Strategic Management Journal
Strat. Mgmt. J., **37**: 2569–2588 (2016)
Published online EarlyView 4 February 2016 in Wiley Online Library (wileyonlinelibrary.com) DOI: 10.1002/smj.2464
Received 5 June 2013; *Final revision received 2 September 2015*

MIND THE GAP: THE INTERPLAY BETWEEN EXTERNAL AND INTERNAL ACTIONS IN THE CASE OF CORPORATE SOCIAL RESPONSIBILITY

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Research summary: *We explore the effect of the interplay between a firm's external and internal actions on market value in the context of corporate social responsibility (CSR). Specifically, drawing from the neo-institutional theory, we distinguish between external and internal CSR actions and argue that they jointly contribute to the accumulation of intangible firm resources and are therefore associated with better market value. Importantly, though, we find that, on average, firms undertake more internal than external CSR actions, and we theorize that a wider gap between external and internal actions is negatively associated with market value. We confirm our hypotheses empirically, using the market-value equation and a sample comprising 1,492 firms in 33 countries from 2002 to 2008. Finally, we discuss implications for future research and practice.*

Managerial summary: *Companies often accumulate intangible assets by taking internally and externally oriented CSR actions. Contrary to popular beliefs, the data show that they undertake more internal than external ones: firms do more and communicate less. How does a potential gap (i.e., a misalignment) between internal and external CSR actions affect a firm's market value? We find that although together (the sum of) internal and external actions are positively associated with market value, a wider gap has negative implications. In other words, firms do not realize the full benefits of their internal actions when such actions are not externally communicated to key stakeholders, and to the investment community in particular. This negative association with market value is particularly salient in CSR-intensive and the natural resources and extractives industries.*

INTRODUCTION

In recent years, firms have undertaken an increasing number of voluntary environmental, social, and corporate governance initiatives—often referred to collectively as "corporate social responsibility" (CSR) actions (Carroll, 1979; Hillman and Keim, 2001; Waddock and Graves, 1997)—in response to growing institutional pressures for responsible practices, community involvement, increased transparency, higher labor standards, reduced greenhouse gas emissions, and numerous other social and environmental causes (Campbell, 2007; Waddock, 2008). Firms respond to such pressures by taking actions aimed at audiences external to the organization (e.g., branding, disclosure, partnerships) as well as those that target internal audiences (e.g., training, forming board committees). These actions may be taken proactively to mitigate the risk of potential stakeholders' backlash or retroactively to integrate stakeholders' demands and expectations into the firm's operations, structures, and processes (Crilly, Zollo, and Hansen, 2012; Fiss

Keywords: corporate social responsibility (CSR); sustainability; market value; legitimacy; external and internal actions; market-value equation
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and Zajac, 2006; Neumann *et al.*, 2013). Responding to stakeholder pressures through CSR is increasingly perceived as a key determinant of long-run firm prosperity (Clarkson, 1995; Eccles, Ioannou, and Serafeim, 2014; Hillman and Keim, 2001), and the overall relationship between CSR and firm performance has been found to be statistically significant and positive (Margolis, Elfenbein, and Walsh, 2009). However, the literature to date has not theoretically distinguished between different types of CSR actions that firms undertake; thus, the key issue of how the dynamic interplay between external and internal CSR actions may be associated with firm performance remains underexplored.

Anecdotal evidence suggests that firms undertake external and internal CSR actions in many different ways and to different extents. Unilever, for example, formalizes its internal CSR actions through its "Sustainable Living Plan" strategy while also undertaking several external actions to communicate to key stakeholders, and to capital market participants in particular, the objectives and outcomes of that strategy. Paul Polman himself, Unilever's CEO, often explains that the main goal of this strategy is to double Unilever's sales while reducing its environmental impact. Through detailed reports and other disclosures, the firm explains why this goal makes business sense, sets out intermediate targets on its way to reaching the overall goal, and elaborates on how it plans to achieve them.[1] In other words, by aligning internal and external actions, Unilever lays the foundation for internal transformation as well as external credibility.

However, many firms that contribute positively to society and the environment through their daily operations, their products and services, and importantly, their internal CSR actions do not sufficiently and strategically complement and convey their contributions through external CSR actions. *Triple Pundit*, a leading global media resource on CSR issues, identifies the lack of external actions as the number one mistake firms make with respect to CSR.[2] The resulting gap between their external and internal actions prevents the full value of their CSR engagement from being reflected in their market performance.

On the other hand, some companies engage in external actions to a greater extent than internal. For example, in 2000 British Petroleum (BP) reportedly spent $7 million researching the new "Beyond Petroleum" Helios brand and $25 million on a campaign to support this brand change; it was a "triumph of style over substance," as Greenpeace later concluded, because BP spent more on its logo that year than it did on renewable energy the previous year (Visser, 2011). BP undertook relatively more external actions than its set of internal actions could justify; as a result, it risked being identified as a "green-washing" company.

Given this wide range of approaches to the mix of external and internal actions, an important question arises regarding the dynamic relationship between them and, in particular, how it may be associated with market value. In this study, we explore this question in the CSR setting for three main reasons. First, the issue of alignment or misalignment is particularly salient in this context given that an increasing number of firms worldwide undertake CSR actions both inside and outside the organization (Weaver, Trevino, and Cochran, 1999b). Second, anecdotal evidence confirms that the degree to which internally and externally focused actions are aligned differs significantly across firms. For example, the Boston Consulting Group and the *MIT Sloan Management Review* trace differences between (1) companies whose actions match their stated beliefs and (2) companies whose beliefs and actions are out of sync. They find that only 40 percent of organizations report addressing sustainability issues, and that only 10 percent are fully tackling them.[3] Third, a firm's intangible resources are a key element for understanding the mechanisms through which CSR actions are associated with value creation. For example, Surroca, Tribó, and Waddock (2010) provide empirical evidence for the mediating effect of a firm's intangible assets in the CSR-value creation process.

Our main theoretical focus therefore is on arguing for a salient distinction between external and internal actions and on understanding how the interplay between them is associated with firm performance. We argue for a joint effect of the dynamic accumulation of intangible firm resources via the undertaking

[1] See Unilever's "Sustainable Living Plan—A Progress Report" at: http://www.unilever.co.uk/Images/USLP-Progress-Report-2012-FI_tcm28-352007.pdf (accessed 9 May 2015).

[2] For more information, please see http://www.triplepundit.com/2012/07/top-10-mistakes-cr-communications/ (accessed 9 May 2015).

[3] For more information, please see: https://www.bcgperspectives.com/content/articles/sustainability_process_industries_sustainability_next_frontier_walking_talk_issues_matter_most/ (accessed 9 May 2015).

of internal and external actions, and for an undermining effect of the misalignment between them. More specifically, our central theoretical arguments posit (1) a positive association between the sum of internal and external actions and a firm's market value, and (2) a negative association between the gap between external and internal actions and market value. In the former case, we argue that prior internal actions in conjunction with current external actions generate organizational legitimacy through structural change and subsequent external endorsement by outside audiences, thus favorably affecting market value. In the latter case, we suggest that a wider gap between current external and prior internal actions represents an inferior alignment between efforts to build internal resources and to seek external endorsements for them. Such a misalignment could be detrimental for market value: where external actions outweigh internal, the market is more likely to classify and penalize the firm as a "green-washing" one; where internal actions outweigh external, the market is more likely to fail to acknowledge fully and reflect the value of CSR due to the lack of transparency and credibility on the firm's internal actions.

To test our theory, we use an original dataset from Thomson Reuters ASSET4, which allows us to conduct a longitudinal analysis as well as a cross-country comparison. Our final sample includes 5,958 observations for 1,492 unique firms in 33 countries over seven years (2002–2008). Methodologically, we introduce a novel empirical strategy from innovation economics—the market-value equation—that allows us to quantify the effect of the sum of and the gap between external and internal actions on a firm's market value. To the extent possible, we address endogeneity problems by including firm fixed effects in all specifications, and we corroborate our main findings through auxiliary analysis that exploits industry-level variation in our sample. However, we are cautious about making causal claims, and we maintain that our work is a first step toward fully exploring the distinction between external and internal CSR actions, and the link between their dynamic interplay and performance; more work is needed in the future to verify and establish cause and effect.

