

## Testing Two Competing Arguments for CSR

### Abstract

Despite considerable concern in the management literature over the performance effects of undertaking CSR, we have to date gained little insight on this issue due to conflicting findings. We attempt to address this issue. In this research, we examine which of two opposing theoretical arguments best explains the relationship between CSR and performance. Using a natural experiment context relating to the 2004 Asian Tsunami disaster, we develop two separate models in this regard. Drawing on a strategic approach for the first model, we hypothesize that firms' international exposure, competition and reputation in their industry are positively related to CSR. An agency theory approach is reflected in in the second model which hypothesises that institutional shareholding, tenure of CEO, board independence and managerial ownership are negatively related to CSR choices. Our findings suggest that the agency explanation for CSR outweigh the strategic explanation. Further we examine the effect of CSR activities on the firm performance. Using a matched sample of 471 US companies, we find that firms that did not engage in CSR activities outperformed the firms that engaged in CSR activities on the stock market. These findings have important implications for the debate in management regarding CSR as a source of competitive advantage.

**Keywords:** Corporate Social Responsibility; International Strategy; Agency Theory

## INTRODUCTION

A key concern for management researchers is the performance implications of corporate social responsibility (CSR). A number of researchers in the management arena have argued for a positive relationship between CSR activities and firm performance, stemming from enhanced skill creation (Wright, Ferris & Hiller 1995; Starik & Rands, 1995; Koch & McGrath, 1995), as well as reputational and advertising effects (Barnett & Salomon, 2012; Russo & Fouts, 1997; Sharma & Vredenburg, 1998). Other researchers have suggested that CSR has a negative effect on performance, since the resources thus expended may have better alternative uses (Aupperle, Carroll & Hatfield, 1985; Ullman, 1985), and increase the firm's costs (Friedman, 1970; Sternberg, 1997). Despite significant work on this topic to date, we remain largely in the dark on whether CSR is a strategic tool that benefits the firm or a misuse of corporate resources. Findings on the relationship between CSR and performance are not uniform (e.g., Margolis & Walsh, 2003; Orlitzky, Schmidt & Rynes, 2003), reducing our comfort with any particular explanation. The reasons for the variance in findings likely stems from the fact that empirical treatments have only considered firms that engage in CSR without comparing them to those that do not engage in CSR. This not only limits insight into why firms engage in CSR in the first place, but also makes it unclear whether such choices actually enhances or hampers performance. The goal of this research is to address these limitations in the CSR literature.

We begin accounting for the underlying mechanisms for CSR, drawing on two contrasting theoretical approaches to management behavior. The first is the strategic approach (Barney, 1991; Rumelt, 1984) which highlights the benefits of CSR for developing firm reputation and improved image among consumers, suppliers, government gatekeepers and other stakeholders. The increased sales and reduced operating risks resulting from this are expected to translate into higher performance for the firm (Fombrun & Shanley, 1990; Roberts & Dowling,

2002). Four hypotheses are developed in line with this argument. The second theoretical approach considered is agency theory (e.g., Eisenhardt, 1989; Jensen & Meckling, 1976), which suggests that CSR represents the maximization of managers' own personal objectives rather than those of the firm. In this case, CSR choices are thought to reflect managers' personal values and individual interests rather than the best use of firm resources. With little direct utility to the firm, this perspective stresses that CSR activities will reduce firm performance. Four hypotheses are developed in relation to this argument as well.

To empirically assess which of these two perspectives provide greater explanatory power, we utilize the natural experiment conditions of a large and famous environmental disaster that left significant suffering and damage in its wake—the 2004 Asian Tsunami. Such a context, which has a clear beginning and end, allows us to clearly identify firm choices to engage or not engage in CSR activities that are directly related to it, facilitating an empirical examination. Our sample of 471 U.S. firms includes those that donated to the Tsunami relief effort and those that did not, allowing us to assess the differing factors that influence firms to engage in CSR. Findings suggest more support for the agency argument than the strategic one. That is, we do not find that strategic considerations such as higher reputation and competitive pressures influence firms to engage in CSR. On the other hand, we do find that factors mitigating agency problems, such as a more institutional ownership and longer CEO tenure, have robust effects on reducing CSR activity.

We believe this research has the potential to contribute significantly to both the international and CSR literatures. We shed light on why U.S. firms engage in CSR overseas, stressing both the role of their international exposure and reputation in this regard. In addition, we took into account two competing logics for CSR to consider which one has more explanatory power. Our finding that, when considered jointly, one—agency theory—is more useful in

explaining CSR choices than strategic explanations is new to the literature. Finally, our use of a natural experiment relating to the international context allowed us to both hold constant the conditions under which CSR choices are made as well as isolate the mechanisms associated with them.

## **REVIEW OF THE CSR LITERATURE**

Over the last three decades, the literature has seen burgeoning interest on the issue of corporate social responsibility. Nonetheless, a debate rages unabated for and against involvement of firms in such activity. While scholars drawing on the resource based view and stakeholder theory have suggested a positive relationship between CSR and firms' performance, others draw on economic perspectives of the firm and agency theory to suggest a negative relationship in this regard. In the sections below, we review the case made for and against CSR activity in the literature, and assess the empirical evidence in relation to these approaches

### **The Case for Involvement in CSR Activities by Firms**

The fundamental concern of strategic management scholars is to explain firm performance (Rumelt, Schendel, & Teece, 1991). One prominent view—the resource-based view—attempts to unravel the origins and persistence of superior performance by highlighting the importance of firm heterogeneity. According to this approach, idiosyncratic firm attributes can help a firm capture more value than other competing firms (Barney, 1991; Rumelt, 1984; Wernerfelt, 1984), including those reflecting CSR capabilities. For example, Wright, Ferris and Hiller (1995) note that affirmative action programs that promote employment and training for individuals from minority groups may appear as only CSR to the outside world, but in fact can help create superior talent and enhance creativity.

By the same token, senior management's commitment towards ecological issues, reflecting CSR concerns, has also been suggested by some researchers as affecting human

resource management practices in ways that improve the firm's ability to attain rents. For example, employees can be encouraged and empowered to improve organizational throughputs and outputs by being ecologically innovative in reducing wasteful products and processes. Reward systems, communication systems, organizational structures, and decision-making systems can also be aligned to empower individuals to engage in sustainability-oriented innovation (Starik and Rands, 1995). In this way, firms' ecological concerns will be reflected in superior job design, recruitment and selection and training. Importantly, Koch & McGrath (1995) show that firms utilizing more sophisticated human resource planning, recruitment and selection strategies improve their labor productivity

By the same token, a growing body of research on ecological management has shown how implementing best practices of pollution control leads to improvement of firms' competitive position (Shrivastava, 1995; Smart, 1992), through positive influences on aspects of management, R&D, production, and marketing (Ashford, 1993; Hart, 1995). For example, Christman (2000) empirically demonstrates how the implementation of pollution prevention practices creates cost advantages for firms with complementary assets such as process innovation and implementation capabilities. In addition, an exploratory study by Sharma and Vredenburg (1998) show how firms proactive in incorporating such processes also develop capabilities for product design and development that take into consideration concerns of key stakeholders, including environmental groups, community leaders, the media, and regulators, along with higher order learning and continuous innovation. Russo and Fouts (1997) also find that adopting standards for pollution prevention enables organizational learning and commitment, cross-functional integration and enhanced employee skills. At the same time, Klassen and McLaughlin (1996) observe that firms which minimize their adverse environmental impact and improve their environmental safety systems are accorded higher value by stockholders. Such studies suggest a

positive relationship between CSR involvement and economic outcomes for the firm. In all, these studies treat CSR as a key firm capability or as a means to improve firm capabilities that leads to higher firm performance.

