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Corporate Social Responsibility, Customer Satisfaction, and Market Value

Although prior research has addressed the influence of corporate social responsibility (CSR) on perceived customer responses, it is not clear whether CSR affects market value of the firm. This study develops and tests a conceptual framework, which predicts that (1) customer satisfaction partially mediates the relationship between CSR and firm market value (i.e., Tobin's *q* and stock return), (2) corporate abilities (innovativeness capability and product quality) moderate the financial returns to CSR, and (3) these moderated relationships are mediated by customer satisfaction. Based on a large-scale secondary data set, the results show support for this framework. Notably, the authors find that in firms with low innovativeness capability, CSR actually reduces customer satisfaction levels and, through the lowered satisfaction, harms market value. The uncovered mediated and asymmetrically moderated results offer important implications for marketing theory and practice.

In today's competitive market environment, corporate social responsibility (CSR) represents a high-profile notion that has strategic importance to many companies. As many as 90% of the *Fortune* 500 companies now have explicit CSR initiatives (Kotler and Lee 2004; Lichtenstein, Drumwright, and Bridgette 2004). According to a recent special report in *BusinessWeek* (Berner 2005, p. 72), large companies disclosed substantial investments in CSR initiatives (i.e., Target's donation of \$107.8 million in CSR represents 3.6% of its pretax profits, General Motors's donation of \$51.2 million represents 2.7% of its pretax profits, General Mills's donation of \$60.3 million represents 3.2% of its pretax profits, Merck's donation of \$921 million represents 11.3% of its pretax profits, and Hospital Corporation of America's donation of \$926 million represents 43.3% of its pretax profits). By dedicating ever-increasing amounts to cash donations, in-kind contributions, cause marketing, and employee volunteerism programs, companies are acting on the premise that CSR is not merely the "right thing to do" but also "the smart thing to do" (Smith 2003, p. 52).

Importantly, along with increasing media coverage of CSR issues, companies themselves are also taking direct and visible steps to communicate their CSR initiatives to

various stakeholders, including consumers. A decade ago, Drumwright (1996) observed that advertising with a social dimension was on the rise. The trend seems to continue. Many companies, including the likes of Target and Wal-Mart, have funded large national ad campaigns promoting their good works. The October 2005 issue of *InStyle* magazine alone carried more than 25 "cause" advertisements. Indeed, consumers seem to be taking notice; whereas in 1993, only 26% of people surveyed by Cone Communications could name a company as a strong corporate citizen, by 2004, the percentage surged to as high as 80% (Berner 2005).

Motivated, in part, by this mounting importance of CSR in practice, several marketing studies have found that social responsibility programs have a significant influence on several customer-related outcomes (Bhattacharya and Sen 2004). More specifically, on the basis of lab experiments, CSR is reported to affect, either directly or indirectly, consumer product responses (Brown 1998; Brown and Dacin 1997), customer-company identification (Sen and Bhattacharya 2001), customer donations to nonprofit organizations (Lichtenstein, Drumwright, and Bridgette 2004), and, more recently, customers' product attitude (Berens, Van Riel, and Van Bruggen 2005).

Although this stream of research has contributed a great deal of insight, there is still a limited understanding of whether and how CSR affects financial outcomes of the firm, such as its market value. Yet it is important to evaluate CSR's impact on market value (i.e., stock-based firm performance) because a firm's financial health is the ultimate test for the success or failure of any strategic initiative. Moreover, prior laboratory studies and anecdotal examples are yet to be complemented with a large-scale analysis using secondary data. Indeed, Brown and Dacin (1997, p. 80) urgently call for research on "how societally oriented activities might bring about positive outcomes for the firm." Echoing this, Berens, Van Riel, and Van Bruggen (2005)

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energetically call for research efforts that directly link CSR to stock market performance.

Our research responds to this call by investigating the linkage between CSR and firm market value with a longitudinal, archival data set. In keeping with contingent linkages between CSR and consumer responses that prior researchers articulated (see, e.g., Bhattacharya and Sen 2004), we do not predict a simple, unconditional relationship between CSR and market value. This is because firms are not the same in executing, supporting, and exploiting CSR initiatives in the marketplace (Brown 1998; Sen and Bhattacharya 2001). Specifically, companies may generate different (i.e., positive, nonsignificant, and negative) market returns from CSR under different conditions. For example, Starbucks's superior brand equity and its successful CSR initiatives with the charity agency CARE are due, at least in part, to its superior product quality, innovative skills, and ability to obtain and sustain customer satisfaction over time. In contrast, many companies find that CSR results in negative financial returns because of the added costs of making extensive charitable contributions and the diverted attention from improving product quality that would have allowed them to better satisfy customer needs and wants (McGuire, Sundgren, and Schneeweis 1988; Sen and Bhattacharya 2001). Thus, the research questions in this study are as follows: (1) Under what conditions do CSR initiatives result in positive financial performance? and (2) Does customer satisfaction matter in the relationship between CSR and firm performance?

To address these questions, we develop and test a conceptual model that proposes that CSR initiatives enable firms to build a base of satisfied customers, which in turn contributes positively to market value. Specifically, we predict that customer satisfaction partially mediates the relationship between CSR and market value. Although extant marketing literature has addressed the direct impact of customer satisfaction on firm shareholder value (e.g., Anderson, Fornell, and Mazvancheryl 2004; Fornell et al. 2006), the mediating role of customer satisfaction in the financial contribution of CSR has been ignored. In this study, we explicitly theorize this role and argue that building customer satisfaction represents part of the underlying mechanism through which the financial promises of CSR are capitalized.

Furthermore, we explore the boundary conditions under which firms may derive positive or negative market value from CSR. Drawing on various theoretical bases, we argue that firms that have better inside-out corporate abilities (i.e., product quality and innovativeness) to begin with tend to generate more market value from outside-in strategic initiatives (i.e., CSR programs). Conversely, firms that exhibit poorer corporate abilities may find that CSR actually harms customer satisfaction and, because of the lowered satisfaction, decreases stock performance.

Based on multiple secondary data sets that comprise ratings of large companies, the results show support for the CSR → customer satisfaction → firm market value causal linkage. In addition, we find that a proper combination of external CSR initiatives and internal corporate abilities can lead to synergistic returns. However, the data also reveal a

previously neglected "dark side" of CSR. That is, CSR actually reduces customer satisfaction levels in firms with low innovativeness capability and, through this negative impact, harms firm market value. The uncovered mediated and asymmetrically moderated results suggest a more nuanced understanding of the financial returns to CSR for both practitioners and marketing researchers.