This article makes three key contributions. First, we integrate the literature on CSR with insights on organizational legitimacy from the neo-institutional theory by exploring CSR actions as the key unit of analysis and theoretically distinguishing between external and internal CSR actions. Second, we conceptualize and characterize a joint as well as an undermining dynamic interplay between external and internal actions, which constitute important determinants of a firm's market value. Third, empirically, we introduce the market-value approach from innovation economics into the study of the relationship between different types of CSR actions and firm performance, thus advancing the strategic CSR literature. This approach helps resolve prior ambiguity about the mechanisms that link social and financial performance by estimating the impact of intangible assets created by the sum of and the gap between external and internal actions on market value. We are thus able to present a more nuanced empirical, as well as theoretical, understanding of the mechanisms through which two distinct types of CSR actions may be associated with value creation.

EXTERNAL AND INTERNAL CSR ACTIONS AND MARKET VALUE

Previous studies argue that, over time, CSR actions may cumulatively generate valuable, rare, inimitable, and nonsubstitutable firm resources that, in turn, may become the foundation for a competitive advantage (e.g., Branco and Rodrigues, 2006; Choi and Wang, 2009; Hillman and Keim, 2001; McWilliams and Siegel, 2001; Ruf *et al.*, 2001; Russo and Fouts, 1997). Prior literature also identifies several specific mechanisms through which CSR leads to superior performance: better employee engagement (Dutton, Dukerich, and Harquail, 1994) and human resource capabilities (Brekke and Nyborg, 2004), premium prices or increased demand (Brown and Dacin, 1997), knowledge sharing with suppliers (Dyer and Singh, 1998), favorable access to international markets (Hawn, 2013) and local infrastructure through local communities (Fombrun, 1996), better access to capital (Cheng, Ioannou, and Serafeim, 2014) and ethical investors (Baron and Diermeier, 2007), and the preemption of regulatory intervention (Baron, 2001; Maxwell, Lyon, and Hackett, 2000). Moreover, a stream of literature recognizes the importance of risk and how it affects the link between CSR and value creation: for example, Sharfman and Fernando (2008) show that improved environmental risk management is associated with a lower cost of capital, and Godfrey (2005) and

DOI: 10.1002/smj

Godfrey, Merrill, and Hansen (2009) confirm that CSR may yield insurance-like protection for companies. Siegel and McWilliams (2011: 1491) further conceptualize CSR as a "co-specialized asset" that makes other assets more valuable than they would be otherwise. In this sense, we can add CSR to the list of "invisible resources" invaluable to a firm's competitive advantage (Itami and Roehl, 1987): "invisible" precisely because (1) CSR is unattainable with money alone; (2) it is time consuming to develop; (3) CSR resources are capable of multiple, simultaneous use; and (4) these resources yield multiple, simultaneous benefits.

The existing work, however, does not theoretically distinguish between two principal components of the CSR resource accumulation process—the undertaking of internal and external actions. Instead, many studies either decompose CSR into environmental, social, and governance issues or typically adopt the classification schemes of the data providers; thus, categorization of CSR actions is predominantly ad hoc and atheoretical. According to the neo-institutional theory, to meet institutional pressures and gain legitimacy, firms strategically take two types of actions (e.g., King, Lenox, and Terlaak, 2005): internally focused actions, aimed at achieving structural change—for example, structural mimicry, which constitutes the adoption of appropriate and accepted organizational structures and strategies (usually already implemented by large, established firms)—and externally focused actions, such as those aimed at gaining organizational endorsement by external constituents (e.g., McDonnell and King, 2013; Sine, David, and Mitsuhashi, 2007). The distinction between internal and external actions is conceptually adjacent to the distinction between internal and external audiences in the stakeholder theory (e.g., Freeman, 1984; Freeman *et al.*, 2010): while the former set of stakeholders lie within the narrow boundaries of the firm (i.e., employees, managers, owners), the latter generally lie outside the organization (i.e., society, government, customers, suppliers, creditors, and shareholders).

Yet, both internal and external actions may generate legitimacy: whereas internal actions signal conformity with legitimized structures (e.g., Sine, Haveman, and Tolbert, 2005; Sine *et al.*, 2007) and thus help organizations gain legitimacy (e.g., Fligstein, 1985; Human and Provan, 2000; Khaire, 2010), external actions target particular audiences that confer legitimacy upon the organization (e.g., through their public endorsement). In turn, legitimacy is critical for firm survival, predictability, growth, and profitability (e.g., Bansal and Clelland, 2004; Corbett, Montes-Sancho, and Kirsch, 2005; Dobrev and Gotsopoulos, 2010; King *et al.*, 2005; Ruef and Scott, 1998). Therefore, it is important to distinguish between these two types of CSR actions to understand better how they may be associated with firm performance.

Accumulation of CSR resources

Internal actions typically reflect inward-looking practices that involve real actions to develop organizational capabilities and to meet the expectations of those social actors upon which the organization depends for critical resources; as a result, because of their structural nature, internal actions sometimes constrain internal flexibility (e.g., Fligstein, 1985; Kamens, 1977; Meyer and Rowan, 1977). Furthermore, they often require significant changes in core practices, norms, structures, and routines or even long-term investments to adapt corporate policies and organizational culture (Eccles *et al.*, 2014); thus, they also involve some risk (Berrone, Gelabert, and Fosfuri, 2009). In the context of CSR, the set of internal actions includes, for instance, the enactment of CSR-related change initiatives and corporate policies (such as adopting and implementing a policy to increase water and energy efficiency) or forming a board-level CSR committee.

External actions, on the other hand, typically reflect public and highly visible initiatives and patterns of communication that involve the undertaking of ceremonies to gain legitimacy, primarily through the seeking of public endorsement of the organization and its practices by outside audiences. Media attention (Sine *et al.*, 2007), organizational status (Podolny, 1993), inter-organizational networks (Stuart, Hoang, and Hybels, 1999), and legitimacy of external ties (Baum and Oliver, 1991) play a critical role in achieving legitimacy through externally oriented actions. External actions, then, are best conceived of as organizational practices that are known tacitly and understood through communication by symbolic means (Yanow, 1996); as a result, they can lead to the accumulation of social capital (Ghoshal and Moran, 1996). With regard to CSR, the set of external actions would include, for instance, public claims and reports that publicize certain actions the firm has taken (such as commitments to environmental targets) and the

issuance of a sustainability report to communicate the firm's environmental and social initiatives to external audiences.

Certainly, firms take both types of actions concurrently, making internally focused structural change initiatives while externally seeking public endorsements by key social actors. Yet, it is the process of choice that leads to action: if a firm follows one particular course of action, it must forgo others (Simon, 1947). Therefore, the choices companies make could either increase the gap between or decrease the sum of their external and internal actions; however, we currently understand little about the implications of this choice for market performance. While rational organizations arguably make rational choices that maximize firm value, we still do not know how CSR resources accumulate from such choices in the first place.

In light of the differences between internal and external actions, we argue that in a given period, the stock of intangible CSR resources is more likely to be the result of prior internal actions in combination with current external actions. To the extent that internal actions often dictate significant organizational changes, we suggest that the accrual of legitimacy through these actions may take relatively longer to materialize than the accrual of legitimacy via externally focused and predominantly ceremonial actions. This argument is consistent with Dierickx and Cool (1989: 1506), who suggest that "strategic asset stocks are accumulated by choosing appropriate time paths of flows over a period of time" but who also identify several factors (e.g., asset erosion, causal ambiguity) that may affect how different actions influence the asset accumulation process.

This distinction between prior internal and current external actions in the process of accumulating intangible resources is particularly salient in the CSR context. Consider, for example, the issuance of a sustainability report: in line with our definition, it is an external action the firm takes to convey information about internal actions taken in the prior year, provided that it takes at least a year for these actions to be implemented, legitimized, and actually produce results and/or have an impact (e.g., the adoption of an environmental or waste or water management system). In other words, we suggest that the CSR intangible resources accumulation process is by and large the result of the underlying differences in communication dynamics: while contemporaneous external actions may report the beginning of internal actions (i.e., some policy taking effect), external actions following a year of internal actions being implemented may in fact communicate progress or results that external audiences (and capital markets in particular) value more than simple announcements of (or intentions of future) CSR engagement. This combination of prior internal and current external actions then describes valuable CSR intangible resources.

