

CSR Communication Intensity in Chinese and Indian Multinational Companies

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ABSTRACT

Manuscript Type: Empirical

Research Question/Issue: Why do firms in China, which has a higher level of economic development, communicate less CSR than firms in India? We use a model that includes country-, industry-, and firm-level factors to predict CSR communications intensity, a proxy for CSR activities.

Research Findings/Insights: Using data on 68 of the largest multinational companies in China and India, our study shows that Indian firms communicate more CSR primarily due to a more rule-based, as opposed to relation-based, governance environment. Firms in the manufacturing industry tend to communicate more CSR. Firm-level characteristics such as size, duality of CEO and board chairperson, and percentage of external members on the board also have a significant influence on CSR communications.

Theoretical/Academic Implications: The main theoretical contribution of our study is to bring a three-level perspective, relying not only on firm- and industry-specific factors, but also on the governance environment, to the study of firms' CSR behavior. We show that the national governance environment dominates the national income level in affecting CSR communications intensity. We demonstrate that the macro institutional environment in a country strongly affects firm CSR behavior. Our findings suggest that CSR should be studied by considering multilevel antecedents.

Practitioner/Policy Implications: Our study suggests that in order to improve the CSR of firms, policy makers in India and China must first try to improve public governance at the national level. Executives doing business with Chinese and Indian companies need to better understand the contrasting governance and their effects on the CSR practices in each country. For the international community and those concerned about product safety and other social issues related to China and India, our findings suggest that improvement will not be immediate since the governance environment changes relatively slowly.

Keywords: Corporate Governance, Governance Environment, China, India, Corporate Social Responsibility (CSR)

INTRODUCTION

The Chinese have greatly enriched their knowledge of chemistry in recent years, many Chinese web sites declare, not through national science education, but by eating food with added chemicals such as melamine (in dairy products), paraffin wax (in rice), dichlorvos (in ham), malachite green and formaldehyde (in seafood), copper sulfate (in fungus), clenbuterol (in pork), methanol (in alcohol), Sudan red I (in duck eggs), and so forth. (A Google search of "Chinese people's knowledge of chemistry" (in Chinese) yields 794,000 such results [Google, 2009].)

Although most of these terms are alien to people outside of China, the world has certainly learned the word "melamine" from China, which is a high-nitrogen chemical that many Chinese firms add to animal feeds and human foods – such as poor-quality milk products to boost the protein levels in lab tests – that also causes kidney failure and death. But this is not only an issue of corporate citizenship within China; it is also an issue for international consumers. By 2008, more than 51,900 children had been hospitalized and six had died due to kidney failure. In 2007, many dogs and cats in the United States died because of melamine added to their food. Worldwide, numerous products in many countries are contaminated with melamine originating in China (WHO, 2009).

However, China is not the only source of worldwide product-quality concerns (Martin & Palmer, 2007). A quick

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review of a database of import refusals compiled by the US Food and Drug Administration (FDA) reveals that the number of import refusals due to product quality and safety is by far the highest for imports from China. However, India also sends a large number of problematic imports (FDA, 2008). To combat the new threat arising from problematic imports, the FDA, has decided for the first time in its more than 100 years of history to establish overseas branches. The first two destinations are China and India (Business Standard, 2008; USA Today, 2008). Product quality and safety are only two examples of CSR in a globalized world. Companies also regard environmental protection and education actions as part of CSR to improve the lives of those who reside in the community in which they operate (community outreach). Carbon and other emissions from older machinery and the lack of regulations in China and India place an added cost on all goods that are cheaper to make in these countries. The examples provided above highlight the challenges facing corporations in China and India to display social responsibility (or lack of it). They show that CSR is not only a question of avoiding fraud and misconduct by enhancing monitoring, but also a question of honest and accurate information disclosure and communications.

In general, we need to better understand what determines corporate social responsibility in those emerging economies on which the world is increasingly dependent for goods and services. Motivated by this new development and responding to the call for papers on corporate governance in China and India by this journal, we study how corporate social responsibility, an increasingly important aspect of corporate governance (Aguilera, Williams, Conley, & Rupp, 2006; Jamali, Safieddine, & Rabbath, 2008), is determined in firms in the two countries.

In the developed world, the terms of CSR, corporate strategic volunteerism, social marketing, and strategic philanthropy, have penetrated the mainstream literature and multinational practices (Turban & Greening, 1997). Generally, CSR is considered to be the firm's obligation to protect and improve social welfare (Staples, 2004) through various business and social actions (Sen & Bhattacharya, 2001; Turban & Greening, 1997) and by ensuring equitable and sustainable benefits for the various stakeholders. Increasingly, companies are taking CSR initiatives that have been shown to be key success factors for sustainable competitive advantages (Lichtenstein, Drumwright, & Braig, 2004). In highly mature economies, such as those in the United States and the Western European countries, corporate communications are often used to highlight companies' commitments to CSR (Esrock & Leichty, 1998; Hooghiemstra, 2000), enhancing marketing efforts and legitimizing a given company's corporate image in the eyes of its various stakeholders (Birch & Moon, 2004; Ringov & Zollo, 2007).

Among the developing economies, CSR is much less well known and studied (see the literature review below). Although it has been generally recognized that economic development will ultimately increase CSR practices in a society (e.g., Baughn, Bodie, & McIntosh, 2007), we believe that the establishment of CSR is not simply determined by the level of economic development. The case of China and India illustrate this point. China has a much higher level of economic development than India, measured by both income

per capita and the economic growth rate, thus, collectively, Chinese firms should have higher CSR standards and face fewer product-quality problems than Indian firms. But this is inconsistent with reality. There appear to be more issues related to safety and intellectual property rights violations for Chinese products than for Indian products (e.g., China accounts for the largest percentage [81 per cent] of all illegal products seized by the US Customs and Border Protection, whereas India is a distant second [6 per cent] [US Customs and Border Protection, 2009]). Furthermore, data show that the dominant safety issue for Chinese products tends to be the result of deliberate actions, such as adding lethal chemicals (e.g., melamine in milk), whereas the primary problem with Indian products is poor sanitation (e.g., salmonella in food) (FDA, 2008; Martin & Palmer, 2007).

These data suggest that the pattern of CSR development may be different among the emerging countries due to reasons beyond the level of economic development. This gap, along with the heightened global attention to safety issues regarding Chinese and Indian products, renders CSR of Chinese and Indian firms a growing concern (Baskin, 2006).

In this study, we attempt to close this gap in the literature by identifying the major factors that affect CSR communications in Chinese and Indian firms. We address the question of why firms in China, where there is a much higher level of economic development, act less socially responsibly than firms in India. To do this, we propose a model that simultaneously examines the role of country-level, industry-level, and firm-level antecedents. We test the model by using a sample of 68 large firms from China and India, drawn from a data set based on the Forbes ranking of the world's 2,000 largest corporations (Forbes, 2007).

Our main contribution is to show, next to industry and company variables, that a country's governance environment is an important driving force in shaping firms' CSR communications. Our study also sheds light on the more urgent practical issue of product quality and safety facing the international community by providing an appreciation of why Chinese and Indian firms adopt different levels of CSR and what forces are behind these differences. An interesting and important message from our study is that because a country's informal governance environment changes relatively slowly, we should not expect drastic (positive) changes in CSR by companies in emerging markets.

The remainder of the paper is organized as follows: in the second section we provide a review of the current literature on the determinants of CSR corporate communications, motives, processes, and stakeholder issues; the third section presents our theoretical framework and outlines the hypotheses; the fourth section describes the methodology and data collection process; and the fifth section presents the empirical results and findings. Finally, we conclude by summarizing and discussing directions for future research.