Conceptual Framework and Hypotheses

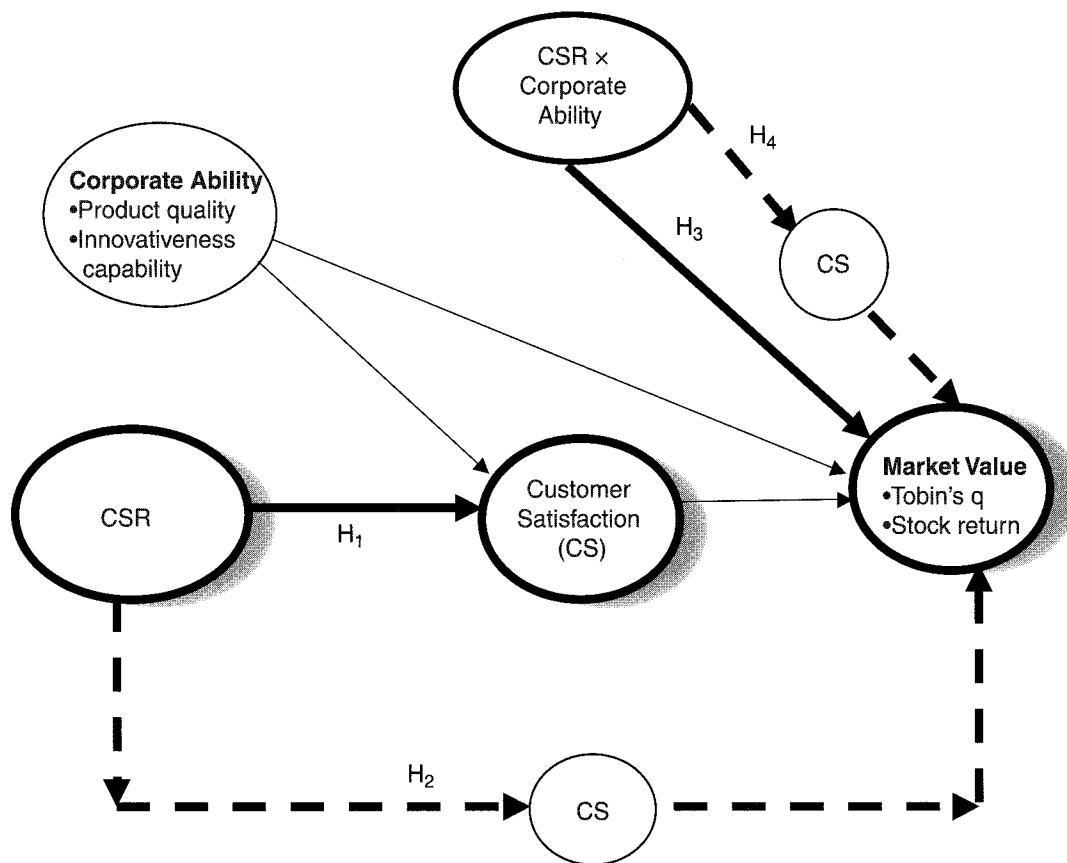
CSR and Market Value

Broadly defined, CSR is a company's activities and status related to its perceived societal or stakeholder obligations (Brown and Dacin 1997; Sen and Bhattacharya 2001; Varadarajan and Menon 1988). Although studies in strategy and finance have explored the relationship between CSR actions and firm performance, empirical evidence to date has been rather conflicting (for a review, see Orlitzky, Schmidt, and Rynes 2003; Pava and Krausz 1996). For example, the returns to CSR are found to be positive in some studies (e.g., Fombrun and Shanley 1990; Soloman and Hansen 1985) but negative in others (e.g., Aupperle, Carroll, and Hatfield 1985; McGuire, Sundgren, and Schneeweis 1988). Thus, Margolis and Walsh (2003, p. 277) conclude that the relationships between CSR and financial performance are decisively "mixed."

There are at least two explanations for these conflicting findings. First, existing studies have largely related CSR to backward-looking firm profitability (i.e., accounting-based return on investment) but not to forward-looking firm market value (i.e., stock-based Tobin's *q*). Theoretically, however, market value is different from (and perhaps more important than) return on investment because "accounting measures are retrospective and examine historical performance. In contrast, the market value of firms hinges on growth prospects and sustainability of profits, or the expected performance in the future" (Rust, Lemon, and Zeithaml 2004, p. 79). Second, the equivocal link between CSR and firm performance may be due, in part, to extant strategy and finance literature having largely omitted the underlying processes or contingency conditions that may explain the range of observed relationships (Sen and Bhattacharya 2001).

We precisely examine these research issues in this study. In particular, as we show in Figure 1, our framework proposes that the relationship between CSR and firm market value is better understood by the mediating link of customer satisfaction. In recent times, scholars (e.g., Anderson, Fornell, and Mazvancheryl 2004; Fornell et al. 2006) have demonstrated the positive relationship between customer satisfaction and market value. We build on this literature and institutional theory to propose that CSR is a driver of customer satisfaction and that the CSR–firm market value linkage exists (at least partially) because of the underlying process through customer satisfaction. In addition, drawing on work in the area of corporate identity and associations (e.g., Brown and Dacin 1997), we posit that a firm's corporate abilities (i.e., product quality and innovativeness capa-

FIGURE 1
Conceptual Framework



Notes: Bolded paths are hypothesized relationships. Unbolded paths have been studied previously (e.g., Anderson, Fornell, and Mazvancheryl 2004; Anderson, Fornell, and Rust 1997; Fornell et al. 2006; Griffin and Hauser 1996; Mithas, Krishnan, and Fornell 2005b). Dashed paths indicate that the depicted relationships are partially mediated by customer satisfaction.

bility) moderate the relationship between CSR and market value. Finally, we expect that customer satisfaction mediates, at least partially, these moderated relationships.

CSR and Customer Satisfaction

Customer satisfaction is defined as an overall evaluation based on the customer's total purchase and consumption experience with a good or service over time (Anderson, Fornell, and Mazvancheryl 2004; Fornell 1992). In the marketing literature, customer satisfaction has been recognized as an important part of corporate strategy (Fornell et al. 2006) and a key driver of firm long-term profitability and market value (Gruca and Rego 2005).

Why should a firm's CSR initiatives lead to greater customer satisfaction? At least three research streams point to such a link: First, both institutional theory (Scott 1987) and stakeholder theory (Maignan, Ferrell, and Ferrell 2005) suggest that a company's actions appeal to the multidimensionality of the consumer as not only an economic being but also a member of a family, community, and country (Handelman and Arnold 1999). Building on this, Daub and Ergenzinger (2005) propose the term "generalized customer" to denote people who are not only customers who care about the consumption experience but also actual or

potential members of various stakeholder groups that companies need to consider. Viewed in this way, such generalized customers are likely to be more satisfied by products and services that socially responsible firms (versus socially irresponsible counterparts) offer.

Second, a strong record of CSR creates a favorable context that positively boosts consumers' evaluations of and attitude toward the firm (Brown and Dacin 1997; Gürhan-Canli and Batra 2004; Sen and Bhattacharya 2001). Specifically, recent works on customer-company identification (Bhattacharya and Sen 2003, 2004) suggest that CSR initiatives constitute a key element of corporate identity that can induce customers to identify (i.e., develop a sense of connection) with the company. Indeed, Lichtenstein, Drumwright, and Bridgette (2004, p. 17) note that "a way that CSR initiatives create benefits for companies appears to be by increasing consumers' identification with the corporation ... [and] support for the company." Not surprisingly, identified customers are more likely to be satisfied with a firm's offerings (e.g., Bhattacharya, Rao, and Glynn 1995; Bhattacharya and Sen 2003).

The third literature stream that enables us to relate CSR to customer satisfaction examines the antecedents of customer satisfaction. For example, perceived value is a key

antecedent that has been empirically shown to promote customer satisfaction (Fornell et al. 1996; Mithas, Krishnan, and Fornell 2005b). In our context, all else being equal, customers likely derive better perceived value and, consequently, higher satisfaction from a product that is made by a socially responsible company (i.e., added value through good social causes). Furthermore, engaging in CSR may allow firms to understand their generalized customers better and thus improve their customer-specific knowledge (Sen and Bhattacharya 2001). Because improving customer knowledge represents another antecedent that has been found to enhance customer satisfaction (Jayachandran et al. 2005; Mithas, Krishnan, and Fornell 2005a), we believe that CSR initiatives may help promote customer satisfaction.

H₁: All else being equal, firms that are viewed more favorably for their CSR initiatives enjoy greater customer satisfaction.

The Mediating Role of Customer Satisfaction

The existing marketing literature shows accumulating evidence for the influence of customer satisfaction on firm market value. For example, firms with satisfied customers tend to enjoy greater customer loyalty (e.g., Bolton and Drew 1991; Oliver 1980), positive word of mouth (Szymanski and Henard 2001), and customer's willingness to pay premium prices (Homburg, Koschate, and Hoyer 2005), all of which can increase a firm's market value. Indeed, several studies find that firms with higher levels of customer satisfaction are able to achieve higher levels of cash flows (e.g., Gruca and Rego 2005; Fornell 1992; Mittal et al. 2005) and less volatility of future cash flows, thus leading to superior market value (e.g., Anderson, Fornell, and Mazvancheryl 2004; Fornell et al. 2006; Srivastava, Shervani, and Fahey 1998).

In linking this evidence for the influence of customer satisfaction on firm market value with our first hypothesis on the influence of CSR on satisfaction, a mediating role of customer satisfaction in the CSR–performance linkage might logically be expected. That is, CSR affects customer satisfaction, which in turn affects market value. In other words, customer satisfaction represents the mediational pathway through which CSR actions affect firm market value.

However, there may be “noncustomer routes” by which CSR affects market value. For example, both textbooks (e.g., Kotler and Lee 2004; Pava and Krausz 1996) and academic articles (e.g., Godfrey 2005; Margolis and Walsh 2003) have pointed to the impact of CSR on multiple stakeholders, such as employees and investors as well as consumers. In particular, positive “moral capital” as a result of CSR (Godfrey 2005, p. 777) could directly affect market value by improving employee morale and productivity. In addition, CSR creates public goodwill (Houston and Johnson 2000; McGuire, Sundgren, and Schneeweis 1988), which provides an “insurance-like” protection to shareholder wealth. As a consequence, putting the pieces together, we predict a partially mediating role of customer satisfaction on the impact of CSR on market value.

H₂: All else being equal, firms that are viewed more favorably for their CSR initiatives enjoy higher market value, and a

firm's customer satisfaction level at least partially mediates this influence of CSR on market value.

The Moderating Role of Corporate Abilities

In this section, we argue that the relationship between CSR and firm market value may not be universally positive but rather contingent on several boundary conditions. That is, a positive or negative relationship may be observed, depending on the levels of corporate abilities. In general, corporate abilities refer to various elements of a firm's expertise and competency, such as the ability to improve the quality of existing products/services and the ability to generate new products/services innovatively (Gatignon and Xuereb 1997; Rust, Moorman, and Dickson 2002; Zeithaml 2000). According to Brown and Dacin (1997), a company's CSR and corporate abilities *both* influence customers' perceptions of the company's products.