Researchers have also adopted a stakeholder approach to suggest that a firm's involvement in CSR activities generates indirect performance benefits for the firm. According to stakeholder theory (Freeman 1984), a firm's relationships with stakeholders affects its ongoing viability. Stakeholders are those with explicit or implicit stakes in the firm, and include such entities as customers, suppliers, employees, community members, as well as others that are affected by its activities (Jones, 1995). Firms that invest in their relationships with stakeholders are expected to perform better than those that pay less attention to them, by ensuring ongoing customer interest in products and services, access to reliable suppliers, and the ability to retain employees. According to Barnett and Salomon (2012), socially responsible behaviors help firms to build trusting and cooperative relationships with stakeholders that in turn positively influence their performance. Such socially responsible behavior may attract and retain employees and customers that are sensitive towards such activities (Greening and Turban, 2000; Servaes and Tamayo 2013). Firms' commitment towards the betterment of society may also attract a positive response from local governmental authorities, in turn creating a more favorable climate for undertaking business activities (Davis, 1973), and reducing unpredictability in resource acquisition. Social improvements can also reduce crime rates, requiring less spending by firms to protect property and reduced taxes due to lower police administration costs. While boosting a firm's public image (Davis, 1973), a better society also produces a better environment to conduct business. Thus, firms that involve themselves in socially responsible activities benefit their own long-term interest. For such reasons, those drawing on a stakeholder approach also suggest that a

firm derives important intangible benefits from its CSR involvement that enhances its odds of survival and performance.

### **The Case against Involvement in CSR Activities by Firms**

According to the classical economic doctrine of free markets, the primary objective of a firm is to enhance profitability and maximize the wealth of its shareholders. Indeed, all actions of a firm should be geared only towards fulfilling this objective. In this perspective, devoting a firm's resources to address social misery is expected to destroy the wealth of the shareholders, which is neither permissible nor prudent. The pursuance of philanthropic activities makes the firm increase its prices, as the costs of these activities must be recovered. This in turn puts them at an economic disadvantage compared to less responsible firms (Aupperle, Carroll, & Hatfield, 1985; Ullmann, 1985; Vance, 1975). Spending revenues on social causes may also drive firms in low margin segments of industries out of business. For example, Davis (1973) shows that metal foundries and chemical firms in the U.S. shut down their operations because they could not meet the high cost of new pollution prevention equipment.

Importantly, concerns for social responsibility may limit a firm's strategic alternatives. For example, due to negative perceptions of stakeholders such as the media or community members regarding the social value of some industries such as weapons and pesticides, a firm may decide to exit or not enter these industries. Non-economic pressures from communities to avoid potentially valuable investment opportunities in controversial locations may be inconsistent with value maximization motives of firms (e.g., South Africa during apartheid, Darfour in Sudan, and Cuba due to its communist government). Furthermore, since firms' primary objective is profit maximization, they are likely to lack the skills and know-how to effectively conduct such CSR activities. According to Davis (1973), managers have an economic rather than social outlook, rendering them philosophically and emotionally unfit for such

activities. As noted by numerous economists, such activities are the domain of governments and should be best left to them (Friedman, 1970; Sternberg, 1997).

In addition, researchers espousing this traditional economic perspective stress that social issue participation is different from management of relationships with stakeholders that do not have a direct relationship with the firm. For example, contributions that enhance relationships with primary stakeholders such as suppliers and buyers—those that bear some form of risk as a result of having invested capital, human or financial, in the firm (Clarkson, 1995)—can create intangible assets that give sustained competitive advantage to the firm. Nonetheless, such activities serve to maintain economic relationships for the firm key to its value maximization goals and cannot, therefore, be considered to be CSR. On the other hand, an international corporate philanthropy program may provide some value to shareholders in the form of tax deductions, but since such strategies are readily duplicated by other firms, they do not provide sustained advantage to the firm (Hillman & Keim 2001). Thus, using corporate resources to pursue social causes per se may not create any advantage to the firm.

In light of these concerns, some have suggested that agency problems explain managers' decisions to engage in CSR (Davis, 1973; Wright and Ferris, 1997). Agency theory highlights two problems in this regard that detrimentally affect the economic goals of the firm. The first is goal incongruence between agents (managers) and principals (shareholders), while the second stems from problems in monitoring the actions of agents which allows them to pursue their own goals (Jensen and Meckling, 1976). Managers may use opportunities to engage in CSR activity to fulfill their own aspirations, which are not in congruence with the primary objective of shareholders to maximize firm value. Along with misappropriation of firm resources, such activity leads to misallocation of these resources since managers are unlikely to have the right skills to undertake such activity. An example of this argument is Meznar et al. (1994), which

studied the U.S. firms that withdrew from South Africa during the movement to end apartheid in the 1980s. The findings indicate that managers of these firms changed corporate behavior to meet the expectations of certain stakeholders, but at the cost of shareholders. In a similar setting, Wright and Ferris (1997) observe that the divestments of South African business units by the U.S. firms accrued negative returns to shareholders. These studies suggest that agency problems may lead managers to pursue their own non-economic goals rather than those that benefit the firm.

### **Empirical Evidence on the Debate For and Against CSR**

Despite ongoing interest in the value of CSR for firms by researchers, empirical studies have not been able to resolve the long-standing debate between the two camps that align themselves for and against CSR involvement. Margolish and Walsh's (2003) review of 127 published studies from 1972 to 2002 shows that almost half of these (54) point to a positive relationship between CSR and performance, while 28 studies report a non-significant relationship, 20 indicate mixed findings, and 7 studies find a negative relationship. Orlitzky et al (2003) point to the wide range of contradictory results in their own meta-analysis and conclude that a modest positive relationship exists for CSR and firm performance.

We expect that the reason for the absence of consensus in this literature stems from several issues relating to prior studies. One such issue is the nature of the samples used to examine relationships between firms' CSR activities and performance. The predominant approach in these studies is to consider only those firms that have engaged in CSR activities (e.g., Tilcsik and Marquis, 2013; Marquis and Lee, 2013; Lev et al, 2010; Wang et al, 2008) drawing on such databases as the National Directory of Corporate Giving or the Taft Corporate Giving Directory. Without comparing such firms to those that do not engage in CSR, however, it becomes nearly impossible to appropriately assess the performance effects of undertaking CSR activities. Analyzing only firms that engage in CSR leads to self-selection biases (Heckman,

1979), as firms choose or self-select their particular strategies based on their capabilities. As noted by Masten (1993), samples with self-selection bias impede the comparative analysis of firms' performance, since the non-random nature of the observational data result in inconsistent estimates and inflate t-statistics. It may lead to rejecting hypotheses that are in fact correct or to acceptance of false hypotheses (Woolridge, 2010). For example, firms with profitability that is higher than the industry average may self-select to engage in CSR activities. In this case, it would be misleading to draw a causal relationship between CSR and firm performance.

