variable. The results of this analysis (Table 6, Model 1) mirror those of our main model. Next, we examine whether the results presented in our main model are robust to other operationalizations of CSP. To do so, we compute four alternative CSP measures used in related studies (Flammer, 2015; Lins, Servaes, and Tamayo, 2017; Servaes and Tamayo, 2013). The results of our analyses with these four alternative measures of CSP (Table 6, Models 2-5) are largely like those obtained with our main measure of CSP.

——————Insert Table 6 about here——————

Control variables

Following prior related work (Servaes and Tamayo, 2013), we now examine whether our results hold after controlling for firms' strategic orientations. To do so, we use four measures along which the strategy of a firm can be parsimoniously captured (Berman et al., 1999). Specifically, we add *Cost Efficiency*, *Capital Intensity*, *Capital Expenditures*, and *Selling Intensity* to the control variables already used in our main model.[xi] Controlling for firms' strategic orientations (Table 7, Model 1) yields results similar to those of our main model. Firm age might also confound the effect of CSP on firms' financial performance (Cochran and Wood, 1984; Wang, Choi, and Li, 2008; Withisuphakorn and Jiraporn, 2016). We examine this possibility by re-estimating our main model after including *Firm Age* as an additional control variable. The results of this analysis (Table 7, Model 2) are similar to those presented in our main model.

——————Insert Table 7 about here——————

R&D and advertising expenditures

The standard deviation of *R&D Intensity* is rather large (see Table 1). Therefore, to ensure that our results are not considerably influenced by extreme R&D intensity values, we winsorize *R&D*

Intensity at the 99th and 95th percentiles and re-estimate our main model. The results of these two analyses (Table 7, Models 3-4) mirror those of our main model. Next, since R&D and advertising data are often missing in the Compustat database, we consider two alternative approaches to test the robustness of our findings. First, we repeat our main analysis by excluding all observations for which either R&D or advertising expenditures are missing in the Compustat database. As shown in Table 7, Model 5, this approach replicates the results of our main model. Second, when either R&D or advertising expenditures are missing, we set that firm's R&D or advertising intensity for that year to the average reported R&D or advertising intensity in the firm's industry for that year. We compute the industry average R&D or advertising intensity at the four-digit SIC level (if there are no other firms with that four-digit SIC code, we compute it at the three-digit SIC level). We also create two indicator variables that specify whether R&D expenditures or advertising expenditures are missing in the Compustat database. We then re-estimate our main model, including these four variables (Table 7, Model 6). We find similar results to those of our main model.

Utility and financial firms

Since utility companies (SIC codes 4900-4999) are typically local monopolies and financial firms (SIC codes 6000-6999) tend to have capital structures idiosyncratic to their industry, we examine whether our results hold after excluding these two types of firms from our sample. As shown in Table 7, Model 7, this is the case.

Endogeneity – instrumental variable

We address potential concerns related to omitted variables and reverse causality by re-estimating our main model using the instrumental variable technique (for a discussion, see Bascle, 2008). Specifically, we estimate a two-stage least squares (2SLS) model and employ two instruments that have been used in prior related research (for the reasoning behind the choice of these instrumental variables, see El Ghoul et al., 2011; Jiraporn et al., 2014; Kim, Li, and Li, 2014). Our first instrument is the average CSP score of geographically proximate firms, that is, the average CSP score of all other firms headquartered in the same four-digit ZIP code. Our second instrument is the average CSP score of industry peers, that is, the average CSP score of all the other firms with the same three-digit SIC code. In our 2SLS estimation, we consider only firms in ZIP and SIC codes with at least three firms to avoid mechanical relationships between the variables.[xii] As our main model contains two potentially endogenous regressors (*CSP* and *CSP* × *PMP*), our estimation considers these two

instruments and their interactions with the product-market profile as instrumental variables. The rationale for selecting these instruments is that they are related to our CSP measure (relevance condition) but uncorrelated with the error term in the estimated model (exogenous condition). The first-stage *F*-statistic equals 31.757 and exceeds the Stock and Yogo (2005) critical thresholds for weak instruments by a large margin (threshold for 5% maximal relative bias = 11.04; 10% maximal size = 16.87), which shows that our instruments satisfy the relevance condition and are strong. *Hansen's J* test (*J*-statistic = 1.423; $p > 0.45$) indicates that our instruments also satisfy the exogeneity condition. Taken together, these two tests indicate that our instruments are valid and imply that they affect *Sales* through *CSP*.

The results of our 2SLS estimation are presented in Table 8. As expected, in the first-stage estimation, the two instruments are positively and significantly related to *CSP* (Table 8, Model 1), and the interactions between the two instruments and *PMP* are positively and significantly related to the *CSP* × *PMP* interaction term (Table 8, Model 2). In the second-stage estimation (Table 8, Model 3), the effect of *CSP* on *Sales* is negative and significant, as is the interaction between the instrumented *CSP* score and *PMP* on *Sales*. The results of this 2SLS estimation replicate those of our main model, showing that our results are not artifacts of endogenous relationships.