We expect that firms with low levels of corporate abilities (i.e., low levels of innovativeness capabilities and product quality) generate negative market value from CSR for several reasons. On the basis of institutional theory, Handelman and Arnold (1999) contend that companies should engage in CSR with good causes (for the *social* aspect of legitimation) and, at the same time, provide a good product (for the *pragmatic* aspect of legitimation). Thus, it is likely that CSR initiatives fail to generate a favorable impact if the firm is perceived as less innovative and as offering poor-quality products (i.e., due to a lack of pragmatic legitimation; see DiMaggio and Powell 1983). Indeed, Sen and Bhattacharya (2001) show that CSR initiatives may even backfire with reduced purchase intent and negative perceptions if consumers believe that CSR investments are at the expense of developing corporate abilities, such as product quality and innovativeness (i.e., investments represent “misguided priorities” on the part of the firm with low levels of corporate abilities). More important, consumers may make negative and detrimental attributions regarding a firm's motives if a low-innovativeness or low-product-quality firm engages in social responsibility. This would ultimately result in an unattractive corporate identity and, thus, negative market returns by virtue of negative word of mouth and detrimental customer complaints (Brown 1998; Varadarajan and Menon 1988).¹

Conversely, we predict that firms with high levels of corporate abilities generate positive market value from CSR. Such firms tend to possess better corporate image and more attractive identities with which consumers want to

¹Our focus here is on the moderating role of corporate ability in the CSR–performance link rather than on the direct relationship between CSR and corporate ability. That is, we do not investigate whether CSR directly affects or is related to innovativeness and product quality (i.e., corporate ability–related constructs) given the conflicting literature. On the one hand, Brown and Dacin (1997, p. 68, emphasis added) contend that “CSR associations are often *unrelated* to the company's abilities in producing goods and services.” On the other hand, it is possible that a firm's innovation is CSR oriented (e.g., environmentally responsible packaging), and CSR initiatives may affect product-quality perceptions.

identify (Bhattacharya and Sen 2003). When coupled with high corporate abilities, a firm's CSR actions are more likely to generate favorable attributions and consumer identification. This would ultimately promote performance-enhancing behaviors, such as customer loyalty (Bhattacharya and Sen 2004). Indeed, if a firm can accommodate customers and other stakeholders and meet different sets of norms (e.g., pragmatic and social norms) by not merely executing CSR initiatives but also developing strong corporate abilities to support and exploit these CSR actions, it is in a better position to win the social contract, institutional allegiance, moral legitimacy, and consumers' support for the organization (cf. Handelman and Arnold 1999, p. 34; Scott 1987). Taken together, these beneficial effects suggest a positive market return to CSR for firms with high levels of corporate abilities. Therefore, we propose an asymmetric moderating effect of corporate abilities on the association between CSR and firm market value.

H₃: Corporate abilities (i.e., product quality and innovativeness capability) moderate the relationship between CSR and market value. The relationship will be negative for firms with low corporate abilities but will be positive for firms with high corporate abilities.

The Mediating Role of Customer Satisfaction in the Moderated Relationships

Finally, as we have argued, part of the mechanism by which CSR actions influence a firm's market value is customer satisfaction. Thus, it is conceivable that the positive impact of CSR on firms with high levels of corporate abilities enhances the level of customer satisfaction, which then leads to enhanced market value (Anderson, Fornell, and Mazvancheryl 2004; Brown and Dacin 1997; Sen and Bhattacharya 2001).

On the contrary, for firms that are low in corporate ability (i.e., they are neither innovative nor competent in product quality), CSR actions may not be able to generate much institutional legitimacy, customer-company identification, or customer satisfaction (Scott 1987). As a result, CSR initiatives may relate little to financial results and market value (e.g., Margolis and Walsh 2003; Mithas, Krishnan, and Fornell 2005b) in firms with low levels of corporate abilities. Thus:

H₄: A firm's customer satisfaction at least partially mediates the moderated relationship among CSR, corporate abilities (i.e., product quality and innovativeness capability), and market value.

Data and Variable Construction

In this section, we describe the secondary data that we collected to test the hypotheses. We also present the construction of the variables, such as CSR, corporate abilities, customer satisfaction, and market value. In Table 1, we report the variables, their definitions, and data sources. We collected data for the publicly traded *Fortune* 500 companies from multiple archival sources: COMPUSTAT, *Fortune* America's Most Admired Corporations (FAMA), the American Customer Satisfaction Index (ACSI), Competi-

tive Media Reporting (CMR), and Center for Research in Security Prices (CRSP).

Measuring CSR

One approach to measuring market perceptions of firms' CSR initiatives is to rely on the amount of CSR investments disclosed in firms' annual reports to shareholders. However, there are many important doubts about the validity of the announced CSR investments, despite the seeming attractiveness of this approach. For example, there is a lack of consensus on what should be included (or excluded) in CSR investments (Margolis and Walsh 2003; Orlitzky, Schmidt, and Rynes 2003; Tsoutsoura 2004). Few companies have their announced CSR investments audited or validated externally by third parties. Thus, some firms may overreport CSR investments for impression management (i.e., exaggerating their giving). Other firms may underreport CSR investments because they may regard CSR investments only as donated cash or in-kind products and services (excluding investments that benefit the environment and their employees). Furthermore, although some external sources (e.g., 100 best corporate citizens by *Business Ethics*, *csrwire.com*, Social Responsibility Initiative reports) may track companies' CSR investments objectively, the nature and amount of CSR investments for the same firm can change dramatically from one source to another (Berner 2005; Fombrum and Shanley 1990; Margolis and Walsh 2003).

Therefore, we turn to subjective measures of CSR. Although some studies use small-scale survey data with a limited set of firms (e.g., Christmann 2000), prior research suggests the use of a more comprehensive, large-scale survey data set available from FAMA to measure CSR (McGuire, Sundgren, and Schneeweis 1988). More specifically, in ranking the United States' most admired corporations each year, FAMA polls more than 10,000 financial analysts, senior executives, and Wall Street investors from more than 580 large companies (see *Fortune* 2005, p. 68).

For each firm-year observation, FAMA collects ratings of CSR that have been made on an interval scale ranging from 0 to 10, with 10 as the highest; the ratings represent a comparison among major competing companies in a given industry. Studies in both marketing and strategy (e.g., Fombrum and Shanley 1990; Houston and Johnson 2000; McGuire, Sundgren, and Schneeweis 1988) have reported evidence of reliability and validity of this data source. In particular, McGuire, Schneeweis, and Branch (1990, p. 170) note, "*Fortune* reputation is one of the most comprehensive and widely circulated surveys of attributes available. Both the quality and number of respondents are comparable or superior to the 'expert panels' usually gathered for such purposes." Houston and Johnson (2000, p. 12) also acknowledge it as the "best secondary" data source.

Prior research has shown that there is a reverse-causality concern between CSR and financial performance (e.g., McGuire, Sundgren, and Schneeweis 1988). That is, a firm's CSR affects its future performance, and a firm's history of financial performance contributes to its current CSR involvement. We accommodate this concern by using the approach that Roberts and Dowling (2002) recommend. In

TABLE 1
Variables and Data Sources

Variables	Definitions; Measures	Secondary Data Sources	Data Types
CSR	Broadly defined as a company's activities and status related to its perceived societal or stakeholder obligations; <i>latent</i> variable indicated by CSR scores in 2001 (published in 2002), 2002 (published in 2003), and 2003 (published in 2004).	FAMA	Interval from 0 to 10
Customer satisfaction	Defined as an overall evaluation of the postconsumption experience of products or services in the minds of customers; <i>latent</i> variable indicated by customer satisfaction scores in 2002, 2003, and 2004.	ACSI	Interval from 0 to 100
Product quality	Defined as the minimum condition or the threshold of product attributes that a firm must meet when offering its products or service in competitive markets; <i>latent</i> variable indicated by quality of products/services scores in 2001, 2002, and 2003.	FAMA	Interval from 0 to 10
Innovativeness capability	Defined as a firm's ability to apply its internal knowledge stock to produce new technology, new products/services, and other new fronts; <i>latent</i> variable indicated by quality of products/services scores in 2001, 2002, and 2003.	FAMA	Interval from 0 to 10
Tobin's q	Stock price-based measure of firm market value; <i>observed</i> variable based on the average of Tobin's q in 2002, 2003, and 2004.	CRSP COMPUSTAT	Ratio
Stock return	Stock price-based measure of firm market value; <i>observed</i> variable based on the average of stock return in 2002, 2003, and 2004.	CRSP COMPUSTAT	Ratio

particular, we regress CSR scores against firm financial performance (return on assets [ROA]) in the prior four years and save the residual of this regression as the final measure of CSR. Because this residual is independent from financial performance, the reverse-causality bias is no longer a concern.

