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Gail Whiteman, Alan Muller, Judith van der Voort, Jeroen van Wijk, Lucas Meijs and Cynthia Piqué
# Abstract and Keywords

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The Tsunami’s CSR Effect: MNEs and Philanthropic Responses to the Disaster

JIBS Focused Issue: ‘Three Lenses’

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Abstract

This paper contributes to the literature on CSR and International Business by linking firm internationalization to corporate philanthropy. Considering the 2004 Tsunami disaster as a highly relevant case of an international societal issue, we analyze the characteristics of the corporate response to the disaster among Fortune Global 500 firms. We find that home region, degree of internationalization, firm size and profitability most strongly influenced the propensity of firms to donate as well as the value of their donations.

Key words: CSR, internationalization, philanthropy, Tsunami
Introduction

‘A tragedy of these proportions demands our utmost cooperation and solidarity. We must aid the people in distress and help to give them a positive perspective for the future. We at DaimlerChrysler want to contribute our part to this effort.’ Jürgen E. Schrempp, Chairman of the Board of Management, DaimlerChrysler

The debate surrounding the meaning and importance of Corporate Social Responsibility (CSR) and, more broadly, the role of MNEs in society, is coupled with changes in the political, economic and social landscape. Governmental deregulation and privatization, in conjunction with increasing globalization of economic activity, has created a ‘global governance vacuum’ in which companies are expected to play an important role (Meyer, 2004; Van Tulder, forthcoming). In addition, many major societal issues such as natural disasters, the environment, labor rights and human rights have an international character that spans national jurisdictions. Yet the topic of CSR has to date received little attention in the International Business (IB) literature, with few exceptions (Simerly, 1997; Van Tulder and Kolk, 2001; Maignan and Ralston, 2002). The literature has paid even less attention to how MNEs respond in a charitable way to major societal issues and events, despite the fact that corporate philanthropy is recognized as a key component of a firm’s CSR orientation (Carroll, 2004).

The Tsunami that struck large parts of South-East Asia and Africa on December 26, 2004, is an example of an international – if not global – societal issue that demanded an immediate and large-scale response. With at least 226,000 dead or missing and 1.7 million displaced, the scale of the disaster was unprecedented in recent history (CNN.com, July 6 2005). Anecdotal evidence from the media and multilateral organizations like the United Nations (UN) indicates that companies were key players in the Tsunami response efforts and that corporate philanthropy reached record levels. However, no previous research has systematically explored
the corporate response to the Tsunami, or the corporate philanthropic activities of MNEs in
general.

In the traditional neoclassical perspective, the main responsibility of the firm was to make
a profit (Friedman, 1970). More recent literature has argued that firms have a broader social
responsibility and must respond to a wide range of stakeholders, including but not narrowly
restricted to shareholder interests (Carroll, 1979; Freeman, 1984; Clarkson, 1995; Wartick and
Wood, 1998; Carroll, 2004). CSR has been shown to be an important aspect of reputation
management in a competitive environment where brand and reputation are global assets or
liabilities (cf. Fombrun and Van Riel, 2003), and McWilliams and Siegel (2001) address the use
of CSR as a strategic tool linked to firms’ corporate and business-level strategies. Corporate
philanthropy is also an important dimension of CSR (Carroll, 2004). In general, companies
donate to external causes for a variety of reasons such as pure altruism, strategic profit
motivations and for public relations or reputation management reasons (Navarro, 1988).
Corporate philanthropy has also been identified as part of an entry strategy in foreign markets
(cf. Smith, 1994; Vidaver-Cohen and Altman, 2000; Hess et al., 2002) and may thus have
particular relevance for MNEs.

Given the extent of the disaster and the apparently global scale of the corporate response,
the Tsunami provides a unique case for analyzing the relationship between CSR and
International Business (IB). Drawing on existing theories of IB, CSR and corporate philanthropy,
we assess the importance of various factors that may have influenced the propensity of firms to
donate and which factors affected the value of that donation. Using binomial logistic and
ordinary least squares (OLS) regression techniques, we explore quantitatively the role of CSR
orientation, cultural differences, internationalization patterns and core competences in
determining corporate philanthropic responses to the Tsunami disaster among Fortune Global 500 firms.

The paper is structured as follows: we first review relevant literature and develop a series of hypotheses. Next we describe our methodology and data and then present our findings. Finally, we present conclusions and key contributions of this study to the literature.

**Literature review and hypothesis development**

On the early morning of 26 December, 2004 an earthquake measuring 9.0 on the Richter scale struck the Indian Ocean near Banda Aceh in Sumatra. The earthquake (and its aftershocks) triggered powerful tidal waves, or Tsunamis, which wreaked havoc throughout the region. Horrifying images graphically demonstrated to the world that this was indeed a disaster of epic proportions. Estimates suggest that over US$8.9 billion was required in emergency response and reconstruction efforts (Office of the Special Envoy for Tsunami Recovery, 2005).

According to a briefing by the UN’s Global Compact Office on the ‘Global private sector response to the Tsunami disaster’ (United Nations, 2005a), companies from all regions and sectors gave generously. Anecdotal evidence from the media also suggests that international firms actively donated funds and services to countries in the disaster area (e.g. Chandler, 2005; Cooperman, 2005; Channel News Asia, 2005; The Economist, 2005). While intriguing, such reports lack empirical and theoretical depth, and do not adequately describe or explain this apparently widespread corporate behavior. In the following sections, we review relevant theory on CSR, corporate philanthropy and IB to develop a number of key research hypotheses.
The influence of an existing CSR orientation

Corporate philanthropy has been defined as a charitable transfer of corporate resources to recipients (Fry et al., 1982). Burke et al. (1986) identified three forms of corporate giving: donations of funds to a nonprofit either directly from the firm or indirectly through a corporate foundation; in-kind donations in terms of contributions of goods and services; and finally, donations in terms of employee time through volunteering efforts. Corporate philanthropy is often described as part of a firm’s corporate social responsibility (CSR). The concept of CSR has been in existence since Bowen (1953) first published ‘Social responsibilities of the businessman’ (Carroll, 1999). Bowen argued that business executives have a strategic role in society, and their decisions and policies have great influence over, and responsibility for, the general welfare of citizens and society at large. More recently, Carroll (2004) argues that a firm’s corporate social responsibility includes philanthropic as well as other ethical, legal or economic responsibilities.