A second empirical issue in the CSR literature stems from the lack of clarity on whether firms that engage in socially responsible behaviors are conforming to the law or acting on their discretion. This problem shows up, for example, in studies that have used Kinder, Lydenberg, and Domini (KLD) database (e.g., Barnett and Salomon, 2013; Waddock and Graves 1994, 1997; McWilliams and Siegel, 2000; Brown and Perry, 1994; Godfrey, Merrill and Hansen, 2009). The KLD database is maintained by an agency that tracks and rates more than 3000 firms based on 13 corporate social responsibility attributes such as corporate governance, diversity, employee relations, environment, and human rights etc. It is unclear whether or not some of these attributes are mandated by regulations. For example, local regulations may require large firms (in terms of revenue or number of employees) to employ minorities or to provide additional on-campus facilities to employees such as a child day care facility. Since by definition CSR activities are voluntary, such mandated activities cannot be classified CSR activities. Another limitation of the KLD database is that all attributes are given equal importance whereas some may be more important than others for CSR (Graves and Waddock, 1994). Therefore, empirical results linking legally mandated activities and firm performance do not help to resolve this debate.

A third concern stems from the measurement of CSR choices, which is inherently difficult to observe and assess. Graves and Waddock (1994) note that previous studies have attempted to measure CSR activities in a variety of ways, including the use of forced-choice surveys (Aupperle et al., 1985), the Fortune reputational and social responsibility index (McGuire, Sundgren, & Schneeweis, 1988), as well as content analysis of firm documents (Wolfe, 1991). They argue that survey methods raise concerns about return rates and consistency among raters, while the Fortune ratings are measures based on corporate performance rather than on ratings of CSR activities. Furthermore, content analysis is influenced by the purpose for which the documents were originally created, reducing reliability of these measures. Similar concerns have been raised for other studies (Margolis & Walsh, 2003; Surroca et al., 2010). The lack of consistency in how CSR is measured may also explain the conflicting results.

Finally, most of the studies examining the relationship between CSR and performance do not consider motivations for engaging in CSR in the first place which can shed light on the theoretical basis for a CSR-performance relationship. Although theoretical treatments of CSR highlight the importance of the antecedents (McWilliams and Siegel, 2001), it is interesting to note that very few empirical studies have examined such factors. While some studies have hypothesized that intangible resources mediate the relationship between CSR and firm performance (Surroca Tribo and Waddock, 2010), others have proposed a U-shaped relationship moderated by stakeholder influence capacity (Barnett and Salomon; 2012), and still others have argued for an inverse U-shaped relationship between CSR and firm performance being moderated by the level of dynamism in the firms' operational environment (Wang, Choi and Li, 2008). Further, researchers argued that corporate philanthropy generate value for the firms only under certain circumstances, such as high sensitivity to consumer perceptions (Lev, Petrovits and Radhakrishnan, 2010), or high customer awareness (Servaes and Tamayo, 2013). Interestingly,

however, these empirical studies do not actually demonstrate the factors that motivate firms to engage in CSR activities in the first place. To date, causal mechanisms between the drivers of firms' participation in CSR have not been clearly established. Without consideration of such mechanisms, we are unable to assess the rationale for CSR decisions which in turn impedes the task of establishing a relationship between CSR and firm performance. We argue that failure to establish clear antecedents of CSR has thus led to a mixed bag of results.

In order to establish a relationship between CSR and firm performance it is necessary to address the abovementioned concerns. To begin, there is a need to assess actual CSR activity as directly as possible rather than reliance on perceptions or firms' reputation for CSR. In addition, it is important to take into consideration firms that engage in CSR but also those that do not, in order to remove any source of self-selection bias. Finally, it is critical to jointly consider factors that give rise to CSR in relation to different theories in order to illuminate the nature of relationship between CSR and firm performance. In the next section, we consider the conditions under which we can appropriately identify CSR.

### **THE 2004 TSUNAMI DISASTER**

In a natural experiment context, researchers are able observe variations in key explanatory variables stemming from a discernible exogenous event. The exogenous change helps researchers to assess how characteristics of firms prior to the change systematically predict both a response to the change as well as the nature of response. Such an experiment is useful in situations when an endogenous variation in the omitted variables bias the estimates (Meyer, 1995). Natural experiments hold great potential to offer new insights into the field of strategic management, but researchers are rarely presented with such opportunity (Reeb Sakakibara and Mahmood, 2012). In terms of this research, the occurrence of an unanticipated yet sizeable natural disaster in which assistance from others is desirable offers an opportunity to observe

firms' CSR behavior. The visibility of such an event makes all firms aware of the needs created, yet the choice to respond to it is simply not mandated.

The natural disaster we choose to focus on is the 2004 Tsunami Disaster. On December 26, 2004, giant forces that had been building up deep in the earth under the Indian Ocean were suddenly released, shaking the ground and unleashing a series of massive sea waves that were over 50 feet high and traveling at the speed of 500/miles per hour. The earthquake, as per U.S. Geological Survey (USGS) estimates, released energy equivalent to 23,000 Hiroshima-type atomic bombs. The epicenter of the 9.0 magnitude earthquake was near Sumatra, Indonesia (National Geographic, 2010). It sped from Indonesia to Africa at the speed of a jet liner. More than 350,000 people in 11 countries lost their lives while millions were rendered homeless (Athukorala, & Resosudarmo, 2005). Many lost their livelihood for years as drinking water supplies and farm fields were contaminated with salt water for years to come. Various agencies reported more than USD 10 billion of economic losses. It was perhaps the most destructive tsunami ever to be experienced in recorded history. The extreme severity of the calamity prompted humanitarian relief support from governments, firms and individuals from all over the globe. U.S. firms alone mobilized more than \$565 million—about \$273 million in cash contributions; \$79 million in employee matching contributions; \$140 million in in-kind donations; and \$73 million in customer donations (U.S. Chamber of Commerce, 2006).

The context of the Tsunami disaster of 2004 provides us with an opportunity to test different theories associated with CSR, since it holds constant a number of key variables that have caused problems in previous studies. It was a single observable event to which firms could respond, creating important boundaries for our assessment of CSR. Firms could voluntarily make choices regarding their donations to the relief work and their contributions are measurable. This addresses the concern of inconsistent definitions and measurement of CSR. By observing firms

that do or do not donate to the relief work, we are able to more properly assess the nature of motivations in this study. In light of these characteristics, the experiment holds promise in addressing the concerns about the extant empirical studies raised previously in this paper.

### **HYPOTHESES DEVELOPMENT**

Using the context of the Asian Tsunami disaster of 2004, this section develops a set of testable hypotheses for each of two opposing arguments—strategy and agency theories—relating to firms' rationales for undertaking CSR activity.

#### **Strategic Rationale for CSR**

Drawing on a strategic rationale, the first set of hypotheses consider the possibility that CSR creates strategic benefits for the firm through the reduction of risks associated with international markets, high visibility and competition. The beneficial effects of such activity are thus predicted to increase performance of the firm.

*International strategy and CSR.* For firms whose revenues or profits depend on their international operations, managing relationships in their political and legal host environments is an important issue. Political and legal actors have the potential to disrupt the firms' access to factors of production and influence intermediary production processes, affecting their profitability (Makhija, 1993). On the political front firms face a complex combination of government policies, political parties, interest groups and unions whose actions may be difficult to anticipate. Although these features also exist in firms' domestic environment, their complexity is amplified in international business due to the need to effectively manage different political processes and actors across host countries. Firms also face legal systems that may differ in their independence and transparency from their home country environment. The risks and uncertainty posed by the political and legal framework of host countries affect firms' competitive position. It

is important, therefore, for firms with international strategies to establish and maintain strong relationships with political and legal entities in host countries.