Following the work of Cho and Pucik (2005), we used the ratings of CSR for each firm in 2001, 2002, and 2003 (but published in 2002, 2003, and 2004, due to a one-year lag in print) as three separate indicators of the latent construct of CSR.² This approach of using measurement items with different time frames is also widely applied in the strategy (e.g., Li and Atuahene-Gima 2001) and personal-

selling and psychology literature streams (Bluedorn 1982; Boles, Johnston, and Hair 1997; Johnston et al. 1990; Netemeyer, Maxham, and Pullig 2005).

Measuring Corporate Abilities

We do not view corporate abilities simply as a unidimensional construct. Instead, we consider two specific corporate abilities: product quality and innovativeness capability (Gatignon and Xuereb 1997; Rust, Moorman, and Dickson 2002; Zeithaml 2000). In our view, both innovativeness and product quality can represent the dimensions of corporate ability that Brown and Dacin (1997) propose. Although product quality refers to a firm's ability to "exploit" the capabilities of products already in the marketplace (Cho and Pucik 2005; March 1991), innovativeness represents a firm's ability to "explore" new market possibilities in terms of developing new products (Kim and Mauborgne 1997; Kleinschmidt and Cooper 1991). In addition, commitment to the quality of existing products is essential for keeping a firm's current customers happy, whereas innovation is

²Cho and Pucik (2005) find strong support (construct and criterion-related validity) for using multiyear ratings from *Fortune* magazine as indicators of the underlying latent variable. McGuire, Sundgren, and Schneeweis (1988) also employ single-year CSR ratings from *Fortune* as the measure of CSR.

essential for reaching new customer bases and catering to ever-changing customer needs.

Formally, product quality can be defined as the minimum condition or the threshold of product attributes that a firm must meet when offering its products/services in competitive markets (Rust, Moorman, and Dickson 2002; Vargo and Lusch 2004; Zeithaml, Parasuraman, and Berry 1990). Prior studies have established that a firm's ability to provide a superior product/service quality is critical for its long-term survival and success (e.g., Buzzell, Gale, and Sultan 1975; Mittal et al. 2005; Rust, Moorman, and Dickson 2002).

In a similar fashion to CSR, we measure product quality by FAMA ratings in 2001, 2002, and 2003 (published in 2002, 2003, and 2004) as the underlying indicators. Again, because of the reverse causality between financial performance and FAMA ratings, we control for this bias and obtain clean measures for product quality and innovativeness capability by employing the same residual approach as in the case of CSR (e.g., Roberts and Dowling 2002).

Innovativeness capability is a firm's ability to apply its internal knowledge stock to produce new technology, new products/services, and other new fronts (Drucker 1993; Griffin and Hauser 1996). According to exploration learning theory (March 1991), innovation is also critical for the survival and success of organizations because dynamic markets constantly shake out the players that lack capabilities to explore new market opportunities (Gatignon and Xuereb 1997; Schumpeter 1934). Similar to product quality, we measure the latent variable of a firm's innovativeness capability by using its *Fortune* ratings in 2001, 2002, and 2003 from FAMA (published in 2002, 2003, and 2004) as three separate indicators underlying this construct. Prior research has employed this data source to measure companies' innovativeness capability (Cho and Pucik 2005).

Measuring Customer Satisfaction

We used the ACSI database to measure customer satisfaction. In the marketing literature, the ACSI has been shown to be a reliable source of measuring customer satisfaction. Several studies employ this database to assess overall customer satisfaction of total purchase and consumption experience at the firm level (e.g., Anderson, Fornell, and Mazvancheryl 2004; Fornell et al. 2006; Gruca and Rego 2005; Mithas, Krishnan, and Fornell 2005b; Mittal et al. 2005). The National Quality Research Center at the University of Michigan developed and maintains the ACSI data set. It has data for nearly 200 *Fortune* large companies that span all major economic sectors and constitute approximately 43% of the U.S. economy. To obtain ACSI data, more than 50,000 household consumers (actual product users) of these large firms are polled on a quarterly basis. Each valid respondent has passed screening questions related to predefined purchase and consumption periods. The ACSI uses an interval scale ranging from 0 to 100, with 100 as the highest level of customer satisfaction.

Based on multi-item, multiconstruct criteria, the ACSI is a reliable data source because it employs the same survey questionnaire, random sampling, and estimation modeling

across firms and years (Fornell et al. 1996; Fornell et al. 2006; Mithas, Krishnan, and Fornell 2005b). A comprehensive test of the validity and reliability of this satisfaction measure can be found in the work of Fornell and colleagues (1996). Parallel to CSR, innovativeness capability, and product quality, we treat customer satisfaction as a latent variable and measure it using its ACSI ratings in 2002, 2003, and 2004 as three separate indicators.

Measuring Market Value

We have two separate measures of market value at the firm level across years: Tobin's q and stock return. We follow prior marketing studies (Lee and Grewal 2004; Rao, Agarwal, and Dahlhoff 2004) to calculate Tobin's q for each firm-year observation.³ In addition, following Jacobson and colleagues (i.e., Aaker and Jacobson 1994, 2001; Mizik and Jacobson 2003), we derive the measure of stock return using the COMPUSTAT and CRSP databases.⁴ Rather than using a simple year-end stock price, we use a more conservative measure of stock price—that is, the average of the end of the four quarters of stock prices—when calculating Tobin's q and stock return (Lee and Grewal 2004). We then use the derived three-year average (2002, 2003, and 2004) of Tobin's q and stock return as observed measures for market value. Compared with market value, the predicting variables of CSR, innovativeness capability, and product quality were all lagged by one year to be more precise on the specific direction of causality and to reduce the possibility of endogeneity bias (Murthi, Srinivasan, and Kalyanaram 1996; Rust, Moorman, and Dickson 2002).

Measuring Control Variables

We obtained the data for control variables such as research-and-development (R&D) intensity, firm size, competition intensity, and ROA from COMPUSTAT, and we obtained the data for advertising intensity from CMR. More specifically, R&D intensity is the ratio of R&D spending to total assets. We control for the influence of R&D expenditures on performance because a firm's R&D intensity enhances innovation activities and investors' evaluations of the firm (Chauvin and Hirschey 1993; Gruca and Rego 2005; McGuire, Sundgren, and Schneeweis 1988).

Advertising intensity is the ratio of reported advertising spending to total assets. Because COMPUSTAT has many missing data points for firm advertising expenditure, we use

³Rao, Agarwal, and Dahlhoff (2004, p. 130) provide a detailed function on how to derive Tobin's q . That is, $q = (\text{share price} \times \text{number of common stock outstanding} + \text{liquidating value of the firm's preferred stock} + \text{short-term liabilities} - \text{short-term assets} + \text{book value of long-term debt}) / \text{book value of total assets}$.

⁴In particular, Aaker and Jacobson (2001, p. 489) and Mizik and Jacobson (2003, p. 71) suggest a detailed function on how to calculate stock return. That is, $\text{stock return} = (\text{current year's share price} \times \text{number of common stock outstanding} + \text{dividends} - \text{previous year's share price} \times \text{number of common stock outstanding}) / (\text{previous year's share price} \times \text{number of common stock outstanding})$.

the CMR database for advertising-spending data (Rao, Agarwal, and Dahlhoff 2004). We control for the influence of advertising expenditures on performance because intense advertising promotes customer awareness, brand equity, and sales revenues (e.g., Joseph and Richardson 2002; Morgan and Rego 2006).

Firm size is the log of number of employees. We control for the influence of firm size because large firms may have more resources and thus enjoy economies of scale, but small firms may have higher strategic flexibility when seeking entrepreneurial rents (Dutta, Narasimhan, and Rajiv 1999; Rao, Agarwal, and Dahlhoff 2004).

Strategic focus is the number of business segments in which the firm operates (Rao, Agarwal, and Dahlhoff 2004). This variable is available directly from the menu choice at the Compact Disclosure (CD-ROM), which defines it as "the number of unique business segments of an individual company." We control for this influence because of possible diversification effects. That is, more diversified firms may have a faster asset turnover rate and exhibit economies of scope. However, highly diversified firms may lack focus in the highly segmented, competitive marketplace and thus experience negative returns (Fombrum and Shanley 1990; Gruca and Rego 2005).

We measure competition intensity by using the Herfindahl concentration index, derived from COMPUSTAT. Following prior work (Gruca and Rego 2005; Mithas, Krishnan, and Fornell 2005a), we calculate this concentration index at the primary four-digit industry level of Standard Industrial Classification codes (which has been replaced by the North American Industry Classification System) for each firm-year observation. We use this covariate to control for impact of industry competition level (Rao, Agarwal, and Dahlhoff 2004).

Finally, we control for the influence of ROA in predicting stock return and Tobin's q (Chauvin and Hirschey 1993). In particular, we measure ROA as the ratio of net income after extraordinary items to book value of total assets, derived from COMPUSTAT. We used the average of the 2002, 2003, and 2004 data points as the measure of ROA. We include ROA as a covariate variable because of the impact of financial information on the stock market (Chauvin and Hirschey 1993; Erickson and Jacobson 1992). Table 2 presents the summary statistics for all variables in this study.