Concluding discussion and implications

In this article, we first examine the relationship between CSP and top-line performance and whether this relationship is contingent on a firm's product-market profile. We find that higher CSP tends to have a negative effect on the top-line performance of B2C firms but either an insignificant or negative and economically small impact on that of B2B firms. Next, we examine whether the CSP-sales link differs across various specific CSP domains and whether CSP can impact firm value when the moderating effect of the product-market profile is taken into empirical consideration. We find that the CSP-sales link is either statistically insignificant or negative in all but one (employee diversity) of the seven CSP domains. We also find some evidence that CSP and firm value are positively associated for both B2B and B2C firms. These findings are theoretically and substantively important.

Theoretical contributions, limitations, and future research directions

Our findings add to the extant CSP literature in several ways. First, we systematically document the effect of CSP on top-line performance. Our findings contradict the widespread belief that there is a generally positive association between CSP and sales; this belief is not borne out by statistical

evidence. Thus, our study casts doubt on a theoretical explanation for the positive effect of CSP on firm value, which is that higher CSP increases firm value *because* it increases sales. While this theoretical account is often used to explain the positive effect of CSP on firm value, the CSP-sales link had remained largely untested. Our results suggest that the positive association between CSP and firm value might not occur through the sales route but perhaps through other routes (e.g., lower capital constraints, higher employee satisfaction, brand trust; Cheng, Ioannou, and Serafeim, 2014; Lee and Chen, 2018; Perrini et al., 2010). Future work should thus seek to uncover the mechanisms that underlie the positive impact of CSP on firm value. We consider reverse causality when testing the effect of CSP on top-line performance. Specifically, a 2SLS model demonstrates that reverse causality does not bias our results and that CSP drives sales. However, our results should not be taken as evidence that sales cannot drive CSP. Future work could add to ours by exploring when sales can drive CSP.

We also show that the effect of CSP on top-line performance is contingent on whether firms operate principally in business or consumer markets. Our results thus suggest that the implicit assumption made in the literature that CSP has a similar effect on the performance of B2B and B2C firms might, at times, lack validity. In contrast to current practice, our results indicate that different theoretical and empirical models of the effect of CSP on firm performance should be formulated for B2B and B2C firms. At a minimum, models should account for the effects of product-market profiles. These are important contributions for two reasons. First, prior CSP studies have typically used secondary datasets that conflate B2B and B2C firms and, thus, might not have fully captured the influence of CSP on firm performance. Second, while prior studies often highlight the role of individual consumer responses to CSP, they frequently use datasets that comprise a much larger number of firms selling to organizational buyers. For example, more than 80% of firms included in the KLD Stats database are B2B firms. If, as we demonstrate, the effect of CSP is contingent on whether firms operate principally in business or consumer markets, then this misalignment between theory and data constitutes a problem that future work must seek to avoid. In addition, since CSP-related theories have often been tested using datasets containing mostly B2B firms, future research should explore whether the findings of prior CSP studies can be generalized to B2C firms.

A limitation of our study is that our data do not allow us to provide evidence regarding the mechanisms underlying our findings. Based on work discussed previously, we suppose that CSP is not positively associated with top-line performance because higher CSP has little to no influence on the demand and willingness to pay of a large majority of individual consumers and organizational

buyers who do not consider CSP an important purchase criterion. In addition, consumers and buyers are often unaware of firms' CSP. The negative effect of CSP on sales can be explained in at least three ways: first, by firms diverting resources from sales-building activities to CSP-building activities, which have little to no actual influence on sales; second, by negative reactions caused by a feeling that firms seek to deceive consumers and cover up questionable practices by appearing socially responsible; and third, by the fact that consumers and buyers might buy fewer goods and services marketed as socially responsible because they are perceived to be of poorer quality or more expensive. Future work could add to ours by jointly testing these alternative explanations. Based on work discussed previously, we expect the effect of CSP on top-line performance to be contingent on the product-market profile because customers in business markets differ greatly from those in consumer markets in aspects that could relate to CSP. However, our data do not allow us to pinpoint specific differences, which future research might seek to remedy.

Adding to prior work (Testa et al., 2018), our findings also document some conditions under which CSP can backfire. Although our results tend to indicate that higher CSP has either a negative or insignificant effect on top-line performance, they do not imply that CSP is not an effective means of increasing firm performance. By engaging in CSP, firms might gain financial and nonfinancial advantages that we do not consider in our study. For instance, higher CSP can lead to lower capital constraints (Cheng, Ioannou, and Serafeim, 2014), higher employee satisfaction and retention (Lee and Chen, 2018), and stronger relationships with stakeholders. CSP might also positively impact firm performance only (or more strongly) when the market suffers a negative shock (Benlemlih and Bitar, 2018; Ducassy, 2013; Lins, Servaes, and Tamayo, 2017), or it might act as an insurance that mitigates the severity of the sanctions imposed by stakeholders when socially irresponsible acts are committed or when firms fail to respond adequately to a crisis (Godfrey, 2005). These advantages might explain why shareholders often place a premium on CSP, even though our results indicate that higher CSP has a strong negative impact on the sales of B2C firms and either an insignificant or negative and economically trivial impact on that of B2B firms. In addition, previously reported results reveal that CSP can lead to higher firm value and that CSP in the domain of employee diversity is positively associated with sales. These results suggest that the belief that higher CSP increases sales and firm value is not entirely misplaced. These results also show that the effect of CSP is more complex and multifaceted than prior studies suggest. In fact, adding to a growing body of evidence (Luffarelli and Awaysheh, 2018; Michelon, Boesso, and Kumar, 2013; Ting and Yin, 2018), our work shows that

CSP in different domains can have dissimilar effects on firms' top-line performance and that CSP can have opposite effects on different measures of performance.

