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Corporate Social Responsibility, Product Market Perception, and Firm Value

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Abstract

We examine whether corporate social responsibility (CSR) is used to signal product quality and whether CSR affects firm value through its positive effect on product market perception. Using a proprietary database, we find that visible CSR, such as environmental and community involvement, positively impacts product market perception, particularly for standardized goods and in competitive industries, and that this impact is more pronounced for product quality attributes. Furthermore, we find that CSR indirectly increases firm value through an improvement in product market perception. We conclude that product market perception is a channel through which CSR creates firm value.

1. Introduction

"Corporate social responsibility (CSR) occurs when firms engage in activity that appears to advance social agenda beyond that which is required by law." (Siegel and Vitaliano, 2007). The importance of CSR has been growing in the last few years. In January of 2018, Larry Fink, the CEO of BlackRock, called for the corporate CEOs to think not just about profits, but also about making a "positive contribution to society".[1] In August of 2019 more than 180 of CEOs pledged that their firms' purpose was no longer to serve their owners alone, but customers, employees, suppliers and communities, too.[2]

Harjoto and Jo (2011) summarize the existing theories as to why firms undertake CSR and argue that one of the ways firms use CSR is to signal product quality.[3] Such signals deal with adverse selection arising from information asymmetry about product quality (Kirmani and Rao, 2000). As a result, while CSR is costly, it has strategic implications and is a source of competitive advantage for companies across different industries (Baron, 2001; McWilliams et al., 2006; Porter and Kramer, 2006). However, the literature on the empirical relationship between CSR and firm value is inconclusive, with many of the studies showing a positive impact of CSR on firm value, but some providing evidence in the opposite direction.[4] This relationship may be unclear because of the lack of understanding about the mechanisms through which CSR affects firm value (Servaes and Tamayo, 2013). Several studies argue that there is an indirect link between CSR and firm value (e.g. Servaes and Tamayo, 2013; Saeidi et al., 2015; Galbreath and Shum, 2012). However, the

[1] Larry Fink's Annual Letter to CEOs: A Sense of Purpose, https://www.blackrock.com/hk/en/insights/larry-fink-ceo-letter.
[2] Business Roundtable. Statement on the Purpose of Corporation, https://opportunity.businessroundtable.org/ourcommitment/
[3] Other theories of CSR argue that CSR is a result of the principal agent problem and that top management overinvests in CSR for their own interests; that investment in CSR is meant to reduce the probability of shareholder turnover; or that CSR aligns the interests of investing and non-investing stakeholders.
[4] See, for example, Garcia-Castro et al. (2010), Margolis and Walsh (2003), Margolis et al. (2007), McWilliams and Siegel (2000), Orlitzky (2001), Orlitzky et al. (2003), Van Beurden and Gossling (2008).

channels through which CSR creates value are still not well understood.

This paper investigates if CSR affects firm value through improving perceived product quality and serving as a product differentiation strategy. More specifically, we investigate whether CSR activities, especially those that are visible to customers, such as environmental and community CSR, have an effect on product market perception, and indirectly on firm value.

A survey by Accenture and United Nations Global Compact finds that 72% of the CEOs consider "brand, trust, and reputation" (2010:14) as the main reasons for undertaking CSR (Flammer, 2013). A survey of executives and investors conducted by the Economist Intelligence Unit in 2005 found that most of them (61%) believe that brand enhancement is the most important business benefit of CSR.[5] After reviewing the literature, Kitzmueller and Shimshack (2012) conclude that firms use CSR primarily to differentiate their product and signal its quality. Furthermore, the resource-based view of the firm suggests that companies may engage in CSR to enhance their brand, reputation, and trust (Barney, 1991; Porter, 1991; Porter and Kramer, 2006; 2011).

The literature on the relationship between CSR and firm value usually refers to the stakeholder theory, which predicts that CSR positively impacts shareholders' wealth because focusing on the interests of other stakeholders increases their willingness to support firms' operations. CSR may improve customer perception and satisfaction, and in this way contribute to the enhancement of product market perception. Although the customer channel is not the only possible channel that can explain the relationship between CSR and firm value, customers' perception and behavior clearly affect a company's financial performance and value. We focus on the CSR activities that are most visible to customers, more specifically environmental and

[5] Economist Intelligence Unit, 2005. The importance of corporate responsibility.

community CSR, consistent with findings from previous studies.[6]

Using a large sample of companies across different industries for the period 2001-2014, we start by providing evidence of the relationship between CSR and product market perception. Previous studies on this relationship are based on small-scale surveys, small samples, or have a limited focus.[7] We use a large sample based on a proprietary database of customer brand evaluation. The measures we use rely on a customer survey-based approach and, therefore, reflect the product market perception, in contrast with models based on financial measures or expert evaluation, which do not reflect customers' perception.

We find that CSR positively affects product market perception. This result is economically meaningful: one standard deviation increase in the CSR measure increases the product market perception measure by 10.5%. The impact is significant for both the community and environmental components of CSR. When breaking CSR into strengths and concerns, we find that both community and environmental strengths positively impact product market perception, but the negative impact of concerns is not significant. This result suggests that the strengths components of CSR are more visible. We find that there is no association between most other components of CSR, namely, employee friendliness, diversity, corporate governance, and product market perception. In addition, the positive association between community and environmental CSR is most pronounced for firms with standardized rather than differentiated goods, and for

[6] Kruger (2015) finds that the economic magnitude of the short-term market reaction is most pronounced for environmental and community related news announcements. Fisman et al. (2006) state that community CSR is the most visible aspect of CSR. Flammer (2013) finds that there is a positive stock market reaction to the announcements of eco-friendly initiatives, and a negative stock market reaction to the announcements of eco-harmful behavior. Flammer et al. (2017) find that the integration of CSR criteria in executive compensation is more pronounced with regard to environmental and community CSR (related to "dependent" stakeholders).

[7] Lai et al. (2010) is based on a survey among purchasing managers of Taiwanese manufacturing and service companies. Castaldo et al. (2009) surveyed Italian clients of retail chains offering Fair Trade products. Sen and Bhattacharya (2001) use a survey of 277 MBA students. Hsu (2012) is based on a survey conducted on policyholders of insurance companies in Taiwan. Hur et al. (2014) is based on a sample of 867 consumers surveyed in South Korea. Melo and Galan (2011) uses data from Interbrand for 47 companies.

companies in competitive industries. We also find that our results are most pronounced for a more refined measure of perceived product quality.

The results that show a positive association between community and environmental CSR and product market perception are subject to endogeneity concerns. Our results may suffer from reverse causality: it is possible that firms with strong product market perception can afford to spend more on CSR. Another potential issue that could impact our results is the omitted variables bias. We address these issues in several ways. First, we do an instrumental variable analysis using per capita CO2 emissions from fossil fuel combustion and the percentage of population that volunteer for non-profit and community organizations in the state where the firm is headquartered as instruments. Second, we do a quasi-natural experiment to examine the effect of BP Oil Spill on product market perception of firms and find that the impact of environmental and community related CSR activities on product perception is stronger after the spill for energy firms. This result suggests that these activities become more important after public relations shock to the firms in the energy industry. Overall, these analyses suggest that our results are robust to endogeneity concerns.

After showing that CSR is associated with a favorable product market perception, we analyze the indirect link between CSR and firm value, as measured by the Tobin's Q and profit margin. We find that the product market perception is significantly positively related to firm value and profit margins. One standard deviation change in product market perception increases firm value by 5.8%. Mediation analysis suggests that partial mediation occurs when product market perception is included in the Tobin's Q regression together with CSR. These results confirm our prediction that product market perception is a channel through which CSR creates firm value.

Our paper contributes to a growing body of finance literature on CSR (e.g., Ferrell et al., 2016; Kruger, 2015; Mishra, 2017; Erhemjamts et al., 2013; Deng et al., 2013; Fatemi et al., 2015; Renneboog et al., 2008; Liang and Renneboog, 2017; Lins et al., 2017; Giuli and Kostovetsky,

2014; Boone and Uysal, 2018; Adhikari, 2016). It also contributes to a relatively new examination of product market perception (Larkin, 2013; Frieder and Subrahmanyam, 2005). This paper is the first to show the heterogeneous effect of CSR on product market perception for standardized versus differentiated goods industries. This paper is also the first to examine product market perception as a channel through which CSR affects firm value. Thus, we contribute to the literature that suggests that CSR has an indirect effect on firm value (Servaes and Tamayo, 2013; Saeidi et al., 2015; Luo and Bhattacharya, 2006). We also contribute to the large body of literature that finds a positive effect of CSR on firm value, supporting the stakeholder view of the firm (e.g., Orlitzky et al., 2003; Van Beurden and Gossling, 2008; McWilliams et al., 2006).

Our paper is different from previous studies on CSR and customer perception in several ways. We establish a direct relationship between CSR and product market perception. Our results suggest that the impact of CSR on product market perception is more significant for standardized goods and in competitive industries. Servaes and Tamayo (2013) use advertising expenditures as a measure of customer awareness. They argue that advertising creates awareness about CSR among customers and can be a product differentiating strategy that enhances firm value. However, they do not test the direct impact of CSR on product market perception. Furthermore, advertising is not a good proxy for brand value and consumer loyalty (Larkin, 2013, page 235), since it could facilitate competition rather than create barriers to entry, and may be just one of the many tools used in strategic brand management. Our measure, on the other hand, captures the outcome of strategic brand management. Our paper extends the results in Melo and Galan (2011) and Torres et al. (2012), who find that CSR has a positive effect on product market perception. However, both of these papers use a much smaller sample and measures of product market perception that do not reflect customers' brand perception.[8] We also contribute to the literature by controlling

[8] Melo and Galan (2011) analyze 48 companies over the 2001-2003 time period. Therefore, they use a very limited panel

for endogeneity and examining the effect of CSR on standardized versus differentiated products, as well as competitive industries.