Despite having these stringent controls, in light of our moderation hypotheses, a lingering issue is whether there are systematic industry differences between firms that are rated high on product quality (and/or innovativeness) and those that are rated low. A close examination of the top and bottom firms on the dimensions of product quality and innovativeness allays this concern. We find that both the top and the bottom firms in terms of their innovativeness and product quality ratings cover a variety of industries, such as retail, services, and manufacturing. More specifically, top innovativeness firms include Apple, Google, Procter & Gamble, FedEx, Nike, and Target, among others; bottom innovativeness firms include United Airlines, Dillard's, Kmart, and Qwest Communications, among others, according to *Fortune's* large-scale survey data in 2005. In other

words, neither the low-innovativeness nor the high-innovativeness firms are dominated by particular industry types.

Merged Final Data Set

We merged data from these different archival sources and obtained unbalanced panel time-series, cross-sectional data consisting of 452 firm-year observations across 113 firms for the 2001–2004 periods. However, one year's data are lost because we employed the lagging process (2001–2003 for CSR, product quality, and innovativeness; 2002–2004 for customer satisfaction, Tobin's q , and stock return) to reduce the endogeneity bias and reverse-causality concerns described previously. Thus, we were able to use 339 data points for hypotheses testing. This merged data set includes individual firms in various industries, ranging from durables (e.g., automobiles, household appliances, personal computers), to nondurables (e.g., cigarettes; athletic shoes; services, such as airlines, hotels, and utilities), to retail (e.g., department stores, discount stores, supermarkets), among others. Although FAMA has ratings of CSR, innovativeness capability, and product quality for approximately 580 firms (Cho and Pucik 2005; *Fortune* 2005) and ACSI has data on approximately 190 firms/brands (Fornell et al. 1996; Fornell et al. 2006; Gruca and Rego 2005; Morgan and Rego 2006), we were not able to obtain a larger sample of firms in the merged final data set. This is because many firms included in *Fortune's* source are not represented in the ACSI source and because the same firm may have several brands in the ACSI (Anderson, Fornell, and Mazvanchery 2004). We also tried to search other relevant secondary sources (Standard & Poor's industry reports, company annual reports, Compact Disclosure, and Moody's report) to cross-validate our final data set spanning the period from 2001 to 2004.

Note that COMPUSTAT does not have complete data points for all variables. For example, because COMPUSTAT does not require companies to report their R&D investments (volunteered responses only; see Joseph and Richardson 2002), we found that more than 40% of observations for the control variable of R&D are missing across the years. Before testing the hypotheses, we controlled for the covariates using the same approach applied in prior studies (e.g., Ahearne, Bhattacharya, and Gruen 2005; Pan, Ratchford, and Shankar 2002). In particular, we ran a linear regression with all control variables (firm-level and industry-level) as independent variables and Tobin's q as the dependent variable. We saved the unstandardized residuals from this regression and then used them as the surrogate for Tobin's q in all structural equation models (SEMs). We also applied this approach to obtain the surrogates for stock return.

Analyses and Results

Measurement Model Results

Following the work of Anderson and Gerbing (1988), we employ confirmatory factor analysis (CFA) to test the validity of the measures. Overall model statistics show that the chi-square for the model is 90.73 (d.f. = 48, $p > .05$),

TABLE 2
Descriptive Statistics of Variables

Variables	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. CSR	6.03	.95	1.00											
2. Customer satisfaction	79.06	8.77	.20**	1.00										
3. Innovativeness capability	6.06	1.42	.72**	.18**	1.00									
4. Product quality	5.97	1.10	.78**	.22**	.81**	1.00								
5. Tobin's q	1.82	1.35	.13*	.18**	.13*	.10	1.00							
6. Stock return	.29	.46	.14*	.17**	.11	.14*	.42**	1.00						
7. Advertising intensity	.06	.08	.06	.07	.01	.02	.11*	.08	1.00					
8. R&D intensity	.04	.07	.03	.05	.04	.02	.10	.06	.04	1.00				
9. Firm size (log of asset)	4.16	.90	.05	.02	.04	.05	.09	.07	.11	.09	1.00			
10. Strategic focus	2.87	1.68	-.03	-.03	-.02	-.00	-.07	-.03	-.03	-.02	-.04	1.00		
11. Competition intensity	.07	.13	-.04	.02	-.04	-.05	-.08	-.05	-.04	-.05	-.03	.01	1.00	
12. ROA	3.68	9.87	.19**	.22**	.20**	.19**	.33**	.28**	.10	.06	.08	-.03	-.02	1.00

* $p < .05$.

** $p < .01$.

and the comparative fit index (CFI), goodness-of-fit index (GFI), and root mean square error of approximation (RMSEA) are satisfactory (.94, .92, and .06, respectively).

As we report in Table 3, the CFA results lend some support for the convergent validity for all the measures because all estimated loadings of indicators for the underlying constructs are significant (i.e., smallest t -value = 6.53, $p < .05$). Cronbach's alpha of the constructs exceeded the .7 threshold (Nunnally 1978). The minimum reliability of these measures is .85, as we reported. In addition, the average variance extracted (AVE) across the constructs exceeds the .5 benchmark (see Fornell and Larcker 1981). As Table 3 shows, the smallest AVE of the constructs is .72. The data also supported discriminant validity of the measures. We examined pairs of measures using the constrained model and unconstrained model in a series of chi-square difference tests (Anderson and Gerbing 1988). The test results consistently indicated that for each pair of constructs, the unconstrained models fit the data better than their constrained counterparts, suggesting discriminant validity. In addition, we compared the estimated AVE of each measure with the squared correlation between-measure pairs (Fornell and Larcker 1981). In all cases, we found that the AVEs exceeded the squared correlations, further confirming the discriminant validity of the constructs.

Results for the Mediating Role of Customer Satisfaction

In testing the mediating role of customer satisfaction, we used SEM to consider explicitly the possible bias of measurement error on path estimates. Consistent with the procedures in psychology (e.g., Holmbeck 1997) and marketing (Andrews et al. 2004; Handelman and Arnold 1999; Selnes and Sallis 2003), our SEMs not only account for measurement error but also allow for a comprehensive test of the hypotheses related to mediation, moderation, and mediated moderation.

Table 4 reports the results of the SEMs. H_1 predicted that CSR would positively affect customer satisfaction. Model 1 examines this prediction, and the result is statisti-

cally significant, in support of H_1 . We assess the significance of the reported SEM path estimates through a bootstrapping approach with 1000 resamples. As the CFI, GFI, and RMSEA indicate, Model 1 fits the data well.

H_2 predicted that CSR would positively influence a firm's market value and that customer satisfaction would mediate this influence. To establish the existence of this mediation effect, four conditions should hold (Andrews et al. 2004): (1) The predictor variable (CSR) should significantly influence the mediator variable (customer satisfaction); (2) the mediator should significantly influence the dependent variable (market value); (3) the predictor (CSR) variable should significantly influence the dependent variable (market value); and (4) after we control for the mediator variable (customer satisfaction), the impact of the predictor (CSR) on the dependent variable (market value) should no longer be significant (for full mediation) or should be reduced in strength (for partial mediation) (Baron and Kenny 1986, p. 1177).

As Table 4 shows, Model 1 meets the first two conditions. That is, CSR affects customer satisfaction. Furthermore, satisfaction significantly affects both Tobin's q and stock return, which is consistent with existing studies (Anderson, Fornell, and Mazvancheryl 2004; Bolton and Drew 1991; Fornell et al. 2006). Model 2 qualifies the third condition; the predictor variable of CSR affects market value in terms of Tobin's q and stock return. As Table 4 shows, Model 2 does not include the mediator of customer satisfaction and appears to fit the data reasonably well. The fourth condition holds if the effects of CSR on market value become insignificant or less significant after the mediator of customer satisfaction is included. Model 3 results (no-mediation model in Table 4) show that the inclusion of customer satisfaction diminishes the strength of the effect of CSR on firm market value. The main effects of CSR on both Tobin's q and stock return are no longer significant.⁵ Thus,

⁵We also employed ordinary least squares to test the mediation hypotheses. The results are consistent and suggest strong support for the mediation results of CSR. However, because SEM offers at

TABLE 3
Results of the CFA

Construct	Items	Factor Loading	t-Value	AVE	CR
CSR	CSR → CSR01	.69	13.43	.75	.90
	CSR → CSR02	.71	13.55		
	CSR → CSR03	.75	13.54		
Innovativeness capability (IN)	IN → IN01	.67	11.10	.74	.87
	IN → IN02	.68	11.16		
	IN → IN03	.62	9.98		
Product quality (PQ)	PQ → PQ01	.78	13.39	.76	.91
	PQ → PQ02	.83	13.92		
	PQ → PQ03	.80	13.51		
Customer satisfaction (CS)	CS → CS02	.50	7.21	.72	.85
	CS → CS03	.48	6.92		
	CS → CS04	.46	6.53		

Notes: All t -values are significant ($p < .05$); $\chi^2 = 90.73$ (d.f. = 48, $p > .05$), CFI = .94, GFI = .92, and RMSEA = .06. CR = construct reliability.