Our study provides some evidence that shareholders tend to regard CSP as a strategic asset, irrespective of whether firms operate in B2B or B2C markets. They also advance the understanding of the influence of CSP on another key group of stakeholders: customers. Specifically, our findings suggest that individual consumers and organizational buyers tend to react negatively to CSP and that individual consumers tend to react even more negatively to CSP than organizational buyers. Thus, our findings corroborate those of prior studies on the role of CSP in the purchasing decisions and decision-making processes of individual consumers (Bray, Johns, and Kilburn, 2011; Carrington, Neville, and Whitwell, 2010; Eckhardt, Belk, and Devinney, 2010; Mohr, Webb, and Harris, 2001; Öberseder, Schlegelmilch, and Gruber, 2011). In particular, our findings are consistent with prior work that finds that individual consumers often react negatively to CSP because they are suspicious of the intentions of firms that seek to appear socially responsible (Skarmeas and Leonidou, 2013; Skarmeas, Leonidou, and Saridakis, 2014; Vlachos et al., 2009). These findings are also consistent with prior work that shows that different stakeholders react differently to CSP (Chang, Kim, and Li, 2014). However, our findings are inconsistent with extant research on the effect of CSP on organizational buyers. Specifically, while surveys and experiments might suggest that organizational buyers purchase more from firms that are more socially responsible (Biong, 2013; Hietbrink, Berens, and van Rekom, 2010; Homburg, Stierl, and Bornemann, 2013), we find that actual purchasing behaviors of organizational buyers might not follow from intentions. As previously discussed, this discrepancy might result from social desirability bias in surveys and experiments. More work is needed to understand this discrepancy.

Our work has other limitations, which provide additional directions for future research. First, as in prior studies, we operationalize CSP as the sum of all the strengths minus all the concerns for the seven CSP domains covered in the KLD Stats database. However, consumers might react differently to CSP strengths and concerns (Baskenti et al., 2019; Kang, Germann, and Grewal, 2016). Future research could thus explore the independent effects of strengths and concerns in business and consumer markets. When we estimate the effect on sales of CSP based only on strengths, we find, as in Table 2, that CSP is not significantly associated with sales ($\beta = 0.003$; $p > 0.15$). Second, some firms might operate in both business and consumer markets. Our data did not allow us to identify these firms. Our measure of the product-market profile indicates the market in which the firm principally operates. Future work could explore how CSP influences the financial performance of

firms that operate in both types of market. Third, we use the KLD Stats database, which is not without limitations. Future research could replicate our findings using data from other sources. Finally, future research could make a valuable contribution to the literature by investigating why CSP in the domain of employee diversity is associated with higher sales for both B2B and B2C firms (for potential explanations, see Bear, Rahman, and Post, 2010; Cox and Blake 1991).

Managerial implications

Our findings should help managers better understand how CSP can affect firm performance and thus devise CSP strategies in a more effective and informed manner. Our study reveals that managers might face an important and thus far undocumented strategic dilemma: higher CSP is likely to increase firm value but decrease top-line performance, while lower CSP is likely to hurt firm value but boost sales. Hence, the implementation of a CSP strategy appears to be a delicate trade-off between satisfying shareholders who appear to place a premium on CSP and attracting customers who do not seem to react positively to higher CSP. Importantly, our results do not imply that higher CSP per se boosts firm value and harms sales; rather, our results might simply reflect the way managers currently formulate and implement CSP strategies.

Our findings also yield other actionable insights for managers. First, our findings show that using CSP as a strategic tool can indeed have a significant effect on firm performance. Second, our findings demonstrate that managers must understand that while CSP can boost firm value and bring other financial and nonfinancial advantages, CSP is unlikely to boost sales. Managers seeking to boost sales should likely strive to foster CSP in the domain of employee diversity. Third, our findings indicate that B2B and B2C managers should not strive to imitate the successful CSP campaigns implemented by B2C and B2B firms, respectively because product-market profiles can moderate the effects of CSP. Consequently, the same CSP strategy can have different and even opposite effects on B2C and B2B firms. These managerial implications are important because managers frequently lack clear CSP strategies and often make CSP-related decisions in nonstrategic ways (Haanaes et al., 2012; Homburg, Stierl, and Bornemann, 2013).

Endnotes

[i] These domains are corporate governance, employee relations, environment, human rights, community, product quality, and employee diversity (see the variables subsection for more details).

[ii] Lev, Petrovits, and Radhakrishnan (2010) show that philanthropic contributions by firms between the years 1989 and 2000 are positively associated with sales growth. While this work is, in spirit, related to ours, philanthropic contributions represent only a small component of CSP, as it refers solely to discretionary "gifts given by corporations to social and charitable causes" (Wang, Choi, and Li, 2008).

[iii] Due to license restrictions, we were unable to obtain data for more recent years.

[iv] We log-transform sales for two reasons. First, in our data, the residuals better approximate a normal distribution with a mean centered at zero with a log-transformation. Second, a log-transformation allows us to better interpret the coefficients in our models.