CSR has been the subject of wide debate. At the one end, CSR is defined in purely economic profit making terms (Friedman, 1970); at the other end, it can be defined using a proactive social responsiveness view (McGee, 1998). A more proactive view of social responsiveness suggests that companies should not only respond to social pressures but also actively participate in shaping society (Sethi, 1979). Although a proactive CSR orientation is generally institutionalized (e.g. in the form of codes of conduct), it also includes a considerable degree of voluntary action and managerial discretion (Van Tulder, forthcoming).

Previous research indicates that social and environmental responsibility is increasingly important to international business (Schlegelmilch and Robertson, 1995; Dowell et al., 2000; Christmann and Taylor, 2001; Van Tulder and Kolk, 2001; Kolk and Van Tulder, 2004; Kolk, 2005); however, research on philanthropic activities of MNEs is limited. Yet Altman (1997)
suggests a positive link between companies that are acknowledged as high corporate social performers and the intensity of their corporate community relations including corporate philanthropy. That is, the propensity of companies to donate and the value of donations may benefit from a broad ethical or social orientation (Carroll, 2004), although this relationship has not been previously empirically tested. We suggest that evidence of a proactive CSR orientation is positively related to the way companies responded to the Tsunami disaster, namely:

**H1a:** Firms with a proactive CSR orientation will have a higher propensity to donate in response to the Tsunami than firms without a proactive CSR orientation.

**H1b:** Firms with a proactive CSR orientation will donate more in response to the Tsunami than firms without a proactive CSR orientation.

**Regional differences in CSR and philanthropy**

Previous research has shown that culture can have discernable differences in managerial perceptions and behavior (e.g. House *et al.*, 2002); therefore, cultural differences – broadly defined – may also influence firms’ responses to the Tsunami. Several studies point to differences between Asian, European and North American companies with respect to their philanthropic behavior or CSR activities (Wokutch, 1990; Pasquero, 1991; Maignan and Ralston, 2002; Shen, 2004; Welford, 2004; Kolk, 2005). However, much of the research is not extensive and the patterns of influence are not conclusive.

There is little, if any, international comparative research on country- or region of origin differences with respect to empirical differences in corporate philanthropy. However, Pasquero (1991) argues that US companies represent the ‘mature model’ of corporate philanthropy, and
contribute higher values of donations (about one percent of taxable income) than European companies in France, Germany and the UK, but does not provide quantitative support for this argument. Qualitative research suggests that Asian firms tend to lag behind their Anglo or European counterparts, although Shen (2004) notes that large Japanese and Korean companies appear to be catching up with European firms in their sponsorship of non-profit causes and events.

There is slightly more comparative research with respect to CSR activities more broadly, although there is still a significant gap in our cross-cultural understanding of firms’ CSR orientation and activities (Katz et al., 2001; Egri et al., 2004). Most of the existing research focuses on the analysis of corporate codes, stakeholder management and reporting practices, and does not specifically measure corporate philanthropic patterns as a dimension of CSR. Nevertheless, cross-cultural research on CSR suggests that there are cultural differences in managerial values, and the identification of salient CSR issues, in large part due to differences in stakeholder configurations, interactions and priorities (Wokutch, 1990).

For instance, Maignan and Ralston (2002) argue that managers from the US and UK have different perceptions of the importance of CSR and in the identification of social issues. Schlegelmilch and Robertson (1995) also demonstrate that ethical perceptions of Western managers differ based on country, with US and European managers (from the UK, Germany and Austria) emphasizing different kinds of ethical issues (e.g., personnel issues versus political or local issues). Early research (Wokutch, 1990) suggested that Japanese firms were already more advanced in developing cooperative labor-management-government relations and integrating occupational safety and health concerns in their management practices than US firms. More recent research (Welford, 2004) reveals that interest in CSR issues among Asian firms has
increased rapidly in recent years, although they emphasize different issues than European or North American firms. Asian companies, for instance, appear less focused on internal CSR matters (e.g. fair wages, non-discrimination, human rights), while North American firms have relatively less attention for certain external issues like fair trade and labor standards. European firms lead in their attention for social concerns, whereas Asian executives tend to emphasize customers and shareholders in their CSR management and pay less attention to more general societal and environmental issues (Lines, 2004).

Firms’ emphasis on CSR reporting and the need for external verification clearly show a region-of-origin effect that has increased over time. Kolk (2005) suggests that Japanese firms are just as likely as European firms – and more so than US firms – to produce an environmental report, and Welford (2004) shows that Asian firms are more likely to explicitly address issues like bribery and corruption. Moreover, report characteristics also diverge, in part because accounting and tax regulations differ across the Triad regions (Nobes and Parker, 2000). For instance, European MNEs tend to highlight external accountability by third-party verification, while Japanese MNEs prefer to adhere more closely to governmental guidelines (Kolk, 2005). Also, Gregory and Stuart (2004) point to the dollar-, the euro- and yen areas as distinct ‘currency spheres’ that tend to exhibit fundamental differences in capital market characteristics. Since firms access the majority of their capital within their own currency spheres (Rugman and Verbeke, 2005), these differences could affect firms’ resource ‘slack’ (Seifert et al., 2004) and hence their capacity to engage in philanthropy.

While previous empirical and conceptual work suggests that region of origin may matter, the direction of this influence is unclear. On the basis of these arguments, we hypothesize that:
H2a: The propensity of firms to donate in response to the Tsunami will differ significantly across firms’ home regions.

H2b: The value of corporate donations in response to the Tsunami will differ significantly across firms’ home regions.