REVIEW OF CSR RESEARCH IN CHINA AND INDIA

Gaps in Research on CSR across Countries

In recent years, prompted by the spate of mega-size corporate scandals in the developed economies in general, and in

the United States in particular, and encouraged by world-wide concerns about social and environmental issues, research on CSR has expanded and a wealth of literature has accumulated. The rapid growth of CSR studies and the ambiguous nature of the issue have contributed to a fuzziness in CSR definitions. The literature provides a variety of CSR definitions and various measures (McWilliams, Siegel, & Wright, 2006). Although there is no universally accepted definition or measurement scale, some agreement exists regarding the potentially positive impact of CSR implementation (Branco & Rodrigues, 2006; *Economist*, 2005; McWilliams et al., 2006; Smith, 2003), as briefly summarized below.

Donaldson and Preston (1995) describe CSR as a source of profits and competitive advantage, whereas others prescribe the integration of CSR in corporate strategy as a means to enhance the corporate image and competitiveness (Branco & Rodrigues, 2006; McWilliams et al., 2006; Porter & Kramer, 2006). A survey of CSR by the *Economist* (2005) suggests that firms need to articulate their social contributions and to integrate the concept of CSR at the highest level of management decision making. The roles of companies in society and of various stakeholders in companies need to be effectively conveyed. Consequently, corporations broadly communicate their CSR activities, approaches, and processes in order to accomplish a positive public image and to gain legitimacy as well as support from the various stakeholders (Adams, Hill, & Roberts, 1998; Esrock & Leichty, 1998).

Increasingly, scholars have begun to examine CSR across countries on the basis of CSR communications. These studies show that the extent, content, and communication of CSR differ among corporations, regions, and countries (Maignan & Ralston, 2002). Most work to date has focused on developed-country firms (e.g., Bennett, 1998; Maignan & Ralston, 2002; Margolis, Elfenbein, & Walsh, 2007), but emerging markets are now receiving increasing attention (I. Alon, M. Fetscherin, C. Lattemann, S. Li, & A.-M. Schneider, unpublished data; Baskin, 2006; Baughn et al., 2007; Cappelletti & Giuliani, 2004; Chapple & Moon, 2005; Ewing & Windisch, 2007; Kimber & Lipton, 2005; Qu, 2007; Roper & Weymes, 2007; Welford, 2004). Several studies have analyzed CSR in both the developed and emerging countries (e.g., Bertelsmann Foundation, 2007; SHRM, 2007). However, with the exception of Baskin's study (2006), literature comparing Chinese and Indian firms is almost non-existent. Firms in the emerging markets lag behind their counterparts in the mature economies with regard to CSR communications, implementation, and activities (Welford, 2004).

Existing research suggests that the general environment for international business (e.g., political, economic, social, and technological conditions) can impede or promote the development of CSR implementation. CSR activities may be impeded by a lack of adaptation to the cultural context (Gerson, 2007). For example, Ewing and Windisch (2007) argue that the utilization of Western CSR approaches may fail in the Asian context because of cultural differences. Baughn et al. (2007) add that CSR in Asia is affected not only by the cultural context, but also by the economic and political conditions. More specifically, economic and political freedoms, as well as low levels of corruption, can lead to effective CSR implementation. With respect to the economic

environment, Chapple and Moon (2005) suggest that a high level of inward foreign direct investment (FDI) into a country increases the likelihood that CSR sensitivity and practices will be utilized by domestic companies.

Although each of the above-mentioned studies makes a substantial contribution to help us understand CSR across countries, they tend to focus on either country-, industry-, or firm-level factors. Few studies attempt to consider the country-, industry-, and firm-level factors collectively to assess how different levels affect CSR communications intensity across countries. Some scholars have begun to pay attention to the role of institutional arrangements at the country level on a firm's CSR behavior (Baughn et al., 2007), but existing country-level studies tend to focus on either the "hard" (formal) institutions, such as political and economic freedoms, or the "soft" (informal) institutions, such as culture (North, 1990). The effect of the governance environment, which is a combination of both the "hard" and "soft" institutions that shape the firms' governance, and thus CSR behavior, has not yet been examined.

CSR Development in China and India

CSR is a relatively new phenomenon in China and the government thus far has not actively promoted it. As Gerson (2007) observes, the large Chinese government bureaucracy hampers the realization of CSR programs. Ewing and Windisch (2007) recently observed that there is an increasing awareness of CSR on the part of the Chinese government. The situation seems to have begun to change, as the government has recently made efforts to improve the relevant laws and market regulations and to expand supervisory practices to decrease irresponsible corporate behavior. Today, the main areas of government campaigns target enhancing labor and environmental conditions and customer relations, as well as reducing tax evasion and bribery (Zheng & Chen, 2006). The China Securities Regulatory Commission supports the development of CSR programs through a code of conduct for listed corporations that states that "the company shall be concerned with the welfare, environmental protection, and public interests in the community in which it resides, and shall pay attention to the company's social responsibilities" (CSRC, 2001). Other well-known initiatives include China CSR, CSR Asia, Association for Sustainable and Responsible Investment in China (ASrIA), China Business Council for Sustainable Development (CBCSD), and China Labor Watch. At the cultural level, although some have noted that the Confucian tradition, which emphasizes collectivism, may have a positive effect on CSR in China (Roper & Weymes, 2007), the Chinese practice of *guanxi* (exchanges of "favors" between related parties to circumvent formal rules and regulations), which results from the lack of a strong legal environment, seems to hinder the development of CSR (Su, Mitchell, & Sirgy, 2007). Furthermore, decades of the revolutionary ideology heralded by Mao Zedong that the end justifies the means may also contribute to the socially irresponsible behavior by firms (Li, 2004).

With the above-mentioned CSR initiatives, the Chinese government seems to be paying more attention to social issues. However, the lack of checks and balances in the political system, citizens who tend to have less say in social

issues and who have less ability to influence social issues (Sen, 1999), and an environment that is built on *guanxi* practices suggest that firms face little public pressure to behave responsibly. This is reflected in the still-tainted global image of Chinese MNCs due to the waves of poisonous products that can be attributed to the lack of government oversight (National Geographic Special, 2008), as revealed in the years of systematic production and distribution of melamine by chemical firms to food processors. Compared to the study of CSR in China, there are more studies of CSR engagement by Indian corporations (e.g., Arora & Puranik, 2004; Das Gupta, 2007; Mohan, 2001; Sagar & Singla, 2004). Furthermore, India has been included in several cross-country studies of CSR in the emerging and Asian nations (e.g., Baughn et al., 2007; Bertelsmann Foundation, 2007; Chapple & Moon, 2005; Kimber & Lipton, 2005; SHRM, 2007).

Sagar and Singla (2004) emphasize that spirituality and CSR are deeply rooted in the Indian tradition. Therefore, CSR is not a new temporary phenomenon, but rather it is linked to Indian culture and religion (Arora & Puranik, 2004; Das Gupta, 2007; Mohan, 2001). Social duties and engagement in charity by Indian corporations were often implicit, but over time CSR has become more dominant and broader in scope (Das Gupta, 2007). In India, corporate philanthropy is now part of normal business operations and is embedded in corporate activities (e.g., Arora & Puranik, 2004; Das Gupta, 2007). Visser (2008:490) suggests several reasons for this. First, it is a "result of strong indigenous traditions of philanthropy in developing countries." Second, companies realize that they cannot succeed in societies that fail, and philanthropy is seen as the most direct way to improve their business responsibility. Third, there is often an ingrained culture of philanthropy that differentiates India from China, because India had been reliant on foreign aid or donor assistance from Great Britain.