The rest of the paper is organized as follows: Section 2 reviews previous literature; Section 3 describes the data; Section 4 presents and discusses the results of the analysis of the relationship between CSR and product market perception, and the indirect link between CSR and firm value. Section 5 concludes.

2. Related Literature and Hypotheses Development

2.1. CSR and Product Market Perception

CSR activities may have a positive effect on product market perception through the improvement of a company's image and reputation (Hur et al., 2014; Jones, 2005; Porter and Kramer, 2006). Baron (2001) coins the term "strategic CSR" and states that companies compete for socially responsible customers. Siegel and Vitaliano (2007) claim that CSR "is likely to be integrated into the company's business-level product differentiation strategies." As a result, firms may use CSR to signal their product quality (Harjoto and Jo, 2011).

Previous research suggests that customers take into consideration firms' CSR activities when making purchase decisions, and are more likely to purchase goods from more socially responsible firms, or even willing to pay a higher price (e.g., Sen and Bhattacharya, 2001; Bhattacharya and Sen, 2004; Penn Schoen Berland, 2010, Kitzmueller and Shimshack, 2012). Kitzmueller and Shimshack (2012) state that "firms use CSR to differentiate and advertise their product or to build brand loyalty" and "CSR is meant to transmit a positive signal about firm

data. Their brand measure is based on the "Most Valuable Brands Report" provided by the consultancy firm Interbrand. Interbrand analysts evaluate the brand in terms of financial performance, role of the brand in purchase decisions, and the competitive strength of the brand. The coefficient estimate on CSR in Melo and Galan's analysis is not significant in regressions with one-year lagged brand measures for all seven qualitative areas of MSCI ESG ratings. Torres et al. (2012) analyze 57 international companies and also use brand measures based on Interbrand provided data.

quality and type." Such signaling resolves adverse selection situations that arise when buyers are unsure about the true quality of the seller's product and constitutes a sales-independent signal (Kirmani and Rao, 2000).

Fisman et al. (2006) develop a theoretical model in which CSR signals product quality. They assume that not all attributes of product quality are observed by the customer and some firms care about product quality externalities while others care only about profit. As a result, firms that care about externalities from product quality engage in CSR to signal product quality. Consequently, CSR activities that are visible to consumers are useful in signaling the firm's trustworthiness in providing quality products.

The aforementioned literature suggests that CSR activities are generally perceived to increase the product market perception of a company and its products. Therefore, we expect a positive relationship between the level of CSR engagement and product market perception.

2.1.1. Market Competition

Fisman et al. (2006) propose that CSR is a source of product differentiation in competitive industries. They argue that CSR signals the trustworthiness of the firm in providing (unobservable) quality and may be a way for firms to vertically differentiate themselves in a market where quality is difficult to observe. Therefore, they predict more CSR engagement in competitive industries because CSR serves as a source of product differentiation. However, Bagnoli and Watts (2003) predict more CSR engagement in a less competitive environment. They model CSR as a private provision of public goods at levels that vary inversely with the degree of competitiveness in the private goods markets. Therefore, there is no consensus among the theoretical predictions of the relationship between CSR and competition.

Harjoto and Jo (2011) find empirical support for the hypothesis that firms in more

competitive markets, as measured by higher advertising ratios, are more likely to engage in CSR. They also find a positive association between advertising expenditures, CSR and financial performance. Given these empirical findings and the arguments introduced by Fisman et al. (2006), we expect the impact of CSR on product market perception to be more pronounced in competitive industries.

2.1.2. Standardized vs. Differentiated Goods

It has also been shown that the more unique the product the more customers value it (Tian et al., 2001). Differentiated goods are harder to replace because they provide a unique service or product, and therefore have higher switching costs (Giannetti et al., 2011). Albuquerque et al. (2017) predict that CSR is associated with lower firm-level systematic risk for differentiated goods. They assume that greater product differentiation is a proxy for lower elasticity of substitution. We predict that CSR is associated with more positive product market perception in standardized rather than differentiated product industries, because these industries already have high product market perception and, therefore, the impact of CSR on product market perception should be lower. Furthermore, if CSR is a source of product differentiation and a signal of product quality, it will be more important in industries in which the products are more standardized, and thus the effect of CSR on product market perception will be more pronounced in standardized goods industries.

2.2. Product Market Perception and Firm Value

The resource-based view (RBV) offers one perspective to explain the value enhancement of product market perception. According to the RBV, value is derived from corporate reputation as an important strategic asset that differentiates a company from its competitors and is difficult for competing firms to replicate (Fombrun and Shanley, 1990; Roberts and Dowling, 2002). Long-

term reputation can be maintained and improved by increasing customer satisfaction (Anderson and Sullivan, 1993; Galbreath and Shum, 2012). Galbreath and Shum (2012) further contend that the relation between customer satisfaction and firm performance is entirely mediated by reputation and thus corporate reputation seems to be the driver of value from customer satisfaction. Furthermore, research on the relationship between reputation and firm performance shows financial benefits from good reputation. For example, good reputation is associated with lower firm risk (Helm, 2007) and higher sales and return on assets (Kotha et al., 2001; Roberts and Dowling, 2002). Therefore, we predict a positive association between product market perception and firm value.

Empirical studies provide additional support to the association between product market perception and value. Using the same database as we use in this paper, Larkin (2013) examines the implications of brand perception for cash flow stability and financial policy. She finds that positive brand perception lowers cash flow volatility, improves credit ratings, increases leverage, and lowers cash holdings. However, Larkin (2013) suggests that it is not clear what effect brand perception will have on firm value. On one hand favorable brand perception reduces cash flow volatility, which should improve firm value, but on the other hand it is also associated with increased leverage. Also using this database, Mizik and Jacobson (2008) examine which brand perception metrics (differentiation, relevance, esteem, knowledge, and energy) explain stock returns. They find that the relationship between brand perception and stock returns is significant for brand relevance and energy, but not for esteem and knowledge. Differentiation does not appear to have incremental information content.

2.3. CSR and Firm Value

Two existing theories have opposite predictions of the relationship between CSR and firm

value: the stakeholder value maximization view and the shareholder expense view (Gregory and Whittaker, 2013).[9] The stakeholder theory posits that CSR has a positive effect on shareholder wealth because focusing on the interests of other stakeholders increases their willingness to support firm's operations. This argument is in line with the contract theory and theory of the firm, which views the firm as a nexus of contracts between shareholders and other stakeholders that supply critical resources. These contracts can be explicit or implicit, and firms can default on the implicit contracts. The value of these contracts depends on stakeholders' expectations of the firm honoring its commitments. CSR initiatives contribute to increasing the firm's reputation for keeping its commitments, and therefore increase the incentives of stakeholders to contribute with resources and effort to the firm (Freeman, 1984; Jensen, 2001; Freeman and McVea, 2001; Freeman et al., 2004). Therefore, CSR improves financial performance by improving the relationships of a firm with its stakeholder groups.

The shareholder expense view suggests that CSR is undertaken at the expense of shareholders and, therefore, lowers firm value (Friedman, 1970; Friedman, 1998; Cronqvist et al., 2009; Pagano and Volpin, 2005). Friedman suggests that the mere existence of CSR is a manifestation of agency problems. The agency theory perspective implies that CSR expenditures are a misuse of funds that should be used for projects that add value to shareholders, and that CSR expenditures are an executive perk (McWilliams et al., 2006).

In addition, the empirical research on the relationship between CSR and financial performance is not clear, with most of the studies showing a positive relationship, but some finding a negative relationship, or no relationship (e.g., Garcia-Castro et al., 2010; Margolis and Walsh, 2003; Margolis et al., 2007; McWilliams and Siegel, 2000; Orlitzky, 2001; Orlitzky et al., 2003; Van Beurden and Gossling, 2008; Bhandari and Javakhadze, 2017). For example, Kruger (2015)

[9] The "Freeman versus Friedman" proposition (Gregory and Whittaker, 2013).

examines short-term market reaction to CSR news announcements and finds strong negative reaction to negative events and weak negative reaction to positive events. He also finds that improving CSR can be value enhancing when CSR news are aimed at offsetting prior corporate social irresponsibility, and the reaction is more pronounced for CSR news that contain strong economic and legal information. Flammer (2013) finds a positive market reaction to positive environmental CSR announcements and a negative reaction to negative announcements. Margolis et al. (2007) find a modest positive average correlation between CSR and financial performance.

Despite the conflicting empirical results found in the literature, a vast body of research provides arguments for a positive impact of CSR on firm value. Barnett (2007) argues that the impact of CSR on firm value depends on the ability of CSR to influence stakeholders in the firm. Firms are able to charge premium prices because of the improved relation between the firm and its stakeholders.