Hypotheses

Our first hypothesis posits a positive relationship between market value and CSR resources, as the sum of internal and external actions. Specifically, we suggest that external actions raise overall transparency and awareness about the firm, its products, structures, and practices, for a wide set of stakeholders, particularly for investors and public equity markets.[4] This effect is likely to be stronger when it materializes jointly with already established firm processes, structures, and competencies that were generated through prior internal actions. Thus, we argue that prior internal and current external actions jointly are likely to positively affect market value for two main reasons: (1) each set of actions individually enhances firm legitimacy, and (2) they *credibly* reduce information asymmetry between the firm and a critical stakeholder—namely, the investor community and capital markets—regarding the firm's CSR engagement. This latter reason is particularly important because firms with an enhanced CSR profile are more likely to be rewarded by investors and the capital markets (e.g., Cheng *et al.*, 2014; Hawn, Chatterji, and Mitchell, 2014). Summarizing the above discussion, we formulate the following hypothesis:

> *Hypothesis 1: The more prior internal and current external actions that a firm undertakes (i.e., the greater their sum), the higher its market value.*

Next, we consider the area where the theoretical distinction between internal and external CSR actions is particularly important—understanding

[4] We note that Servaes and Tamayo (2013) discuss a similar mechanism by arguing that product advertising in conjunction with CSR leads to value creation; however, they focus on a single stakeholder (i.e., consumers) and characterize a distinct underlying mechanism (i.e., generalized consumer awareness) from our study.

DOI: 10.1002/smj

the implications of a misalignment between them. Even though both types of actions fall within the same overall organizational practice (i.e., CSR engagement), the extent to which a firm engages in one type of action may either exceed or fall behind the extent to which it engages in the other. Such a misalignment may occur for many reasons, but the gap this process generates may compel internal and external audiences, stakeholders, and especially the market to withdraw their support.

On the one hand, if, on average, a firm engages in relatively more internal actions that are not adequately conveyed and communicated externally (i.e., not complemented by external actions), then its credibility is undermined because the capital markets, and its investors in particular, will be unable to recognize fully any value that may be created through CSR. In other words, due to this lack of alignment between internal and external actions, and a perceived lack of transparency and accountability with regard to CSR issues by the investor community, the firm's valuations will likely suffer. On the other hand, if, on average, a firm engages in relatively more external actions to achieve public endorsements but has failed to make sufficient structural changes (i.e., internal actions), then it is more likely to be identified as a "green-washing" firm and to suffer lower valuations due to the increased risk of being exposed, particularly in the medium and long run.

This argument based on the distinction between prior and contemporaneous firm actions is broadly consistent with a stream of work that explores the reaction of a different set of stakeholders (i.e., customers) to a firm's current CSR activities by taking into account the results of prior action (or inaction) by the firm in the form of reputation.[5] For example, Schuler and Cording (2006) posit that if a firm's current actions and past reputation are incongruent, then customers do not respond positively to CSR information. Also, Barnett (2007) argues that the response to CSR actions by customers will depend on their prior beliefs regarding the focal firm's intentions and that therefore the same activity may generate different benefits for different firms. In the same spirit, Du, Bhattacharya, and Sen (2010) suggest that the positive effect of CSR communication may be amplified for firms having a good prior reputation. In fact, Servaes and Tamayo (2013) empirically confirm that advertising has a negative impact on the relationship between CSR and firm value if the firm's CSR efforts are inconsistent with its overall reputation.

We extend this line of theorizing by distinguishing between internal and external actions and exploring the implications for firm value through a different stakeholder and a distinct mechanism: the investor community and public equity markets. We predict that the gap between current external and prior internal actions will be negatively associated with a firm's market value. When such a gap exists, unknowingly (when internal outweigh external actions) or knowingly (when external outweigh internal actions) for the firm, stakeholders can challenge the firm based on either the lack of transparency or the loss of credibility, where credibility describes firm attributes such as trustworthiness and believability in the eyes of other social actors (Brown, 2008; Neumann *et al.*, 2013). MacLean and Behnam (2010) analyze such a case in which external actions outweigh internal, creating the legitimacy façade by decoupling compliance from day-to-day operations and undermining firm credibility. Not only did the façade generate dissonant legitimacy perceptions with insiders, but it was also eventually detected by regulators and damaged the firm's organizational legitimacy with external actors.

Importantly, if internal CSR actions exceed external actions, social actors, and especially the capital markets, will be less likely to identify and reward their existence or to evaluate their effect, primarily because of information asymmetry: unless firms communicate and engage with stakeholders in a consistent (i.e., well-aligned) and credible manner, external audiences could well assume that the firm is not engaging in CSR.[6] Thus, the lack of sufficient external actions will undermine internal ones in the sense that the firm will incur costs for which the full benefits will fail to materialize. Moreover, because internal actions are typically linked to structural shifts and change initiatives, they will

[5] However, this stream of work does not distinguish between different *types* of actions; therefore, the comparison is essentially between prior and current actions of the same type. Instead, our argument extends this dynamic comparison across different types of CSR actions (i.e., external and internal actions).

[6] Indeed, multiple articles in the popular press suggest that a lot of firms undertake numerous internal CSR actions but then fail to convey this information fully, or, more broadly, they do not match their internal actions with external actions. See for example: http://www.csrwire.com/blog/posts/516-5-tips-for-marketing-csr-in-the-context-of-our-new-reality (accessed 9 May 2015).

DOI: 10.1002/smj

likely be resisted by those internal stakeholders whose vested interests are hurt the most. In such a case, a lower level of external actions may imply insufficient leveraging of a firm's external stakeholders and social capital, which constitute a plausible way through which the firm could remove such barriers to change and sources of resistance (Neumann *et al.*, 2013).

It follows, then, that firms that align external and internal actions more closely are able not only to build greater legitimacy (Berrone *et al.*, 2009) but also to achieve greater market value, whereas firms having a wider gap between external and internal actions in either direction will be associated with lower market value. We summarize the above discussion through the following hypothesis:

Hypothesis 2: The wider the gap between a firm's current external and prior internal actions, the lower its market value.

EMPIRICAL METHODOLOGY

Econometric specification

We propose that because of their intangible nature, CSR resources are conceptually analogous to technological knowledge; therefore, to test our hypotheses we introduce a specification from the R&D literature. In particular, we use the market-value equation, which was initially proposed by Grilliches (1981) and later developed in subsequent work (e.g., Belenzon, 2012; Ceccagnoli, 2009; Griliches, 1984). In this equation, the market value of a firm i at time t (V_{it}) is modeled as the sum of the value of common stock, preferred stock, and total debt net of current assets. Equivalently, market value is a function of the firm's tangible and intangible assets that jointly constitute the firm's total stock of resources:

$$V_{it} = q_t \left(A_{it} + \gamma\, Int_{it}\right)^{\sigma} \quad (1)$$

where V_{it} denotes the market value of firm i at time t, A_{it} denotes ordinary physical assets, and Int_{it} denotes intangible resources. Following prior work on intangibles in the market-value equation (Lenox, Rockart, and Lewin, 2010), we use R&D (RD) and advertising (ADV) expenditures as proxies for intangible assets (Int_{it}) in addition to CSR resources (CSR):

$$Int_{it} = \beta_{RD} RD_{it} + \beta_{ADV} ADV_{it} + \beta_{CSR} CSR_{it}. \quad (2)$$

The parameter σ in Equation 1 allows for nonconstant scale effects in the market value function. All variables are in nominal terms. Taking logarithms, we obtain

$$\log V_{it} = \log q_t + \sigma \log A_{it} + \sigma \log \left(1 + \gamma \left(Int_{it}/A_{it}\right)\right). \quad (3)$$

The last term is typically approximated to γ (Int_{it}/A_{it}). We checked that this approximation is accurate: our ratios do not exceed 15 percent in magnitude (Hall, Jaffe, and Trajtenberg, 2005). In this specification, γ measures the shadow value of intangible resources relative to the tangible assets of the firm, and $\sigma\gamma$ measures their absolute value. If the value function exhibits constant returns to scale (as it approximately does in the cross-section), then $\sigma = 1$, log A can be moved to the left side of the equation, and the model can be estimated with the conventional Tobin's q as the dependent variable. Consequently, the equation that we estimate becomes

$$\log Q_{it} = \log V_{it}/A_{it} = \log q_t + \log \left(1 + \gamma \left(Int_{it}/A_{it}\right)\right) + \varepsilon_{it}, \quad (4)$$

where Q_{it} denotes Tobin's q; the intercept of the model can be interpreted as an estimate of the logarithmic average of Tobin's q for each year. Dividing each intangible asset by the tangible assets, we create R&D and Advertising Intensity. Based on our theory, CSR resources can be accumulated as a result of previous internal actions (I_{t-1}) and current external actions (E_t). Therefore, to test Hypothesis 1, we operationalize the joint effect of internal and external actions as the sum $CSR_{it} = E_{it} + I_{it-1}$; and to test Hypothesis 2, we operationalize the undermining effect (i.e., the gap between external and internal actions) as the absolute value of the difference $CSR_{it} = E_{it} - I_{it-1}$, capturing the relationship between internal and external actions more directly. We take the absolute value of the gap to capture the misalignment in both directions.[7] Hence, our final

[7] We thank an anonymous reviewer for suggesting that this is the most appropriate way to operationalize the gap construct.