With the change from an agrarian to an industrial economy, considerable social imbalances developed in India (Mohan, 2001). CSR gained importance as recognition of the deep social divides increased. A declaration was adopted that suggests that the corporation is responsible not only for itself, but also for its customers, workers, shareholders, and community (IIC, 1966). The industrial changes in the Indian economic paradigm in the 1990s widely affected the corporate sector and brought about more economic liberalization (Arora & Puranik, 2004). This period of modernization was also accompanied by the realization among industry leaders of the social needs and the role of private corporate management in addressing these needs (Das Gupta, 2007).

According to the findings of the Partner in Change (PIC) survey that includes 536 companies across India, corporate philanthropy is the most significant driver of CSR, followed by image building, and employee morale and ethics (PIC, 2003). Over the last several decades, CSR activities in India evolved from charity and traditional philanthropy toward the mainstream global-oriented conception of the term (Das Gupta, 2007). The majority of Indian corporations have policies regarding labor issues, community relations, and environmental practices. However limitations to CSR implementation in India still exist, such as the low level of economic development, corruption, and resistance to dialogue with stakeholders, among others (SustainAbility, 2005).

FACTORS DETERMINING CSR COMMUNICATIONS IN CHINESE AND INDIAN FIRMS

In this section, we propose a more comprehensive framework to study CSR across countries by considering three levels of factors that may shape firms' CSR activities across countries: the country level, the industry level, and the firm level. Simultaneously examining the effects of the three levels of factors on firm behavior has long been established in the strategic management literature (e.g., Porter, 1990). At the country level, we introduce a new factor, the governance environment (Li, Park, & Li, 2004), into the equation, along with the industry- and firm-level factors.

In our study, we use the firms' CSR communications intensity as a proxy to measure their CSR activities. Sources for CSR communications include corporate Web sites, annual reports, and other publicly available documents that are available on the Internet and that target a wide variety of stakeholders (Esrock & Leichty, 2000). The reason for using such a measure is that "real" CSR activities are difficult or even impossible to measure on a large-scale quantitative basis. Research shows that corporate communications are a vital and integral part of organizational marketing (Chahal & Sharma, 2006; Hooghiemstra, 2000) and can therefore serve as a tool to promote the company's engagement in CSR and to improve the corporate image (Bondy, Matten, & Moon, 2008; Husted & Allen, 2006; Logsdon & Wood, 2005). Adams et al. (1998) as well as Esrock and Leichty (1998) show that corporations broadly communicate their CSR activities, approaches, and processes in order to accomplish a positive public image and to gain legitimacy and support from the various stakeholders. The lack of corporate communications about CSR can be interpreted as a missed opportunity or a lack of awareness among managers regarding the importance of this task in the global environment.

Based on the previously mentioned studies, we believe that corporate communications of CSR activities can serve as a gauge to measure the image that the company wants to portray to its various stakeholders. As a validity check in our data analysis, we match a subsample of our measure of CSR communications intensity with an independent data source on actual CSR measures to evaluate to what extent our CSR communications intensity approximates the measure of CSR activities.

In the following subsections, we first discuss how country-level factors affect CSR and then we describe how industry- and firm-level factors help shape CSR communications, using the Chinese and Indian firms as examples.

Country-Level Factors

Rule-Based versus Relation-Based Governance Environment. There have been theoretical advances in comparisons of CSR across different countries, notably the works by Campbell (2007), who uses the literature of comparative political economy to explain how institutions influence CSR behavior and CSR communications, and Matten and Moon (2004), who distinguish between "explicit CSR" and "implicit CSR." Institutional theory (North, 1990; Scott,

1999) provides an appropriate theoretical framework for our analysis of CSR across countries. According to the economic institutional theorist North (1990), institutions in a society are the rules of the game that govern the interactions between organizations, whereas organizations are the players in the game trying to use the opportunities created by the institutions to maximize their welfare. Institutions are the constraints that a society imposes on individuals and organizations to regulate their behavior and activities, such as whether firms must be socially responsible. By using the institutional framework, Li et al. (2004) classify societies into rule-based and relation-based governance environments.

A rule-based governance environment exists under the following conditions: (1) checks and balances are in place between and among the law-making, law-interpreting, and law-enforcement functions; (2) the courts are independent of political influence, and enforcement is transparent, fair, and efficient; (3) the public information infrastructure is well developed, and the quality of public information is high; and (4) there is a high level of public trust in public rules and orders, and people rely on public rules to settle disputes (Li & Filer, 2007; Platteau, 1994).

In contrast, when there are no checks and balances among the legislative, judiciary, and executive branches of government, public rules are not fair and transparent, courts are influenced by political power, and public information is controlled by the state and is untrustworthy. People then tend to use private means – such as personal connections or private forces, which may even involve illegal acts such as bribery – to protect themselves and to settle disputes. This is a relation-based governance environment.

When market exchanges in an economy are limited both in scale and to the local area and the scope of intra- and inter-firm activities are small, a relation-based governance environment can be efficient because it avoids huge investments in the development of the infrastructure required for a rule-based governance system. It has been argued that some of the East Asian economies successfully relied on relation-based governance during their emerging stages. However, as markets and firms develop, relation-based governance will become inefficient and costly, will be unable to compete with rule-based economies, and will either eventually transform into rule-based economies or will stagnate (Li et al., 2004).

The Effect of the Governance Environment on CSR Communications. CSR arises out of the public's concern about the social and environmental consequences of the pursuit of economic gains by corporations. By its nature, CSR is a public action by a firm about social issues that should be publicly communicated if the firm wants to gain dividends from its efforts. The effect of institutional factors at the country level on CSR is beginning to be recognized (Baughn et al., 2007; Husted & Allen, 2006). In rule-based societies, laws are transparent, fair, effective, and efficient. As a result, citizens have a higher level of trust in public information, such as corporate communications (e.g., annual reports or voluntary CSR reports). In relation-based societies, the state controls public information, the law, and its enforcement. People tend to distrust official (publicly) released informa-

tion and resort to private means (such as bribery and word of mouth) to govern their transactions and interests (Li et al., 2004). The government in a relation-based society tends to be less focused on social issues due to the lack of checks and balances in the political system, and citizens tend to have less say in social issues and less ability to influence social issues (Sen, 1999). In turn, firms face little public pressure to behave responsibly. Under such an institutional arrangement, firms feel neither obliged to communicate their social responsibility nor to act in the interest of the public.

How the Governance Environment Affects CSR Communications. Due to contrasting developmental paths, the governance environments in China and India are significantly different (Li & Nair, 2007). In 1949, the Chinese Communist Party (CCP) took power and built a communist society in which the party had absolute power over every aspect of the citizens' lives. This totalitarian rule completely destroyed the independence of the law, judges, and courts that were (and still are) appointed by the party. The formal legal system lacks continuity, fairness, and transparency. The Communist Party Committee still plays a pivotal role in key decisions – for example, the nomination of top executives, executive evaluations and compensation, asset acquisitions and disposal, and annual budgets (Nikkel, 1995:523). Sometimes the party committee may even become involved in operational decisions, such as whether to use a specific supplier or to purchase housing for key employees. As an alternative to such a system, the informal, private network, or *guanxi*, has flourished in China, making China one of the most relation-based societies (Li & Filer, 2007).

In contrast to China's communist revolutionary history, India gained independence from British rule in 1947 and adopted a parliamentary democracy. Although both the politicians and the citizens of the newly independent state had strong negative feelings about British rule, India nevertheless kept British common law as the foundation of its legal system. Research has shown that among all legal traditions, common law provides the best protection of property rights (La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 1998).

As noted above, people in relation-based societies tend to distrust publicly (especially officially) released information (Li et al., 2004) as the state controls public information, the law, and its enforcement. In contrast, in rule-based societies, laws are transparent, fair, and effective, and citizens have a higher level of trust in public information, such as corporate communications (e.g., annual reports and/or voluntary CSR reports). Hence, firms might gain advantages from communicating their social responsibility because people believe in it. Furthermore, as the government in a relation-based society tends to be less focused on social issues due to the lack of checks and balances in the political system, and citizens tend to have less say in social issues and less ability to influence social issues (Sen, 1999), firms face little public pressure to behave responsibly.