[v] Firms with the following four-digit SIC codes are categorized as B2C: 2011-2273, 2299-2399, 2511-2519, 2676-2741, 2771, 2842, 2844, 2851, 3142-3199, 3261-3269, 3421, 3634-3641, 3711, 3714-3716, 3751, 3911, 3931-3952, 3961-3991, 3995, 4121, 4724, 4725, 5012, 5021, 5023, 5091, 5093-5099, 5122-5154, 5181, 5182, 5192-6011, 6411-6515, 6531-6541, 7011-7299, 7513-8699, and 8811. Firms with the other four-digit SIC codes are categorized as B2B.

[vi] Lev, Petrovits, and Radhakrishnan (2010) propose a different classification of product-market profiles. While this classification has clear merits, it inadequately categorizes a number of firms. For example, it categorizes firms engaging in veterinary services for livestock, timber production, furniture manufacturing for public buildings (e.g., schools and libraries), industrial organic chemicals manufacturing, and industrial electric equipment manufacturing as B2C firms (SIC codes 0741, 0811, 2531, 2869, and 3629, respectively). Further, it categorizes taxicabs, travel agencies, tour operators, firms that sell building materials to the general public, and real estate agents as B2B firms (SIC codes 4121, 4724, 4725, 5211, and 6531, respectively).

[vii] Following prior work, sales is used to construct *Advertising Intensity, R&D Intensity,* and *Herfindahl Index*. To ensure the results of our models are not affected by potential mechanical relationships between the dependent variable (*Sales*) and these three control variables, we re-estimate all the models presented in our tables with *Sales* as the dependent variable, scaling advertising expenditures and R&D expenditures by the book value of total assets (instead of sales) and excluding *Herfindahl Index.* The results of these re-estimated models (untabulated but available upon request) are similar to those reported in our tables.

[viii] Using the natural logarithm of the market value of equity is an established way to operationalize firm size (e.g., Lins, Servaes, and Tamayo, 2017). We use it because using other measures of firm size (e.g., the natural logarithm of the number of employees) as control variables leads to severe multicollinearity.

[ix] We also conduct a follow-up split-group analysis in which we examine the effect of *CSP* for the subsample of B2B firms and the subsample of B2C firms separately. In these two models, we include the same control variables as those in our main model. The results of this analysis (untabulated but

available upon request) are similar to those of our main model. Specifically, the effect of *CSP* is negative and statistically significant for B2C firms but negative, small and only marginally significant for B2B firms.

[x] In our main model (Table 2, Model 4), the coefficients of the effects of *CSP* and the interaction between *CSP* and *PMP* on *Sales* are -0.004 and -0.008, respectively. Thus, for B2C firms, a one-point increase in *CSP* is associated with a 1.2% decrease (-0.012 = -0.004 -0.008) in *Sales*. Since the standard deviation of *CSP* equals 2.519, a one-standard-deviation increase in *CSP* is associated with a 3% decrease in *Sales* (0.030 = -0.012 × 2.519). The mean value of *Sales* (which is log-transformed) is 6.702 ($4,474 million). Hence, a 3% decrease in *Sales* corresponds to approximately $134 million.

[xi] Following Berman et al. (1999), sales is used to construct *Cost Efficiency*, *Capital Expenditures*, and *Selling Intensity*. To ensure that our results are not affected by potential mechanical relationships between the dependent variable and these three additional control variables, we repeated the analysis presented in Table 7, Model 1, scaling these three control variables by the book value of total assets (instead of sales). The results of these analyses (untabulated but available upon request) are similar to those reported in Table 7, Model 1.

[xii] In two robustness tests (untabulated but available upon request), we relax this constraint and consider firms in ZIP and SIC codes with either at least two or four firms. We find that the results presented in Table 8 are robust to these two alternative model specifications.

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Table 1: Summary statistics

	Panel A. B2B and B2C Firms					
	N	Mean	Std. Dev.	10th %ile	Median	90th %ile
Sales						
in $ million	23,769	4,474	17,051	97.45	773	8,525
log-transformed	23,769	6.702	1.845	4.579	6.65	9.051
PMP	23,769	0.178	0.382	0	0	1
CSP	23,769	-0.426	2.519	-3	-1	2
Advertising Intensity	23,769	0.012	0.076	0	0	0.031
R&D Intensity	23,769	0.997	37.73	0	0	0.172
Leverage	23,677	0.232	0.24	0	0.181	0.540
Cash						
in $ million	23,768	1,438	13,861	12.62	119	1,293
log-transformed	23,726	4.828	1.909	2.555	4.782	7.167
Firm Size						
in $ million	23,691	5,689	20,677	195	1,050	10,881
log-transformed	23,691	7.118	1.585	5.275	6.956	9.295
Herfindahl Index	23,763	0.206	0.185	0.033	0.156	0.449