DOI: 10.1002/smj

estimating equations become

$$\log\ Q_{it} = \log\ q_t + \log\ \left(1\ +\ \theta_1\left(E_{it} + I_{it-1}\right)/A_{it}\right) + \theta_2 \text{RD Intensity}_{it} + \theta_3 \text{ADV Intensity}_{it} + \varepsilon_{it}, \quad (5)$$

$$\log Q_{it} = \log\ q_t + \log\ \left(1 + \theta_1 abs\left(E_{it} - I_{it-1}\right)/A_{it}\right) + \theta_2 \text{RD Intensity}_{it} + \theta_3 \text{ADV Intensity}_{it} + \varepsilon_{it}. \quad (6)$$

For all specifications, we run panel regressions with both firm and year fixed effects to mitigate, to the extent possible, potential endogeneity issues. To corroborate our main findings and provide further evidence on the theoretical mechanisms at work, we also conduct two auxiliary analyses in industries where CSR issues are expected to be more salient. Next, we describe our data and discuss our key variables.

Sample and data collection

We construct our sample using information from a number of databases. We obtain CSR data from Thomson Reuters (ASSET4);[8] this relatively new dataset has already been validated in prior CSR literature (e.g., Cheng *et al.*, 2014; Ioannou and Serafeim, 2012). ASSET4 specializes in providing objective, relevant, auditable, and systematic CSR information and investment analysis tools to professional investors[9] who build their portfolios by integrating CSR (nonfinancial) data into their traditional investment analysis. At ASSET4, trained research analysts collect about 900 evaluation points per firm, based on primary data that are objective and publicly available.[10] Typical sources of information include stock exchange filings, financial and nonfinancial (sustainability) annual reports, nongovernmental organizations' websites, and a plethora of news sources.

After gathering the raw CSR data, the Thomson Reuters ASSET4 analysts transform it into consistent units to enable quantitative analysis. Following this transformation, ASSET4 provides a z-score that essentially benchmarks the performance of the focal firm against the performance of the rest of the firms in the dataset. For instance, we note that (1) for environmental factors the data would typically include information on energy used, water recycled, CO_2 emissions, waste recycled, and spills and pollution controversies; (2) for social factors the data would typically include employee turnover, injury rate, training hours, women employees, donations, and health and safety controversies; and (3) for corporate governance, a typical set of indicators would include executive compensation, board experience, board diversity, anti-takeover devices, and compensation controversies.

In addition, we collect stock market data from DataStream, analyst coverage data from I/B/E/S, and accounting data from WorldScope. Our final sample, after taking into account the one-year lag in one of our key independent variables (internal CSR actions), includes 5,958 observations for 1,492 unique firms during the period 2002–2008 across 33 countries. Although a significant portion of firms in the sample originate in the U.S., U.K., and Japan, many come from Continental Europe, Australia, Hong Kong, and Singapore.

Dependent variable

As discussed in the econometric specification, our dependent variable, measuring the firm's market value according to the market-value equation, is *Log (Tobin's q)*. We calculate Tobin's q as the ratio of the sum of market capitalization and total assets minus the book value of shareholders' equity over total assets[11] for the focal firm in each year in our sample.

Independent variables

We independently classified 120[12] Thomson Reuters (ASSET4) data points made available

[8] ASSET4 was a privately held firm with two institutional investors: Goldman Sachs and Bank of America Merrill Lynch. It was acquired by Thomson Reuters in 2009.

[9] An estimated €2.5 trillion is invested under management using the ASSET4 data.

[10] Analysts are only allowed to contact investor relations' offices of firms to learn the location of public data. Not all of the 900 evaluation points are relevant and/or applicable for all companies; therefore, for each individual company fewer evaluation points are typically available.

[11] This is essentially equivalent to the sum of market capitalization and total liabilities divided by total assets, given that in Datastream the book value of shareholders' equity (code WC03995) is calculated as total assets (DWTA) minus total liabilities (WC03351).

[12] These 120 data points (out of a possible max of 900 per company) were not specifically chosen by the authors but rather were available through DataStream in 2012. They are part of what Thomson Reuters (ASSET4) calls the "Strategic Framework" and are arguably representative of the totality of evaluation points

to us through DataStream into two categories: internal and external actions. Specifically, first, we extensively discussed the definitions provided in the literature regarding internal and external actions and arrived at a working decision rule that we implemented to distinguish between internal and external actions. In particular, we agreed to classify as external those actions that appeared to be more externally oriented in terms of disclosure (e.g., reporting) and claims, and to classify as internal those actions that were more internally oriented in terms of policies. After we established this working decision rule, we independently classified the data points as external and internal.

Therefore, the internal actions category includes corporate policy questions as well as several quantitative indicators of CSR implementation, and the external actions category includes claims that firms make and disclosures they issue. Such claims and disclosures capture a firm's communication patterns and are most likely intended to influence external stakeholders to generate public endorsements. Thus, the definitions applied to operationalize these constructs are consistent with prior literature in that corporate policies may result in the loss of internal flexibility (Meyer and Rowan, 1977) and therefore reflect internal actions, whereas claims and disclosures include a critical aspect of communication (Yanow, 1996) and ceremonial conformity, and therefore constitute external actions.

The inter-coder reliability was 89 percent. In cases of disagreement, we discussed further and, if necessary, contacted Thomson Reuters directly for additional clarification. To err on the conservative side with our classification scheme, we dropped all remaining questionable items. Unfortunately, half of all items had to be subsequently dropped because of a majority of missing data; of the remaining items, we initially coded 26 as external and 25 as internal actions. We then ran Cronbach's alpha test to check whether the items measure the same underlying construct, and, because of negative coefficients on some of them, we dropped two items in the first test and two more in the second. The Appendix S1 lists the final composition of both indices. Cronbach's alphas of 0.75 for the internal actions index (with inter-item covariance of 0.06) and 0.74 for the external one (with inter-item covariance of 0.09) suggest very good internal consistency and reliability of the measures (George and Mallery, 2003).

We acknowledge that, not surprisingly, the correlation between the two constructs within the same year is very high (0.74; it drops to 0.54 when we use lagged internal actions and weigh by assets as specified in the market-value equation), but we note that this is mainly because (1) we use secondary data and (2) firms engage in both types of actions in trying to fulfill their responsibility *and* credibly signal to various stakeholders that they have done so. Conceptually, however, they represent two distinct types of firm actions that we tease out in the analysis. In fact, the correlation is still below the typical threshold of 0.8, while the variables do pass the multicollinearity test (using the "collin" command in Stata). The variance inflation factor value is 2.24, much lower than the typical cutoff value of 10 and even the most conservative cutoff of 2.5.[13] Most importantly, we use their sum and (absolute) difference in our specifications; thus the correlation issue is much less likely to affect our estimates in any systematic way.

To further confirm the validity of our method for classifying internal and external actions, we tried a coding scheme based on the common and widely used subcategories of CSR (i.e., using the three pillars of environmental, social, and corporate governance factors and their subpillars from ASSET4): none of the resulting indices generated alphas greater than 0.7. This suggests that using such a rather atheoretical categorization of CSR actions results in the aggregation of random items that do not actually generate informative or credible measures. In contrast, our coding rule for producing indices of internal and external actions is relatively more robust and valid for measuring the underlying theoretical concepts. Finally, we normalize the constructed indices of internal and external actions on a 0–1 scale to compare directly the association of their sum and gap with market value.

available. Specifically, the company notes that this enhanced framework, consisting of a subset of the 900 data points, is based on extensive analysis of all the data points, looking at customer usage stats, data availability, and their own in-house research. This framework, according to the company, best aligns to sustainability reporting trends and global reporting guidelines, offering a stronger focus on objective and comparable quantitative and process-driven data since none of these data points changed over time. For more information, the interested reader may follow: http://extranet.datastream.com/data/ASSET4%20ESG/Index.htm (accessed 17 September 2014).