**CSR and Internationalization**

Internationalization has been linked to a wide range of firm-strategic issues in IB. It has been shown to impact performance (Sullivan, 1994; Contractor *et al*., 2003; Ruigrok and Wagner, 2003), organizational structure (Bartlett and Ghoshal, 1989; Harzing, 2000) and relations in the supply chain (Prahalad and Doz, 1987). Internationalization has also been framed as an issue of risk diversification (Rugman, 1976), as a component of a non-market strategy (Baron, 2000) or as a means to escape ‘regulatory capture’ (Phelps, 1997). Yet empirical work that examines the relationship between the degree of internationalization and corporate social responsibility is limited (see e.g. Simerly, 1997).

Van Tulder and Kolk (2001) demonstrate that a firm’s international operations have a ‘substantial impact on the formulation and implementation of business ethical principles’ (p. 267). That impact is rooted in the complex and diverse range of societal and governmental pressures firms face in different environments and their desire to be seen as societally responsive in host countries (Kostova and Zaheer, 1999). More generally, firms are under increasing pressure to demonstrate local commitment in the form of high-quality foreign direct investment (FDI) and local linkages (Chung *et al*., 2003; Chen *et al*., 2004; Meyer, 2004).

In this vein, recent research suggests that firms with a greater international scope of operations may be more CSR-responsive. For instance, Deniz-Deniz and Garcia-Falcon (2002)
show a positive correlation between a company’s degree of internationalization (the number of countries in which they operate) and their corporate community involvement in Spain. Chambers et al. (2003) found a similar relationship in their analysis of 350 companies in Asia, which revealed that firms that operate internationally are more likely to engage in CSR and to institutionalize it through codes.

Several authors also refer to corporate philanthropy as a market entry strategy or strategy for international expansion (e.g. Smith, 1994; Vidaver-Cohen and Altman, 2000; Hess et al., 2002). A philanthropic response to the Tsunami may be an opportunity for internationally operating firms to exploit their experience by ‘doing the right thing’, but also for investing in legitimacy in a region considered to be the main emerging market of the century (Prahalad, 2005). However, there is little conclusive research that empirically examines the relationship between firm internationalization and corporate philanthropy. We hypothesize the following:

H3a: A firm’s degree of internationalization is positively related to its propensity to donate.

H3b: A firm’s degree of internationalization is positively related to the value of its donations.

**Strategic/dual-purpose giving**

McWilliams and Siegel (2001) propose in their ‘theory of the firm’ perspective that CSR can be used strategically in order to e.g. pre-empt competitors or raise competitors’ costs. In their view, managers make cost/benefit analyses of CSR that are in part shaped by the potential relevance CSR can have in light of the firm’s strategy. With respect to philanthropy, companies
are increasingly searching for a strategic fit between their corporate philanthropy approach and
the company mission and objectives (Burke and Logsdon, 1995), or with their core business
competences and assets (Husted, 2003; Margolish and Walsh, 2003). In the words of Smith
(1994), managers ‘hunt for a reconciliation of their companies’ profitmaking strategies with the
welfare of society, and they search for ways to steer all parts of the company on a socially
engaged course’ (p. 107). Empirical studies suggest that corporate philanthropy is now more
strategic in the US (Waddock and Boyle, 1995; Saiia et al., 2003), and in sectors such as banking
(Conference Board, 1986; Useem, 1988) and petroleum (Altman, 1997).

The strategic relevance of CSR and philanthropy more specifically may therefore be
related to sector characteristics. In the case of the Tsunami, industry sectors with core
competences that can be strategically linked to charitable causes such as disaster relief may be
more likely to donate given that such activity serves a dual purpose, namely both altruism and
economic or reputation management (Keim, 1978; Smith, 1994; Burke and Logsdon, 1996;
Hemphill, 1999; Moss Kanter, 1999; Husted and Allen, 2000; Marsden, 2000; Hess et al., 2002;
Porter and Kramer, 2002; Husted, 2003). An example is United Parcel Service (UPS) which is
said to have become a ‘key provider of aid to civil society’ by means of ‘the delivery of
humanitarian aid on an as needed basis’ (Hess et al., 2002: 110).

Anecdotal evidence suggests that strategic dual-purpose giving was an important factor in
the corporate response to the Tsunami (United Nations, 2005b; The World Business Council on
Sustainable Development, 2005). According to the UN, corporate responses were ‘highly
strategic, involving corporate interdepartmental coordination and leveraging supply chains,
rather than a ‘one-off check-writing exercise’ (United Nations, 2005b: 1). Immediately following
the Tsunami disaster, the United Nations developed a corporate briefing which outlined disaster
relief needs, many of which had strategic relevance with specific industry sectors (United Nations, 2005b). Therefore we propose the following:

H4a: Firms operating in sectors where core competences can be linked to immediate disaster relief needs have a higher propensity to donate.

H4b: Firms operating in sectors where core competences can be linked to immediate disaster relief needs will make a higher value donation.

Dual-purpose giving also may influence the type of corporate donations. Increasingly, firms appear to donate management technology, communications support, product packages, and volunteer teams, in addition to cash donations (Smith, 1994; Simon, 1995). Anecdotal evidence suggests that in-kind donations were a central part of the corporate response to the Tsunami. Thus,

H4c: Firms operating in sectors where core competences can be linked to immediate disaster relief needs have a higher propensity to provide in-kind donations.

Methodology

Sample and methods

To explore these hypotheses, we collected data on the corporate response to the Tsunami for the Fortune Global 500 from 2004. Given the Triad-region emphasis in the literature described above with respect to differences in corporate philanthropic behavior, we opted to omit the ten firms on the list from outside the Triad (from Brazil, Venezuela, Russia and Bermuda) in order to reduce potential ‘noise’ from a small group of non-Triad firms dispersed across different
regions. Two firms identified as subsidiaries of other firms on the Fortune list were also omitted from the sample, and 22 firms were dropped due to unavailability of financial data. The initial set comprised 466 firms.