TABLE 4
SEM Results for Mediation Effects

SEM Estimates						
Model Specifications	χ^2	d.f.	χ^2_{diff} (d.f.-diff)	CFI	GFI	RMSEA
Model 1	362.10	101	Compared base	.94	.92	.05
Model 2	112.82	59		.92	.91	.07
Model 3	391.58	96	29.48** (5) ^a	.91	.89	.07
Model 4	345.05	97	17.05** (4) ^b	.96	.94	.04
	Full Mediation: Model 1		PV → DV: Model 2	Nonmediation: Model 3		Partial Mediation: Model 4
CSR → TQ			.14*	.09		
IN → TQ			.10	.10		.11*
PQ → TQ			.17**	.14*		.12*
CSR × IN → TQ			.14*	.09		
CSR × PQ → TQ			.20**	.15*		.13*
CSR → CS	.23**					.23**
IN → CS	.20**					.19**
PQ → CS	.28**					.26**
CSR × IN → CS	.12*					.14*
CSR × PQ → CS	.18**					.18**
CSR → SR			.13*	.08		
IN → SR			.08	.07		
PQ → SR			.11*	.09		
CSR × IN → SR			.10	.07		
CSR × PQ → SR			.18**	.12*		.11*
CS → TQ	.25**			.23**		.22**
CS → SR	.22**			.21**		.19**
R ²						
CS	.34			.32		
TQ	.46		.41	.45		.48
SR	.38		.34	.37		.39

* $p < .05$, one-tailed test.

** $p < .01$, one-tailed test.

^aThe results of the difference between Model 1 and Model 3.

^bThe results of the difference between Model 1 and Model 4.

Notes: CS = customer satisfaction, IN = innovativeness capability, PQ = product quality, TQ = Tobin's q, and SR = stock return. Model 2 (PV → DV) does not include the mediator of customer satisfaction. Model 3 (nonmediation effects) includes the mediator of customer satisfaction.

customer satisfaction seems to mediate fully the direct impact of CSR on firm market value (though it does not mediate fully the interaction effects between CSR and corporate abilities on market value, as we detail next). As such, the data provide strong support for H₂, which predicted that CSR would increase a firm's long-term financial performance through the mediator of customer satisfaction.⁶

least a weak test of causal pathways and easily compares different rival models, but ordinary least squares does not account for measurement error, we report the results based on the SEMs for all hypotheses in this study.

⁶We also tested the hypotheses with single-year items for the predicting and dependent variables (rather than the reported multiple-years-based separate items). The results are similar in pattern and further support the hypotheses.

Results for the Moderating Role of Corporate Abilities

H₃ predicted that corporate abilities, such as innovativeness capability and product quality, would moderate the impact of CSR on market value. Table 5 reports the hierarchical SEM results related to moderation effects. Following the work of Aiken and West (1991), we mean-centered the CSR, innovativeness capability, and product-quality variables before generating the interaction terms, and then we added the interaction terms hierarchically from Model 2 to Model 3.⁷ The results in Table 5 show that the interaction

⁷Multicollinearity bias was not a severe problem. The highest variance inflation factor was 3.06, and the largest condition index was 3.51. Note that in a mean-centered interaction-effects model, the estimated coefficient of one independent variable is obtained under the assumption of the mean value of other variables. Moreover, the entry of the interactions terms for CSR, innovativeness

TABLE 5
Hierarchical SEM Results

SEM Estimates						
Rival Models	χ^2	d.f.	χ^2_{diff} (d.f. diff)	CFI	GFI	RMSEA
Model 1	15.83	5	96.99** (54) ^a	.90	.86	.08
Model 2	177.09	40	64.27** (19) ^b	.91	.89	.07
Model 3	112.82	59	Compared base	.92	.91	.07
	Direct Effects: Model 1		Direct Effects: Model 2		Moderated Effects: Model 3	
CSR → TQ	.14*		.12*		.14*	
IN → TQ			.11*		.10	
PQ → TQ			.17**		.17**	
CSR × IN → TQ					.14*	
CSR × PQ → TQ					.20**	
CSR → SR	.12*		.13*		.13*	
IN → SR			.08		.08	
PQ → SR			.10		.11*	
CSR × IN → SR					.10	
CSR × PQ → SR					.18**	
R ²						
TQ	.30		.35		.41	
SR	.28		.29		.34	

* $p < .05$, one-tailed test.

** $p < .01$, one-tailed test.

^aThe results of the difference between Model 1 and Model 3.

^bThe results of the difference between Model 2 and Model 3.

Notes: CS = customer satisfaction, IN = innovativeness capability, PQ = product quality, TQ = Tobin's q, and SR = stock return.

term of CSR × product quality significantly affects both Tobin's q and stock return, though the interaction term of CSR × innovativeness capability affects only Tobin's q.

To facilitate the interpretation of the moderating effects, Figure 2, Panel A, illustrates the relationship between CSR and Tobin's q for firms with low or high innovativeness capability (see Aiken and West 1991, pp. 12–14). Figure 2, Panel A, suggests that firms with low innovativeness capabilities generate negative market value from CSR, whereas firms with high innovativeness generate positive market value from CSR. However, Figure 2, Panel B, shows that though firms with high product quality generate positive market value from CSR (the upward-sloping line), firms with low product quality seem not to be penalized in terms of generating market value from CSR (the rather flat line). As such, overall, we find support for H₃ when we use innovativeness capability as the measure of corporate abilities, but we find only partial support for H₃ when we use product quality as the measure of corporate abilities.

Results for the Mediating Role of Customer Satisfaction in the Moderated Relationships

H₄ predicted that customer satisfaction would mediate the moderated relationships in H₃. Although a test of this combination of mediation and moderation is somewhat complicated, Baron and Kenny (1986, p. 1179) recommend a prac-

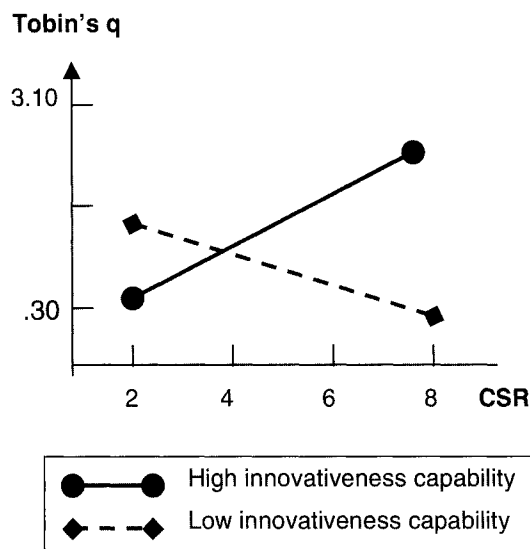
capability, and product quality explained significantly more variance of market value beyond the main effects, adding 6% more variance for Tobin's q and 5% more variance for stock return.

tical approach. Essentially, it is similar to the four conditions of mediation we described previously, but it requires entering the interactions items (CSR × innovativeness capability and CSR × product quality) rather than the main effect of CSR. More specifically, to establish mediated moderation, four specific conditions must be met: (1) The interaction variables (CSR × innovativeness capability and CSR × product quality) should significantly influence the mediator (customer satisfaction); (2) the mediator should significantly influence the dependent variable (market value); (3) the interaction variables (CSR × innovativeness capability and CSR × product quality) should significantly influence the dependent variable (market value); and (4) after we control for the mediator variable (customer satisfaction), the impact of the interaction variables (CSR × innovativeness capability and CSR × product quality) on the dependent variable (market value) should be no longer significant (for full mediation) or reduced in strength (for partial mediation) (Baron and Kenny 1986, p. 1179). Following this advice, prior studies in both strategy (Shin and Zhou 2003) and marketing (Andrews et al. 2004; Handelman and Arnold 1999) have tested hypotheses combining mediation and moderation.