[13] The condition number (12.7) was also below the cutoff point of 15 (http://www.nd.edu/~rwilliam/stats2/l11.pdf).

DOI: 10.1002/smj

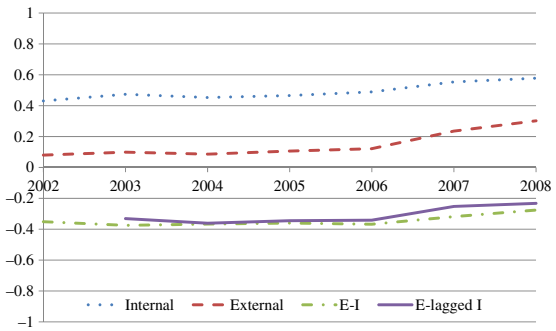

Figure 1. Internal, external actions, $E_t - I_t$ gap and $E_t - I_{t-1}$ gap over time

We use internal and external actions to proxy for capital stocks of (intangible) CSR resources following prior literature that uses R&D and advertising expenditures as proxies for capital stocks because they tend to be stable over time (Helfat, 1994). We validate the stability of our measures of internal and external actions graphically (see Figure 1) and in a regression analysis (available upon request). In particular, using current-year measures of internal and external actions, as well as R&D expenditures as our dependent variables, we run AR(1) and AR(2) models, and then add firm and year fixed effects. The estimated coefficients suggest that across all of these specifications, the stability of our measures of internal and external actions is equivalent to the stability of the R&D expenditures (i.e., the coefficients on the first and second lag are positive, highly significant, and of comparable magnitude), thus increasing confidence in their ability to proxy for capital stocks of CSR resources.[14]

After calculating the sum of and the absolute and real values of the difference between current external and prior internal actions, and dividing both by total (logged) assets[15] (following the derivation of the market-value equation), we use *Sum/Assets, Abs. Value* (*Gap/Assets),* and *Gap/Assets* as our main independent variables in the empirical models.

Control variables

In addition to firm and year fixed effects[16] capturing time-invariant firm attributes that could drive a firm's market value, our main specifications include a number of control variables to capture the effect of time-varying and country-level factors. First, to control for other intangibles that may affect the market value as well as the CSP–CFP link (McWilliams and Siegel, 2000), we include *R&D Intensity* and *SG&A Intensity* as discussed above.[17] Second, to control for institutional country-level factors that may affect how the market values CSR resources, we include *SRI Index*, an indicator of the existence (or lack thereof) of a socially responsible stock market index in the focal country. Third, *Analyst Coverage*, measured as the number of analysts that cover a focal firm in each year, is a well-established measure from the accounting and finance literatures that controls for firm visibility (Pollock and Gulati, 2007). Fourth, the logarithm of the number of four-digit SIC codes in which a firm operates each year controls for the degree of *Diversification* (McWilliams and Siegel, 2000). Furthermore, following prior literature based on the market-value econometric specification (Belenzon, 2012), we include a measure of annual logged sales, *Sales,* and of annual sales growth, *Sales Growth*. Finally, *Industry Concentration,* measured as the logged sum of squared ratios of firm sales over total industry sales in each year, controls for industry-level changes in competitive dynamics.

[14] In unreported results (available on request) we also followed Helfat (1994) and constructed one-, two-, three-, four-, and five-year lags for our measures of internal and external actions, as well as R&D expenditures. We then pairwise-correlated them with current internal, external, and R&D expenditures. All the correlations were statistically significant. The correlations for R&D expenditures were consistently above 0.90, whereas for internal and external actions, the correlations with the one-year and two-year lags were above 0.80. For three-year lags and beyond, the correlations decrease but remain above 0.60.

[15] We note that, in addition to following the derivation of the market value equation, we divide the measures of internal and external actions by assets because we suggest that the more of these CSR actions a company is undertaking per unit size, the greater its underlying stock of intangible resources is.

[16] Following the recommendation of an anonymous reviewer, we also run specifications that include a linear time trend and obtained virtually identical results.

[17] Advertising data are notoriously difficult to come by and are scarce for the sample in this study. Thus, we cannot control for advertising intensity across all firms and years but instead add a control for Selling, General, and Administrative (SG&A) Intensity; a variable that includes advertising in addition to other expenses. In unreported results, we also tried including an *Advertising Intensity* control variable for firms that did have data on advertising expenses; the results stayed virtually unchanged, even though we only had data for less than 10% of our sample. We coded observations with missing data as 0, but including a dummy for such cases did not affect our results. We did so because advertising expenses are reported separately only when they are considered material and therefore we interpret non-disclosure as lack of materiality.

DOI: 10.1002/smj

Table 1. Descriptive statistics and correlations ($N = 5{,}958$)

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Tobin's q	1												
2. Internal$_t$/assets	0.22	1											
3. External$_t$/assets	0.01	0.54	1										
4. Sum/assets	0.11	0.78	0.90	1									
5. Gap/assets	-0.16	-0.09	0.70	0.32	1								
6. R&D intensity	0.24	0.10	0.08	0.11	0.00	1							
7. SG&A intensity	0.22	0.22	0.07	0.16	−0.12	0.34	1						
8. Diversification	−0.14	−0.06	0.08	0.02	0.13	−0.10	−0.15	1					
9. Industry concentrn	0.02	0.14	0.16	0.18	0.07	0.00	0.09	0.09	1				
10. Sales	−0.20	−0.24	0.21	0.01	0.44	−0.02	−0.46	0.27	−0.10	1			
11. Sales growth	0.17	−0.08	−0.11	−0.12	−0.04	−0.01	−0.04	−0.03	0.02	−0.08	1		
12. Analyst coverage	0.13	0.01	0.25	0.18	0.26	0.24	0.14	−0.02	0.08	0.21	−0.06	1	
13. SRI index	0.01	0.02	0.06	0.06	0.04	0.08	0.22	−0.08	−0.30	0.01	−0.06	0.06	1
Mean	2.00	0.06	0.02	0.07	−0.04	2.49	0.19	0.39	−2.28	15.80	0.14	13.92	0.87
Std. dev.	1.32	0.01	0.02	0.03	0.02	5.09	0.17	0.45	0.91	2.27	0.32	8.92	0.33
Min	0.62	0	0	0	−0.22	0	9E−05	0	−4.59	7.24	−0.46	1	0
Max	8.98	0.22	0.10	0.22	0.03	34.36	2.17	1.39	0	22.57	1.37	48	1

RESULTS

Table 1 reports descriptive statistics and correlations for all the variables used in our econometric specifications. While average *Sales* are $148.5 million, average *Sales Growth* stands at 13.68 percent, suggesting that firms in our sample enjoy significant growth opportunities. The average Tobin's q is 2 with a standard deviation of 1.32 (the mean of its log is 0.55). The average *Analyst Coverage* is 14 per firm, indicating that the sample firms are relatively large and broadly visible in the public domain. None of the reported correlations appear to raise any concerns for the subsequent analysis. Moreover, the sum variable is positively correlated with Tobin's q and the gap variable is negatively correlated with Tobin's q, consistent with our theoretical predictions. Importantly, we note that, on average, and for the majority of our observations, the gap variable is negative, suggesting that firms undertake more internal than external CSR actions. In our regression analysis we further explore this issue by distinguishing between cases of a positive and a negative gap.

Table 2 presents the main regression results of estimating the market-value equation, with standard errors robust to heteroskedasticity. Model 1 represents a basic model with controls only: on average, higher-visibility firms (i.e., companies with greater analyst coverage and sales growth) appear to have greater market value, and firms with greater overall sales see lower market value (consistent with Belenzon, 2012). Models 2 and 3 estimate the effect of lagged internal and current external actions separately, showing that external actions by themselves have a significant positive effect on market value. Model 4 includes them together: the effect of external actions persists.