Collecting data on the Tsunami response involved several steps. The initial investigation centered on firm self-reporting, drawing from press releases and other information found on corporate websites (cf. Maignan and Ralston, 2002) accessed in the period January 2005 to June 2005, followed by a general Internet search. Firms for which no information could be found on company websites or other Internet sources were contacted in April and May of 2005 by e-mail with a list of questions as to the value and conditions of their response, motivations, recipients and so forth. This first e-mail was followed up with a reminder a week later. Together the web search and two initial e-mail rounds generated 318 positive responses and four negative responses.

We then contacted the remaining 144 firms by telephone, starting with their public relations department. This resulted in one of five outcomes: 1) firms supplied information as requested (23 cases); 2) the contact person was provided at his or her request with additional information by fax, e-mail or voicemail message, followed up with a second fax, e-mail or voicemail, but still did not provide any information (74 cases); 3) companies stated that they could not respond as a matter of policy (5 cases); 4) communication was not possible or ineffective due to a language barrier (13 cases), or 5) no telephone contact information or contact person could be found or reached (29 cases). Outcome 1 generated an additional 20 positive responses and three negative responses. Firms that fell under outcome 4 and 5 were classified as ‘missing’ and omitted from the analysis.
Firms that fell under outcome 2 and 3 were classified as ‘non-donor’ based on the assumption that if firms neither supply information on the Tsunami response via their corporate websites, nor can be identified as donors in any other web-based sources such as news reports, CSR monitoring sites or the websites of international NGOs active in disaster relief, nor respond to repeated e-mail and telephone communication, in all likelihood did not engage in corporate philanthropy in response to the Tsunami. We recognize a positive reporting bias in that firms that did make a corporate philanthropic donation are much more likely to make that information public than firms that did not make a donation. Finally, financial data were drawn from the Thomson Financials on-line database for 2003, complemented where necessary by consulting firm annual reports or 10-K filings. The final set included 422 firms (341 donors and 81 non-donors).

The analysis was conducted in two stages. In the first stage we used a binomial logistic regression to model the likelihood that a given firm could be expected to donate (Hypotheses 1a, 2a, 3a and 4a). The binomial (maximum likelihood) logistic regression is similar to a traditional linear regression except that it regresses a dichotomous outcome variable (in this case, donors versus non-donors) and is used to generate odds ratios for the outcome variable instead of coefficients alone (Hair et al., 1998). The odds ratio is expressed as:

\[ P(Y) = 1/(1 + e^{-Z}), \]

where \( Y \) is the dependent variable, equal to the chance that a firm would donate in response to the Tsunami, and \( Z \) is a linear combination of independent variables, or:

\[ Z = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + ... + \beta_n X_n. \]

In the second stage we analyzed factors that influence the amount given for the subset of donating firms (Hypotheses 1b, 2b, 3b and 4b), using a linear OLS model with as the dependent
variable the amount donated (measured in US dollars) as reported by each company. Finally, Hypothesis 3c on the relationship between basic needs sectors and the propensity to donate in-kind was explored using a Chi-square test of random distribution.

**Dependent and independent variables**

The dependent variable for the binomial logit was the dichotomous outcome variable ‘AID_dum’, with values of 1 representing a donating company and a value of 0 representing a non-donor. For the linear regression, we used the log-transformed dollar value of corporate donations as our dependent variable (‘LN_AID’) in order to deal with the non-normality in the underlying variable.\(^1\) International experience and exposure, defined as the degree of internationalization (‘DOI’), was measured as the ratio of foreign sales to total sales, a frequently used and commonly accepted measure of internationalization (Sullivan, 1994; Ruigrok and Wagner, 2003). Dummy variables were used to capture differences in philanthropic behavior across regional clusters; one for Asian firms (‘ASIAN’), one for Continental- and Northern European firms (EUR), and one for Anglo-Saxon firms (‘ANGLO’), including US, Canadian, UK and Australian firms (cf. Salomon, Sokolowski and Associates, 2004).

We used listing on the Dow Jones Sustainability Index (DJSI) to capture evidence of an existing proactive CSR orientation. The DJSI is one of several indices created to independently measure CSR behavior, much like the KLD index, which screens (US) companies across eight dimensions, and the Domini Social Index, which screens 400 US companies on their social performance characteristics. We opted to use listing on the Dow Jones Sustainability Index (DJSI) as evidence of a proven CSR orientation since the DJSI is based on extensive criteria with independent verification by accountants and review procedures, and is more international than
the KLD and the DSI. Firms with a CSR orientation are identified with a value of 1 using a dummy variable ‘DJSI’.

To identify sectors with core competences linked to immediate disaster relief, we consulted official UN web documents calling for relief efforts immediately following the Tsunami (OCHA, 2005). Relevant sectors, described by their Fortune industry classification, were linked to the needs explicated on the UN site based either on the products they make, their logistic capabilities or the relevance of their technological know-how. Sectors for which the dummy variable basic needs (‘BASIC’) was coded ‘1’ are the following: Freight Couriers; Building Materials; Chemicals; Cosmetics/Personal Care; Distributors (Trading); Drug Retail and Wholesalers; Food, Beverage and Tobacco; Food Retailers and Wholesalers; Household Products (non-durable); Industrial Technology; Diversified Industrial; Machinery Makers; Marine Transportation; Medical Supplies; Oil Majors; Paper Products; Pharmaceuticals; Pollution Control/Waste Management; Telecommunications; Tires and Rubber; Trucking; and Electric and Water Utilities. We also collected data on whether firms donated cash-only, or whether they donated in-kind (in part or in total), creating a dummy variable ‘INKIND’ (1=yes, 0=no) in order to examine the link between in-kind donating and basic needs sectors (Hypothesis 4c).