The independence of the legal system and other checks and balances mechanisms provided by the democratic system have made India's governance environment relatively more rule-based than that in China and other devel-

oping countries (Li & Filer, 2007). In their estimate of governance indexes across countries, Li and Filer assign -7.26 to China and -1.48 to India in terms of the degree to which the governance environment is rule-based. In other words, both India and China are relation-based economies, relative to the rest of the world, but China is more so. The above discussion leads us to the first hypothesis:

Hypothesis 1. The governance environment affects CSR communications intensity in a society; firms operating in a more rule-based (or less relation-based) environment will show a higher CSR communications intensity than firms in a more relation-based environment.

Hypothesis 1 predicts that, on average, MNCs in India should communicate CSR activities more intensively than their counterparts in China because India is more rule-based than China.

Industry-Level Factors

Research has shown that the type of industry affects a firm's CSR behavior (Husted & Allen, 2006) and thus the type of industry should also be factored in our analysis. However, there seems to be a gap in the literature as to how the industry affects a firm's CSR. Studying Japanese firms in the 1980s, Cooke (1992) finds that firms in the manufacturing industry are inclined to disclose more information to the public. The reason, according to Cooke (1992:232), is

Japan's unparalleled economic growth and the extraordinary efficiency and productivity of Japanese manufacturing . . . together with the international exposure of the manufacturing sector may have an effect on the extent of disclosure.

Given the recent ascendancy of China and India in the manufacturing sector, similar to that of Japan in the 1980s, we factor possible industry differences into our model and test for the manufacturing effect.

Historically, in the developed countries, issues related to the manufacturing sector, such as product safety and environmental pollution, brought to the surface public debates and pressure to regulate this sector (Marlin & Marlin, 2003). This has been the case in recent years with respect to lead-painted toys, chemicals in food, or child labor in factories. Firms in the developed countries were compelled to behave socially responsibly or they would face public outrage. Manufacturing firms in China and India today face similar pressures from international consumers, as reported by the popular press (Bogdanich, 2008; Global Information, 2006) and revealed in the FDA import refusal database (FDA, 2008). For hypothesis-testing purposes, we regard chemicals, construction, coal mining, transportation, and consumer goods as part of the manufacturing industry. Other industries such as banking and finance, telecommunications, and IT are knowledge-intensive sectors where product safety, environmental pollution, or social issues, for instance child labor, play a lesser role. Thus, based on existing research and new evidence (FDA, 2008), we formulate the following hypothesis:

Hypothesis 2. In emerging economies, firms in the manufacturing sector will have a higher CSR communications intensity than firms in knowledge-intensive sectors.

Firm-Level Factors

Corporate Governance. That firm-level factors affect CSR has been well documented in the literature (Black & Härtel, 2004; Hart, 1995; Lattemann, Schneider, & Kupke, 2007; Sharma & Vredenburg, 1998). For example, Sharma and Vredenburg (1998) show that a proactive corporate environmental strategy can be associated with the development of unique organizational capabilities. With more scrutiny, we find that CSR communications is actually part of corporate disclosure, or, more precisely, part of voluntary corporate disclosure. There is also a rich literature on factors determining corporate disclosure. For example, Xiao and Yuan (2007) show that corporate governance is positively associated with voluntary disclosure.

Based on agency theory, the board of directors plays an important role in corporate governance (Fama & Jensen, 1983) in the sense that the board represents the interests of the shareholders as well as, to various degrees, the interests of other stakeholders. The main role of the board is to monitor the "insiders" – i.e., the managers – for the outsiders. To fulfill this role, researchers have argued, directors who are outsiders or who are independent are important for corporate legitimacy (Birch & Moon, 2004; Ringov & Zollo, 2007). For example, Chen and Jaggi (2000) find that the proportion of independent board members is positively associated with mandatory disclosure. We therefore state the following hypothesis:

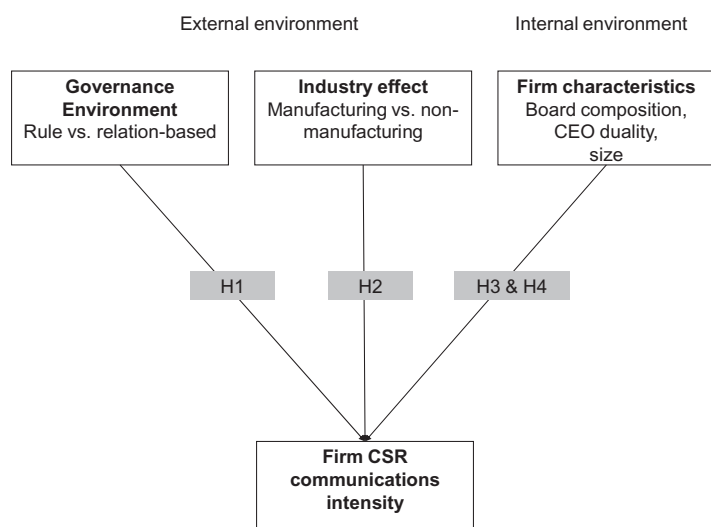
Hypothesis 3a. Firms with a higher percentage of outside board members (as a proxy for their corporate governance) will have a higher CSR communications intensity.

Another measure of the board's role in representing outsiders is whether the chairman of the board is also the Chief Executive Officer (CEO), which is known as CEO duality in corporate governance. It has been argued that if the chairman is also the CEO, then conflicts of interest may arise. Gul and Leung (2004) show that CEO duality is associated with a lower level of voluntary corporate disclosure. Following the logic that the separation of the chairman and the CEO will enable the firm to have greater corporate transparency and responsibility, we develop the following hypothesis:

Hypothesis 3b. Firms with CEO duality will have a lower CSR communications intensity.

The research on corporate voluntary disclosure also finds that large firms tend to be more inclined to disclose more information to the public. The reason, as argued by Firth (1979), is that the public pays more attention to large firms. In other words, social pressures are greater for large firms to be socially responsible; market pressures may also push firms to be socially responsive. Firms with large sales volumes, taken as a proxy for firm size (as suggested by Cooke, 1992) are more exposed to market pressures and thus more likely to communicate CSR. We state the following hypothesis:

FIGURE 1
Research Framework



Hypothesis 4. Larger firms will have a higher CSR communications intensity.

Figure 1 summarizes the four main hypotheses outlined above and serves as our underlying research framework to test the various hypotheses. As can be seen, our framework is comprehensive in the sense that it takes both the external environment and the internal environment (Hitt, Ireland, & Hoskisson, 2005) into account to assess firm behavior, that is, CSR communications intensity.

METHODOLOGY

Data

Chapple and Moon (2005) suggest that the largest multinationals tend to be precursors for smaller multinationals and for other large firms with respect to the integration of CSR. Jenkins (2004) explains that it is inappropriate to develop CSR strategies for SMEs along the same lines as those for large corporations. Furthermore, CSR communications data for SMEs from secondary sources are not available. For these reasons, we used the rankings in the Forbes database on the world's 2,000 largest corporations (Forbes, 2007) as the "population" for our sampling frame to identify the largest corporations in both countries. In order to select the companies for analysis on CSR issues, we applied a two-step approach. After identifying the Chinese and Indian corporations on the Forbes 2,000 list, in a second step we selected corporations with English Web sites or CSR, environmental, or annual reports. This step was needed to eliminate any cultural variations due to language, norms, terminology, or style. These companies are thus the largest and presumably the most internationalized companies, representing national champions and "best practices." Because they are also publicly traded, they face additional regulatory and reporting burdens. Altogether, the Forbes (2007) database consists of 33 Indian and 44 Chinese corporations. Only 35 of the

Chinese companies have English Web sites, whereas all of the selected Indian companies have English web sites. Following the guidance of Bondy et al. (2004), we then append more information on these firms from other data sources, such as Reuters (2007) and from the companies' websites, including the companies' annual and CSR reports and other CSR-related publications.