Model 5 estimates Equation 5 by introducing the sum of lagged internal and current external actions weighted by assets (as derived through the market-value equation): as predicted, the coefficient is positive and significant ($\beta = 0.115, p < 0.01$), providing support for Hypothesis 1. Model 6 estimates Equation 6 by adding the weighted (absolute value) gap between current external and lagged internal actions; as predicted, the sign on the coefficient is negative and significant ($\beta = -1.151, p < 0.01$), suggesting that the wider the gap between a firm's external and internal actions, the lower the firm's market value. This result provides support for Hypothesis 2. Finally, we include a fully specified Model 7 that includes both the sum and the gap variables: the results stay virtually unchanged, except for the coefficient on the sum, which increases in magnitude.[18]

[18] One potential concern with the results shown in Table 2 is that the significance of the coefficient on external actions may be driving our findings. To address this issue, in unreported tabulations (available on request) we replicate all the specifications of Table 2 by using *current* internal rather than lagged internal actions. While the coefficient on external actions remains equally significant,

DOI: 10.1002/smj

Table 2. The impact of CSR resources on market value (DV: Log Tobin's q)

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
$Internal_{t-1}$/assets		0.099		−0.306							
		(0.601)		(0.599)							
$External_t$/assets			1.646***	1.688***							
			(0.412)	(0.412)							
Sum/assets					0.115***		0.755**		0.691**	0.784	0.719**
					(0.035)		(0.342)		(0.347)	(2.188)	(0.365)
Abs. (gap/assets)						−1.15***	−0.927**			4.76*	−1.101***
						(0.38)	(0.4)			(2.537)	(0.419)
Gap/assets								1.23***	0.997***		
								(0.355)	(0.38)		
R&D intensity	−0.001	−0.001	−0.001	−0.001	−0.001	−0.001	−0.001	−0.001	−0.001	0.022	−0.002
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.026)	(0.005)
SG&A intensity	−0.05	−0.049	−0.031	−0.032	−0.041	−0.046	−0.034	−0.043	−0.032	2.47***	−0.052
	(0.103)	(0.103)	(0.102)	(0.103)	(0.102)	(0.103)	(0.103)	(0.103)	(0.103)	(0.717)	(0.101)
Diversification	−0.023	−0.023	−0.026	−0.025	−0.026	−0.023	−0.025	−0.023	−0.025	−0.057	−0.023
	(0.027)	(0.027)	(0.027)	(0.027)	(0.027)	(0.027)	(0.027)	(0.027)	(0.027)	(0.258)	(0.028)
Industry	−0.016	−0.015	−0.018	−0.018	−0.016	−0.019	−0.018	−0.019	−0.018	0.312	−0.012
Concentration	(0.037)	(0.037)	(0.037)	(0.037)	(0.037)	(0.037)	(0.037)	(0.037)	(0.037)	(0.619)	(0.037)
Sales	−0.059**	−0.059**	−0.054**	−0.055**	−0.057**	−0.06**	−0.055**	−0.061**	−0.055**	0.216	−0.056**
	(0.027)	(0.027)	(0.027)	(0.027)	(0.027)	(0.027)	(0.027)	(0.027)	(0.027)	(0.239)	(0.027)
Sales growth	0.168***	0.168***	0.166***	0.165***	0.167***	0.17***	0.166***	0.166***	0.165***	0.469	0.163***
	(0.029)	(0.029)	(0.029)	(0.029)	(0.029)	(0.029)	(0.029)	(0.029)	(0.029)	(0.333)	(0.029)
Analyst coverage	0.009***	0.009***	0.009***	0.01***	0.01***	0.01***	0.01***	0.01***	0.01***	−0.003	0.01***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.003)	(0.001)
SRI index	0.047	0.046	0.044	0.044	0.046	0.047	0.045	0.046	0.044	0.007	0.042
	(0.03)	(0.03)	(0.03)	(0.029)	(0.03)	(0.029)	(0.03)	(0.029)	(0.029)	(0.066)	(0.032)
Constant	1.117***	1.106***	1.012**	1.044**	1.023**	1.18***	1.037**	1.179***	1.044**	−3.251	1.078**
	(0.42)	(0.416)	(0.418)	(0.416)	(0.417)	(0.419)	(0.417)	(0.419)	(0.416)	(4.705)	(0.418)
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	5,958	5,958	5,958	5,958	5,958	5,958	5,958	5,958	5,958	178	5,780
R^2	0.143	0.143	0.147	0.147	0.146	0.145	0.147	0.146	0.147	0.449	0.145
No. of firms	1,492	1,492	1,492	1,492	1,492	1,492	1,492	1,492	1,492	124	1,482

*$p < 0.1$; **$p < 0.05$; ***$p < 0.01$.

The table shows estimation results of Equations 5 and 6 with firm and year fixed effects. Parentheses contain robust standard errors. Models 10 and 11 use split samples: Model 10 only uses observations that have a positive gap; Model 11, a negative gap.

DOI: 10.1002/smj

Given that on average, our gap variable is negative, we also include estimations of the market-value equation with the real value of the gap: in Model 8, by itself, it is positive and significant, and stays virtually unchanged in Model 9 that adds the sum. We also split our sample by the sign on the gap: Model 10 presents the results for the few observations with a positive gap (i.e., current external actions are higher than prior internal actions), and Model 11, for the negative gap. These results overall suggest that the more external actions the firm undertakes than internal, the higher its market value. However, we are very cautious in interpreting results from Model 10, given that we only have 178 observations for a model with 124 firms (i.e., fixed effects) involved and that drops an additional year dummy compared with the rest of the models due to insufficient data. Whenever internal actions outweigh external (Model 11), market value is negatively affected.[19]

To understand this asymmetric effect of the gap further, we also calculate its economic significance from Model 8, keeping all controls at their mean value and comparing the effect of the increase/decrease in the real value of the gap with the average Tobin's q from the descriptive statistics. When the gap takes its mean value, Tobin's q is 22.5 percent higher than the average (2.45 vs. 2). An increase in the gap by 1 standard deviation is associated with a Tobin's q that is 28.5 percent higher than the average (2.57 vs. 2). On the other hand, a decrease in the gap by 1 standard deviation is associated with a Tobin's q 15 percent higher than the average (2.3 vs. 2); by 2 standard deviations, it is 9.5 percent higher; by 3, it is three percent higher. The breaking point happens when we decrease the gap by 4 standard deviations: Tobin's q is three percent lower than the average (1.94 vs. 2); by 5, it is eight percent lower (1.84 vs. 2). At the minimum value of the gap (when internal actions completely outweigh external ones), Tobin's q is 26.5 percent lower than the average (1.47 vs. 2). In other words, on average, it appears that a better balance between the two types of actions and, in fact, engaging a bit more in external than in internal actions is more positively associated with market value, and that a true disconnect between internal and external actions (taking place after deducting 4 standard deviations and beyond from the gap) is negatively associated with market value (see Figure 2).

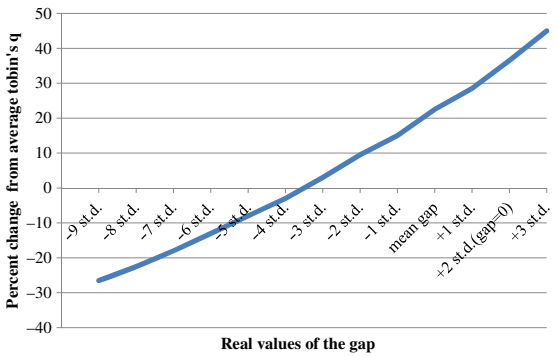

Figure 2. Economic significance of results for the gap, calculated using real values of the gap from Model 8 (Table 2) keeping all other variables at their mean

We note that we compare the estimated economic effects to the average value of Tobin's q from the descriptive statistics (i.e., y-axis of Figure 2), ensuring that both the value of the gap and that of Tobin's q lie within the range of our data. If we were to also add or deduct 1 standard deviation of Tobin's q from the sample distribution, as we increase/decrease the value of the gap, then doing so would significantly diminish the size of our effects. In addition, we note that we also keep all other variables at their mean value as the size of the gap increases/decreases.

Auxiliary analyses

To corroborate our main findings and to test more directly for the theoretical mechanisms at work (i.e., markets punishing firms for a wider gap), we undertook two more empirical tests. First, given that the natural resources and extractive industries are heavily scrutinized (not only by markets but also by regulators and the general public), we construct an indicator variable, *Natural Res. & Extractives,* for firms in industries such as water, forestry, coal, aluminum, gold mining, integrated oil and gas, iron and steel, nonferrous metals, platinum and precious metals, farming and fishing. If the mechanisms we

none of the coefficients on the independent variables of interest (i.e., gap, absolute gap, and interaction term with negative gap indicator variable) obtain significance. This suggests that external actions are not likely to drive the results.