Control variables

We controlled for firm size measured as the natural log of total sales (‘LOGSALES’), based on previous literature suggesting that size would be positively related to a proactive CSR orientation (Burke et al., 1986; Useem, 1988; Galaskiewicz, 1997). Larger companies give more because managers have more discretion as a result of the separation of ownership and control in
large organizations (Keim, 1978) and the number of stockholders (Vernon et al., 1976). Similarly, we also controlled for firm profitability using net margin (NETMAR) in light of evidence that higher profit levels are positively related to the value of a given firm’s donation because profits form the ‘slack’ or discretionary financial resources available for corporate giving (Greening and Gray, 1994; Brammer and Millington, 2004; Seifert et al., 2004). Both variables were included in the binomial logit as continuous variables (z-transformed to simplify interpretation of the coefficients; cf. Hosmer and Lemeshow, 2000). In the OLS model, two cases had to be excluded due to outlier NETMAR values (-80 percent and -60 percent).²

In the OLS model, we also controlled for two additional variables drawn from the company press releases or other Tsunami related communications. First we included a dummy variable ‘KINDINCL’ for whether reported donation values included the value of in-kind donations or not (1=yes, 0=no). Our assumption was that the inclusion of in-kind donations would inflate the reported value of the donation since companies would be free to report the market value (i.e., as a form of foregone income) instead of the actual production cost value. Second, we included another dummy variable (‘MATCH’) coded 1 if the donation value included employee- or customer matching and 0 if it did not. This control was deemed important because contributions by employees, customers or other related stakeholders constitute in effect an additional source of funds and could therefore be expected to raise, ceteris paribus, the final donation value.

Results

The 260 firms for which we have data on the value of the donation contributed in total in excess of $600 million to the Tsunami relief effort. The range was from a minimum of $38,410
to a maximum of over $84 million, with a median reported value of exactly $1,000,000.

Descriptives of the variables are given in Table 1 per region and in total to illustrate some characteristics of the sample and the data, with post-hoc (LSD) tests performed to isolate the significant differences between the three regions (Table 1).

Table 1 shows that European and Anglo-Saxon firms are more likely to donate than Asian firms, but in terms of value differences appear barely significant ($p<0.10$). Furthermore, Table 1 shows that European and Anglo-Saxon firms are more profitable than Asian firms. Finally, European firms are more likely to be listed on the Dow Jones Sustainability Index, tend overall to be larger in terms of sales, and are much more internationalized than either Anglo-Saxon or Asian firms. However, univariable analysis of foreign sales to total sales showed poor continuous distribution due to a high incidence of DOI=0. This precludes the inclusion of DOI in the binary logistic model as a continuous variable (Hosmer and Lemeshow, 2000). Instead, we opted to create a categorical variable DOI_CAT consisting of three levels of internationalization \{LO, MED, HI\}. Having only three categories is conducive to the model’s goodness of fit and keeps the model parsimonious while still allowing for a well-developed slope.

There are, however, significant differences in internationalization levels (DOI; see Table 1) between the European cluster on the one hand and the Anglo-Saxon and Asian clusters on the other. Creating clusters based on DOI values across the sample as a whole would have led to an undesirable correlation with the regional cluster dummies. As a result, we split each regional subset (European, Anglo-Saxon and Asian) into three equal clusters based on DOI values, such that HI represents the top third per region, MED represents the middle third per region, and LO
represents the least internationalized third per region. Defining clusters in this way creates a better distribution of firms across DOI categories within the sample.

The bivariate correlations are shown in Table 2. Significant correlations remain in an acceptable range between $|0.10|$ and $|0.40|$, except for the correlations between the region dummies and the high correlation between the continuous DOI variable with its derived categorical counterpart, DOI_cat, which are to be expected. Note that the correlations for the variables used in the binomial regression are based on the full sample of 423 firms, while the correlations for the variables used in the OLS regression are based on the subset of donating firms that formed the basis for the OLS estimation (N=243). Although a total of 341 firms were designated as having made an identifiable corporate contribution to the Tsunami, 98 firms had to be excluded from the final OLS regression due to insufficient disclosure as to a) the exact value of the donation; b) whether in-kind donations were included; c) whether the company donation included matched employee donations; d) whether the donation was at the corporate level or made solely by an individual (e.g. local) subsidiary; or e) some combination of the above.

Table 3 shows the results of the binomial logistic regression, which models the likelihood a given firm would donate to the Tsunami-stricken region based on the firm’s home region, evidence of a proven CSR orientation, its sector relevance and its degree of internationalization, controlling for profitability and size. We constructed the model using both forward and backward entry to thoroughly examine the contribution of each variable and potential fluctuations in the coefficients. Using both types of entry allows for an assessment of significance of changes to the model in both directions, since an individual variable may fall outside of the $p=0.05$ cutoff in an
individual stage yet still make a significant contribution to the model (Hosmer and Lemeshow, 2000).

TABLE 3 here

The results are reported in three blocks, with the first block testing the control variables and the second block introducing the regional clustering variable. The binomial procedure creates quasi-dummies from the categorical covariates in the model, in this case the three regions and the three levels of internationalization. In Table 3 the reference region is ‘ASIA’ and the reference degree of internationalization is ‘HI’ (the highest third per region in terms of foreign sales to total sales). Model 1 shows that both size and profitability are in themselves significant predictors of a firm’s propensity to donate. To illustrate the nature of the logit, the odds ratio for zlogsale (Exp(B)=1.55) reported in the table under Model 1 means that an increase in the ‘zlogsale’ variable of one standard deviation increases the likelihood of being a donor by 1.55 times. By translating the zlogsale variable back to the original underlying US dollar value of total sales, we can show that this means that a firm with total sales of $48 billion is, ceteris paribus, nearly 1.6 times as likely to donate as a firm with total sales of $23 billion.

Model 2 shows that European firms are more than five times as likely to donate than Asian firms (the reference category), while for Anglo-Saxon firms the odds ratio is slightly lower at 4.66. This supports Hypothesis 2a that there are significant differences across regions. Model 3 shows that the remaining predictors are all significant at the $p<0.10$ level or above. The model shows that a firm on the Dow Jones Sustainability Index is just over twice as likely to donate as a firm that is not listed on the DJSI, lending support to Hypothesis 1a. Surprisingly, a firm whose core competences are directly relevant for Tsunami disaster relief (‘basic needs’) appears less
likely to donate than a firm in less relevant sectors, all else being equal (Exp(B) less than one). This contradicts Hypothesis 4a. The categorical internationalization variable is also significant, with odds ratios less than one for the ‘low internationalization’ and the ‘medium internationalization’ categories, relative to the reference category ‘high internationalization’.