In the context of a major disaster such as the Tsunami of 2004, firms with overseas operations gain an important strategic opportunity to establish or improve their relationship with the local actors by demonstrating empathy for the plight of those affected. Financial contributions to these individuals would help firms garner positive attention from these actors, which in turn would assist in helping them to reduce the uncertainties of operating in that environment through the reduction of unfavorable behavior from these entities towards their operations. In this way, we expect the positive reputational effects from CSR will benefit firms engaging in international business. Thus, in the event of a large and highly visible disaster such as the Tsunami of 2004, firms with international operations will be more likely to engage in CSR activities. In line with this argument, we present the following hypothesis:

*H1: Firms with international operations will be more likely to engage in CSR during the Tsunami disaster.*

***First-mover strategies and CSR.*** Firms use first-mover strategies to gain market advantages prior to similar actions from other firms (Hitt, Hoskisson & Ireland, 2004). Such an approach allows the firm to capture greater market share as well as gain higher rents from their strategic actions due to monopolistic advantages created in the market. In the case of CSR behavior, firms can have a first-mover strategy by being the only one to offer highly valued assistance to community members. By demonstrating to local consumers that they are uniquely responsive to the problems of their community, they can attract more media attention and use their CSR activities as a form of advertising. Indeed, such press attention is particularly favorable for those firms that are the original movers for CSR.

The value of such favorable attention from the media will be greater in industries characterized by more competition. The more competitive the industry, the more benefits the

firm will get from the advertising effects associated with CSR. Thus, we expect the firm to be more likely to initiate CSR activity for Tsunami victims when they are in such industries and hence we predict the following relationship:

*H2: The more competition faced by in their industry, the more likely that firms will use a first mover CSR strategy.*

***Firm reputation and CSR.*** According to the resource-based view, firms with assets that are valuable, inimitable and rare possess competitive advantage and the ability to earn above-normal returns (Barney, 1991). Isolating mechanisms associated with their organization protect them from imitation and helps sustain above-normal returns (Rumelt, 1984). Within this line of reasoning, an intangible asset such as a firm's reputation also has potential to create and sustain competitive advantage. Reputation is a non-tradable asset which develops and accumulates within a firm. Its creation involves socially complex and 'path dependent' processes that are highly firm-specific (Dierickx & Cool, 1989). These features result in imperfect mobility of reputation, which helps firms sustain competitive advantage. Due to a superior reputation, firms are able to attract superior employees, build a stable customer base, as well as negotiate better terms with their suppliers (Fombrun & Shanley, 1990). By minimizing contractual hazards in this way, reputation helps to reduce transaction costs (Roberts & Dowling, 2002). A positive image of the firm also helps to get favorable treatment from local law-makers and regulators. In this way, superior reputation enables firms to reduce costs of production and increase performance (Roberts & Dowling, 2002).

In light of this, we expect that in the face of the tsunami disaster of 2004, firms with higher reputation in their environment will be more likely to take action that improves or maintains their image in the community and use this opportunity to strengthen ties with the policy makers, regulators, media and community at large in ways that reduces operating risks

associated with the environment. Thus, we predict that firms with higher reputation will be more likely to provide contributions to the victims of the disaster than smaller ones.

*H3: The higher the reputation of the firm, the more likely it will be to engage in CSR during the Tsunami disaster.*

**CSR and firm performance.** Drawing on a strategic logic, we argued above that firms with international operations, higher reputation, and more competition will be more likely to engage in CSR in related to the 2004 Asian Tsunami disaster. We noted that firms would use this opportunity to manage the expectations of institutional actors and the community at large in order to reduce operating risks through an improved reputation and to bolster their competitive position. These tangible and intangible benefits are in turn expected to result in superior performance. We thus predict that firms that engage in CSR during these conditions will exhibit higher performance in comparison to those that do not.

*H4: Firms that engage in CSR during the Tsunami Disaster will exhibit higher performance.*

### **An Agency Rationale for CSR**

While a strategic rationale for CSR suggests a positive relationship between CSR and performance, an agency theory rationale suggests that CSR choices reflect managers' own personal interests over those of the firm's objective of value maximization. To consider an agency rationale, we examine the independence of the firm's board of directors, the extent of institutional ownership characterizing the firm, as well as the extent of managerial ownership of the firm.

***Institutional ownership and CSR.*** Drucker (1986), Hill, Hitt and Hoskisson (1988) and others note that fund managers of institutional investors are under pressure to deliver superior returns consistently on their investments. Fund managers adopt short-term and risk-averse

strategies while investing in public firms. If a firm shows signs of poor performance in a given quarter, fund managers are more likely to sell its stock in favor of more high-growth stock. Gains from CSR activities, however, are slow to accrue (Mahapatra 1984). Firms that engage in CSR activities may not be able to derive benefits from it in the short term, say, on a quarterly basis. This would lead to incongruence in time-horizons related to performance, with institutional investors taking a short term view and managers expecting long-term benefits from CSR activities. Thus, institutional investors may avoid firms that engage in CSR activities.

In light of the argument above, we expect that the high performance expectations of institutional investors will reduce the firm's likelihood of engaging in CSR activities that have unclear performance effects, especially in the short term. We therefore predict that more institutional investors will reduce the firm's incentives to engage in CSR related to the Asian Tsunami disaster.

*H5: As institutional ownership of a firm increases, the less likely it is to engage in CSR during the Asian Tsunami disaster.*

**CEO Tenure and CSR:** Tenure of a CEO can play significant role in determining the firm's orientation towards CSR activities. There are two reasons for this. One stems from the steep learning curve new CEOs face in developing job-specific knowledge. It takes time for the new CEO to create substantial impact on the competitive and financial position of the firm. New CEOs are often vulnerable to challenges by forces within and outside the firm. Many CEOs lose their jobs in less than three years (Shen, 2003). Thus CEOs with less tenure will tend to search for opportunities to strengthen their positions and increase their visibility inside and outside the firm. Natural disasters such as Tsunami disaster of 2004 present unique opportunities to such CEOs to strengthen their position and increase their visibility by making donations to the relief work.

A second reason for why CEO tenure influences CSR choices stems from research that shows that firms are slow to adapt to their environments due to sunk investment in specialized assets, bureaucratic control, internal and political and cultural constraints (Hannan and Freeman, 1977). This suggests that long-tenured top executives prefer the status quo over change (Hambrick, Geletkanycz & Fredrickson; 1993). For example, researchers note that major organizational changes take place only after a new CEO has been appointed (Miller and Friesen, 1980; Tushman, Virany, and Romanelli, 1987). In other words, top executives are one of the important actors in creating organizational inertia. Similarly, CEOs with greater tenure are less likely to alter the firm's existing resource distributions to respond to the Tsunami 2004 disaster. Instead, we expect that CEOs that have been in place for less time are more likely to use the opportunity to engage in CSR activities to increase their visibility, whereas longer-tenured CEOs would not need to use this opportunity for this purpose. Hence, we hypothesize as follows:

*H6: The greater the tenure of a firm's CEO, the less likely it is to engage in CSR during the Asian Tsunami disaster.*

**Board structure and CSR.** According to agency theory, managers may make decisions that are not always in the interest of the owners of the firm, and instead, choose to maximize their own utility. For example, managers and board members may expend firm resources for their own pet projects and charity programs which may not benefit the firm, and thus is at the cost of shareholders. Some have argued that managers and board members do this to enhance their reputation in their social circles and derive private benefits such as getting tickets to public events and greater access to celebrities (Brown, Helland and Smith, 2006). Their contributions may also be influenced by religious or personal beliefs that may not be related to value creation for shareholders.