Theoretical research also attempts to provide an insight on how CSR creates value for the company. Albuquerque et al. (2017) develop a model in which investment in CSR decisions are considered a mechanism to acquire customer loyalty. Their model considers that the profit of firms with more loyal demand is less sensitive to aggregate economic fluctuations and, consequently, these firms exhibit lower systematic risk and higher valuation. Another paper, by Schuler and Cording (2006), examines the role of advertising intensity in the CSR-value relationship. They develop a model of planned behavior that incorporates information intensity and moral values. In their model, information intensity measures the likelihood that consumers have information about a company's CSR, and consumer's moral values have a direct effect on purchasing behavior. They assume that moral values will interact with CSR information intensity in influencing brand attitude and subjective or social norms.

Servaes and Tamayo (2013) examine the role of customer awareness on the impact of CSR

on firm value. They differentiate between signaling and consumer awareness arguments and suggest that a necessary condition for CSR to influence firm value is consumer's awareness of CSR. They conjecture that advertising reduces information gap between the firm and its customers, which makes it more likely that customers will find out about CSR and reward the firm for it. Using advertising expenditures as a proxy for consumer awareness, they find a positive association between CSR and firm value only for firms with high levels of advertising expenditures.

The aforementioned research suggests that CSR may directly impact firm value, but CSR also improves customer satisfaction, reputation, and product market perception, which in turn have a positive effect on firm financial performance. Therefore, CSR may impact firm value either directly or indirectly. We hypothesize that product market perception is a mechanism of value creation through CSR, and has a mediating role on the relationship between CSR and firm performance.

3. Data

3.1. Product Market Perception

Brand Asset Valuator is a proprietary brand assessment model developed by BAV Consulting, a subsidiary of Young & Rubicam. BAV surveys more than 16,000 US households to evaluate brands on a wide range of attributes. BAV Consulting conducted pilot surveys in 1993 and 1997 and has been conducting the survey annually since 2001. We use the following attributes measured in the survey to construct our *Product Market Perception* measure: 1) Relevance, 2) Knowledge, 3) Distinctive, 4) Unique, 5) Dynamic, 6) Innovative, 7) Leader, 8) Reliable, 9) High-quality, 10) Trusthworthy.[10] Since these measures are not all measured in the same scale

[10] These attributes are also used by BAV Consulting to create their Brand Asset measures. The only difference is that we substituted "Personal Regard" with "Trustworthy" since the former measure was not available to us. For a more detailed description of these measures, please see Mizik and Jacobson (2008). We choose not to use BAV's Brand Asset

(for example Relevance is measured in a 1-7 scale, while Unique is the percentage of people surveyed that responded "yes"), we first compute z-scores for each of these items across all brands and take their average.

The BAV questionnaire is conducted at the brand level. Thus, we manually link the brand to the companies. We follow Larkin (2013) and identify the brand that is closest to the corporation's name and use its brand asset score. The details of this procedure based on the type of brands is provided in the Appendix.

After we link the brands to companies, we merge this dataset with Compustat and MSCI ESG Research database (formerly known as KLD). The resulting database has 2,505 firm-year observations for 364 unique firms. In our sample, we use BAV surveys for 1997, and 2001 to 2014, and MSCI data for 1996, and 2000 to 2013.[11]

3.2. Corporate Social Responsibility

We use MSCI ESG Research database (formerly known as KLD Research and Analytics Database) to construct measures of social and environmental performance. MSCI provides social responsibility research and indexes for institutional investors. It gathers data about companies from a variety of sources such as company filings, general media sources, annual questionnaires sent to companies' investor relations offices, academic publications and government data. After information is collected, an analyst from a sector-specific research team evaluates and rates the firm based on screens called "strengths" and "concerns" in seven major areas: Community, corporate governance, diversity, employee relations, environment, human rights,

composite measure since BAV does not report how they combined these attributes into one measure. Instead, we average the standardized components of the measure to create our measure. The results using BAV's composite measure are similar to the ones reported in this paper.

[11] Since our MSCI ESG data starts in 1995, we exclude the BAV survey results for 1993 from our analysis.

product safety and quality. In this paper, we are interested in the ratings that are visible to customers. Thus, we focus on the screens for community and environment. The list of the screens we use in our analyses is as shown below.

1) *Community Strengths*: Charitable giving, innovative giving, support for housing, support for education, non-US charitable giving, volunteer programs, community engagement, other community strength.
2) *Community Concerns*: Investment controversies, negative economic impact, tax disputes, other community concern.
3) *Environmental Strengths*: Beneficial products and services, pollution prevention, recycling, clean energy, communications, and other strength, management systems strength, water stress, biodiversity and land use, raw material sourcing, natural resource use, green buildings, renewable energy, waste management, energy efficiency, product carbon footprint, insuring climate change risk.
4) *Environmental Concerns*: Hazardous waste, regulatory problems, ozone depleting chemicals, substantial emissions, agricultural chemicals, climate change, and other concerns, negative impact of products and services, and use and biodiversity, non-carbon releases, supply chain management.

MSCI refines its ratings every several years, thus changing the number of strengths and concerns in each rating category. For example there are 6 environmental concern screens in 1997, but 7 in 1998. In order to make strengths or concerns comparable within each category across years, we scale the strengths and concerns by dividing the number of strengths (concerns) for each firm-year within each CSR category by the maximum possible number of strengths (concerns) in each category-year. Thus, our indices of strengths and concerns range from 0 to 1.

3.3. Control Variables

We include several firm-level controls in our analysis. These data was obtained from Compustat. We control for firm size (log of total assets), market-to-book ratio (the ratio of market value of assets to total assets), leverage (the ratio of total debt to total assets), return on assets (the ratio of operating income before depreciation to total assets), advertising expenses over sales, research and development expenses over sales, and selling, general, and administrative expenses over sales. Following prior literature, advertising expenses, research and development, and selling, general and administrative expenses are set equal to zero when missing. In addition, we control for factors that could significantly affect product market perception. We control for corporate reputation with indicator variables for whether the firm has faced class action lawsuits for that year, has restated its financial statements, and has cut its dividend. We obtained the data to construct these variables from the Stanford Law School & Cornerstone Research database, Audit Analytics, and Compustat, respectively. We also control for managerial ability, organizational capital, and boardroom reputation. For managerial ability, we use the measure developed in Demerjian et al. (2012).[12] Following Lev and Radhakrishnan (2005) and Eisfeldt and Papanikolaou (2013), we measure organizational capital using capitalized SG&A expense. For boardroom reputation, we include board size, percentage of independent directors, and the ratio of directors' equity based compensation to their total compensation. We winsorize all Compustat variables (except log of total assets) at the top and bottom 1%. We also include Fama-French 48 industry and year dummies in our regressions.

[12] The measure is generated using Data Envelopment Analysis and measures managers' efficiency in generating revenues from a given set of inputs. The measure is available for download at http://faculty.washington.edu/pdemerj/data.html.

3.4. Summary Statistics

Table 1 shows the summary statistics for the data. The firms in the sample are quite large, with a median total asset value of around $5.9 billion. The median firm in the sample has a market-to-book ratio of 1.79, and is highly levered, with a debt ratio of 43.5%. At the median, sample firms are also quite profitable, with a ROA ratio of 15.3%.

The last column of Table 1 shows the correlation of MSCI ESG ratings and firm variables with the product market perception measure. The *Community/Environment CSR* measure is positively correlated with product market perception at 13.5%. The product market perception measure is also positively correlated with firm size, market-to-book, advertising expenses, operating profitability, and managerial ability. It has a negative correlations with leverage, restatement, dividend cut, and organizational capital.

Table 2 compares the industry distribution of the sample firms with Compustat firms. The BAV sample is more heavily weighted towards consumer durables and retail. This is expected, since product market perception is more important in business-to-consumer industries, and less so in business-to-business industries. However, the overall sample includes a wide variety of companies from different industries. Our sample is similar to that analyzed by Larkin (2013). Our sample excludes financial firms and utilities.

4. Results

4.1. CSR and Product Market Perception

In Table 3, we examine the relation between community and environmental CSR and product market perception (*Product Perception* for short) using the following regressions specification:

$$Product\ Perception_{i,t+1} = \alpha + \beta\ CSR_{i.t} + \gamma\ Firm\ controls_{i.t} + Industry\ dummies_{i.t} + Year\ dummies_{t} + \varepsilon_{i.t} \quad (1)$$

We predict a positive relation between CSR and product perception. The results in Column (1) show that community and environmental CSR are significantly and positively correlated with product market perception, supporting our prediction. The coefficient estimate of 0.392 indicates that one standard deviation increase in the CSR measure increases the product perception measure by 10.5%. Columns (2) and (3) show the effect of community and environmental CSR on product market perception separately. The results show that both of these CSR components are significantly and positively linked to product market perception. One standard deviation increase in environmental CSR is associated with an 8.7% increase in product market perception, while one standard deviation increase in community related CSR is associated with a 2.95% increase in product market perception. Thus, the effect of environment related CSR on product market perception is stronger than that of community related CSR. The results also show that product market perception is positively related to size and market-to-book ratio. In some specifications advertising expenditures have positive and significant coefficient while leverage, ROA, R&D, litigation and dividend cut have negative and significant coefficients. Models (1) through (3) and (6) use Fama and French industry dummies. Models (4) and (5) replicate model (1) with 2-digit and 3-digit SIC code industry dummies, respectively, and show that our results are robust to the definition of industries. In Column (6) we also include the following board of directors related measures: board size, percentage of independent directors, and the ratio of directors' equity based compensation to their total compensation. Our results remain robust to including these measures.