This means that in any given region, a firm with low internationalization levels is 0.27 times as likely to donate as a firm with high internationalization, and a firm with medium internationalization is 0.35 times as likely. Or, conversely, a highly internationalized firm is three times as likely to donate as a firm with medium levels of internationalization, and four times as likely to donate as a firm with low levels of internationalization. These results support the hypothesis that an increasing geographic scope is positively related to the likelihood of firm donation (Hypothesis 3a).

Table 3 shows that the coefficients and odds ratios are stable across estimations, and also shows that the binomial logistic regression model is significant ($X^2=73.09, p<0.001$). The Nagelkerke pseudo-$R^2$ of 0.253 shows that the model does a reasonably good job of capturing the differences between donor and non-donor firms. The model easily passes the goodness-of-fit test based on a highly insignificant Hosmer and Lemeshow statistic ($p<0.837$). The Hosmer and Lemeshow statistic especially reflects a good fit since the sample size is greater than 400 (Hosmer and Lemeshow, 2000) and there are more than 50 cases per covariate in the model (Sharma, 1996).

We do not report the sensitivity or specificity of the model (i.e., its ability to classify correctly) because the classification results are in themselves not necessarily an indicator of good fit, being entirely contingent upon the cutoff value for classification. The model default is 0.5, indicating that a firm has an equal chance of being a donor or not. Yet the data in the model
show this not to be the case, since over 81 percent of firms donate. A better indicator of the model’s classification accuracy is to calculate the area underneath an ROC (Receiver Operating Characteristic) curve. The ROC curve, which ranges from zero to one, provides a measure of the model’s ability to discriminate between firms that donated and firms that did not. The area under the ROC curve for Model 3 in Table 3 is 0.787, which is significantly better than random classification ($p<0.001$) and within the range of acceptable discrimination.

Table 4 shows the results for the OLS model constructed for the 235 donating firms for which complete information was available. We conducted the analysis blockwise in order to best assess the function and attributes of the various variables entered. In the first model, we include the two financial-based controls (size and profitability), both of which turn out to be significant predictors of the outcome variable, the log-transformed value of the aid donation (LN_AID). In Model 2 we introduce the home region effects (with Asia is the reference category), neither of which is significant. This refutes Hypothesis 2b by showing that, despite the differences in the propensity to donate observed above, firms do not differ in the value of their donations across regional clusters.

TABLE 4 here

In Model 3 we include the DJSI dummy again as an indicator of an existing proactive CSR orientation, the basic needs dummy for sectors with core competences relevant to the disaster relief effort and the ratio of foreign sales to total sales as a measure of internationalization. As to the latter, both Model 3 and 4 show that internationalization is also a significant predictor of donation value, supporting Hypothesis 3b. An existing proactive CSR orientation emerges as only a slightly significant predictor of donation value, and firms in basic
needs sectors appear significantly more generous than firms in other sectors. However, in Model 4, when the two self-reported control dummies for inclusion of in-kind donations and matching funds are entered, the significance of a proactive CSR orientation and core competences largely disappears. As a result, Hypothesis 1b is not supported by the data, and Hypothesis 4b is only slightly supported (p<0.10). Overall, Model 4 shows that the value of donations is partially explained (adj. R² = 0.353) by firm size, firm profitability, the inclusion of in-kind donations (KINDINCL) in the value of the total donation, the inclusion of employee-matched funds in the donation, and the degree of internationalization. These results support Hypothesis 3b and refute Hypotheses 1b and 2b, and lend only weak support for Hypothesis 4b. Model 4 shows that the overall F-statistics and the significance of the F-change with each additional block are highly significant (p<0.01) with the exception of block 2 (Model 2). Diagnostics and partial plot scatters revealed no abnormalities with respect to heteroskedasticity or distribution of the residuals. Coefficient correlations, Variance Inflation Factors (VIFs) and Condition Indices were well within acceptable bounds, indicating no multicollinearity problems.

In Table 4 we observe that the inclusion of the value of in-kind aid in the total donation value is highly significant and appears to detract from the significance of the ‘basic needs’ dummy, suggesting that there is a relationship between the basic needs sectors giving in kind. (Hypothesis 4c). This assumption is supported in part by the significant bivariate correlation between basic needs dummy (BASIC) and the ‘in-kind’ dummy (INKIND) (0.23, see Table 2). To explore this further, we conducted a simple Chi-square test of association between the two dummies (Table 5). Table 5 shows that there is indeed a significant relationship between the two, lending support to Hypothesis 4c. An overview of all the hypotheses and the results is given in Table 6.
TABLE 5 here

TABLE 6 here

Conclusions

In this paper, we address the relevance of CSR to International Business by linking firm internationalization to CSR and corporate philanthropy activities of MNEs. In our exploration of Fortune Global 500 firms, we found that MNEs contributed significantly to the Tsunami relief effort: 81 percent of the firms in our sample provided corporate donations with a total public commitment of at least $600 million. Findings suggest that region of origin, degree of internationalization, firm size and profitability most strongly influence the propensity of firms to donate. Sector characteristics in terms of whether firms were in a ‘basic needs’ sector also strongly influence the propensity of firms to donate in kind. The degree of internationalization, firm size and profitability most strongly influence the value of donations.

We found evidence that a proactive CSR orientation is significantly related to the propensity to donate as expected, although only at the $p<0.10$ level. This provides some support for Carroll’s (2004) assertion that the philanthropy is best rooted in a broad ethical or social strategy and Altman’s (1997) observation that the intensity of community relations is higher for high corporate social performers. ‘Value’, on the other hand, is clearly determined by other factors since a proactive CSR orientation was not a significant predictor of the level of donations. This suggests that companies, once they decide to donate, do not give half-heartedly even if they have less experience with CSR. These results also confirm that philanthropy and CSR are not synonymous (Carroll, 2004). The Tsunami disaster – given its scale and media coverage – may
also act as an important ‘trigger’ in getting companies with a less proactive CSR orientation to act in a socially responsive way. Future research could investigate whether this leads to a more proactive CSR orientation among those companies over time.