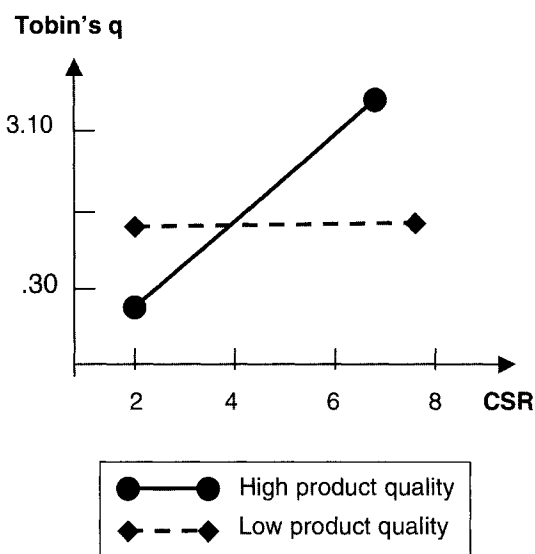
Because the second and third conditions are met, when testing H₁–H₃, we need to check only for the first and fourth conditions. The significant paths from these interaction terms to satisfaction in Model 1 (Table 4) suggest that the first condition is also met. In addition, entering the mediator of customer satisfaction indeed decreases the impact of these interaction terms from Model 2 to Model 3

FIGURE 2
The Moderated Effect of CSR on Market Value

A: The Moderating Role of Innovativeness Capacity



B: The Moderating Role of Product Quality



in Table 4. In particular, the impact of CSR \times innovativeness capability on Tobin's q is no longer significant, suggesting full mediation (this is not the case for stock return, in which the coefficients in both Model 2 and Model 3 are insignificant). In addition, the impact of CSR \times product quality on both Tobin's q and stock return is diminished (but still significant), indicating partial mediation. Thus, these results suggest that the moderation relationships in H₃ are only partially mediated by customer satisfaction, in support of H₄.⁸

⁸Note that Baron and Kenny (1986, p. 1179) label the relationships we tested as "mediated moderation," which means

Rival Models and Alternative Explanations

We conducted additional analyses and ruled out several competing explanations. Because the aforementioned results suggest partial mediation, we fit several additional SEMs with different partial mediation effects (step-by-step adding/removing of individual paths from the predictive variables of CSR, innovativeness, and product quality to the predicted variables of Tobin's q and stock return). The path estimates of the best-fit partial mediation model appear in Figure 3 and in the last column (Model 4) in Table 4. An examination of Figure 3 suggests three insights. First, although the main effect of CSR is fully mediated by customer satisfaction, CSR has an interaction effect with product quality that is not fully, but rather partially, mediated by customer satisfaction (in other words, this interaction effect between CSR and product quality directly influences Tobin's q and stock return). Second, a firm's product quality and innovativeness both have direct and indirect (through customer satisfaction) influence on Tobin's q performance, which is consistent with prior literature (Dutta, Narasimhan, and Rajiv 1999; Fornell et al. 1996; Rao, Agarwal, and Dahlhoff 2004). Third, we can reject several alternative explanations, including the conjectures that the impact of product quality on market value is fully mediated by satisfaction and that innovativeness capability influences only firm performance but not intermediate outcomes, such as customer satisfaction.

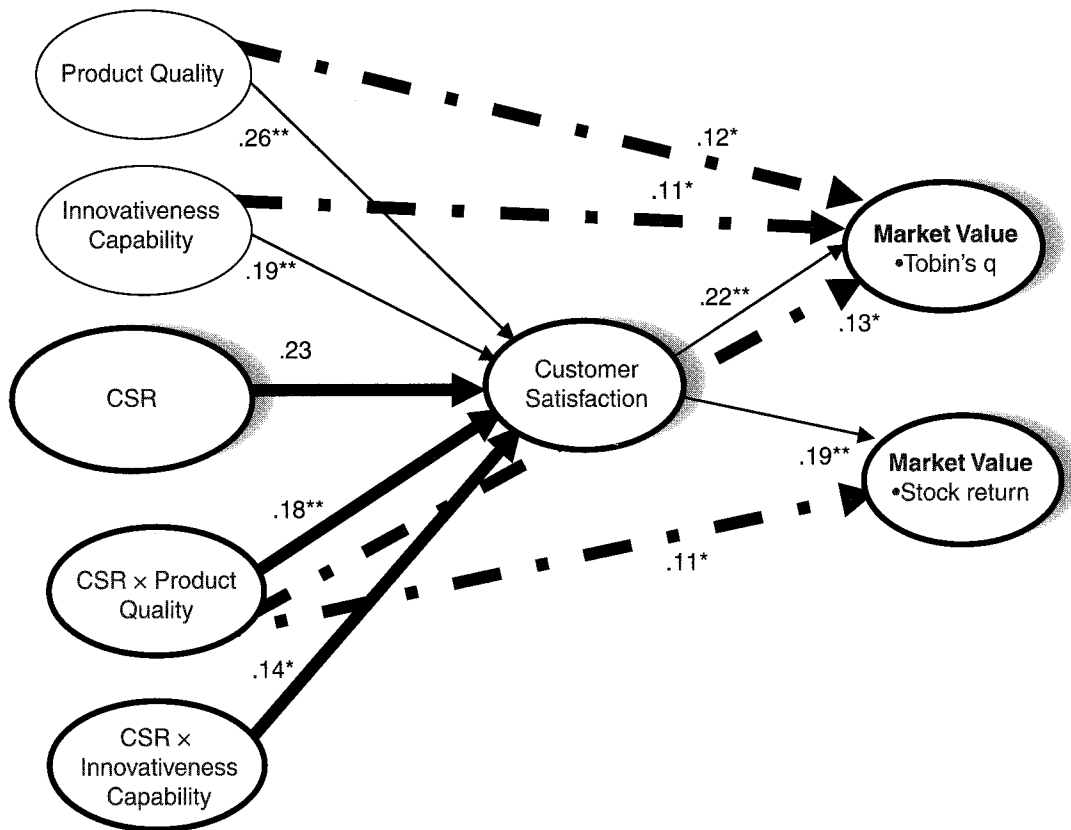
Furthermore, we ruled out several rival models. For example, as we report in Table 4, our SEM results suggest that the partial-mediation SEM (Model 4) fits the data better than the full-mediation SEM (Model 1; $\chi^2_{diff} = 29.48$, d.f._{diff} = 5, $p < .05$) and that the full-mediation SEM fits the data better than the nonmediation SEM (Model 3; $\chi^2_{diff} = 17.05$, d.f._{diff} = 4, $p < .05$). Another criterion for SEM comparison is the number of significant parameters (Morgan and Hunt 1994; Selnes and Sallis 2003). We find that the rival models with full mediation and nonmediation generated fewer significant path estimates. Thus, our hypothesized partial-mediation model fits the data better than competing models in terms of both the relative predictive power of the overall model and the relative number of significant path estimates.

Discussion

How is CSR related to firm market value, and why do CSR initiatives result in financial gains for some firms but losses for others? Our study suggests that the answer to these questions is twofold: (1) CSR affects market value partially through the mediator of customer satisfaction, and (2) returns to CSR can be both positive and negative depending

that controlling the mediator makes the influences of CSR \times innovativeness capability and CSR \times product quality no longer significant or less significant. This is different from "moderated mediation," in which the moderators should also moderate the mediator-performance linkage (Baron and Kenny 1986, p. 1179). A pictorial illustration of the differences between mediated moderation and moderated mediation can be found in the work of Handelman and Arnold (1999, p. 38).

FIGURE 3
SEM Results of Best-Fit Partial Mediation Model



* $p < .05$, one-tailed test.

** $p < .01$, one-tailed test.

Notes: Bolded paths are hypothesized relationships. Dashed paths are supported partial mediation results. We assessed the significance of all SEM path coefficients through a bootstrapping approach with 1000 resamples.

on the levels of a firm's corporate abilities. Based on a comprehensive secondary data set, our results show that customer satisfaction plays a significant role in the relationship between CSR and firm market value and that a proper combination of both CSR initiatives and product-related abilities is important. These results have implications for both marketing theory and practice.

Before presenting the implications, we note that FAMA's survey-based measure of CSR is an important limitation of this article. As we detailed in the "Data and Variables" section, the FAMA ratings are one possible source of CSR information and thus restrict our analysis and conclusion. To inspire greater confidence in our findings, further research should also attempt to replicate and extend our analysis with alternative measures of CSR. For example, measuring direct spending on CSR initiatives with a large-scale record of CSR monetary expenses across many firms (if obtained reliably from third-party agencies or firms' own reporting; see Margolis and Walsh 2003; Orlitzky, Schmidt, and Rynes 2003; Tsoutsoura 2004) would put CSR on par with measures such as advertising and R&D investments. A clear advantage of this direct approach is that marketing researchers would be able to compare and contrast the financial returns to these different types of

spending in an ideal way (i.e., by uncovering the relative, incremental, and synergistic impact of CSR, advertising, and R&D on a firm's market value).

Implications for Marketing Theory

Although CSR has been linked to customer responses (e.g., Bhattacharya and Sen 2004; Brown 1998; Brown and Dacin 1997), this was the first marketing study to explore the relationship between CSR and market value. Our work extends the research stream on the outcomes of CSR from perceived customer responses based on hypothetical lab experiments toward eventual financial returns based on large-scale secondary data. It provides a direct answer to the calls for efforts that link CSR to a firm's stock performance (Berens, Van Riel, and Van Bruggen 2005; Luo and Donthu 2006; Rust, Lemon, and Zeithaml 2004). Indeed, Brown and Dacin (1997, p. 68) note that "we do all good things, ... but we don't know if we get anything out of it." The findings pertaining to the significant influence of CSR on a firm's Tobin's q and stock return attest to the financial value of CSR programs as strategic initiatives. Thus, future marketing research should examine a wider spectrum of the benefits of CSR, ranging from perception-based outcomes to archive-based financial returns.