In Table 4, we analyze the effect of CSR strengths and concerns separately. Flammer (2013) finds that stock market reacts to both eco-friendly and eco-harmful events, but that the reaction to eco-friendly events is larger in absolute terms than the reaction to eco-harmful events. Kruger (2015) finds that there is a negative stock market reaction to both positive and negative community and environmental CSR announcements, but that the reaction to positive announcements is less

negative. This evidence suggests possible heterogeneity of the effect of environmental CSR strengths and concerns on product market perception.

Our results suggest that community and environmental CSR strengths significantly positively affect product market perception. The coefficient estimate for concerns is negative, but not significant at conventional levels. When examining community and environmental CSR separately, we find that both community and environmental strengths are positively linked to product market perception, while both community and environmental concerns variables are not significant.

In Table 5, we examine the relation between product market perception and other components of CSR: human rights, employee friendliness, diversity, and corporate governance. The coefficients on employee friendliness and corporate governance are positive, but not statistically significant. The coefficient on human rights is negative and significant, while coefficient on diversity is negative but statistically not significant. One possible explanation for this result is that resources spent on human rights and diversity concerns are viewed as resources which do not impact product market perception.

4.2. Endogeneity Concerns

One concern about the findings in the section above is that the effect is driven by endonegeity issues. One possible issue is reverse causality, since firms with strong product market perception can afford to spend more on CSR activities such as giving back to the community and protecting the environment. Furthermore, our results might suffer from omitted variables bias. There may be unobservable characteristics that affect both CSR and product market perception. For example, firms with strong culture and management might invest more in CSR and in enhancement of product market perception. We address these concerns in two ways. First, we run

an instrumental variables regression. Second, we use a BP Oil Spill as a quasi-natural experiment.

Our first approach is to use instrumental variables. Recent literature suggests that CSR activities around the location of the firm have a significant effect on the firm's CSR activities through knowledge spillovers and institutional pressures (Husted, Jamali, and Saffar (2016)). Thus, we expect the firm's CSR activities to be affected by environmental and community related activities around the firm's location. In this spirit, we use two instruments in our IV analyses. First, we use per capita CO2 emissions from fossil fuel combustion in the state where the firm is headquartered. We collect this data from the Environmental Protection Agency's website (epa.gov). We expect firms located in areas where CO2 emissions are higher to have lower CSR. Second, we use the percentage of state's population that volunteer for non-profit and community organizations as an instrument. We gather this data from The Corporation for National and Community Service, which uses Current Population Survey by US Census Bureau to compile this data. We expect volunteerism rates within a state to be positively related to our CSR measure. However, we do not expect CO2 emissions and volunteer rates in company's headquartered state to have a direct effect on product perception. In these regressions, we also control for state characteristics such as state's population, median household income, and unemployment rate.

We present the results of the instrumental variable regressions in Table 6. We find that CO2 emissions is significantly negatively, and volunteerism rate in the firm's headquartered state is significantly positively related to environmental and community CSR. The first-stage F-statistics is about 19, suggesting that our instrumental variables are not weak. P-values of overidentification tests (Sargan's (1958) and Basmann's (1960) chi-squared tests) are not significant suggesting that our instruments are valid. Further, Wooldridge's (1995) robust score test rejects the null hypothesis that our measure of environmental and community CSR is exogenous in the model.

Column (2) of Table 6 show that the coefficient estimate for our environmental and

community CSR measure remains significant and positive in the second-stage of the instrumental variable regression, indicating that environmental and community related activities of firms have a positive impact on product perception.

Our second approach is to use the BP Oil Spill as a quasi-natural experiment. In 2010, Deepwater Horizon oil rig operated by British Petroleum (BP) exploded, causing one of the largest marine oil spills.[13] The event had devastating effects on marine life in the Gulf of Mexico and is considered one of the largest environmental disasters in U.S. history. The event also attracted attention to energy firms and their impact on the environment. Our original hypotheses were developed on the basis of competitive differentiation and signaling value of CSR activities. Thus, we expect firms which have successfully differentiated themselves from competition with their CSR activities to have better product market perception relative to competitors after an exogenous negative shock to the industry's CSR perception, such as the BP Oil spill. We also expect these effects to be seen only in energy industry because BP Oil spill shock primarily affected energy industry.

In Table 7, we examine the effect of this event on product market perception of energy firms. We find that the impact of environmental and community related CSR activities is stronger after the spill for energy firms.[14] This result suggests that these activities become more important after public relations shock to the firms in the energy industry. In placebo tests, reported in Table 7, we do not find a significant effect of environmental and community related CSR activities on brand-value after BP oil spill for other industries.

Overall, the results from the instrumental variable regressions and a quasi-natural

[13]Białkowski and Starks (2016) also uses BP Oil Spill as an exogenous event to study the effect of corporate environmental failures on Socially Responsible Investment (SRI) fund flows. Their results show higher inflows to SRI funds compared to conventional funds following the BP Oil Spill.

[14] We use the lagged value of community and environment related CSR measure (before oil spill) in our analysis to account for the possibility that firms can increase these activities after the oil spill.

experiment analysis indicate that the positive effect of CSR on product market perception is robust to endogeneity concerns.

4.3. CSR and Product Market Perception in Competitive Industries, and in Differentiated versus Standardized Goods Industries

In Table 8, we examine whether CSR has a greater effect on product market perception in competitive industries, and in differentiated versus standardized goods industries.[15] We find that the interaction between CSR and *Competitive industry* dummy is positive and significant in the regression on *Product Perception* (Table 8 Column 1).[16] This result provides support for the Fisman et al. (2006) argument that CSR serves as a source of product differentiation in competitive industries.

We also find support for the prediction that CSR is associated with more positive product market perception in standardized rather than differentiated product industries. Standardized goods have lower switching costs and substitution elasticities. Therefore, the impact of CSR on product market perception is likely stronger in standardized products industries. As shown in Column 2 of Table 8, while both the CSR variable and the differentiated goods industry variable have positive and significant coefficients, their interaction is negative and significant.

An alternative way to distinguish differentiated goods from standardized goods is by the amount of research and development (R&D) spent by the company. Companies with standardized goods are likely to have small levels of R&D. We include in our model a dummy variable that takes the value of one if the firm has not reported R&D expenditure for that year, and zero

[15] Following Giannetti et al. (2011), differentiated product industries are: furniture and fixture; printing and publishing; rubber and plastic products; stone, glass, and clay products; fabricated metal products; machinery; electrical equipment; transportation equipment; instruments; miscellaneous products.

[16] We define competitive industries using historical fitted SIC-based HHI data http://hobergphillips.usc.edu/industryconcen.htm. This data is available only through 2005. For the rest of the years, we calculate HHI based on 3-digit industry and define firms in the bottom 25th percentile as competitive. The results of the tests with HHI based on 3-digit SIC are similar but weaker.

otherwise, and interact it with the CSR variable (Table 8, Column 3). We find that the variable *No R&D* is negative and statistically significant, indicating a negative association with product market perception. However, the interaction between the *No R&D* dummy and CSR is positive and significant, suggesting that CSR has a greater positive effect on product market perception for standardized goods.

4.4. CSR and Product quality

We have argued that CSR serves as a product differentiation strategy and improves perceived product quality. Our data allows us to create a more precise measure of product quality, which includes only a subsection of attributes in our product market perception measure. We construct a *Quality* measure, which includes the attributes of the BAV database Leader, Reliable, High Quality, and Trustworthy. The measure *Other* includes the attributes Relevance, Knowledge, Distinctive, Unique, Dynamic, and Innovative. Table 9 replicates Table 8 separately for *Quality* and *Other*. We find that the coefficient on CSR is positive and significant for both measures and that the coefficient estimates of CSR for *Quality* measures are significantly higher than that of *Other* measures, indicating that CSR has a greater impact on quality-related aspects of product market perception (Table 9, Columns (1) and (2)). We find that the coefficient estimates for the interaction between CSR and the *Competitive Industry* dummy is significantly higher for *Quality* than *Other* (Table 9, Columns (3) and (4)). Further, the interaction between CSR and the *Differentiated goods* industry dummy and *No R&D* dummy is significant only for *Quality*, and the coefficient of this estimate is significantly higher than in the models with *Other* as the dependent variable. The coefficient on CSR remains significant in all models.

Overall, we find that our results of the effect of CSR on product market perception are stronger for product quality than for other attributes of product market perception. Furthermore,

the results are stronger in competitive industries and for standardized goods. These results provide further support to our arguments that CSR may signal product quality to the customers, and can be used as a tool for product differentiation.

4.5. CSR, Product Market Perception, and Firm Value

Our results, so far, suggest that firms that invest in certain CSR activities benefit in terms of improved product market perception. Thus, one channel through which CSR can improve firm performance is through improving its product market perception. We examine whether CSR affects firm value directly and indirectly through product market perception. Several papers suggest an indirect link between CSR and firm value. Luo and Bhattacharya (2006) propose a mediating effect of customer satisfaction while Servaes and Tamayo (2013) suggest that customer awareness mediates the link between CSR and firm value. Our paper is the first to examine the role of product market perception as a channel through which CSR affects firm value.