Our findings show that European and Anglo-Saxon MNEs were significantly more likely to donate than Asian MNEs, despite the ‘Asian’ character of the disaster. This lends support for previous findings on the less developed character of CSR in Asia, where preference is apparently given to customer or shareholder issues with less attention paid to more general societal issues (Lines, 2004; Welford, 2004). No significant differences emerged between Anglo-Saxon and European MNEs in their propensity to donate, which may refute Pasquero’s earlier (1991) claim that US firms donate more frequently and at higher, more ‘mature’, levels. Interestingly, the value of donations does not differ across regions, indicating that once Asian MNEs decide to engage in philanthropy, their behavior is similar to Anglo-Saxon or European MNEs. These findings may be partially explained by differences in sociological ‘models’ of the business- and stakeholder environment (Ruigrok and Van Tulder, 1995; Whitley, 1999; Gregory and Stuart, 2004), or ‘culture’ more generally (Katz et al., 2001).

International presence is clearly related to a higher likelihood of philanthropy, including a positive influence on the value of donations. This may suggest that MNEs with a greater international scope have a deeper appreciation of the importance of their global responsibilities to local stakeholders (Carroll, 2004). This may also relate to internationalization strategies and more specifically, to local Asian presence. For instance, Pfizer, one of the biggest single corporate contributors with a $56 million donation, said its response reflected the fact that it has 4000 employees in India, Thailand, Indonesia and Malaysia (Cooperman, 2005). MNEs may also be increasingly conscious of the need to ‘tie-in’ with local stakeholders and to invest in socially
legitimizing activities (Dowling and Pfeffer, 1975; Chung et al., 2003; Chen et al., 2004) in a globalized environment. Future research is required to examine the relationship between corporate philanthropy for the Tsunami disaster and future internationalization patterns; that is, whether high donations lead to an increased presence in the region among firms in the sample, particularly those with little to no prior presence.

Our results on sector impacts are surprising. In the ‘propensity’ model, ‘basic needs’ is slightly significant ($p<0.10$), but it is negative, meaning that firms in those sectors were less likely to donate than other sectors. The lack of support for Hypothesis 4a suggests that the motives for responding to the Tsunami were broader than the straightforward notion of supplying basic needs products and services, and thus broader than this form of ‘strategic’, or ‘dual purpose’ giving. It may simply be that the scale and immediacy of the disaster cancelled out the ‘strategic’ component of donations. However, we did find that basic needs sectors were more inclined to in-kind giving, which Seifert et al. (2003) suggest is strategically motivated. Since corporate donations could also be an opportunity for individual companies to improve their reputation and perhaps act as a form of social marketing or market entry (Fry et al., 1982), especially in the form of heavily branded in-kind giving (Simpson, 2005), future research is needed to explore the reputation management aspects of corporate donations. Additionally, future research may examine whether firms from basic needs sectors provided more long-term support as opposed to immediate short-term donations. Whereas previous research on the relationship between firm profitability and philanthropy has had mixed results, our results clearly show that size and profitability were significant predictors of propensity to donate and value of donation, even given that our sample is taken from a pool of relatively large firms.
1 In cases where donation values were not given in US dollars, we used the exchange rate at the date of the press release / the date the information was posted or, where possible, the date the ‘commitment decision’ was made, obtained from the firm in direct communication.

2 Although other studies suggest tax rates, concentration of ownership and debt-to-equity ratios as important predictors of philanthropic behavior (Navarro, 1988; Waddock and Graves, 1997; Adams and Hardwick, 1998; Seifert et al., 2004; Brammer and Millington, 2004), the evidence those studies put forth was not very strong. Still, we ran these variables in our models and found that they did not contribute to the models, were strongly insignificant and left the coefficients largely unchanged. For reasons of parsimony we have left them out of the results.

3 This figure represents only the donations for which the value is known. In reality the figure is most certainly considerably higher.
References


### TABLE 1: Descriptives for key variables

<table>
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<tr>
<th>REG</th>
<th>N</th>
<th>AID_DUM</th>
<th>DJSI</th>
<th>BASIC</th>
<th>DOI</th>
<th>LOGSALE</th>
<th>NETMAR</th>
<th>LN_AIDa</th>
</tr>
</thead>
<tbody>
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<td>116</td>
<td>Mean</td>
<td>0.89</td>
<td>0.42</td>
<td>0.41</td>
<td>52%</td>
<td>10.23</td>
<td>5.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>StDev</td>
<td>0.32</td>
<td>0.50</td>
<td>0.49</td>
<td>26%</td>
<td>0.84</td>
<td>5.38</td>
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<td>0.27</td>
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<td>26%</td>
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<td>StDev</td>
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</table>

Post-Hocc

1,2 > 3 *** 1 > 2, 3 *** -- 1 > 2, 3 *** 1 > 2, 3 ** 1,2 > 3 *** --

---

aNs are (resp): EUR (70), ANGLO (154), ASIAN (36), Total (260). This is the number of firms reporting a donation value.

bStatistic is Chi-square due to non-normality of the underlying variable

cLSD (numbers represent regional clusters)

***, ** and * indicate $p<0.01$, $p<0.05$ and $p<0.10$, respectively
TABLE 2: Correlation matrix

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<td>0.00</td>
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<td>-0.05</td>
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TABLE 3: Binomial Logistic Regression Results on Likelihood of Tsunami Donation (n=423)

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th></th>
<th>Model 2</th>
<th></th>
<th>Model 3</th>
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<td>S.E.</td>
<td>Exp(B)</td>
<td>B</td>
<td>S.E.</td>
<td>Exp(B)</td>
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<td>reg&lt;sup&gt;a&lt;/sup&gt;</td>
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<td>EUR</td>
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</table>