	Panel B. B2B Firms Only						Panel C. B2C Firms Only					
	N	Mean	Std. Dev.	10th %ile	Median	90th %ile	*N*	Mean	Std. Dev.	10th %ile	Median	90th %ile
Sales												
in $ million	19,546	3,897	14,742	83.59	666	7,567	4,223	7,147	24,941	173	1,431	12,148
log-transformed	19,546	6.548	1.865	4.426	6.502	8.932	4,223	7.410	1.568	5.589	7.266	9.405
CSP	19,546	-0.433	2.470	-3	-1	2	4,223	-0.391	2.735	-3	-1	2
Advertising Intensity	19,546	0.009	0.081	0	0	0.019	4,223	0.027	0.043	0	0.010	0.072
R&D Intensity	19,546	1.21	41.60	0	0	0.196	4,223	0.009	0.058	0	0	0.020
Leverage	19,470	0.228	0.234	0	0.174	0.535	4,207	0.255	0.266	0	0.212	0.556
Cash												
in $ million	19,545	1,641	15,239	13.61	125	1,389	4,223	498	2,323	9.597	89.72	942
log-transformed	19,510	4.896	1.920	2.631	4.835	7.238	4,216	4.511	1.826	2.276	4.499	6.851
Firm Size												
in $ million	19,478	5,748	21,462	198	1,051	10,484	4,213	5,416	16,574	109	1,041	11,979
log-transformed	19,478	7.115	1.574	5.289	6.957	9.258	4,213	7.131	1.638	5.189	6.948	9.391
Herfindahl Index	19,545	0.188	0.174	0.031	0.142	0.537	4,218	0.285	0.212	0.087	0.214	0.601

Notes. *Sales* is the natural logarithm of sales (Compustat item: sale). *PMP* is a binary variable that equals 1 if a firm principally operates in consumer markets and 0 if a firm principally operates in business markets. *CSP* is the sum of all the strengths minus all the concerns for the seven CSP domains covered in the KLD Stats database (i.e., corporate governance, employee relations, environment, human rights, community, product quality, and diversity). *Advertising Intensity* is the ratio of advertising expenditures to sales (Compustat items: xad / sale). *R&D Intensity* is the ratio of R&D expenditures to sales (Compustat items: xrd / sale). *Leverage* is the ratio of debt in current liabilities plus long-term debt to the book value of total assets (Compustat items: [dlc + dltt] / at). *Cash* is the natural logarithm of cash and short-term investments (Compustat item: che). *Firm Size* is the natural logarithm of the market value of equity (Compustat items: prccf × csho). *Herfindahl Index* is the sales-based Herfindahl index for all the firms in the Compustat database at the four-digit SIC level.

Table 2: Main results

	Basic Model	Basic Model with Interaction	Basic Model with Interaction and Firm Fixed Effects	Main Model
	[1]	[2]	[3]	[4]
PMP	0.991***	0.985***		
	(0.066)	(0.066)		
CSP	-0.002	0.000	-0.002	-0.004†
	(0.002)	(0.002)	(0.002)	(0.002)
CSP × PMP		-0.010*	-0.010*	-0.008*
		(0.005)	(0.005)	(0.004)
Advertising Intensity				-0.520***
				(0.063)
R&D Intensity				-0.007†
				(0.004)
Leverage				0.405***
				(0.065)
Cash				0.035***
				(0.005)
Firm Size				0.248***
				(0.011)
Herfindahl Index				-0.187*
				(0.073)
Intercept	5.854***	5.855***	6.435***	4.460***
	(0.034)	(0.034)	(0.010)	(0.084)
Year Fixed Effects	Yes	Yes	Yes	Yes
Firm Fixed Effects	No	No	Yes	Yes
R^2	0.143	0.144	0.144	0.292
N	23,769	23,769	23,769	23,556

Notes. The dependent variable in each of the models is the natural logarithm of sales (Compustat item: sale). We used cluster-robust estimates of variance. Standard errors are clustered at the firm level. In models with firm fixed effects, *PMP* is automatically omitted because it is time invariant and naturally absorbed by the inclusion of firm fixed effects. *N* varies across models because of missing data in the Compustat database.

*** $p \leq 0.001$, ** $p \leq 0.01$, * $p \leq 0.05$, † $p \leq 0.10$

Table 3: CSP domains

	Corporate Governance CSP [1]	Employee Relations CSP [2]	Environment CSP [3]	Human Rights CSP [4]	Community CSP [5]	Product Quality CSP [6]	Diversity CSP [7]
CSP	-0.015**	0.000	-0.017***	-0.011	-0.021*	-0.020**	0.009*
	(0.006)	(0.005)	(0.005)	(0.020)	(0.009)	(0.008)	(0.005)
CSP × PMP	-0.019†	-0.016*	-0.032**	-0.057†	0.000	-0.016	0.007
	(0.010)	(0.008)	(0.013)	(0.035)	(0.024)	(0.015)	(0.008)
Advertising Intensity	-0.519***	-0.520***	-0.519***	-0.520***	-0.519***	-0.521***	-0.519***
	(0.062)	(0.063)	(0.062)	(0.063)	(0.062)	(0.063)	(0.062)
R&D Intensity	-0.007†	-0.007†	-0.007†	-0.007†	-0.007†	-0.007†	-0.007†
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Leverage	0.405***	0.404***	0.406***	0.405***	0.405***	0.403***	0.403***
	(0.065)	(0.065)	(0.065)	(0.065)	(0.065)	(0.065)	(0.065)
Cash	0.035***	0.035***	0.035***	0.035***	0.035***	0.035***	0.035***
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
Firm Size	0.248***	0.248***	0.249***	0.248***	0.248***	0.248***	0.248***
	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)
Herfindahl Index	-0.189**	-0.185**	-0.188**	-0.189**	-0.193**	-0.189**	-0.187**
	(0.074)	(0.074)	(0.073)	(0.073)	(0.073)	(0.074)	(0.074)
Intercept	4.463***	4.465***	4.458***	4.466***	4.469***	4.461***	4.468***
	(0.084)	(0.084)	(0.084)	(0.084)	(0.084)	(0.084)	(0.084)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.292	0.291	0.292	0.291	0.291	0.292	0.292
N	23,556	23,556	23,556	23,556	23,556	23,556	23,556