Best practices of corporate governance suggest that this problem can be mitigated by appointing more independent directors. Although it is a fiduciary responsibility of all directors to protect the interests of shareholders, independent directors have fewer personal relationships with the firm's managers, and due to this, are less likely to be influenced by them. They are more likely to effectively monitor the quality of the decisions of the firm's executives and other directors, and prevent management and management-nominated directors from making self-serving decisions that are not in the best interests of shareholders (Fama, 1980). In particular, they would be in a better position to prevent management and management-appointed board members from making contributions to the charity that may not create shareholder value. This line of reasoning predicts that firms with a higher percentage of independent directors will reduce the propensity to donate resources to charity, including to those affected by the Asian Tsunami. This leads to our next hypothesis:

*H7: The more independent directors on a firm's board, the less likely it will be to engage in CSR during the Tsunami disaster.*

***Managerial ownership and CSR.*** Jensen and Meckling (1976) propose that higher managerial ownership of the firm reduces deviation from a value maximization objective because managers are less likely to squander corporate wealth when their own fortunes are tied to those of the firm. Similarly, Morck, Shleifer and Vishny (1988) forward the convergence-of-interest hypothesis, which predicts that the larger the stakes managers have in a firm, the higher will be the valuation of that firm. This is due to the coinciding of managers' interests with those of external shareholders as their equity ownership increases. Linking managers' performance with firm performance may also lead to risk-avoidance behavior on the part of managers (Holmstrom, 1987; Fama 1992), and motivate them to take a shorter-term view. As argued before, if investments in CSR activities are associated with unclear benefits or yield benefits only

over time, managers will prefer to stay away from CSR activities. In light of the above reasoning, we expect firms with higher managerial ownership to be less likely to engage in CSR. We therefore predict that firms that have higher managerial ownership are less likely to engage in CSR activities during Tsunami disaster of 2004.

*H8: The higher the managerial ownership of a firm, the less likely it is to engage in CSR during the Asian Tsunami disaster.*

**CSR and firm performance.** Misallocation and misappropriation of resources, as highlighted by agency theory, may detrimentally affect the economic goals of the firm. The problem of misallocation stems from goal incongruence between agents (managers) and principals (shareholders), while misappropriation relates to problems in monitoring the actions of agents who tend to pursue their own goals (Jensen and Meckling, 1976). Managers may not have the skills to identify strategic opportunities to invest in CSR activities, or worse, may use opportunities to engage in CSR activity to push their own agenda that may not be in the best interests of the shareholders. Lack of information about managers' motivations behind CSR activities makes it difficult to distinguish between private and social motivations of CSR activities (Rodriguez, Siegel, Hillman and Eden, 2006).

All these concerns result in agency costs that eat into firm profits and erode shareholder value. Thus, according to an agency theory rationale, we expect that firms that engage in CSR will have lower performance. Note that this argument predicts that the relationship between CSR activity and performance is opposite to hypothesis 4, which used a strategic rationale.

*H9: Firms that engaged in CSR during the Tsunami disaster will exhibit lower performance than those that did not.*

## **METHODOLOGY**

### **Data**

Since the 2004 Asian Tsunami disaster took place on or about December 26<sup>th</sup>, 2004, we wished to identify firms in the United States that engaged in CSR related to this disaster within three months after this date, the period during which most of such activity took place. Drawing on print and electronic news sources, we identified firms that donated funds, goods and/or services to governments coping with this disaster and to the overseas victims. We also created another sample of firms that matched these “donating” firms in terms of industry and size but which did not engage in any kind of observable CSR related to the disaster. Financial data, including sales, ROA and ROE and data on international strategy were collected from Compustat. Data relating to corporate governance were collected from Compact Disclosure (Compact D/SEC) database. After accounting for missing data, the final sample consisted of 109 firms that donated and 362 firms that did not donate to Tsunami relief.

### **Dependent Variables**

We use two different types of dependent variables to test the hypotheses. For hypotheses 1-3 and 5-8, the dependent variable reflects whether or not the firm engaged in CSR. Thus, CSR is measured as 1 if the firm has donated either in cash or in kind towards victims of the Asian Tsunami disaster, and 0 if a firm did not donate.

For hypotheses 4 and 8, the dependent variable reflects the performance effects of CSR. To examine the performance consequences, we use event study methodology. Event study has been used to study the impact of an economic event (such as announcement of the CSR donations) on the value of the firm. Using this method, researchers can examine if there is an ‘abnormal’ stock price change (cumulative abnormal returns) associated with an unanticipated events or announcements (McWilliams and Siegel, 1997). This method is well accepted and widely used in the management, finance and accounting research.

For an event study, it is important to identify the date and the window in which the cumulative abnormal returns (CAR) are calculated. For the firms that donated or pledged a donation, the announcement date of this action is used to calculate the CAR. For the matched sample or for the firms that did not donate, we use the first announcement date in the four-digit SIC code industry to calculate CAR. The duration of the window to calculate CAR has a significant implication for the outcome. Keeping a shorter window would ensure minimal effect of other confounding announcements on the CAR. In this study we calculate CAR by using 3 days window - a day before the announcement to a day after the announcement (-1 to +1).

### **Independent Variables**

To test a strategic rationale for CSR, we hypothesized the relevance of three different variables corresponding to hypotheses 1-3, reflecting the firm's international strategy, reputation and competitive conditions, as follows:

*International strategy:* The extent to which a firm relied on an international strategy was assessed by the non-domestic sales in the international market for the year 2004.

*Competition:* To assess the competitive conditions faced by the firm, we assessed the total number of firms in its 4-digit SIC code<sup>1</sup>.

*Reputation:* The reputation index is adopted from a private consulting firm that creates and manages a reputation index for firms across major stock markets in the world. The index is prepared monthly by Consensiv LLC, a provider of reputation controls, and is powered by reputational "big data" value metrics from reputation insurer Steel City Re. The league table tracks the relative value of stakeholder expectations and their consistency over time, and notably,

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<sup>1</sup> We also used the Herfindahl-Hirschman Index (HHI) to calculate industry concentration. The results are approximately similar to the ones presented here.

the calculations do not involve likability or other qualitative attributes associated with marketing and brand research.<sup>2</sup>

To test the agency rationale for CSR, we used the following variables corresponding to hypotheses 5-7, reflecting board independence, institutional and managerial ownership:

*Institutional ownership:* Institutional ownership was assessed through the percentage of the firm's shares owned by financial institutions.

*CEO Tenure:* Tenure of the CEO is captured as the number of years completed by the CEO as of 31<sup>st</sup> March, 2005.

*Board independence:* To measure board independence, we calculated the percentage of the firm's board members that are either independent or are not management-nominated. This variable is normalized by the log of sales in dollars in year 2004.

*Managerial ownership:* This was assessed by the percentage of the firm's outstanding shares owned by the management and senior executives.

### **Control Variables**

We controlled for a number of additional factors in the analysis that might influence the relationships of interest, noted below:

*Firm size:* Firm size is an important determinant of the firm's engagement in CSR activities. Large firms have financial flexibility to engage in CSR activities. So we control for the firm size in terms of log of the firm's total sales in dollars in 2004.

*Growth:* Growth is captured by Tobin's Q ratio (total market value of the firm divided by the total asset value of the firm). Firms with a higher Tobin's Q may show more favorable approach towards CSR activities than firms that have lower ratio. Hence, we need to control for the causal link between the market value of a firm and its CSR proclivity.