[19] In unreported results, rather than splitting the sample, we create an indicator variable for observations with a negative gap and interact it with the absolute value of the gap; the coefficient on the sum remains positive and significant, the interaction term obtains a negative and significant coefficient, and the coefficient on the baseline absolute gap does not obtain significance.

DOI: 10.1002/smj

argue for are valid, then we expect that for firms in these industries, the gap will be more strongly associated with market value (i.e., we expect CSR issues to be more material for firms in natural resources and extractive industries) compared with other industries. We interact the indicator variable with our gap measure, and we also split the sample by observations that belong to these industries or not (i.e., the rest). Table 3 shows the results, supporting our hypothesis that the gap is particularly costly in these industries (Models 12 and 13). In fact, the split-sample analysis shows that in the rest of the industries, the coefficient on the gap is not significant, even though it remains directionally consistent (Model 14).

Second, we undertook an equivalent analysis for CSR-intensive industries, finding similar results. In particular, we created an indicator variable for CSR-intensive industries by first constructing a firm-level measure of CSR, as the sum of the environmental, social, and governance indices in the Thomson Reuters ASSET4 database, then calculating the industry-level average CSR score, and coding a focal industry as being CSR-intensive whenever its mean CSR is higher than the median CSR score (of the means) across industries.[20] Table 4 presents the results of this analysis. Model 15 presents the results of a pooled analysis where we find a negative and highly significant effect on the interaction term between the absolute gap and a dummy variable that takes the value of 1 for CSR-intensive industries. Models 16 and 17 present a split-sample analysis confirming a negative and highly significant effect on the absolute gap for firms in CSR-intensive industries and a directionally consistent but insignificant coefficient for the rest of the industries.

Table 3. Results for natural resources and extractive industries (DV: Log Tobin's q)

Variable	(12) Full sample	(13) Natural resources and extractives	(14) Rest of industries
Abs. value (gap/assets)	−0.520	−2.264**	−0.568
	(0.429)	(0.966)	(0.437)
Abs. value (gap/assets) × natural res. & extractives	−2.376***		
	(0.881)		
Sum/assets	0.736**	−0.150	1.003***
	(0.341)	(0.747)	(0.382)
R&D intensity	−0.001	0.0481**	−0.0028
	(0.0048)	(0.0215)	(0.0048)
SG&A intensity	−0.0306	0.533	−0.0514
	(0.103)	(0.359)	(0.107)
Diversification	−0.0253	−0.122**	0.0002
	(0.0268)	(0.0588)	(0.0294)
Industry concentration	−0.0160	0.0593	−0.0174
	(0.0369)	(0.0682)	(0.0410)
Sales	−0.057**	0.0077	−0.0859***
	(0.0267)	(0.0489)	(0.0308)
Sales growth	0.166***	0.108**	0.181***
	(0.0287)	(0.0454)	(0.0336)
Analyst coverage	0.0094***	0.0068**	0.0096***
	(0.0014)	(0.0035)	(0.0015)
SRI index	0.0441	−0.0215	0.0552*
	(0.0294)	(0.0812)	(0.0311)
Constant	1.074**	0.265	1.487***
	(0.417)	(0.768)	(0.483)
Year fixed effects	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes
Observations	5,958	942	5,016
R^2	0.149	0.199	0.151
No. of firms	1,492	249	1,243

*$p < 0.1$; **$p < 0.05$; ***$p < 0.01$.
The table shows estimation results of sensitivity analysis with firm and year fixed effects. Parentheses contain robust standard errors.

DISCUSSION AND CONCLUSIONS

To gain a more nuanced understanding of how CSR could be associated with firm value, it is critical to investigate the variety of strategic responses that firms adopt, rather than treat CSR as a monolithic construct. However, many prior studies that focus on the link between CSR and performance do not theoretically distinguish between different types of CSR actions. Instead, they often use a composite CSR score as the dependent or independent variable of interest, consisting of various screens or categories typically created by the data provider rather than categories that are theoretically grounded. We suggest that this limitation may lead to unreliable findings or even spurious relationships (Margolis *et al.*, 2009). In an attempt to advance the literature in this important respect, we draw from and extend the neo-institutional as well as the CSR literatures, arguing for a theoretical distinction between

[20] The indicator for CSR-intensive industries is correlated with the *Natural Res. & Extractives* dummy at only 5.6 percent.

DOI: 10.1002/smj

Table 4. Results for CSR-intensive industries (DV: Log Tobin's q)

Variable	(15) Full sample	(16) CSR-intensive	(17) Rest of industries
Abs. value (gap/assets)	0.132	−1.497***	−0.078
	(0.582)	(0.507)	(0.623)
Abs. value (gap/assets) × CSR-intensive industry	−1.900***		
	(0.706)		
Sum/assets	0.667**	0.404	0.939*
	(0.339)	(0.452)	(0.531)
R&D intensity	−0.0012	0.0039	−0.0033
	(0.0048)	(0.0095)	(0.0048)
SG&A intensity	−0.0362	−0.0212	−0.0393
	(0.102)	(0.132)	(0.151)
Diversification	−0.0273	−0.0355	−0.0106
	(0.0266)	(0.0308)	(0.0466)
Industry concentration	−0.0192	−0.0158	−0.0349
	(0.0367)	(0.0505)	(0.0523)
Sales	−0.0536**	−0.0531	−0.0661**
	(0.0267)	(0.0471)	(0.0327)
Sales growth	0.165***	0.273***	0.130***
	(0.0289)	(0.0551)	(0.0324)
Analyst coverage	0.0095***	0.0082***	0.011***
	(0.0014)	(0.0016)	(0.0024)
SRI index	0.0408	0.0481	0.0394
	(0.0296)	(0.04)	(0.0438)
Constant	1.018**	1.031	1.124**
	(0.416)	(0.748)	(0.500)
Year fixed effects	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes
Observations	5,958	2,966	2,992
R^2	0.149	0.182	0.136
No. of firms	1,492	697	795

*$p < 0.1$; **$p < 0.05$; ***$p < 0.01$.
The table shows estimation results of sensitivity analysis with firm and year fixed effects. Parentheses contain robust standard errors.

external and internal actions and theorizing about how their dynamic interplay may be associated with performance. We thus integrate across these two literatures by adopting the CSR actions as our level of analysis and by investigating how important they jointly are for market value. Importantly, our key contribution is to shed light on the relationship between a gap across internal and external actions and market value.

To be more specific, the main theoretical implication of our study relates to the long-standing debate on the relationship between CSR and financial performance. Prior research has demonstrated a positive and statistically significant link (Eccles *et al.*, 2014; Margolis *et al.*, 2009); however, the mechanisms through which the link materializes have not yet been adequately understood. In this paper we find that internal and external CSR actions jointly have a significant positive association with market value. However, when we separate these actions and evaluate the role of the gap between them, we find that the wider the gap—in particular, the more internal actions a firm undertakes than external—the more the firm is penalized in terms of market value. This is a key finding that may partially explain why several prior studies find inconsistent results on the relationship between CSR and performance.

We suggest that the two hypotheses we develop represent a double edge of CSR: while firms that engage in both types of actions to a greater extent are associated with better performance, a wider gap between external and internal actions poses a significant risk for a firm's market value. Interestingly, and consistent with some popular beliefs, we find in our sample that the gap between external and internal actions is, on average, due to insufficient external actions (i.e., prior internal actions outweigh current external ones). In fact, there are only a few observations where the gap is positive; i.e. due to predominant external actions over internal ones, which is consistent with some views in the field of CSR communications.[21] We speculate that for some companies (e.g., Apple), this might be part of an overall policy of secrecy. For others, it might be that they do not reveal their actions because (1) they think more experimentation is needed until they "get it right" (e.g., until they understand the materiality of the issues), (2) they might not want to attract additional stakeholder pressure or targeting by social movements or activist investors, and/or (3) they might be more risk-averse in terms of how investment analysts (or other rating agencies) may perceive such actions. What is important is that the greatest gap between internal and external actions (i.e., at the minimum value of the gap) is associated with a market value 26.5 percent lower than the average (40% lower than the market value at the mean value of the gap). On the other hand, when the gap is equal to 0, the market value is 36.5 percent

[21] See for example, http://www.triplepundit.com/2012/07/top-10-mistakes-cr-communications/ or http://www.mckinsey.com/insights/strategy/beyond_corporate_social_responsibility_integrated_external_engagement or http://www.csrwire.com/blog/posts/516-5-tips-for-marketing-csr-in-the-context-of-our-new-reality

DOI: 10.1002/smj

higher than the average (11% higher than the market value at the mean value of the gap); and in very few cases when external actions outweigh internal ones (i.e., gap value at 0.02 or plus 3 standard deviations above the mean), the market value is 45 percent higher than the average (18% higher than the market value at the mean value of the gap).