Notes. The dependent variable is the natural logarithm of sales (Compustat item: sale). In each model, the *CSP* variable refers to the domain designated above the model number and is computing by subtracting the sum of the concerns from the sum of the strengths for the designated CSP domain. We used cluster-robust estimates of variance. Standard errors are clustered at the firm level. *PMP* is automatically omitted from the models because it is time invariant and naturally absorbed by the inclusion of firm fixed effects.

*** $p \leq 0.001$, ** $p \leq 0.01$, * $p \leq 0.05$, † $p \leq 0.10$

Table 4: Firm value

	Market value of equity	Enterprise value	Tobin's q
	[1]	[2]	[3]
CSP	0.007**	0.008***	0.001
	(0.002)	(0.002)	(0.002)
CSP × PMP	-0.002	-0.006	0.007*
	(0.005)	(0.005)	(0.003)
Advertising intensity	0.293***	0.414***	0.043
	(0.035)	(0.047)	(0.028)
R&D intensity	0.003	0.004	-0.000
	(0.002)	(0.002)	(0.000)
Leverage	-0.798***	0.335***	-0.097+
	(0.087)	(0.059)	(0.052)
Cash	0.097***	0.042***	0.011**
	(0.007)	(0.007)	(0.004)
ROA	0.558***	0.471***	0.124+
	(0.132)	(0.101)	(0.077)
Sales	0.381***	0.463***	-0.062***
	(0.026)	(0.031)	(0.014)
Herfindahl index	0.188*	0.133	0.066
	(0.091)	(0.091)	(0.061)
Intercept	4.380***	4.002***	1.016***
	(0.163)	(0.193)	(0.088)
Year fixed effects	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes
R^2	0.387	0.309	0.199
N	23,556	22,160	20,188

Notes. *Market Value of Equity* is computed by multiplying the price of a common share by the number of common shares outstanding (Compustat items: prccf × csho). *Enterprise Value* is computed as follows: price of a common share × number of common shares outstanding + debt in current liabilities + long term debt + minority interest + preferred stock value – cash and short term investment (Compustat items: prccf × csho + dlc + dltt + mib + pstkrv – che). *Tobin's q* is computed as follows: (book value of total assets + price of a common share × number of common shares outstanding – book value of equity – deferred taxes and investment tax credit) / book value of total assets (Compustat items: [at + prccf × csho - ceq – txditc] / at). All three measures of firm value are log-transformed. *ROA* is the is the ratio of net income to the book value of total assets (Compustat items: ni / at). Sales is the natural logarithm of sales (Compustat item: sale). We used cluster-robust estimates of variance. Standard errors are clustered at the firm level. *PMP* is automatically omitted from the models because it is time invariant and naturally absorbed by the inclusion of firm fixed effects.

*** $p \leq 0.001$, ** $p \leq 0.01$, * $p \leq 0.05$, † $p \leq 0.10$

Table 5: Robustness tests – dependent variable

	Sales Winsorized - 99th %ile	Sales Winsorized - 95th %ile	Market Shares	Gross Profit	EBITDA
	[1]	[2]	[3]	[4]	[5]
CSP	-0.004*	-0.005***	-0.004*	-0.001	-0.001
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
CSP × PMP	-0.010**	-0.008*	-0.014**	-0.013**	-0.011**
	(0.004)	(0.003)	(0.004)	(0.004)	(0.004)
Advertising Intensity	-0.409***	-0.093**	-0.515***	-0.488	-1.705*
	(0.066)	(0.030)	(0.059)	(0.517)	(0.764)
R&D Intensity	-0.003	-0.001	-0.007†	-0.089***	-3.428***
	(0.002)	(0.000)	(0.004)	(0.026)	(0.452)
Leverage	0.388***	0.347***	0.404***	0.467***	0.529***
	(0.061)	(0.046)	(0.065)	(0.057)	(0.075)
Cash	0.035***	0.031***	0.038***	0.034***	0.043***
	(0.005)	(0.004)	(0.005)	(0.005)	(0.007)
Firm Size	0.246***	0.223***	0.234***	0.378***	0.574***
	(0.010)	(0.008)	(0.011)	(0.012)	(0.018)
Herfindahl Index	-0.190**	-0.169**	-0.346***	-0.160*	-0.147†
	(0.069)	(0.061)	(0.088)	(0.076)	(0.090)
Intercept	4.487***	4.704***	-8.369***	2.646***	0.653***
	(0.076)	(0.063)	(0.085)	(0.085)	(0.133)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes
R^2	0.298	0.321	0.213	0.304	0.310
N	23,556	23,556	23,309	22,629	20,282

Notes. *Market Shares* is the natural logarithm of the ratio of a firm's sales to the sum of the sales of all the firms in the same two-digit SIC code. *Gross Profit* and *EBITDA* are the natural logarithms of Compustat items gp and ebitda, respectively. We used cluster-robust estimates of variance. Standard errors are clustered at the firm level. *PMP* is automatically omitted from the models because it is time invariant and naturally absorbed by the inclusion of firm fixed effects. *N* varies across models because of missing data in the Compustat database.