The Dependent Variable: Corporate Communications about CSR

The dependent variable consists of the intensity of corporate communications about CSR. Similar studies have also used this dependent variable (e.g., Maignan & Ralston, 2002). As we discuss earlier, although CSR communications need to be examined with some caution, they are still among the best and most reliable sources of information about companies' CSR activities (Chapple & Moon, 2005). (Our validity check later will show that our measure of CSR communications has a high correlation with an independent data source that measures the CSR activities of India's largest firms.)

Following the approach developed by Maignan and Ralston (2002), we measure corporate communications about CSR from corporate Web sites, annual reports, and other publicly available documents, especially documents available on the Internet. We conducted a comprehensive search in all the above-mentioned public sources (see Appendix) during July 2007 and October 2007. To guarantee a consistent base of coded data, the data analysis on the annual reports, CSR reports, and firms' webpages for both countries was carried out by only one single person and was checked and verified by others.

According to Maignan and Ralston (2002), three CSR categories can be identified: (1) motives for CSR activities; (2) managerial CSR processes; and (3) stakeholder issues.

First, the motives for implementation of CSR were coded and classified into three different items: (1) value-driven; (2) performance-driven; and (3) stakeholder-driven. According to Swanson's (1995) findings, the value-driven view suggests that corporations are self-motivated to implement CSR initiatives regardless of external and social pressures. Following a utilitarian perspective, CSR is implemented in a corporation to achieve performance objectives, such as profitability, returns on investment, or sales volume. This view assumes a strong relationship between CSR and financial performance. The stakeholder view suggests that corporations adopt social responsibility initiatives in response to the pressures from the various stakeholders (Swanson, 1995). The positive-duty view suggests that business may be self-motivated to have a positive impact, regardless of the social pressures. Both the negative duty and the utilitarian approaches suggest that CSR can be used as a tool to influence the stakeholders' perceptions of the corporate image, which is an important component of organizational marketing (Hooghiemstra, 2000).

The second category to measure CSR can be described by the "processes" designated by the managerial procedures and the instruments employed by the companies to realize their motivational principles. CSR processes consist of programs or activities that foster the realization of CSR within a

corporation. Based on Maignan and Ralston (2002), the following seven CSR process items are identified for our analysis: (1) philanthropy programs; (2) sponsorships; (3) volunteerism; (4) implementation of a code of ethics; (5) quality programs; (6) health and safety programs; and (7) management of environmental impacts. These seven processes are not mutually exclusive.

Stakeholder issues constitute the third measurement category for CSR initiatives. Considering Clarkson's (1995) stakeholder classifications, five items are relevant for this study: (1) community; (2) customers; (3) employees; (4) shareholders; and (5) suppliers.

The dependent CSR variable was measured as follows – if a firm discussed any CSR motives in one of its corporate communications outlets, such as its web site, annual report, or CSR report, we assigned it one point. Similarly, a firm received one point for any discussion on CSR processes or for addressing any CSR stakeholder issues. This resulted in a total possible points ranging from 0 to 21, indicating the overall CSR communications intensity.

In order to assess the validity of using CSR communications to approximate CSR, we conducted a validity check of our CSR communications measure with CSR data collected by Karmayog, an India-based social advocacy NGO that promotes responsible citizen and organizational behavior and social welfare (Karmayog, 2009). Karmayog (2009) provides CSR ratings based on the details of the CSR activities of the 500 largest Indian companies and other Indian companies. Thus, the Karmayog rating can be viewed as a measure of the actual CSR activities. We calculated the correlation between our CSR communications and the Karmayog CSR rating and produced a correlation of 0.74 ($p < .0362$), which is reasonably high, indicating that what we capture in our CSR communications intensity rating is closely correlated with Karmayog's measure of detailed CSR activities. (Since comparable data are not available for Chinese firms, we cannot perform a similar check on our Chinese data.)

Independent Variables: Country-Level

Governance Environment Measurement. In order to test our hypotheses, we need a measurement that captures the type (or quality) of the governance environment. Li and Filer (2007) developed a *Governance Environment Index* (GEI) to measure the degree to which a country is based on public ordering (rule-based) versus private ordering (relation-based). The GEI consists of five indicators: political rights; rule of law; quality of accounting standards; free flow of information; and public trust. Each of the five components of the GEI is standardized to a mean of zero and a standard deviation of one by subtracting the mean from the value and then dividing by the standard deviation of the values. The standardized components are totaled to calculate the GEI for each country. A high GEI indicates a country is more rule-based, whereas a low GEI indicates a country is more relation-based. Li and Filer (2007) provide the GEI for 44 countries for which all five indicators are available. Their GEI measurement of the governance environment in these countries in the late 1990s and early 2000s ranges from 6.02 (Norway), the most rule-based country, to -7.26 (China), the most relation-based, with India (-1.48) having a higher score

than China. We use the most recent GEI values, which are from 2000.

An advantage of using the GEI is that it summarizes the overall governance environment by including both the "hard" and "soft" institutional factors, namely, the political, legal, economic, and cultural dimensions. In so doing, it may mitigate the measurement error by reducing the reliance on a single-dimension variable. It also achieves parsimony in the number of variables in our multivariable models (Hair, Anderson, Tatham, & Black, 1998:116–117). In addition, using a single comprehensive index is an effective solution because these dimensions tend to be highly correlated and may cause multicollinearity in multivariate analyses (Center for Statistical Computing Support, 2008). This measure has been used in previous research as a predictive variable: Li and Filer (2007) examined how the governance environment affects the mode of investment across countries.

GDP Per Capita. We use the 2006 PPP GDP per capita data reported by the United Nations (2008), which are in international dollars adjusted by purchasing power parity. Several studies have documented the positive relationship between the level of economic development, often measured by the GDP per capita, and CSR (Baughn et al., 2007). The basic argument for the positive relationship is that a higher level of wealth enables citizens to be more concerned about the non-economic welfare of the society and puts more pressures on corporations to be more socially responsible (Baughn et al., 2007). We include GDP per capita (GDP_capita) as another independent control variable in our study.

Independent Variables: Industry-Level

Our industry variable is derived from the industry classification in Forbes' (2007) database (Forbes, 2007). There are six industries in our data set (with the corresponding variable names in parentheses): (1) banking and insurance (Bank_Ins); (2) capital goods (Cap_Goods); (3) chemical (Chemical); (4) consumer goods (Cons_Goods); (5) technology; and (6) others. We use the five industry Variables 1 to 5 as dummy variables in the industry-factor-only model, with the "others" as the baseline (see Model 3). In order to test H2, we created a new dummy independent variable, "Manufacturing_ID," representing firms in the manufacturing industry, by combining capital goods with chemical and consumer goods.

Independent Variables: Firm-Level

We used three firm-level variables: total sales; CEO duality; and percentage of outside board members. The source for the sales is the Forbes (2007) database (Forbes, 2007); the sources for the other two variables are Reuters (Reuters, 2007) and the companies' web sites as analyzed in 2007. For each company, we determine whether the chairman of the board was also the Chief Executive Officer (CEO). If s/he had a dual role, we coded it "1"; if not, we assigned a value of "0." For the percentage of outside board members, we first counted the total number of board members for each company, then counted and calculated the percentage of outsiders (e.g.,

non-executive director, independent director, government director, independent, and non-executive director).