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<sup>2</sup> As a robustness check, we have also used Fortune 1000 reputation index and the results are almost similar to the ones presented here.

*Leverage:* A firm's debt may reduce firms' ability to engage in CSR, and thus is controlled for in the analysis. Leverage is measured as a ratio of total liabilities to total assets.

*Profitability:* Firms that have higher profitability or slack resources may tend to engage more in CSR activities than those with fewer slack resources. To assess the possibility of slack resources, we used a ratio of net income before extra-ordinary items to total sales.

*Industry:* Since some industries are more global than others, firms in these industries may have more international interests than others, or suffer more international risk, affecting firms' motivations towards CSR. For this reason industry specific factors are controlled by using the 4-digit SIC code of the industry.

### **Statistical Approach**

We undertake two steps to examine the antecedents of CSR activities and their consequences on firms' performance. First, we use logit regression to examine the antecedents of the CSR activities. Second, we use propensity score matching technique (PSM) to examine the performance consequences of the CSR activities.

### **Antecedents of CSR**

Since seven of the hypotheses consider factors that predict CSR choices of the firm, we use logistic regression methodology. Two models are tested, one for the strategic rationale and the other for the agency rationale. The Strategic Rationale model is specified as follows:

$$CSR = \alpha + \beta_1 \text{ Non-domestic Sales} + \beta_2 \text{ Industry concentration} + \beta_3 \text{ Reputation}$$

Variables associated with the Agency Rationale model are

$$CSR = \alpha + \beta_5 \text{ Institutional ownership} + \beta_6 \text{ CEO tenure} + \beta_7 \text{ Board independence} + \beta_8 \text{ Insider ownership}$$

We also run a complete model that accounts for strategic and agency rationale.

$$CSR = \alpha + \beta_1 \text{ Non-domestic Sales} + \beta_2 \text{ Industry concentration} + \beta_3 \text{ Reputation} + \beta_5 \text{ Institutional ownership} + \beta_6 \text{ CEO tenure} + \beta_7 \text{ Board independence} + \beta_8 \text{ Insider ownership}$$

## **Performance Consequences of CSR**

We examine the performance consequences of the CSR activities using a matched sample and propensity score methodology.

In the absence of random sample, research in the social science studies often relies on observational data to test the causal relationships. Drawing causal inference about firms' performance based on observed firm strategies in a non-randomly selected sample often produce unreliable estimates due to self-selection bias which is one of the prominent causes of endogeneity. There are two primary methods to deal with the self-selection bias. The first is the switching regression models developed in labor economics (e.g., Heckman 1979), which has been previously utilized at the transaction level in related studies that examine the survival consequences of entry mode decisions in international business (e.g., Shaver 1998). The key challenge in such an approach is identifying a variable that sufficiently correlates with the potentially endogenous independent variable but does not correlate with the error term in the main regression (Greene 2008; Kennedy 2008).

The second method that deals with self-selection bias was developed by Rosenbaum and Rubin (1983, 1985). The method, known as propensity score matching (PSM) method, has found wide applicability in the social sciences, specifically in the observational studies setting. The general idea of PSM method is intuitive. In absence of an experimental design, the assignment of subjects to the treatment is frequently nonrandom. This means that the subjects receiving treatment and those excluded from treatment may differ not only in their treatment status but also in other characteristics that affect both participation and the outcome of interest. To avoid this confounding effect, PSM matches a nontreated unit (control group) that is "similar" to a participating unit (treatment group). The similarity is based on observable characteristics. The purpose of the matching is to construct the missing counterfactual of how a subject from the

control group would have responded to the treatment had it been selected in the treatment group. In our study the firms that contributed towards Tsunami 2004 relief work form the treatment group and the firms that did not donate form the control group. The effect of the donations on the firms' stock market performance is examined using a matched sample and propensity score method.

In order to match the treatment group with the control group, a propensity score is calculated from multiple different observable characteristics. The propensity score is the conditional probability of assignment to a particular treatment given a vector of covariates (Rosenbaum & Rubin 1983) and is calculated as the predicted probability of treatment using the probit or logit estimation. In the PSM model the two groups are matched on the underlying firm-level characteristics (size, growth, leverage, profitability), characteristics influencing firms' decision to engage in CSR activities outside of its domestic market (non-domestic sales, industry concentration and firm's reputation) and agency-level characteristics influencing firms' decision to engage in CSR activities (institutional ownership, CEO Tenure, independent directors on the board and insider ownership). After matching the treatment and the control group, the difference between the treatment outcomes of the matched cases is averaged across the sample to provide an estimate of the mean impact of the treatment on the firms' stock market performance.<sup>3</sup>

The propensity score is calculated using logit regression model. The propensity scores across treatment and control groups are matched using PSMATCH2 module in STATA 13.1. One of the important criteria of propensity score matching is to ensure that the treatment and control groups are comparable across the covariates that are used for matching (Dehejia & Wahba, 2002; Smith & Todd, 2005). To ensure that the two groups are comparable, we use

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<sup>3</sup> Different matching algorithms are used to compare treatment and control group. To avoid risk of poor matches, radius-matching specifies a "caliper" or maximum propensity score distance by which a match can be made.

multiple of balancing tests.<sup>4</sup> These tests confirm that two groups are not statistically different from each other prior to the treatment.

## **RESULTS AND DISCUSSION**

Descriptive statistics is presented in Table 1 and Table 2. Correlations of the variables are provided in Table 3. Not surprisingly, there are some high correlations among the hypothesized variables; these have led us to introduce them in more than one model in order to reduce the effects of multicollinearity.

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Insert Table 1, 2 & 3 here  
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### **Hypotheses 1-3: Strategic Rationale for CSR**

The arguments associated with Hypotheses 1-3 suggest that CSR creates strategic benefits for the firm through the reduction of risks associated with international markets, high visibility and competition. The results for this set of hypotheses are seen in Table 4.

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Insert Table 4 here  
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According to Hypothesis 1, firms with an international strategy will be more likely to engage in CSR during the Tsunami disaster. The rationale for this argument stemmed from the expectation that firms with international exposure would use this opportunity to promote a positive image with local consumers, host governments and suppliers, which would increase

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<sup>4</sup> We conduct two robustness tests to ensure that the treatment and the control group are not significantly different. First, we compare the sample means of all variables included in the matching equation by performing individual t-tests. Second balancing test that we examine is suggested by Todd and Smith (2005). Each variable included in the logit regression is regressed on the quartic function of the propensity score of the firm and its interactions with the treatment variable. We then use the F-test with the null hypothesis that these interaction terms are jointly insignificant. These balancing tests suggest that the treatment and control groups are comparable. Refer Table 6 for the results from one of the robustness checks.

their business opportunities relative to competitors. This hypothesis is supported. The coefficient for this variable is significant ( $\beta= 1.38, p < 0.05$ ).

According to Hypothesis 2, the more competitive the industry a firm operates in, the more likely it will use a first-mover CSR strategy. The rationale for this argument stemmed from the notion that CSR provides reputational competitive advantages that help firms to compete. In this case as well, it is not in the expected direction and not significant. This hypothesis is not supported.

In Hypothesis 3, it is argued that firms with lower reputation are more likely to engage in CSR activities. The rationale for this hypothesis stemmed from the expectation that firms with lower reputation would use this opportunity to enhance their reputation. Due to this, firms with lower reputation are more likely to promote their image and improve their reputation by engaging in highly visible CSR, especially the type associated with a major disaster such as the Asian Tsunami. While we find that the coefficient for this variable is negative as expected, it is not significant. Thus, this hypothesis is not supported.