These estimated economic effects demonstrate significant differences in the relationship with market value: while a small disconnect between the two types of actions (in both directions) may, on average, have a positive effect on market value, a significant disconnect between them (i.e., when the firm engages in much more internal actions that are not followed up by external ones) appears to be the most disadvantageous scenario for the firm. This is consistent with our core theoretical argument that a lack of alignment between internal and external actions is likely to be perceived as lack of transparency and accountability toward the investor community, and, therefore, the firm's valuations are likely to suffer. In other words, unless firms communicate and engage with stakeholders in a consistent (i.e., well-aligned) and credible manner, external audiences could well assume that the firm is not sufficiently engaging in CSR. Therefore, our findings suggest that firms may generate and capture highest market returns when they not only substantively change their processes and procedures to integrate CSR but also communicate effectively the changes they undertake to key capital market participants. Hence, our approach helps integrate prior work on structural change and the seeking of external endorsements as strategic firm responses, which is a key step toward arriving at a more detailed understanding of the mechanisms of potential value creation in the context of CSR. An interesting next step for future work would be to develop a process understanding of how specific internal and external CSR actions evolve and combine over time, as part of a firm's process of strategic asset accumulation, potentially to build and sustain a competitive advantage.

Within the strategic CSR literature, we contribute to the stream of work that conceptualizes CSR as a resource, by exploring the link between the accumulation of strategic firm resources and the building and sustaining of a competitive advantage (e.g., Barney, 1991; Penrose, 1959; Wernerfelt, 1984). Although scholars have already identified CSR as a potential strategic resource on which a competitive advantage may be built (e.g., Branco and Rodrigues, 2006; Choi and Wang, 2009; Hillman and Keim, 2001; McWilliams and Siegel, 2001; Ruf *et al.*, 2001; Russo and Fouts, 1997), the process of accumulating an intangible CSR resource remains less understood. Our work relates to the theory developed by Maurer, Bansal, and Crossan (2011), who introduce a culturally informed RBV that explains how cultural elements in the firm's institutional context (specifically, social values that guide perception of benefits) may create or destroy economic value. We suggest that moving this broader research agenda forward requires explicitly considering the diversity of actions across firms in general and in conjunction with a firm's institutional context as well as distinguishing between and exploring how internal and external CSR actions may interact differentially with the institutional context and its embedded social values to affect economic value creation.

In addition to the strategic CSR domain, we contribute to the neo-institutional literature by analyzing decoupling between internal and external actions in the CSR context (e.g., MacLean and Behnam, 2010; Weaver *et al.*, 1999b). In so doing we expand our currently limited view of the effect of decoupling on firm value (Westphal and Zajac, 1998), which mainly examines the determinants of decoupling, its varying degrees (Westphal and Graebner, 2010; Westphal and Zajac, 2001), and how it results in legitimacy even though organizational actions can be illegitimate (Elsbach and Sutton, 1992). Here, we suggest that the evaluation by external audiences, and especially markets, of the gap between external and internal actions—particularly when firms do more internal than external actions—may be a key mechanism linking these actions to performance. Moreover, such an evaluation may have a differential impact across industries: in our auxiliary analyses, we show that the effect only persists in CSR-intensive and natural resources and extractive industries.

Limitations and future research

There are certain limitations in our study that we hope will provide opportunities for future research. First, even though our dataset is relatively comprehensive within the CSR context, it imposes certain limitations on our operationalization of key concepts due to its secondary nature: follow-up studies could measure internal and external actions more directly within CSR or in other relevant contexts.

DOI: 10.1002/smj

Second, while this paper establishes solid correlational relationships between internal and external actions and market value, we acknowledge the potential endogeneity issues inherent in evaluating the impact of the sum of (or the gap between) internal and external actions on firm value. We are thus cautious about making any causal claims. Indeed, as the editors of the *Strategic Management Journal* recently argued, "Studies also need not necessarily seek to establish causality. Presenting facts and asking questions about possible explanations of these facts serves an important purpose. Studies that raise questions about a phenomenon can be as valuable as studies that seek to provide answers" (Bettis *et al.*, 2014: 950). Relatedly, we note that the causality issue has been central in the strategic CSR literature to date and that more recent studies, using different empirical methodologies or alternative shocks, address the endogeneity of the combined CSR effect on firm performance more directly (e.g., Eccles *et al.*, 2014; Flammer, 2013; Hawn *et al.*, 2014).

Third, given that we find that, on average, firms in our sample intriguingly "walk" more than they "talk", we infer that in the context of CSR, companies should be mindful of this gap. Future research could delve further into this intriguing area using alternative empirical tools and complementary theoretical lenses. For example, future studies could seek to understand how persistent this effect is in a more dynamic context, when internal actions become more salient, when monitoring and verification costs diminish (e.g., emergence of social media and auditing standards for sustainability disclosures), and when external constituents start demanding that internal actions be followed by external ones, or vice versa. Future work could also match a specific internal action to its external twin (or vice versa) and conduct a dynamic analysis at the dyad level, differentiating between the effects of such dual actions on performance or other outcomes. Supposedly the (exogenous) shock from some (internal or external) action-related event may help in disentangling their distinct effects. This could be done within much shorter periods than in our study: for example, days or months in financial event studies (unfortunately, our study is limited by the annual nature of our data).

Finally, future studies can build upon our research and findings here and focus on other responses to institutional pressures, potentially in different empirical settings. Symbolic and substantive actions is one fruitful avenue for further study, as demonstrated by, for instance, corporate ethics programs (Weaver, Trevino, and Cochran, 1999a) and ethics codes (Stevens *et al.*, 2005); self-disciplining or self-regulation tools, such as international certifiable management standards and industry- or government-led voluntary programs (Christmann and Taylor, 2006; Delmas and Toffel, 2008; King and Lenox, 2000; Short and Toffel, 2010); and shareholder proposal activism (David, Bloom, and Hillman, 2007). Which particular actions have a larger impact than others is also open to further investigation.

Our research also has implications for practice: given increasingly high institutional pressures on firms to become more environmentally, socially, and ethically responsible, managers around the world must make trade-offs when allocating scarce resources to CSR and other business activities. We argue that by engaging in CSR, a firm may accumulate "invisible resources" (Itami and Roehl, 1987), and we show that undertaking both internal and external CSR actions helps firms attain higher market value and that a narrow gap between them is even better. Of course, we analyze the effect on market value only, whereas managers may rely on other indicators of performance to make their decisions, so our findings should be interpreted with caution.

To conclude, our research has implications for both strategy scholars and executives: by distinguishing between internal and external actions and shedding light on the association with market value, we generate a better understanding of the drivers of performance heterogeneity across firms in the CSR context. By examining the role that internal and external actions play in the CSR resource accumulation process, we also contribute to the RBV theory and the strategic CSR literature. Methodologically, we repurpose the market-value equation, advancing the empirical literature on CSR, while creating fruitful opportunities for future research.

ACKNOWLEDGMENTS

We are grateful to Sharon Belenzon, Rodolphe Durand, Nel Dutt, Caroline Flammer, Constantinos Markides, Yiorgos Mylonadis, Nicos Savva, George Serafeim, Elena Vidal, seminar participants at the research brown bag (SE area) of the London Business School and Duke University, the 2012 Academy of Management Conference anonymous

referees and participants, and the 2011 Strategic Management Society meeting anonymous referees and participants. Finally, the authors thank the editor Constance Helfat and two anonymous reviewers for insightful guidance through the review process and excellent insights. The authors are solely responsible for any remaining errors in this paper.

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SUPPORTING INFORMATION

Additional supporting information may be found in the online version of this article:

Appendix S1. The composition of internal and external actions' indices.