Regression Models

We employed multiple regression analyses to examine the data and to test the hypotheses. We first ran three sets of regressions to assess individually the explanatory power of the country-level (Model 1), industry-level (Model 2), and firm-level (Model 3) independent variables. In the country-level model, we estimated the model with a country dummy variable (Model 1). In the industry-level model, we treated the industry-level effect as a dummy variable (Model 2). The firm-level model included corporate governance variables and firm size (Model 3). Finally, we ran a regression model that included all three levels of the independent variables (Model 4). Using this multiple model approach, we were able to discern country-, industry-, and firm-level impacts both individually and collectively.

RESULTS

Overall, only seven of the 68 Chinese and Indian firms in our sample do not provide any CSR-related information in their corporate communications. Although the number of non-reporting firms is small, almost all non-reporting companies are from China (six out of seven), suggesting that these companies have not realized the advantages of such communications to improve their corporate image, or they have not seen a need to do so. To measure the relevance of CSR reporting for the analyzed companies, we counted and summarized the number of companies that provide one or more CSR motives, CSR processes, or stakeholder issues in their

corporate communications. Table 1 provides the descriptive results on CSR corporate communications for the Chinese and Indian firms. Table 2 lists the values of all variables used in our analyses of China and India.

As can be seen in Table 2, China and India stand opposite each other in terms of the GEI and GDP per capita levels: Although India has a more rule-based (less relation-based) GEI, China enjoys a much higher GDP per capita. The mean differences for the GEI and for the GDP are significant at a five per cent level. Previous studies (e.g., Baughn et al., 2007) show that national income positively affects CSR, which implies that firms in China should have a higher level of CSR communications. However, in this study we argue that a more rule-based governance environment encourages a higher level of CSR communications (H1), which means that the Indian firms should have a higher level of CSR communications. The next question is which factor, governance environment or income level, dominates in affecting CSR communications? Examining the CSR communications measures in Table 2, we can see that the Indian firms have a higher level of CSR communications intensity (total CSR: SUM_CSR; Motivation: SUM_MOT; Processes: SUM_PRO; Community: SUM_COM) in all measures. The variables SUM_CSR, SUM_MOT, and SUM_COM are significant at the 5 per cent level; SUM_PRO is marginally significant at the 10 per cent level; the CSR report variable is not significantly different from that for the Chinese firms. These results give us a first indication that the governance environment not only matters, but also dominates the national income level in affecting the firms' CSR communications intensity. H1 is supported. After our examination of the basic statistics of the independent variables, we will conduct multiple regression analyses to more rigorously examine how much the GEI and other factors affect CSR communications.

TABLE 1
Inclusion of CSR

CSR activities	China (N = 35)	India (N = 33)
1. Discussing at least one CSR <i>motive</i>	11 (31%)	27 (82%)
2. Discussing at least one CSR <i>process</i>	26 (74%)	31 (94%)
3. Discussing at least one <i>stakeholder issue</i>	28 (80%)	31 (94%)
Industry		
4. Discussing CSR ^a		
(a) Banking and Insurance	9 out of 9	13 out of 13
(b) Capital goods ^b	7 out of 10	6 out of 6
(c) Chemicals ^c	2 out of 2	5 out of 5
(d) Consumer goods ^d	3 out of 4	2 out of 2
(e) Technology ^e	2 out of 2	5 out of 5
(f) Others ^f	6 out of 8	1 out of 2

^aNumber of companies mentioning at least one CSR motive, one CSR process, or one stakeholder issue.

^bMaterial, Construction, Coal Mining, Container.

^cOil and Gas.

^dFood, Drinks, Tobacco, Consumer Durables.

^eSoftware, Services, Technology, Telecommunications.

^fTransportation, Utilities, Trading Companies.

TABLE 2
Mean Differences between Chinese and Indian Firms

Variables	China mean	India mean	Mean difference	Sig. level
Country-level				
Governance Environment Index	-7.26	-1.48	5.78**	.00
GDP per capital	7,800	3,800	4,000**	.00
Industry-level				
Manufacturing ID	.46	.39	.06	.30
Banking and insurance	.26	.39	.14	.12
Capital goods	.29	.18	.10	.16
Chemicals	.06	.15	.09	.11
Consumer goods	.11	.06	.05	.22
Technology	.06	.15	.09	.11
Company-level				
CEO duality	.29	.65	.35**	.00
Percentage of external directors on the board	61.82	58.35	3.47	.29
Sales in bn. US\$	11.61	5.65	5.95	.06
CSR communications intensity				
CSR report	.11	.24	.13	.08
Total CSR	6.43	9.91	3.48**	.00
Total motivation	.40	1.30	.90**	.00
Total processes	2.54	3.52	.97*	.03
Total community	3.49	5.09	1.61*	.02

* $p < .05$ (one-tailed); ** $p < .01$ (one-tailed).

TABLE 3
Basic Statistics for the Independent Variables in Models 1b, 3, and 4

Independent variables	Mean	Standard deviation	Percentage of external directors on the board	Sales in bn. US\$	Manufacturing ID
CEO duality	.46	.50	.09	-.11	-.15
Percentage of external directors on the board	60.17	25.72		-.06	.11
Sales in bn. US\$	8.72	15.28			.22*
Manufacturing ID	.43	.50			

*Correlation significant at .10 level (two-tailed).

Note: $N = 68$, not shown are the country dummy and industry dummy statistics.

Table 3 presents the basic statistics of the independent variables, including the means, standard deviations, and correlations between the variables. Since the GEI and GDP per capita are country-level variables with only two observations and are perfectly correlated, we did not include them in this table. The correlations among the presented variables are fairly low, thus ruling out concerns about a multicollinearity problem in further regression analyses. Nevertheless, we investigate a potential multicollinearity problem with more advanced statistics, such as the variance inflation index (VIF) (Hair et al., 1998:191). As the VIF values are all

substantially below the cutoff threshold of 10 (the highest value is 2.165) (Hair et al., 1998:193), the problematic existence of multicollinearity can be ruled out.

Table 4 summarizes the regression analyses of the four model specifications: Model 1 examines country effect; Model 2 industry effect; Model 3 firm-level effect; and Model 4 includes all three levels of the independent variables.

Model 1 can be viewed as a "random effect" model in the sense that we are interested in the effect of "country," representing any number of variables associated with CSR. In

TABLE 4
Results of the Regression Models on the Firms' CSR Communications Intensity

Model specifications			Model 1 (Country)		Model 2 (Industry)		Model 3 (Firm)		Model 4 (Full)	
Description			Coeff.	t-stat.	Coeff.	t-stat.	Coeff.	t-stat.	Coeff.	t-stat.
(Constant)			9.90**	9.95	3.40*	2.14	4.20*	2.29	7.73**	4.09
Governance Environment Index	H1								.96**	4.45
Country ID ^a			-3.48**	-2.51						
Manufacturing ID ^b	H2								2.67*	2.23
Banking and insurance					2.87	1.50				
Capital goods					5.10**	2.52				
Chemicals					12.60**	5.09				
Consumer goods					5.77*	2.22				
Technology					7.60**	3.07				
Others (baseline)					–					
Percentage of external directors on the board	H3a						.05*	2.00	.06**	2.50
CEO duality	H3b						-1.02	-.75	-2.57*	-2.05
Sales in bn. US\$	H4						.14**	3.17	.15**	3.92
R-square (%)			8.70		33.80		20.70		44.80	
Adjusted R-square (%)			7.3		28.40		16.80		40.10	
F-statistics			6.28**		6.324**		5.303**		9.569**	
N			68		68		65		65	

^aCountry ID: China = 1, India = 0.

^bManufacturing ID: manufacturing industry = 1, non-manufacturing industry = 0.