We focus on two measures of firm value. The first measure is *Tobin's Q*, which has been widely used in the literature (e.g., Servaes and Tamayo, 2013). Our results show that product market perception is significantly positively related to contemporaneous and one-year ahead Tobin's Q (Table 10, Columns 2 and 4).[17] One standard deviation change in product market perception increases one-year ahead Tobin's Q by about 5.8%. Consistent with prior literature we find that coefficient on CSR is positive and significant when product market perception is excluded (Table 10, Columns (1) and (3)), but becomes insignificant when product market perception is included (Table 10, Columns (2) and (4)). These results suggests that CSR affects firm value only indirectly through its effect on product market perception. We discuss mediation analysis in the

[17] We have slightly higher number of observations in these tests, because, consistent with previous literature that use mediation analysis, we use contemporaneous values of both *Community/Environment CSR* and *Product Perception*. In our earlier tests, we use contemporaneous value of the CSR measure, and one-year ahead value of our product market perception measure.

next section. Our results are similar to those in Servaes and Tamayo (2013), who find that CSR affects firm value only through its interaction with advertising intensity. However, as discussed earlier, we argue that our product market perception measure is a more direct measure of consumer channel than advertising intensity. Moreover, we control for advertising expenditures in all our models.

Lys et al. (2015) find that firms undertake CSR expenditures in the current period when they anticipate stronger future financial performance. To account for the possibility of the endogeneity of CSR and firm performance, we instrument CSR with State Volunteer Rate and State CO2 Emissions, as we did in our instrumental variable regressions in Table 6. We use the predicted value *of Community/Environment CSR* in our Tobin's Q regressions. In untabulated results, the product market perception continues to be positively related to Tobin's Q.

It is also possible that highly valued firms can afford to spend more on advertising, thus have better product market perception. To address this endogeneity concern, we also run instrumental variable regressions. In these regressions, we use two variables from BAV survey that are related to consumer perception of the brand, but are not related to firm's financial policy as instruments. These variables are percentage of households that responded positively to the questions ―the one I prefer to buy/use and ―the one I would never consider to buy/use. [18] In unreported results, we find that the instrumental variable one I prefer to buy/use is significantly positively related, and the one I would never consider to buy/use is negatively related to our product market perception. First-stage F-statistics is 62, indicating that these instruments are not weak. P-values of overidentification tests (Sargan's (1958) and Basmann's (1960) chi-squared tests) are not significant suggesting that our instruments are valid. After controlling for

[18] Larkin (2013) also uses similar instruments in an earlier unpublished version of her paper.

endogeneity, product market perception continues to be positively related to Tobin's Q.[19]

Finally, we replicate our results using a different measure of firm value: profit margin. It is likely, that improved product market perception will allow companies to charge higher prices resulting in improved profit margins. As shown in Table 10, Columns (5) through (8), the coefficient on *Product Perception* is still positive and statistically significant. The coefficient on CSR is insignificant in any of these models.

4.6. Mediation Analysis

To more formally test whether product market perception is a channel through which CSR affects firm value we perform mediation analysis.[20] Traditional mediation analysis was developed by Preacher and Hayes (2004) (known as causal steps approach popularized by Baron and Kenny (1986)). This analysis would imply the following relations for our research questions:

$$\widehat{Firm\ Performance} = i_1 + c * CSR \quad (2)$$

$$\widehat{Product\ Market\ Perception} = i_2 + a * CSR \quad (3)$$

$$\widehat{Firm\ Performance} = i_3 + c' * CSR + b * Product\ Market\ Perception \quad (4)$$

In this set-up, product market perception is the mediator. When the effect of CSR on Firm Performance is decreased, partial mediation is said to have occurred. [21] In our analysis X is CSR and Y is the firm performance measures.

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[19] We also run Tobin's Q regressions with predicted values of both product market perception and community and environment related CSR measure. In unreported tests we continue to find that product market perception is positively related to Tobin's Q.

[20] This methodology has been widely used in many disciplines. For finance applications see Ferris et al. (2017) and Fedaseyeu et al. (2018)

[21] Baron and Kenny (1986) require for the coefficient *c* to be different from zero. However, more recent literature relaxes this assumption (Collins, Graham, and Flaherty (1998), MacKinnon (2000), and Shrout and Bolger (2002). Shrout and Bolger (2002) say that they "support recommendations to set aside the first step of Baron and Kenny's (1986) classic approach… we recommend that the mediation analysis proceed on the basis of the strength of the theoretical arguments rather than on the basis of the statistical test of X on Y."

Column (1) of Table 11 estimates equation (1) and finds a positive and significant coefficient on CSR. Table 3 estimates equation (1) and establishes a positive coefficient on CSR, which is robust to endogeneity concerns. Column (2) of Table 11 estimates equation (4) and finds that the coefficient on product market perception is positive and significant, while the coefficient on CSR becomes insignificant. Coefficient on CSR is reduced by 43% due to the addition of product market perception, suggesting that partial mediation has occurred. These results show that product market perception is a channel through which CSR affects firm value.

5. Conclusion

Using a large and proprietary database of product market perception, we are able to directly examine how CSR activities of the firm impact product market perception. We find that community and environmental CSR improve product market perception. This result suggests that the customer channel is an important channel through which CSR affects the firm. Using a quasi-natural experiment and instrumental variable regressions, we show that the positive relation between environmental and community CSR and product market perception is robust to controlling for endogeneity.

We also find that the effect of CSR on product market perception is stronger for CSR strengths rather than concerns. The effect of CSR on product market perception is positive and highly significant for both community and environmental strengths. The effect is negative and significant for environmental concerns, but not significant for community concerns. This result suggests that possibly there is more customer awareness about CSR strengths than concerns. We find that other CSR components (employee friendliness, diversity, and corporate governance) are not associated with product market perception. In addition, we find that the association between CSR and product market perception is weaker for differentiated goods industries compared to

standardized goods industries, and stronger for competitive industries. Furthermore, this association is more pronounced for product quality attributes than for other attributes of the product market perception.

We also contribute to the literature examining the relation between CSR and firm value. We find that product market perception is significantly positively related to firm value, but CSR is not when product market perception is included in the regression. This result is consistent with the stakeholder view of CSR and suggests that CSR increases firm value indirectly by improving product market perception.

Overall, we find that visible CSR, such as community and environmental, positively affects firm value by improving product market perception. The results suggest that the customer is an important stakeholder through which CSR creates firm value.

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Appendix

We follow Larkin (2013) and identify the brand that is closest to the corporation's name as follows:

Monobrands: For monobrands, brand represents all or most of the firm's business (e.g., Starbucks, FedEx, Delta Airlines). Since the company and brand names are the same, we use the brand perception scores of the brand for the company.

Corporate brands: The corporate name is dominant in the brand name (e.g., Apple, Colgate). In this case, we use brand perception scores for the company name. For example, we use the brand scores of Apple, instead of iPhone or iPad.

House of brands: For house of brands strategy, the corporation does not use its corporate name in brands. For example, Procter and Gamble owns Olay, Tide, Crest toothpastes, etc. Although in these cases it might be more accurate to use the weighted average of the brand perception scores of the company, implementing this approach is challenging. Ideally, we should use a weighted average (based on revenues or profits) brand scores of each product the company owns. However, companies do not typically report the revenues for each product. Furthermore, BAV data does not include all the brands that a company owns. Fortunately, BAV not only surveys the brands but the company as well. For example, BAV data includes brand perception scores for Procter and Gamble as well as some of its brands. In our study, we use the brand scores of the company (in this example Procter and Gamble) rather than the average score of the brands of the company.

Mixed brands: Sometimes corporations use their name for some of their products, but not for others. For example, Gap Inc. is the owner of Gap Stores, Banana Republic, Old Navy, and Athleta brands. In these case, we use the brand perception scores of the brand that is most similar to the name of the company (e.g., Gap for Gap Inc.).

Table 1: Summary Statistics

This table reports summary statistics for the sample. The sample consist of 2,505 firm-year observations. *Product Perception* an average of standardized values of the following: Relevance, Knowledge, Distinctive, Unique, Dynamic, Innovative, Leader, Reliable, High quality, and Trustworthy. *Community/Environmental CSR* is the difference between community and environmental CSR strengths and concerns from MSCI ESG Research database. *Log (Assets)* is the logarithm of total assets. *MB ratio* is the ratio of market value of assets to book value of assets. *Leverage* is the ratio of the sum of current liability and long-term debt to total assets. *ROA* is the ratio of operating income to total assets. *Advertising/Sales* is the ratio of advertising expense to sales. *R&D/Sales* is the ratio of research and development expense to sales. *SG&A/Sales* is the ratio of selling, general, and administrative expenses to sales. *Managerial Ability* is the measure by Demerjian, Lev, and McVay (2012). *Litigation*, *Restatement*, and *Dividend Cut* are dummy variables that equal one if the company faced class action lawsuits, restated its financials, and cut its dividend for that year, respectively. *Organizational Capital* is calculated following Eisfeldt and Papanikolaou (2013) and scaled by total assets. The last column of the table reports the correlation of the variables with brand asset measure.

	Mean	Median	Std. Dev.	Correlation with brand value
Product Perception	0.152	0.055	0.649	1.000
Community/Environmental CSR	0.059	0.000	0.268	0.135
Community CSR	0.056	0.000	0.206	0.137
Environmental CSR	0.070	0.000	0.216	0.149
Log(Assets)	8.671	8.682	1.747	0.256
MB ratio	2.183	1.793	1.374	0.163
Leverage	0.457	0.435	0.265	-0.014
ROA	0.157	0.153	0.095	0.093
Advertising/Sales	0.031	0.018	0.040	0.109
R&D/Sales	0.032	0.000	0.066	0.028
SG&A/Sales	0.257	0.236	0.161	0.043
Managerial Ability	0.636	0.700	0.315	0.173
Litigation	0.036	0.000	0.186	0.015
Restatement	0.054	0.000	0.227	-0.024
Dividend cut	0.154	0.000	0.361	-0.001
Organizational Capital	0.069	0.010	0.218	-0.087

Table 2: Industry Distribution

This table presents the Fama-French 12 industry distribution of Compustat firms and the sample firms. The distribution is calculated based on both the number of firms and market capitalization of the firms in each industry category.