*** $p \leq 0.001$, ** $p \leq 0.01$, * $p \leq 0.05$, † $p \leq 0.10$

Table 6: Robustness tests - CSP measure

	CSP Lagged	CSP Excluding CG	CSP Excluding CG & P	CSP Including Controversial Industries	CSP Normalized
	[1]	[2]	[3]	[4]	[5]
CSP	-0.001	-0.005**	-0.006***	-0.003	-0.024**
	(0.002)	(0.002)	(0.002)	(0.002)	(0.009)
CSP × PMP	-0.007*	-0.007*	-0.007*	-0.009*	-0.031†
	(0.004)	(0.003)	(0.003)	(0.004)	(0.017)
Advertising Intensity	-0.690*	-0.521***	-0.521***	-0.520***	-0.521***
	(0.345)	(0.063)	(0.063)	(0.063)	(0.063)
R&D Intensity	-0.011**	-0.007†	-0.007†	-0.007†	-0.007†
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Leverage	0.321***	0.404***	0.404***	0.404***	0.404***
	(0.066)	(0.065)	(0.065)	(0.065)	(0.065)
Cash	0.033***	0.035***	0.035***	0.035***	0.035***
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
Firm Size	0.228***	0.248***	0.248***	0.248***	0.248***
	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)
Herfindahl Index	-0.092	-0.187**	-0.187**	-0.187**	-0.187**
	(0.069)	(0.073)	(0.073)	(0.073)	(0.073)
Intercept	4.842***	4.456***	4.455***	4.461***	4.457***
	(0.082)	(0.084)	(0.084)	(0.084)	(0.084)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes
R^2	0.283	0.292	0.293	0.292	0.292
N	18,869	23,556	23,556	23,556	23,556

Notes. The dependent variable in each of the models is the natural logarithm of sales (Compustat item: sale). *CSP Lagged* is the lag of our main measure of CSP, which is computed by subtracting the sum of all the concerns from the sum of all the strengths for the seven CSP domains covered in the KLD Stats database (i.e., corporate governance, employee relations, environment, human rights, community, product quality, and diversity). *CSP Excluding CG* is computed by removing the corporate governance strengths and weaknesses from our main CSP measure. *CSP Excluding CG & P* is computed by removing both the corporate governance and product strengths and weaknesses from our main CSP measure. *CSP Including Controversial Industries* is computed by adding concerns for firms' involvement in controversial industries (i.e., alcohol, gambling, tobacco, firearms, nuclear power, and military). *CSP Normalized* is computed by scaling the strengths (concerns) for a CSP domain for each firm-year by the maximum number of strengths (concerns) possible for that CSP domain in that year. We used cluster-robust estimates of variance. Standard errors are clustered at the firm level. *PMP* is automatically omitted from the models because it is time invariant and naturally absorbed by the inclusion of firm fixed effects. *N* is lower in Model 1 because CSP is lagged by one year.

*** $p \leq 0.001$, ** $p \leq 0.01$, * $p \leq 0.05$, † $p \leq 0.10$

Table 7: Robustness tests - controls, R&D, advertising, and utility and financial firms

	Controlling for Resource Allocation Decisions	Controlling for Firm Age	R&D Winsorized - 99%ile	R&D Winsorized - 95%ile	Missing Adverting and R&D - 1	Missing Adverting and R&D - 2	Excluding Utility and Financial Firms
	[1]	[2]	[3]	[4]	[5]	[6]	[7]
CSP	-0.003	0.002	-0.003†	-0.004†	0.001	-0.004†	-0.005†
	(0.002)	(0.003)	(0.002)	(0.002)	(0.003)	(0.002)	(0.003)
CSP × PMP	-0.009*	-0.018*	-0.008†	-0.008*	-0.013**	-0.009*	-0.011*
	(0.004)	(0.008)	(0.004)	(0.004)	(0.004)	(0.005)	(0.005)
Advertising Intensity	-0.543	-0.509***	-0.147***	-0.526***	-0.525***	-0.001	-0.520***
	(0.410)	(0.053)	(0.036)	(0.058)	(0.065)	(0.001)	(0.057)
R&D Intensity	-0.032	-0.007†	-0.854***	-3.860***	-0.007†	-0.007	-0.007†
	(0.029)	(0.004)	(0.056)	(0.394)	(0.004)	(0.005)	(0.004)
Missing Advertising						-0.057†	
						(0.031)	
Missing R&D						-0.017	
						(0.036)	
Leverage	0.410***	0.323***	0.406***	0.421***	0.328***	0.408***	0.314***
	(0.061)	(0.071)	(0.062)	(0.071)	(0.077)	(0.068)	(0.068)
Cash	0.028***	0.040***	0.036***	0.034***	0.034***	0.034***	0.023***
	(0.005)	(0.007)	(0.005)	(0.005)	(0.007)	(0.005)	(0.006)
Firm Size	0.225***	0.253***	0.238***	0.239***	0.249***	0.259***	0.252***
	(0.010)	(0.016)	(0.009)	(0.011)	(0.014)	(0.012)	(0.014)
Herfindahl Index	-0.181**	-0.189†	-0.160*	-0.163*	-0.045	-0.226**	-0.273**
	(0.072)	(0.106)	(0.071)	(0.073)	(0.078)	(0.078)	(0.086)
Cost Efficiency	-0.163***						
	(0.035)						
Capital Intensity	0.000***						
	(0.000)						
Capital Expenditure	-0.004***						