*p < .05 (one-tailed); **p < .01 (one-tailed).

other words, we are interested in the extent to which the random factor – country – accounts for the variance in the dependent variable – a firm's CSR communications intensity – across countries. As can be seen in Column 1, the country dummy variable is highly significant, suggesting a strong country-level effect. The model shows that by controlling the country's random effect, 7.3 per cent of the variation in CSR for Chinese and Indian firms can be explained. Being in China substantially reduces the firms' CSR communications intensity (–3.48, $t = -2.51$, $p < .01$). This further confirms what we found in Table 2, i.e., at the country level Indian firms have a higher CSR communications intensity as compared with Chinese firms.

Model 2 estimates the “random effect” of industry on a firm's CSR communications intensity. The adjusted r-square of the model is 28.4 per cent. The industry classification by itself can explain a good portion of the variation in CSR intensity between the two countries. Knowing in which industry a firm operates, in either China or India, will provide information as to its propensity to communicate its CSR activities. Model 2 shows that companies in the capital goods (*Cap Goods*, $t = 2.52$, $p < .01$), chemical (*Chemical*, $t = 12.60$, $p < .01$), technology (*Technology*, $t = 7.60$, $p < .01$), and consumer goods (*Cons_Goods*, $t = 2.22$, $p < .05$) related industries firms have a higher CSR communications intensity.

Model 3, the firm-level “fixed-effect” model, shows that companies that are larger in size, measured by total sales (*Sales*, $t = 3.17$, $p < .01$), as well as those that have a higher percentage of outside directors (*Perc_external*, $t = 2.00$, $p < .05$), have a higher CSR communications intensity. However, CEO duality is not significant. The explanatory power of Model 3 is 16.8 per cent, which is lower than that of the industry-level model.

Model 4 takes into account all three levels of the independent variables: country, industry, and firm. The overall explanatory power of the model is improved substantially over the previous models, with an adjusted r-square of 40.1 per cent. The GEI (the key country-level explanatory variable) is both significant and positive in explaining a firm's CSR communications intensity, strongly supporting H1 (*GEI*, $t = 4.45$, $p < .01$). Examining the roles of the corporate governance variables – CEO duality and the proportion of outside board members – we find that both variables demonstrate the expected relationships with the dependent variable, as conjectured in our hypotheses, lending support to H3a (*Perc_external*, $t = 2.00$, $p < .05$ for the individual model; $t = 2.50$, $p < .01$ for the full model) and H3b (*Duality*, $t = -2.05$, $p < .05$ for the full model). Model (4) also shows that being in the manufacturing sector makes a firm communicate more CSR, which supports H2 (*Manufacturing_ID*, $t = 2.23$, $p < .05$ for the full model). Finally, the total sales

volume of a firm shows a highly significant positive relationship with its CSR communications intensity; therefore, H4 is supported (*Sales*, $t = 3.17$, $p < .01$ for the individual model; $t = 3.92$, $p < .01$ for the full model).

CONCLUDING REMARKS

At the Symposium on Corporate Governance organized by this journal for this special issue, Minxin Pei, in his keynote speech, challenged the participants to address whether in general firms can uphold high corporate governance standards when the public governance in their country is rampanly corrupt (Pei, 2008). Case studies (e.g., Li, 2004) and evidence from media reports (Google, 2009), such as the reports of consistently producing and adding lethal chemicals into food products on a large scale over many years by some of the largest state-controlled firms in China, seem to suggest that the answer is no. In general, firms cannot uphold high socially responsible standards in an environment where the government lacks checks and balances and official corruption is high. However, in order to more rigorously address this issue, statistical tests using quantitative data are needed.

Our study is one of the first to put this conjecture to a statistical test. We show that at the national level, the governance environment (the political, economic, and cultural institutions that facilitate or constrain a firm's governance behavior) dominates the national income level (which is also an important factor) in determining the adoption of CSR communications by firms. More specifically, we adopt a newly developed framework which differentiates between rule-based and relation-based governance to predict CSR communications intensities, using data from China and India. China, despite its much higher level of economic development, generally has lower CSR communications as compared to India because India is more rule-based relative to China.

The main theoretical contribution of our study is to bring a three-level perspective, relying not only on firm- and industry-specific factors, but also on the governance environment, to the study of firms' CSR behavior. We demonstrate that the macro institutional environment in a country strongly affects firm CSR behavior. Our study fills a gap in the established theories on firm CSR behavior, which have primarily focused on firm-related factors, such as the stakeholders and internal governance.

We further show that industry also matters when it comes to CSR communications, thus confirming previous studies (Chen & Bouvain, 2008). We demonstrate that companies in the manufacturing sector, which face more environmental, labor, and social issues, are more likely to address CSR issues in their corporate communications than companies in the services industries, such as telecommunications or banking.

Our models demonstrate that firm-level variables are important to explain CSR communications intensity, supporting earlier research (e.g., Jamali et al., 2008). Knowing a firm's size and its corporate governance (CEO duality and an external board of directors) provides useful information to predict a firm's use of CSR communications. More specifi-

cally, our results show that all firm-level factors, including CEO duality, board composition, and firm size, influence the degree to which a firm engages and communicates CSR. An important message from our study is that a better internal corporate governance environment facilitates a higher level of CSR communications.

Our findings on the role of the governance environment on CSR suggest that governments in general, or governmental officials specifically, wishing to improve their companies' CSR must realize that in addition to pushing individual firms to adopt higher CSR standards, making improvements to the business environment, especially the governance environment, is a necessary condition to raising the CSR communications level in their country. More specifically, in order to raise the overall CSR standards, governments in relation-based societies should facilitate the transformation toward a more rule-based governance. In its effort to improve the corporate image of Chinese firms, the Chinese government must consider improving its own institutions, rule of law, and governance environment, in addition to monitoring business firms more intensively.

Our study also offers strategic insights for MNCs, especially those in more rule-based societies such as Western Europe or North America, to understand CSR issues in more relation-based countries such as China and India (although India is more rule-based relative to China, it is still very much a relation-based country). First, when a rule-based MNC sets up operations in a relation-based country, it may be difficult for it to uphold its CSR standards in the host country due to the macro institutional environment that does not favor or facilitate a high level of CSR practices. Similarly, a rule-based MNC doing business in a relation-based country may find that it is difficult to require its local partner to adopt as high CSR standards as rule-based MNCs. On the other hand, a relation-based firm entering a rule-based market may find it difficult to meet the latter's CSR requirements. An understanding of the frictions between rule-based and relation-based countries in terms of CSR levels and expectations will help firms navigate across countries and minimize unnecessary negative public images and unrealistic expectations in relation to CSR. More importantly, our study may help MNC executives better understand the roles of the macro governance environment in shaping corporate policy and behavior in CSR.

For the international community that is very much concerned about the health and safety issues related to imports from countries with low CSR standards such as China (and India to a lesser extent), our study will contribute to their understanding of the issue from the perspective of the governance environment. Although the international community wants Chinese firms (or Indian firms) to rapidly improve their product safety, such wishes may not be realized in the short term. In general, the governance environment evolves slowly. If the governance environment is indeed a major factor that shapes how firms establish their CSR policies in a country (as we believe it is), we should not expect drastic changes in CSR orientation in either China or India (especially China) in the very near future.

If we further examine the dimensions of the governance environment, we find two types of institutional constraints:

formal institutional constraints, such as laws, regulations, and state policies; and informal institutional constraints, such as culture and social trust. According to institutional theory, formal institutional constraints can be changed relatively quickly by the state, whereas informal constraints, such as culture and social institutions, change more slowly (North, 1990). In this regard, it is reasonable to expect that the Chinese and Indian governments may use their legislative power and enforcement capability to actively effect change and promote CSR, but initially this change will be limited to the formal institutions. More research is needed on the relative roles of formal and informal institutions in the development of CSR.