		Number of firms		Market capitalization	
		BAV	Compustat	BAV	Compustat
Business Equipment	Computers, Software, and Electronic Equipment	15.53	16.26	24.31	13.13
Chemicals	Chemicals and Allied Products	4.9	1.89	5.88	3.35
Consumer Durables	Cars, TV's, Furniture, Household Appliances	3.79	2	1.19	2.59
Energy	Oil, Gas, and Coal Extraction and Products	2.4	4.15	11.19	10.72
Health	Healthcare, Medical Equipment, and Drugs	3.67	9.64	12.02	9.19
Manufacturing	Machinery, Trucks, Planes, Office Furniture, Paper, Commercial Printing	11.66	7.58	8.13	6.37
Consumer Nondurables	Food, Tobacco, Textiles, Apparel, Leather, Toys	17.37	4.01	9.42	6.52
Other	Mines, Construction, Building Materials, Transportation, Hotels, Business Services, Entertainment	8.70	28.57	6.64	12.09
Shops	Wholesale, Retail, and Some Services	27.90	6.9	14.63	6.43
Telecommunications	Telephone and Television Transmission	4.11	3	6.51	8.66

Table 3: Product Market Perception and Community and Environmental CSR

This table reports the OLS regression results of Community and Environmental CSR measures on Product Perception. *Product Perception* is an average of standardized values of the following: Relevance, Knowledge, Distinctive, Unique, Dynamic, Innovative, Leader, Reliable, High quality, Trustworthy. *Community/Environmental CSR* is the difference between community and environmental CSR strengths and concerns from MSCI ESG Research database. Details of the calculation of these measures are described in the text. *Log (Assets)* is the logarithm of total assets. *MB ratio* is the ratio of market value of assets to book value of assets. *Leverage* is the ratio of the sum of current liability and long-term debt to total assets. *ROA* is the ratio of operating income to total assets. *Advertising/Sales* is the ratio of advertising expense to sales. *R&D/Sales* is the ratio of research and development expense to sales. *SG&A/Sales* is the ratio of selling, general, and administrative expenses to sales. *Managerial Ability* is the measure by Demerjian, Lev, and McVay (2012). *Litigation*, *Restatement*, and *Dividend Cut* are dummy variables that equal one if the company faced class action lawsuits, restated its financials, or cut its dividend for that year, respectively. *Organizational Capital* is calculated following Eisfeldt and Papanikolaou (2013) and scaled by total assets. *Board Size* is the number of directors on the firm's board. *Board Independence* is the percentage of independent directors on the firm's board. *Director Equity Compensation* is the ratio of equity-based director compensation to total compensation. All models include industry and year dummies, and a constant. FF48 refers to Fama and French industry dummies. *p-values* based on robust standard errors clustered at the firm level are in parentheses. *, **, and *** denote statistical significance at 10%, 5%, and 1% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
	Product perception$_{t+1}$	Product perception$_{t+1}$	Product perception$_{t+1}$	Product perception$_{t+1}$	Product perception$_{t+1}$	Product perception$_{t+1}$
Community/Environmental CSR	0.392***			0.280**	0.288***	0.295***
	(0.000)			(0.012)	(0.001)	(0.009)
Community		0.143**				
		(0.045)				
Environmental			0.401***			
			(0.001)			
Log (Assets)	0.154***	0.166***	0.156***	0.129***	0.180***	0.212***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
MB ratio	0.093***	0.095***	0.093***	0.083***	0.080***	0.053**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.035)
Leverage	-0.092	-0.095	-0.093	-0.025	-0.035	-0.249*
	(0.192)	(0.188)	(0.195)	(0.730)	(0.584)	(0.068)
ROA	-0.265	-0.225	-0.247	-0.102	-0.471*	0.462
	(0.360)	(0.442)	(0.398)	(0.747)	(0.070)	(0.250)
Advertising/Sales	1.071	1.211	1.099	2.033***	1.277*	1.343
	(0.181)	(0.135)	(0.165)	(0.008)	(0.055)	(0.156)
R&D/Sales	0.094	0.078	0.122	-1.658***	-0.883	-0.123
	(0.890)	(0.909)	(0.855)	(0.007)	(0.184)	(0.898)
SG&A/Sales	0.195	0.239	0.187	0.547*	0.333	0.362
	(0.501)	(0.413)	(0.517)	(0.065)	(0.308)	(0.292)
Managerial Ability	0.071	0.043	0.080	-0.000	0.037	0.078
	(0.238)	(0.477)	(0.175)	(0.999)	(0.469)	(0.205)
Litigation	-0.024	-0.013	-0.027	-0.100*	-0.057	-0.064
	(0.625)	(0.782)	(0.571)	(0.056)	(0.166)	(0.292)
Restatement	0.030	0.036	0.038	-0.016	0.033	0.013
	(0.499)	(0.426)	(0.395)	(0.694)	(0.309)	(0.821)
Dividend cut	-0.049	-0.046	-0.051	-0.046	-0.077**	-0.021

	(0.217)	(0.253)	(0.198)	(0.223)	(0.031)	(0.620)
Organizational Capital	-0.041	-0.045	-0.042	-0.060	-0.003	-0.021
	(0.565)	(0.531)	(0.556)	(0.477)	(0.969)	(0.836)
Board Size						-0.027
						(0.222)
Board Independence						0.012
						(0.540)
Director Equity Compensation						0.004
						(0.960)
Observations	2,505	2,505	2,505	2,505	2,505	1,864
R-squared	0.460	0.454	0.461	0.453	0.634	0.531
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Industry dummies	FF48	FF48	FF48	2-digit SIC	3-digit SIC	FF48

Table 4: Product Market Perception and Community and Environmental CSR – Strengths and Concerns

This table reports the OLS regression results of Community and Environmental CSR strengths and concerns on Product Market Perception. *Product Perception* is an average of standardized values of the following: Relevance, Knowledge, Distinctive, Unique, Dynamic, Innovative, Leader, Reliable, High quality, Trustworthy. Community and environmental concerns and strengths are calculated from MSCI ESG Research data. Details of the calculation of these measures are described in the text. *Log (Assets)* is the logarithm of total assets. *MB ratio* is the ratio of market value of assets to book value of assets. *Leverage* is the ratio of the sum of current liability and long-term debt to total assets. ROA is the ratio of operating income to total assets. *Advertising/Sales* is the ratio of advertising expense to sales. *R&D/Sales* is the ratio of research and development expense to sales. *SG&A/Sales* is the ratio of selling, general, and administrative expenses to sales. *Managerial Ability* is the measure by Demerjian, Lev, and McVay (2012). *Litigation*, *Restatement*, and *Dividend Cut* are dummy variables that equal one if the company faced class action lawsuits, restated its financials, or cut its dividend for that year, respectively. *Organizational Capital* is calculated following Eisfeldt and Papanikolaou (2013) and scaled by total assets. All models include Fama-French (1997) industry and year dummies, and a constant. *p-values* based on robust standard errors clustered at the firm level are in parentheses. *, **, and *** denote statistical significance at 10%, 5%, and 1% levels, respectively.

	(1) Product perception$_{t+1}$	(2) Product perception$_{t+1}$	(3) Product perception$_{t+1}$
Community/Environmental CSR - Strength	0.423***		
	(0.000)		
Community/Environmental CSR - Concern	-0.270		
	(0.383)		
Community - Strength		0.267***	
		(0.004)	
Community - Concern		0.022	
		(0.836)	
Environmental – Strength			0.419***
			(0.001)
Environmental - Concern			-0.341
			(0.213)
Log (Assets)	0.148***	0.153***	0.154***
	(0.000)	(0.000)	(0.000)
MB ratio	0.092***	0.094***	0.093***
	(0.000)	(0.000)	(0.000)
Leverage	-0.091	-0.095	-0.092
	(0.197)	(0.184)	(0.201)
ROA	-0.261	-0.235	-0.243
	(0.365)	(0.417)	(0.400)
Advertising/Sales	1.075	1.175	1.104
	(0.179)	(0.147)	(0.163)
R&D/Sales	0.085	0.045	0.118
	(0.899)	(0.946)	(0.860)
SG&A/Sales	0.200	0.244	0.190
	(0.489)	(0.401)	(0.508)
Managerial Ability	0.072	0.040	0.081
	(0.231)	(0.517)	(0.171)

Litigation	-0.024	-0.010	-0.028
	(0.618)	(0.835)	(0.562)
Restatement	0.029	0.033	0.037
	(0.512)	(0.469)	(0.398)
Dividend Cut	-0.048	-0.042	-0.051
	(0.229)	(0.292)	(0.199)
Organizational Capital	-0.045	-0.048	-0.045
	(0.519)	(0.502)	(0.523)
Observations	2,505	2,505	2,505
R-squared	0.461	0.457	0.461
Year dummies	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes

Table 5: Product Market Perception and Other CSR Components

This table reports the OLS regression results of other CSR measures on Product Market Perception. *Product Perception* is an average of standardized values of the following: Relevance, Knowledge, Distinctive, Unique, Dynamic, Innovative, Leader, Reliable, High quality, Trustworthy. CSR measures are calculated as the difference between CSR strengths and concerns from MSCI ESG Research database. Details of the calculation of these measures are described in the text. *Log (Assets)* is the logarithm of total assets. *MB ratio* is the ratio of market value of assets to book value of assets. *Leverage* is the ratio of the sum of current liability and long-term debt to total assets. *ROA* is the ratio of operating income to total assets. *Advertising/Sales* is the ratio of advertising expense to sales. *R&D/Sales* is the ratio of research and development expense to sales. *SG&A/Sales* is the ratio of selling, general, and administrative expenses to sales. *Managerial Ability* is the measure by Demerjian, Lev, and McVay (2012). *Litigation*, *Restatement*, and *Dividend Cut* are dummy variables that equal one if the company faced class action lawsuits, restated its financials, or cut its dividend for that year, respectively. *Organizational Capital* is calculated following Eisfeldt and Papanikolaou (2013) and scaled by total assets. All models include Fama-French (1997) industry, year dummies, and a constant. *p-values* based on robust standard errors clustered at the firm level are in parentheses. *, **, and *** denote statistical significance at 10%, 5%, and 1% levels, respectively.