Model $\chi^2$ 18.56 *** 45.58 *** 73.09 ***

Cox and Snell

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
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<td>Hosmer and Lemeshow</td>
<td>0.703</td>
<td></td>
<td>0.736</td>
<td></td>
<td>0.837</td>
<td></td>
</tr>
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</table>

goodness of fit

Area under ROC curve<sup>c</sup> 0.787 ***

<sup>a</sup>Asia is the reference region

<sup>b</sup>HI is the reference doi category (firms in the highest third per regional cluster)

<sup>c</sup>Measures the ability of the model to discriminate between outcomes

***, ** and * indicate $p<0.01$, $p<0.05$ and $p<0.10$, respectively
### TABLE 4: OLS Regression Results on Value of Tsunami Donation

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>*** (6.25)</td>
<td>*** (5.93)</td>
<td>*** (6.41)</td>
<td>*** (7.42)</td>
</tr>
<tr>
<td>logsale</td>
<td>0.39 *** (6.80)</td>
<td>0.39 *** (6.65)</td>
<td>0.34 *** (6.03)</td>
<td>0.28 *** (5.20)</td>
</tr>
<tr>
<td>netmar</td>
<td>0.25 *** (4.41)</td>
<td>0.26 *** (4.44)</td>
<td>0.22 *** (3.83)</td>
<td>0.21 *** (3.90)</td>
</tr>
<tr>
<td>anglo_dum</td>
<td>0.10 (1.18)</td>
<td>0.10 (1.24)</td>
<td>0.13 * (1.66)</td>
<td></td>
</tr>
<tr>
<td>eur_dum</td>
<td>0.17 (2.02)</td>
<td>0.10 (1.16)</td>
<td>0.13 (1.64)</td>
<td></td>
</tr>
<tr>
<td>djsi</td>
<td></td>
<td>0.10 * (1.71)</td>
<td>0.05 (0.95)</td>
<td></td>
</tr>
<tr>
<td>basic</td>
<td></td>
<td>0.18 *** (3.30)</td>
<td>0.14 * (2.69)</td>
<td></td>
</tr>
<tr>
<td>doi</td>
<td></td>
<td>0.14 *** (2.06)</td>
<td>0.16 ** (2.59)</td>
<td></td>
</tr>
<tr>
<td>match</td>
<td></td>
<td>0.25 *** (4.80)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>kindincl</td>
<td></td>
<td>0.19 *** (3.40)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>df</th>
<th>R² (adj.)</th>
<th>ΔF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td>30.611 ***</td>
<td>240</td>
<td>0.197</td>
<td>30.611 ***</td>
</tr>
<tr>
<td>Model 2</td>
<td>16.552 ***</td>
<td>238</td>
<td>0.204</td>
<td>2.141</td>
</tr>
<tr>
<td>Model 3</td>
<td>13.021 ***</td>
<td>235</td>
<td>0.258</td>
<td>6.756 ***</td>
</tr>
<tr>
<td>Model 4</td>
<td>15.701 ***</td>
<td>233</td>
<td>0.353</td>
<td>18.350 ***</td>
</tr>
</tbody>
</table>

N=243

The coefficients are standardized and the values in parentheses are t-statistics.

***, ** and * indicate $p<0.01$, $p<0.05$ and $p<0.10$, respectively.
Table 5: Relationship between basic needs sectors and in-kind donations

<table>
<thead>
<tr>
<th></th>
<th>INKIND</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NO</td>
<td>YES</td>
<td>Total</td>
</tr>
<tr>
<td>BASIC</td>
<td>NO</td>
<td>125</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>YES</td>
<td>52</td>
<td>63</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>177</td>
<td>121</td>
</tr>
</tbody>
</table>

Pearson Chi-Square: 15.610, df 1, Asymp. Sig. (2-sided) = 0.00
Table 6: Hypotheses and results

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Pred.</th>
<th>Result</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a: Proactive CSR orientation – propensity to donate</td>
<td>+</td>
<td>supported</td>
<td>weak</td>
</tr>
<tr>
<td>1b: Proactive CSR orientation – value of donation</td>
<td>+</td>
<td>not supported</td>
<td>--</td>
</tr>
<tr>
<td>2a: Differences in propensity to donate across regional clusters</td>
<td>+</td>
<td>supported</td>
<td>strong</td>
</tr>
<tr>
<td>2b: Differences in value of donation across regional clusters</td>
<td>+</td>
<td>not supported</td>
<td>--</td>
</tr>
<tr>
<td>3a: Degree of internationalization – propensity to donate</td>
<td>+</td>
<td>supported</td>
<td>strong</td>
</tr>
<tr>
<td>3b: Degree of internationalization – value of donations</td>
<td>+</td>
<td>supported</td>
<td>strong</td>
</tr>
<tr>
<td>4a: Basic needs sectors – propensity to donate</td>
<td>+</td>
<td>rejected</td>
<td>weak</td>
</tr>
<tr>
<td>4b: Basic needs sectors – value of donation</td>
<td>+</td>
<td>supported</td>
<td>weak</td>
</tr>
<tr>
<td>4c: Basic needs sectors – propensity to donate in kind</td>
<td>+</td>
<td>supported</td>
<td>strong</td>
</tr>
</tbody>
</table>

**Controls**

<table>
<thead>
<tr>
<th>Controls</th>
<th>Pred.</th>
<th>Result</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size (propensity to donate and value of donation)</td>
<td>+</td>
<td>supported</td>
<td>strong</td>
</tr>
<tr>
<td>Profitability (propensity to donate and value of donation)</td>
<td>+</td>
<td>supported</td>
<td>strong</td>
</tr>
<tr>
<td>Inclusion of matching funds (employee / customer contributions)</td>
<td>+</td>
<td>supported</td>
<td>strong</td>
</tr>
<tr>
<td>Inclusion of value of in-kind goods in total donation</td>
<td>+</td>
<td>supported</td>
<td>strong</td>
</tr>
</tbody>
</table>
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