#### **Hypotheses 5-8: Agency Theory Rationale for CSR:**

Hypotheses 5-8 use an agency theory rationale to suggest that CSR choices reflect managers' own personal interests over those of the firm's objective of value maximization. Four features affecting agency within the firm are considered in this regard, including the extent of the institutional ownership characterizing the firm, tenure of the CEOs, independence of the firm's board of directors, and the extent of managerial ownership of the firm. The results for this set of hypotheses can be seen in Table 4.

Hypothesis 5 argues that as institutional ownership increases firms are less likely it is to engage in CSR during the Asian Tsunami disaster. The basis for this argument was that institutional owners are more interested in owning shares in firms exhibiting short-term

performance, putting pressure on the firm in this direction, and leading managers to reduce emphasis on CSR. We find that the coefficient for this variable is significant and in the expected direction ( $\beta=-2.18, p<0.05$ ). This hypothesis is supported.

Hypothesis 6 argues that the tenure of the CEO is negatively associated with the firm's propensity to engage in CSR during the Asian Tsunami disaster. The basis for this argument was two-fold. First, newly appointed CEOs are more likely to use this opportunity to gain visibility and legitimacy within and outside the firm. Second the CEOs that are longer-tenured in the firm are more likely to favor status-quo over change. We find that the coefficient for this variable is highly significant and in the expected direction ( $\beta=-0.07, p<0.01$ ). This hypothesis is supported.

According to Hypothesis 7, the degree of independence of directors on a firm's board is negatively associated with the firm's propensity to engage in CSR during the Tsunami disaster. The rationale for this hypothesis stemmed from the expectation that more independent directors would pay more attention to the overall financial objectives of the firm, and not allow managers to accomplish their own objectives in lieu of those of the firm. This would reduce managers' ability to engage in CSR activities. In contrast, less independent directors would be more likely to be co-opted by managers towards their own perspectives, including CSR. Although the coefficient for this variable is significant the sign for this coefficient is positive and thus in the opposite direction ( $\beta=1.93, p<0.1$ ). This hypothesis is thus not supported.

Hypothesis 8 asserts that the higher the managerial ownership of a firm, the less likely it is to engage in CSR during the Asian Tsunami disaster. Our argument for this relationship stemmed from the likelihood that managerial ownership within the firm would better align managers' incentives with those of the firm. When managers' interests are more in the direction of financial profitability for the firm, this would reduce their likelihood to pursue CSR activities.

Our findings indicate that the coefficient for this variable is in the right direction but not significant ( $\beta=0.94$ ). This hypothesis is not supported.

In light of these findings thus far, it appears that there is more support for an agency theory rationale for CSR than a strategic rationale. The model with only the control variables explain 34 percent of the variation in the firms' propensity to give while the full model explains 41 percent variation in the firms' propensity to give. Of the additional 7 basis point variation in the full model, the strategic model explains 3 basis point of variation while the agency model explains 4 basis point of the variation. Further only one hypothesis relating to international strategy was strongly supported for the strategic rationale, two hypotheses for the agency rationale were supported.

#### **Hypotheses 4 and 9: Performance consequences of CSR:**

Hypotheses 4 and 9 examine the performance consequence of firm's engagement in CSR activities. Hypothesis 4 argues that firms CSR activities are motivated by strategic rationale which would have positive affect on the firm's performance. On the other hand, hypothesis 9 argues that firm's CSR activities are motivated by agency rationale and that would negatively impact firm's performance. We test these hypotheses jointly by using matched sample and propensity score matching technique (PSM). PSM helps us address endogeneity that stems from self-selection bias and make precise comparison of stock market performance between firms that donated and the firms that did not donate. We used event study to observe cumulative abnormal returns for the two sets of the firms. The result suggest that hypothesis 9 is supported with the negative coefficient ( $\beta= 0.009$ ) and statistically significant at ( $p < 0.05$ ). The result is in line with the earlier results where two hypotheses from agency rationale were supported compared to just one from the strategic rationale.

## **CONCLUSION**

One stream of research in the strategic management literature has argued for a positive relationship between CSR activities and firm performance via important tangible and intangible benefits accrued through such activities. Another stream of research has suggested that CSR reflects unproductive use of resources and thus will have a negative effect on performance. We argued that the lack of consensus in findings may stem from the fact that empirical treatments to date have considered firms that engage in CSR but not those that do not engage in CSR, limiting our understanding of why firms engage in CSR in the first place. In addition, lack of clarity in defining and measuring CSR activities exacerbates this lack of consensus in the literature. Importantly, much of this literature has also failed to consider the antecedents of CSR choices, which can also obfuscate the relationship between CSR and firm performance.

In this paper we attempted to address these concerns and compared both views by examining some unique evidence on the determinants of firms' engagement in CSR activities. The 2004 Asian Tsunami disaster offers a natural opportunity to examine which argument—the strategic rationale or the agency theory rationale—best explains motivations for CSR. By looking only at contributions by firms to this disaster, we can hold constant the conditions under which CSR is engaged in and isolate both the determinants and consequences of this specific CSR. Our results lent stronger credence to the agency theory rationale than the strategic management rationale. We do not find support for strategic considerations such as greater competition and reputation in influencing firms to engage in CSR, but did find that greater non domestic sales did have such an influence. On the other hand, we find that two factors mitigating agency problems, such as greater institutional shareholders and CEO tenure have robust effects on reducing CSR activity. Finally, the negative effect of the stock market performance indicates that the CSR activities erode firms' value and that top management may manipulate these to their advantage.

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**Table 1: Descriptive Statistics**

	Donated						Not Donated						T test
	Obs	Median	Mean	SD	Min	Max	Obs	Median	Mean	SD	Min	Max	
Sales (\$ millions)	109	14,311	26,037	37,668	325	258,681	362	1,053	4,255	11,979	11	165,066	-21781.9*** (-9.54)
Growth	109	1.64	2.05	1.26	0.25	7.94	362	1.63	2.12	1.43	0.79	12.9	0.0722 (0.47)
Leverage (Liab / Assets)	109	0.58	0.58	0.21	0.065	1.08	362	0.5	0.49	0.24	0.027	1.32	-0.0827** (-3.28)
Profitability (NI/Sales bef XT item)	109	0.069	0.081	0.11	-0.65	0.35	362	0.057	0.011	0.26	-1.95	0.85	-0.0708** (-2.78)
Non Domestic Sale/Total Sale	109	0.31	0.34	0.27	0	0.98	362	0.21	0.27	0.28	0	1	-0.0693* (-2.26)
Industry concentration	109	39	102.7	136.9	3	602	362	94	133.8	127.1	3	390	31.10* (2.20)
Reputation	109	0.54	0.66	0.66	-2.01	5.57	362	0.48	0.99	4.39	-1.39	76	0.331 (0.79)
Intituional Ownership (%)	109	0.7	0.69	0.14	0.15	0.95	362	0.78	0.75	0.17	0	0.99	0.0578** (3.25)
CEO Tenure (# of years)	109	4.24	5.4	5.31	0.25	30.3	362	5.93	8.48	8.07	0.33	43.3	3.072*** (3.74)
Board Independence (%)	109	0.77	0.74	0.14	0.18	0.93	362	0.71	0.7	0.16	0	0.93	-0.0453** (-2.72)
Insider Ownership	109	0.012	0.044	0.11	0	0.88	362	0.04	0.073	0.09	0	0.46	0.0290** (2.83)
Cumulative Abnormal Returns	109	0.0012	0	0.021	-0.09	0.075	362	0.0034	0.0073	0.031	-0.08	0.3	0.00666* -2.11