	Product perception$_{t+1}$
Community	0.164**
	(0.044)
Environment	0.342**
	(0.010)
Human rights	-0.206*
	(0.084)
Employee friendliness	0.142
	(0.131)
Diversity	-0.074
	(0.414)
Corporate governance	0.091
	(0.300)
Product	0.172
	(0.192)
Log (Assets)	0.168***
	(0.000)
MB ratio	0.092***
	(0.000)
Leverage	-0.074
	(0.351)
ROA	-0.327
	(0.324)
Advertising/Sales	1.127
	(0.193)
R&D/Sales	0.195
	(0.802)
SG&A/Sales	0.166
	(0.605)
Managerial Ability	0.078
	(0.221)
Litigation	-0.070
	(0.238)

Restatement	0.024
	(0.644)
Dividend cut	-0.034
	(0.438)
Organizational capital	-0.043
	(0.549)
Observations	2,100
R-squared	0.485
Year dummies	Yes
Industry dummies	Yes

Table 6: Product Market Perception and Community and Environmental CSR – IV Regressions

This table reports the instrumental variable regression results of Community and Environmental CSR measures on Product Market Perception. *Product Perception* is an average of standardized values of the following: Relevance, Knowledge, Distinctive, Unique, Dynamic, Innovative, Leader, Reliable, High quality, Trustworthy. *Community/Environmental CSR* is the difference between community and environmental CSR strengths and concerns from MSCI ESG Research database. Details of the calculation of these measures are described in the text. *Log (Assets)* is the logarithm of total assets. *MB ratio* is the ratio of market value of assets to book value of assets. *Leverage* is the ratio of the sum of current liability and long-term debt to total assets. *ROA* is the ratio of operating income to total assets. *Advertising/Sales* is the ratio of advertising expense to sales. *R&D/Sales* is the ratio of research and development expense to sales. *SG&A/Sales* is the ratio of selling, general, and administrative expenses to sales. *Managerial Ability* is the measure by Demerjian, Lev, and McVay (2012). *Litigation*, *Restatement*, and *Dividend Cut* are dummy variables that equal one if the company faced class action lawsuits, restated its financials, or cut its dividend for that year, respectively. *Organizational Capital* is calculated following Eisfeldt and Papanikolaou (2013) and scaled by total assets. *State Volunteer Rate* is the natural logarithm of percentage of headquartered state's population that volunteer for non-profit and community organizations. *State CO2 Emissions* is the natural logarithm of per capita CO2 emissions from fossil fuel combustion in the state that the firm is headquartered. *State Population*, *State Unemployment*, *State Median Household Income* are the natural logarithms of headquartered state's population, unemployment rate, and median household income level, respectively. All models include Fama-French (1997) acquirer industry dummies, year dummies, and a constant. *p-values* based on robust standard errors clustered at the firm level are in parentheses. *, **, and *** denote statistical significance at 10%, 5%, and 1% levels, respectively.

	(1) First-stage Community/ Environmental CSR	(2) Second-stage Product Perception$_{t+1}$
Community/Environmental CSR		3.163**
		(0.042)
Log (Assets)	0.043***	0.038
	(0.000)	(0.571)
MB ratio	0.001	0.089***
	(0.885)	(0.000)
Leverage	-0.011	-0.074
	(0.497)	(0.302)
ROA	0.198***	-0.791*
	(0.006)	(0.056)
Advertising/Sales	0.527***	-0.780
	(0.005)	(0.562)
R&D/Sales	-0.004	-0.208
	(0.977)	(0.771)
SG&A/Sales	0.116*	0.002
	(0.057)	(0.995)
Managerial Ability	-0.064***	0.237*
	(0.001)	(0.052)
Litigation	0.004	-0.033
	(0.799)	(0.594)
Restatement	0.023*	-0.042
	(0.082)	(0.531)
Dividend Cut	0.011	-0.077

	(0.359)	(0.155)
Organizational Capital	-0.009	0.011
	(0.552)	(0.894)
State Population	0.006	0.010
	(0.666)	(0.834)
State Unemployment	-0.035	0.157
	(0.402)	(0.323)
State Median Household Income	-0.048	-0.526*
	(0.519)	(0.077)
State Volunteer Rate	0.171***	
	(0.004)	
State CO2 Emissions	-0.058**	
	(0.028)	
First-stage F-stat	18.77	
p-value F-stat	0.000***	
Sargan score Chi^2	0.816	
p-value Sargan score	0.366	
Basmann Chi^2	0.793	
p-value Basmann	0.373	
Observations	2,476	2,476
Year dummies	Yes	Yes
Industry dummies	Yes	Yes

Table 7: Product Market Perception and Community and Environmental CSR – Evidence from BP Oil Spill

This table shows the effect of BP oil spill on product market perception for energy firms and for firms in other industries. *Industry* is the Fama-French 12 industry reported in the first row. *Post-2010* is a dummy variable that equals one if the year is after 2010, when the BP oil spill happened. *Product Perception* is an average of standardized values of the following: Relevance, Knowledge, Distinctive, Unique, Dynamic, Innovative, Leader, Reliable, High quality, Trustworthy. *Community/Environmental CSR* is the difference between community and environmental CSR strengths and concerns from MSCI ESG Research database. Details of the calculation of these measures are described in the text. All models include control variables (as in Table 3 Column 1), year, and industry dummies, and a constant. *p-values* based on robust standard errors clustered at the firm level are in parentheses. *, **, and *** denote statistical significance at 10%, 5%, and 1% levels, respectively.

	Industry dummy=1 for Energy	Industry dummy=1 for Consumer Goods	Industry dummy=1 for Shops	Industry dummy=1 for Telecom	Industry dummy=1 for Bus. Eq.	Industry dummy=1 for Manuf,-Chem,	Industry dummy=1 for Health	Industry dummy=1 for Other
	Product perception$_{t+1}$	Product perception $_{t+1}$	Product perception $_{t+1}$	Product perception $_{t+1}$	Product perception $_{t+1}$	Product perception $_{t+1}$	Product perception $_{t+1}$	Product perception $_{t+1}$
Industry x Post-2010 x Com./Env. CSR$_{t-1}$	1.059**	-0.126	-0.086	-1.209	-0.696	0.080	-1.276	-1.481
	(0.029)	(0.838)	(0.905)	(0.516)	(0.246)	(0.863)	(0.191)	(0.360)
Industry x Post-2010	0.132	-0.065	0.102*	0.310*	0.225**	-0.203***	0.158	-0.104
	(0.405)	(0.336)	(0.096)	(0.065)	(0.018)	(0.005)	(0.261)	(0.284)
Industry x Com./Env. CSR$_{t-1}$	-1.035**	-0.061	0.066	0.826	1.113*	-0.353	1.307	1.430
	(0.041)	(0.921)	(0.933)	(0.666)	(0.093)	(0.511)	(0.224)	(0.421)
Post-2010 x Com./Env. CSR$_{t-1}$	-0.704***	-0.585**	-0.600***	-0.584***	-0.654***	-0.717***	-0.539**	-0.565**
	(0.004)	(0.014)	(0.009)	(0.008)	(0.005)	(0.007)	(0.021)	(0.011)
Com./Env. CSR$_{t-1}$	0.903***	0.820***	0.827***	0.811***	0.723***	1.013***	0.735***	0.765***
	(0.001)	(0.003)	(0.002)	(0.001)	(0.007)	(0.000)	(0.005)	(0.002)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 8: Product Market Perception and Community and Environmental CSR – Competitive Industries, Differentiated vs. Standardized Goods

This table reports the OLS regression results of Product Market Perception on interactions of Community and Environmental CSR with competitive industry, differentiated goods industry dummy variable and a dummy variable for firms with no R&D expenditure. *Product Perception* is an average of standardized values of the following: Relevance, Knowledge, Distinctive, Unique, Dynamic, Innovative, Leader, Reliable, High quality, Trustworthy. *Community/Environmental CSR* is the difference between community and environmental CSR strengths and concerns from MSCI ESG Research database. Details of the calculation of these measures are described in the text. Differentiated goods industries are defined as in Giannetti et al. (2011): furniture and fixture; printing and publishing; rubber and plastic products; stone, glass, and clay products; fabricated metal products; machinery; electrical equipment; transportation equipment; instruments; miscellaneous products. *No R&D* is a dummy variable that takes the value of one if the firm has not reported R&D expenditure for that year, and zero otherwise. All models include control variables (as in Table 3 Column 1), year dummies, and a constant. First and third models also include Fama-French (1997) industry dummies. *p-values* based on robust standard errors clustered at the firm level are in parentheses. *, **, and *** denote statistical significance at 10%, 5%, and 1% levels, respectively.