A more important contribution of this research is that we identified a route through which CSR is related to a firm's market value. Our results of the significant CSR → customer satisfaction → market value causal chain suggest that a firm's CSR helps build a satisfied customer base and that customer satisfaction partially mediates the financial returns to CSR. This mediating role of customer satisfaction is important for two reasons. First, it extends the CSR literature by uncovering a previously ignored outcome (i.e., customer satisfaction) of CSR. Although prior work has noted that CSR should affect various kinds of consumer responses, customer satisfaction has not yet been explicitly examined as one such outcome. Second, it also extends the research stream on customer satisfaction (Anderson, Fornell, and Mazvancheryl 2004; Fornell 1992) by uncovering the antecedents (i.e., CSR) of customer satisfaction. Although an emerging research strand has examined the outcomes of customer satisfaction (Anderson, Fornell, and Mazvancheryl 2004; Anderson, Fornell, and Rust 1997; Fornell et al. 2006; Mittal et al. 2005), efforts have rarely been undertaken to examine factors that increase or decrease customer satisfaction. Overall, this chained relationship from CSR to customer satisfaction to a firm's market value suggests that achieving customer satisfaction represents one of the underlying pathways through which the financial potential of CSR is realized and capitalized. The notion that the extent to which CSR is beneficial to the firm is determined by how much CSR builds a satisfied customer base points further research in a more precise direction when evaluating the ultimate financial impact of CSR.

Furthermore, our findings suggest that the financial returns to CSR are not the same, but rather are different, across firms with different internal situations. In particular, our finding that the positive financial returns to CSR are amplified in firms with higher product quality indicates that a proper mix or combination of external CSR initiatives and internal corporate abilities likely generates and sustains financial value for the firm. In this sense, we provide empirical evidence for the resource-based view. That is, in support of the resource-based view (Barney 1986; Penrose 1959; Wernerfelt 1984) and marketing capability (Day 1994; Vorhies and Morgan 2005) literature, we find that a firm's sustainable competitive advantages indeed result from a complementary "bundle" of valuable internal (corporate abilities) and external (CSR initiatives) assets. Thus, further research is encouraged to go beyond the simple, universal effects of CSR and explore contextual situations that moderate the associations between CSR and market value.

Finally, existing marketing research has been enthusiastic about the positive benefits of CSR, but unfortunately, it has potential negative outcomes (for an exception, see Sen and Bhattacharya 2001). Our research indicates that CSR can harbor a dark side. That is, in firms that are less innovative in nature, CSR may decrease customer satisfaction levels and ultimately reduce the firm's financial returns. This finding of the negative returns to CSR in the low-innovativeness condition can be understood from the perspective of competitive signaling theory (Caves and Porter 1977; Stigler 1961).

In particular, this theory holds that low (high) innovativeness competency in firms may serve as a cue of inferior (superior) competitiveness to corporate stakeholders, thus signaling weaker (stronger) future performance to financial investors in the marketplace. In the light of signaling theory, we conjecture that though CSR may help firms obtain institutional legitimacy (i.e., by being socially responsive and supportive), firms that are less innovative in meeting customer needs may send a negative signal of incorrect strategic choice and misguided firm priorities in the market that contaminates and degrades this legitimacy (DiMaggio and Powell 1983; Scott 1987). The resulting costs of signaled noncompetitiveness in the market may outweigh the benefits of CSR and thus lead to negative market value. Conceivably, consumers may view CSR activities in firms with low asset specificity as opportunistic (i.e., manipulative and misleading with disguised selling purposes), which causes CSR to backfire and leads to consumer boycotts (Sen and Bhattacharya 2001; Smith 2003). It is also possible that firms that are low in corporate abilities likely invest in less influential and pure cost-adding CSR activities, such as cash donations. In contrast, firms that are high in corporate abilities implement "smarter" CSR strategies that are relatively idiosyncratic and thus generate more long-term financial benefits. We call for further investigation of possible explanations of the observed asymmetric returns to CSR.

Implications for Marketing Practice

Marketers have pondered whether companies should take a more strategic tack on CSR and how "doing good" can contribute to their bottom line (Brown and Dacin 1997; Sen and Bhattacharya 2001). These are important issues that have strong managerial implications because prudent practitioners face tough choices in allocating their limited resources and in prioritizing different strategic initiatives.

Even evangelists such as Nardelli [chief executive officer of Home Depot] stop short of saying that companies should divert money from other strategic priorities to support [CSR]. But at corporations like Home Depot and [General Electric], good works are being bred into Big Business. 'It's just the right thing to do,' says Nardelli. Good PR? Sure. Money well spent? The goodwill refund could be in the mail. (Grow, Hamm, and Lee 2005, p. 78)

Our finding that CSR contributes positively to market value suggests that managers can obtain competitive advantages and reap more financial benefits by investing in CSR. To be more specific, we calculated that for a typical company in our sample with an average market value of approximately \$48 billion, one unit increase of CSR ratings would result in approximately \$17 million more profits on average in subsequent years, a substantial increase of financial returns.

Indeed, companies should realize that CSR initiatives can represent a robust public relations strategy, particularly in the current market environment in which stakeholders, such as customers (and employees), may have strong social concerns. Creative executives at Home Depot, IBM, Walmart, General Electric, and Cisco are engaging in "smarter corporate giving" than merely writing checks (Berner 2005, p. 68). For example, Home Depot donated 2 million hours to

various types of community services, and IBM gave away more than 100 specialized business applications (i.e., translation servers changing English e-mails into Spanish messages) in heavily Latino-populated schools and community groups. Closer examination of the CSR portfolios of some of the top- and bottom-rated firms in terms of CSR sheds additional light on how managers may derive positive market returns from CSR and/or avoid negative returns. That is, many of the firms at the top of the CSR heap (e.g., United Parcel Service, Alcoa, Verizon Communications) seem to have integrated CSR tightly with their business strategies. For example, these firms invest in a host of employee-related initiatives, such as education and safety, that engender identification and instill pride among employees, all of which influence customer satisfaction and market value. Moreover, these firms have employee volunteerism programs in which employees are visible contributors to the local communities. This helps capture customers' favorable attention.

In contrast, firms at the bottom of the CSR heap, such as Toys 'R' Us and Mitsubishi Motors, seem to be perceived as "irresponsible" by dint of mistreating workers and/or concealing product defect information. Such negative actions tend to receive media coverage in today's scrutiny-intensive world. Viewed in conjunction with our results, these examples suggest that managers should not only "get their house in order" to avoid negative returns to CSR but also adopt an integrated, strategic perspective and allocate resources to CSR programs for superior market performance. After all, "it is no longer an option [for companies] to sit on the sidelines" (Grow, Hamm, and Lee 2005, p. 77; Smith 2003).

Our findings that CSR increases customer satisfaction, which in turn leads to positive financial returns, may improve managers' understanding of why CSR matters. In particular, marketers may have already known that CSR helps promote external social benefits, such as public goodwill outside the firm (Houston and Johnson 2000; McGuire, Sundgren, and Schneeweis 1988), which can polish a firm's

reputation in the presence of corporate scandals or regulatory scrutiny. In addition, CSR can boost internal employee morale and commitment within the firm (Godfrey 2005; McGuire, Schneeweis, and Branch 1990) and attract more capable, young talents who are trying to "marry their work and nonwork lives" (Grow, Hamm, and Lee 2005; for detailed benefits of CSR and cause-related marketing, see Varadarajan and Menon 1988, p. 60). Importantly, we suggest an additional insight to managers: CSR initiatives also influence customers' satisfaction levels, which ultimately lead to higher market returns. To managers, this means that building satisfaction is an important intermediate step in converting CSR into financial gains.

However, our findings of the boundary conditions of the returns to CSR suggest that managers should not ignore the inherent traps and pitfalls of CSR. For example, we show that firms are not always able to benefit from CSR actions. When companies are not innovative, our findings indicate that CSR actually decreases their market return. Thus, CSR seems to be a double-edged sword; without proper support of corporate abilities, such as innovativeness, CSR can be harmful to firm performance. Indeed, when "doing better at doing good" (Bhattacharya and Sen 2004, p. 9), it is important for managers to consider CSR initiatives in the light of the firm's corporate abilities. In particular, less innovative companies may be better off financially by avoiding CSR actions. Managers should understand that a misalignment of CSR with internal factors can be detrimental and lead to decreased market value. As a consequence, marketers need to examine carefully the organizational context in totality before implementing CSR initiatives.

In conclusion, this research suggests a more nuanced understanding of the market returns to CSR initiatives. Our findings seem to indicate that "doing good" has complicated implications and that customer satisfaction plays an important mediating role in the relationship between CSR and firm market value.

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