\*\*\*  $p < 0.001$  \*\*  $p < 0.01$ , \*  $p < 0.05$ , +  $p < 0.1$ , Growth = ((shares outstanding\*price)+total assets-total equity) / total assets

**Table 2: Industry distribution of the sample**

Sectoral Composition of the sample			
Sector	% of Sample	Sector	% of Sample
Prepackaged Software	7.43	Security Brokers, Dealers, and Flotation Companies	2.12
Semiconductors and Related Devices	6.79	Motor Vehicle Parts and Accessories	1.91
Pharmaceutical Preparations	5.94	Computer Programming, Data Processing	1.91
Electric Services	5.10	Operative Builders	1.70
Computer Integrated Systems Design	4.88	Telephone and Telegraph Apparatus	1.70
Crude Petroleum and Natural Gas	4.67	Telephone Communications	1.70
Surgical and Medical Instruments and Apparatus	3.61	Variety Stores	1.70
Fire, Marine, and Casualty Insurance	2.97	Family Clothing Stores	1.70
Computer Peripheral Equipment	2.34	Paper Mills	1.49
Electric and Other Services Combined	2.34	Total ( N = 471)	100.00

**Table 3: Correlation Matrix**

Variables	N	1	2	3	4	5	6	7	8	9	10	11	12	13
1 Donate (1 = yes.; 0 = No)	471	1.00												
2 Sales (\$ millions)	471	0.40***	1.00											
3 Growth	471	-0.02	-0.10*	1.00										
4 Leverage (Liab / Assets)	471	0.15**	0.27***	-0.35***	1.00									
5 Profitability (NI/Sales bef XT item)	471	0.13**	0.06	0.13**	0.07	1.00								
6 Non-domestic Sales	471	0.30***	0.77***	-0.06	0.19***	0.05	1.00							
7 Industry concentration	471	-0.10*	-0.09*	0.10*	-0.11*	0.00	-0.06	1.00						
8 Reputation	471	-0.04	0.01	0.08	-0.05	0.01	0.01	0.01	1.00					
9 Institutional Ownership	471	-0.15**	-0.16***	0.10*	-0.12*	0.23***	-0.16***	0.02	-0.01	1.00				
10 CEO Tenure	471	-0.17***	-0.09	0.08	-0.17***	0.06	-0.06	-0.04	0.04	-0.00	1.00			
11 Board Independence	471	0.12**	0.04	-0.02	0.19***	0.05	0.03	0.03	-0.01	0.05	-0.22***	1.00		
12 Insider Ownership	471	-0.13**	-0.17***	0.03	-0.13**	-0.01	-0.14**	-0.08	-0.02	-0.16***	0.22***	-0.26***	1.00	
13 Cumulative Abnormal Returns	471	-0.10*	0.01	-0.06	-0.06	-0.13**	0.01	-0.08	0.06	-0.06	0.04	-0.01	0.01	1.00

\*\*\*  $p < 0.001$  \*\*  $p < 0.01$ , \*  $p < 0.05$ , +  $p < 0.1$

Growth =  $((\text{shares outstanding} * \text{price}) + \text{total assets} - \text{total equity}) / \text{total assets}$

**Table 4: Logit Regression**

	1	2	3	4	5	6	7	8	9
Variables	Controls	Non Dom Sales	Industry Concentration	Reputation	Institutional Ownership	CEO Tenure	Board Independence	Insider Ownership	Full Model
Sales (log)	1.15** (0.12)	1.16** (0.13)	1.14** (0.12)	1.23** (0.13)	1.14** (0.13)	1.17** (0.13)	1.15** (0.13)	1.16** (0.13)	1.26** (0.15)
Growth (log)	0.11 (0.31)	0.04 (0.33)	0.09 (0.32)	0.11 (0.32)	0.12 (0.29)	0.10 (0.31)	0.08 (0.32)	0.10 (0.32)	-0.02 (0.35)
Leverage (Liabilities/Assets)	-2.27** (0.84)	-1.99* (0.89)	-2.27** (0.84)	-2.43** (0.86)	-2.51** (0.82)	-2.28** (0.84)	-2.59** (0.89)	-2.71** (0.85)	-3.18** (0.96)
Profitability (NI/Sales bef XT item)	1.63 (1.55)	1.52 (1.76)	1.94 (1.82)	1.35 (1.42)	1.51 (1.38)	1.68 (1.63)	1.67 (1.58)	2.23 (1.74)	2.12 (2.16)
Non Domestic Sales (% of total Sales)		1.38* (0.54)							1.52* (0.62)
Industry concentration			-0.00 (0.00)						-0.00 (0.00)
Reputation				-0.61 (0.42)					-0.48 (0.38)
Institutional Ownership (%)					-2.18* (0.95)				-2.11* (1.04)
CEO Tenure (# Years)						-0.07** (0.03)			-0.07** (0.02)
Board Independence (%)							1.93+ (1.08)		1.97 (1.21)
Insider Ownership (%)								0.94 (1.46)	2.05 (1.51)
Constant	-8.76** (1.06)	-9.48** (1.16)	-8.63** (1.10)	-8.87** (1.07)	-6.94** (1.21)	-8.93** (1.12)	-10.06** (1.40)	-8.23** (1.07)	-8.84** (1.76)
Observations	471	471	471	471	471	471	471	471	471
R-squared	0.34	0.36	0.34	0.36	0.35	0.34	0.35	0.36	0.41

Robust standard errors in parentheses

\*\*\* p&lt;0.001 \*\* p&lt;0.01, \* p&lt;0.05, + p&lt;0.1

Growth = ((shares outstanding\*price)+total assets-total equity) / total assets

**Table 5: Stock Market Performance - Propensity Score Matching**

Performance Consequences.	Window -1 to +1
Difference in Cumulative Abnormal Returns (Donated - Not Donated)	-0.009* (0.00)
Observations	471

Standard errors in parentheses

\*\*\* p&lt; 0.001 \*\* p&lt;0.01, \* p&lt;0.05, + p&lt;0.1

**Table 6: Robustness Check- Pairwise comparison for covariate balancing**

Variable	Pre-Match			Post-Match		
	Control	Treated	T-Diff	Control	Treated	T-Diff
Sales (\$ millions)	7.03	9.36	0.00***	9.18	9.12	0.82
Growth	0.60	0.56	0.47	0.50	0.54	0.59
Leverage (Liab / Assets)	0.49	0.58	0.001**	0.63	0.57	0.078+
Profitability (NI/Sales bef XT item)	0.01	0.08	0.006**	0.08	0.08	0.96
Non-domestic Sales	0.27	0.34	0.024*	0.32	0.31	0.84
Industry concentration	0.18	0.22	0.041*	0.19	0.20	0.72
Reputation	0.99	0.66	0.43	0.64	0.62	0.78
Institutional Ownership	0.75	0.69	0.001**	0.70	0.69	0.66
CEO Tenure	8.48	5.40	0.00***	3.99	5.76	0.021*
Board Independence	0.70	0.74	0.007**	0.75	0.72	0.19
Insider Ownership	0.07	0.04	0.005*	0.05	0.05	0.89

\*\*\* p&lt; 0.001 \*\* p&lt;0.01, \* p&lt;0.05, + p&lt;0.1