	(0.001)						
Selling Intensity	-0.003						
	(0.003)						
Firm Age		0.194***					
		(0.025)					
Intercept	4.806***	3.742***	4.620***	4.680***	4.344***	4.355***	4.618***
	(0.079)	(0.119)	(0.072)	(0.086)	(0.102)	(0.092)	(0.099)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.370	0.344	0.433	0.276	0.302	0.306	0.307
N	19,314	12,549	23,556	23,556	16,837	21,657	17,378

Notes. The dependent variable in each of the models is the natural logarithm of sales (Compustat item: sale). *Cost Efficiency* is the ratio of cost of goods sold to sales (Compustat item: cogs / sale). *Capital Intensity* is the ratio of the book value of total assets to the number of employees (Compustat item: at / emp). *Capital Expenditures* is the ratio of capital expenditures to sales (Compustat item: capex / sale). *Selling Intensity* is the ratio of selling, general and administrative expenses to sales (Compustat item: xsga / sale). *Firm Age* is the number of years since a firm's initial public offering took place. In Model 5, we exclude all observations for which either R&D expenditures or advertising expenditures are missing in the Compustat database. In Model 6, we set a given firm's R&D intensity or advertising intensity for a given year to the average reported R&D or advertising intensity within the firm's industry for that year, when either R&D or advertising expenditures are missing in the Compustat database. We compute the industry average R&D or advertising intensity at the four-digit SIC level (if there are no other firms within the four-digit SIC level, we compute it at the three-digit or two-digit SIC level). *Missing Advertising* and *Missing R&D* are binary variables that equal 1 if advertising or R&D expenditures are missing in the Compustat database and 0 otherwise. In Model 7, we drop all utility (SIC codes 4900-4999) and financial (SIC codes 6000-6999) firms from our sample. We used cluster-robust estimates of variance. Standard errors are clustered at the firm level. *PMP* is automatically omitted from the models because it is time invariant and naturally absorbed by the inclusion of firm fixed effects. In Models 1 to 6, *N* varies because of missing data in the Compustat database. In Model 7 *N* is lower because utility and financial firms are excluded from our sample.

*** $p \leq 0.001$, ** $p \leq 0.01$, * $p \leq 0.05$, † $p \leq 0.10$

Table 8: Endogeneity – instrumental variable (2SLS estimation)

	1st Stage Estimation *CSP* [1]	1st Stage Estimation *CSP* × *PMP* [2]	2nd Stage Estimation *Sales* [3]
Average CSP Score of Geographically Proximate Firms	0.190***	-0.028**	
	(0.046)	(0.009)	
Average CSP Score of Industry Peers	0.816***	-0.035*	
	(0.089)	(0.015)	
Average CSP Score of Geographically Proximate Firms × *PMP*	0.061	0.420***	
	(0.108)	(0.099)	
Average CSP Score of Industry Peers × *PMP*	-0.229†	0.746***	
	(0.112)	(0.089)	
CSP (instrumented)			-0.022*
			(0.010)
CSP (instrumented) × *PMP*			-0.022*
			(0.011)
Advertising Intensity	-0.173**	-0.048	-0.494***
	(0.062)	(0.040)	(0.052)
R&D Intensity	0.000	0.000	-0.018***
	(0.001)	(0.001)	(0.003)
Leverage	-0.074	-0.041	0.397***
	(0.158)	(0.085)	(0.068)
Cash	-0.003	0.001	0.035***
	(0.026)	(0.012)	(0.006)
Firm Size	0.047	-0.010	0.262***
	(0.039)	(0.019)	(0.013)
Herfindahl Index	-0.544	0.079	-0.098
	(0.447)	(0.230)	(0.102)
Year Fixed Effects	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes
R^2	0.194	0.146	0.353
N	16,741	16,741	16,741

Notes. In model 1, 2, and 3, the dependent variables are *CSP*, *CSP* × *PMP*, and the natural logarithm of sales (Compustat item: sale), respectively. The average *CSP score* of geographically proximate firms and that of industry peers are calculated by considering all the other firms headquartered in the same four-digit ZIP postal code and all the other firms in the same three-digit SIC code, respectively (only firms in ZIP and SIC codes with at least three firms are considered). The instruments are valid because they satisfy both the relevance (first-stage *F*-statistic = 31.757; exceeds the critical threshold for weak instruments) and exogeneity (*Hansen's J*-statistic = 1.423; p > 0.45) conditions. We used cluster-robust estimates of variance. Standard errors are clustered at the firm level. *PMP* is automatically omitted from the models because it is time invariant and naturally absorbed by the inclusion of firm fixed effects. The constant is omitted because, by default, Stata's xtivreg2 function does not report an intercept.
*** $p \leq 0.001$, ** $p \leq 0.01$, * $p \leq 0.05$, † $p \leq 0.10$