	(1) Product Perception$_{t+1}$	(2) Product Perception$_{t+1}$	(3) Product Perception$_{t+1}$
Community/Environmental CSR*Competitive industry	0.788*		
	(0.056)		
Competitive industry	-0.255***		
	(0.000)		
Community/Environmental CSR* Differentiated goods industry		-0.390*	
		(0.071)	
Differentiated goods industry		0.439***	
		(0.000)	
Community/Environmental CSR #No R&D			0.388*
			(0.063)
No R&D			-0.340***
			(0.000)
Community/Environmental CSR	0.359***	0.616***	0.264**
	(0.001)	(0.000)	(0.019)
Controls	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes
Industry dummies	Yes	No	Yes
Observations	2,505	2,505	2,505
R-squared	0.471	0.296	0.480

Table 9: Quality and Community and Environmental CSR – Competitive Industries, Differentiated vs. Standardized Goods

This table reports the OLS regression results of two components of Product Market Perception (Quality and Other) on interactions of Community and Environmental CSR with competitive industry, differentiated goods industry dummy variable and a dummy variable for firms with no R&D expenditure. *Quality* includes Leader, Reliable, High quality, and Trustworthy. *Other* includes Relevance, Knowledge, Distinctive, Unique, Dynamic, Innovative. *Community/Environmental CSR* is the difference between community and environmental CSR strengths and concerns from MSCI ESG Research database. Details of the calculation of these measures are described in the text. Differentiated goods industries are defined as in Giannetti et al. (2011): furniture and fixture; printing and publishing; rubber and plastic products; stone, glass, and clay products; fabricated metal products; machinery; electrical equipment; transportation equipment; instruments; miscellaneous products. *No R&D* is a dummy variable that takes the value of one if the firm has not reported R&D expenditure for that year, and zero otherwise. All models include control variables (as in Table 3 Column 1), year dummies, and a constant. All models, except fifth and sixth, also include Fama-French (1997) industry dummies. *p-values* based on robust standard errors clustered at the firm level are in parentheses. The last row reports p-value for the test that the coefficient estimate for CSR variable and its interaction is larger for quality measure than other measures. *, **, and *** denote statistical significance at 10%, 5%, and 1% levels, respectively.

	(1) $Quality_{t+1}$	(2) $Other_{t+1}$	(3) $Quality_{t+1}$	(4) $Other_{t+1}$	(5) $Quality_{t+1}$	(6) $Other_{t+1}$	(7) $Quality_{t+1}$	(8) $Other_{t+1}$
Community/Environmental CSR	**0.429*** **	**0.367*** **	0.371***	0.351***	0.710***	0.554***	0.247*	0.275**
	(0.002)	**(0.001)**	(0.006)	(0.001)	(0.000)	(0.000)	(0.083)	(0.011)
Community/Environmental CSR*Competitive industry			**1.411****	**0.373**				
			(0.011)	**(0.324)**				
Competitive industry			-0.364***	-0.183***				
			(0.000)	(0.004)				
Community/Environmental CSR* Differentiated goods industry					**-0.634****	**-0.227**		
					(0.028)	**(0.289)**		
Differentiated goods industry					0.548***	0.367***		
					(0.000)	(0.000)		
Community/Environmental CSR *No R&D							**0.616*** **	**0.236**
							(0.009)	**(0.277)**
No R&D							-0.337***	-0.342***
							(0.001)	(0.000)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes	No	No	Yes	Yes
Observations	2,505	2,505	2,505	2,505	2,505	2,505	2,505	2,505
R-squared	0.552	0.380	0.564	0.386	0.353	0.246	0.564	0.401
Coefficient test p-value	0.09*		0.005***		0.044**		0.011***	

Table 10: Product Market Perception, CSR, and Firm Value

This table reports OLS regressions. The dependent variables are *Tobin's Q*, which is the log of one plus the ratio of market value of assets to book value of assets, and *Profit Margin*, which is net income divided by sales. *Community/Environmental CSR* is the difference between community and environmental CSR strengths and concerns from MSCI ESG Research database. Details of the calculation of these measures are described in the text. *Log (Assets)* is the logarithm of total assets. *Leverage* is the ratio of the sum of current liability and long-term debt to total assets. *ROA* is the ratio of operating income to total assets. *Advertising/Sales* is the ratio of advertising expense to sales. *R&D/Sales* is the ratio of research and development expense to sales. *SG&A/Sales* is the ratio of selling, general, and administrative expenses to sales. *Managerial Ability* is the measure by Demerjian, Lev, and McVay (2012). *Litigation*, *Restatement*, and *Dividend Cut* are dummy variables that equal one if the company faced class action lawsuits, restated its financials, or cut its dividend for that year, respectively. *Organizational Capital* is calculated following Eisfeldt and Papanikolaou (2013) and scaled by total assets. All models include Fama-French (1997) industry dummies, year dummies, and a constant. p-values based on robust standard errors clustered at the firm level are in parentheses. *, **, and *** denote statistical significance at 10%, 5%, and 1% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Q_t	Q_t	Q_{t+1}	Q_{t+1}	Profit $margin_t$	Profit $margin_t$	Profit $margin_{t+1}$	Profit $margin_{t+1}$
Community/Environmental CSR_t	0.086*	0.042	0.086*	0.049	0.010	-0.001	0.014	0.006
	(0.070)	(0.340)	(0.087)	(0.301)	(0.489)	(0.957)	(0.305)	(0.670)
Product $Perception_t$		0.105***		0.090***		0.026***		0.018**
		(0.000)		(0.000)		(0.002)		(0.014)
Log (Assets)	-0.034***	-0.048***	-0.026***	-0.038***	0.009***	0.006*	0.012***	0.010***
	(0.000)	(0.000)	(0.002)	(0.000)	(0.002)	(0.094)	(0.000)	(0.001)
Leverage	0.122***	0.129***	0.159***	0.166***	-0.031***	-0.030***	-0.006	-0.005
	(0.005)	(0.001)	(0.000)	(0.000)	(0.001)	(0.002)	(0.600)	(0.695)
ROA	1.456***	1.422***	1.266***	1.237***	0.487***	0.479***	0.390***	0.384***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Advertising/Sales	0.085	-0.023	0.239	0.150	0.061	0.035	-0.033	-0.051
	(0.838)	(0.951)	(0.530)	(0.668)	(0.540)	(0.712)	(0.725)	(0.573)
R&D/Sales	1.068***	1.006***	1.033***	0.979***	-0.145	-0.160	-0.069	-0.080
	(0.003)	(0.003)	(0.002)	(0.002)	(0.376)	(0.302)	(0.570)	(0.486)
SG&A/Sales	0.323**	0.297**	0.310**	0.287**	-0.012	-0.018	0.054	0.049
	(0.026)	(0.030)	(0.017)	(0.020)	(0.759)	(0.632)	(0.143)	(0.171)
Managerial Ability	0.064**	0.050**	0.051*	0.039	-0.004	-0.007	-0.020*	-0.023**
	(0.014)	(0.047)	(0.054)	(0.136)	(0.736)	(0.519)	(0.056)	(0.037)
Litigation	0.003	0.003	0.030	0.029	-0.048*	-0.048*	0.002	0.002
	(0.920)	(0.922)	(0.323)	(0.325)	(0.077)	(0.076)	(0.879)	(0.891)
Restatement	-0.024	-0.026	-0.036	-0.038	-0.001	-0.001	-0.009	-0.010
	(0.296)	(0.226)	(0.135)	(0.104)	(0.940)	(0.890)	(0.330)	(0.305)
Dividend Cut	-0.058***	-0.050***	-0.046***	-0.040**	-0.022**	-0.020**	-0.024**	-0.023**
	(0.001)	(0.003)	(0.008)	(0.018)	(0.023)	(0.030)	(0.016)	(0.020)
Organizational Capital	0.090**	0.088**	0.072*	0.071*	-0.013	-0.013	-0.007	-0.007
	(0.024)	(0.017)	(0.099)	(0.092)	(0.251)	(0.231)	(0.623)	(0.608)
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,696	2,696	2,647	2,647	2,696	2,696	2,646	2,646

Table 11: Mediation Analysis

This table show the results of mediation analysis. The first column shows the effect of *Community/Environment CSR* on T*obin's Q*. The second column shows the effect when *Product Perception* is included in the specification. These equations have been jointly estimated. The last row shows the p-value for the test that the coefficient estimates for *Community/Environment CSR* in the two specifications are significantly different from each other. All model include control variables (as in Table 10), year, Fama-French (1997) industry dummies, and a constant. p-values based on robust standard errors clustered at the firm level are in parentheses. *, **, and *** denote statistical significance at 10%, 5%, and 1% levels, respectively.

	(1)	(2)
	Q_{t+1}	Q_{t+1}
Product Perception$_t$		0.090***
		(0.000)
Community/Environment CSR$_t$	0.086*	0.049
	(0.087)	(0.301)
Controls	Yes	Yes
Year dummies	Yes	Yes
Industry dummies	Yes	Yes
Coefficient test p-value	0.007***	