For CSR researchers, our study emphasizes that firms' CSR behavior should be studied at multiple levels because it is shaped collectively by country-level, industry-level, and firm-level factors. The interplay between public governance (the governance environment) and corporate governance (such as CSR) has not been well studied. Although most studies on this interplay focus on how the national governance environment affects corporate governance, few studies examine how the latter affects the former. For example, we should study how the collective effect of corporate governance by all firms in a society affects the overall state of governance (the governance environment) in a country. The results of such studies may provide guidance for firms for-

mulating their CSR practices in the hopes of improving the general governance environment in a country.

Our study opens new opportunities for CSR research. For example, studies examining CSR over time will be able to differentiate the relative impact of country factors in developing CSR across countries. In transitional economies such as China, where the speed of change in the governance environment is relatively high (as compared to that in India), the rate of CSR implementation may proceed at a faster pace as well. However, this needs to be formally tested. Instead of looking at large firms, further studies should look at medium-size and small companies in these countries and assess their similarities and differences in terms of CSR communications and activities. The relationship between CSR communications and CSR activities should be further studied as well. Finally, future research could examine other emerging markets firms on a comparative basis. Hence, replication of our study in other regions and/or over a larger number of countries and over time is encouraged.

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APPENDIX

CATEGORIES OF CONTENT ANALYSIS

Motivating Principles for CSR

Value-driven CSR	CSR is presented as being part of the company's culture, or as an expression of its core values.
Performance-driven CSR	CSR is introduced as a part of the firm's economic mission, as an instrument to improve its financial performance and competitive posture.
Stakeholder-driven CSR	CSR is presented as a response to the pressures and scrutiny of one or more stakeholder groups.

Processes of CSR

Philanthropic programs	The company presents a formalized philanthropy program made with a clear mission and application procedures to allocate donations and grants.
Sponsorships	The company introduces sponsorships as a type of responsibility initiative aimed at providing assistance, either financial or in-kind, to a cause or charity.
Volunteerism	The company presents programs that allow employees to work for a good cause during paid working hours.
Code of ethics	The company discusses the content and/or implementation of a code of ethics or conduct.
Quality programs	The company describes a formal product/service quality program as a form of responsibility initiative.
Health and safety programs	The company introduces formal health and safety programs aimed at one or more stakeholder groups as a form of responsibility initiative.
Management of environmental impacts	The company discusses activities aimed at diminishing the negative impact of productive activities on the natural environment.

APPENDIX *Continued*

CATEGORIES OF CONTENT ANALYSIS

Stakeholder issues		
Community Stakeholders	Arts and culture	The company discusses its support of organizations, activities, actors, and objects linked to the arts or the national culture.
	Education	The company presents its support of activities aimed at improving educational opportunities and the quality of education received by populations outside of the firm.
	Quality of life	The company expresses its dedication to improving the quality of life and the well-being of the communities in which the firm operates, or the society as a whole.
	Safety	The company displays concern for the safety of the persons in the communities surrounding its productive operations.
	Protection of the environment	The company shows concern for the preservation of the natural environment, either in general or in the communities where the firm operates.
Customer Stakeholders	Quality	The company presents achievement of high product/service quality as a part of its commitment to social responsibility.
	Safety	The company displays concern for the safety of its customers in relation to its production activities or products/services.
Employee Stakeholders	Equal opportunity	The company expresses its commitment to giving the same recruitment and promotion chances to all employees regardless of race, gender, age, or disability.
	Health and safety	The company expresses its concern for protecting the safety of employees in the workplace as well as for the level of their overall health.
Shareholders		The company expresses its commitment to the involvement of stakeholders in corporate governance and/or support for providing stakeholders with proper information.
Suppliers		The company expresses its dedication to giving equal opportunities to suppliers in terms of gender, race, and size and/or assuring suppliers' safety.

REFERENCES

- Adams, C., Hill, W., & Roberts, C. 1998. Corporate social reporting practices in Western Europe: Legitimizing corporate behavior? *British Accounting Review*, 30(1): 1–21.
- Aguilera, R. V., Williams, C. A., Conley, J. M., & Rupp, D. E. 2006. Corporate governance and social responsibility: A comparative analysis of the UK and the US. *Corporate Governance: An International Review*, 14: 147–158.
- Arora, B. & Puranik, R. 2004. A review of corporate social responsibility in India. *Development*, 47(3): 93–100.
- Baskin, J. 2006. *Value, values, and sustainability: Corporate responsibility in emerging market companies*. Working Paper, Cambridge Program for Industry, Cambridge.
- Baughn, C., Bodie, N., & McIntosh, J. 2007. Corporate social and environmental responsibility in Asian countries and other geographical regions. *Corporate Social Responsibility and Environmental Management*, 14: 189–205.
- Bennett, R. 1998. Corporate philanthropy in France, Germany, and the UK: International comparisons of commercial orientation towards company giving in European nations. *International Marketing Review*, 15: 458–475.
- Bertelsmann Foundation. 2007. *The CSR navigator: Public policies in Africa, the Americas, Asia, and Europe*. Gütersloh: The Bertelsmann Foundation.
- Birch, D. & Moon, J. 2004. Corporate social responsibility in Asia. *Journal of Corporate Citizenship*, 13: 18–23.
- Black, L. & Härtel, C. 2004. The five capabilities of socially responsible companies. *Journal of Public Affairs*, 4(2): 125–144.
- Bogdanich, W. 2008. Heparin is now suspected in 62 fatalities across US. *New York Times*, April 10, Available from URL: <http://www.nytimes.com/2008/04/10/health/policy/10heparin.html> (accessed May 11, 2008).
- Bondy, K., Matten, D., & Moon, J. 2004. The adoption of voluntary codes of conduct in MNCs: A three-country comparative study. *Business and Society Review*, 109: 449–477.
- Bondy, K., Matten, D., & Moon, J. 2008. Multinational corporation codes of conduct: Governance tools for corporate social responsibility? *Corporate Governance: An International Review*, 16: 294–311.
- Branco, M. C. & Rodrigues, L. 2006. Corporate social responsibility and resource-based perspectives. *Journal of Business Ethics*, 69: 111–132.
- Business Standard. 2008. *US FDA to set up Indian offices by '09, July 20*, Available from URL: <http://www.business-standard.com/india/storypage.php?autono=329137> (accessed January 5, 2009).
- Campbell, J. L. 2007. Why would corporations behave in socially responsible ways? An institutional theory of corporate social responsibility. *Academy of Management Review*, 32: 946–967.

- Cappellin, P. & Giuliani, G. 2004. The political economy of corporate responsibility in Brazil: Social and environmental dimensions. *Programme Paper on Technology, Business, and Society*, No. 14, United Nations Research Institute for Social Development.
- Center for Statistical Computing Support. 2008. *Multicollinearity in logistic regression*, University of Kentucky. Available from URL: <http://www.uky.edu/ComputingCenter/SSTARS/MulticollinearityinLogisticRegression.htm> (accessed May 17, 2008).
- Chahal, H. & Sharma, R. D. 2006. Implications of corporate social responsibility on marketing performance: A conceptual framework. *Journal of Services Research*, 6: 205–216.
- Chapple, W. & Moon, J. 2005. Corporate social responsibility (CSR) in Asia: A seven-country study of CSR Web site reporting. *Business and Society*, 44: 415–441.
- Chen, C. J. P. & Jaggi, B. 2000. Association between independent non-executive directors, family control and financial disclosures in Hong Kong. *Journal of Accounting and Public Policy*, 19: 285–310.
- Chen, S. & Bouvain, P. 2008. Is corporate responsibility converging? A comparison of corporate responsibility reporting in USA, UK, Australia, and Germany. *Journal of Business Ethics*, 87: 299–317.
- Clarkson, M. 1995. A stakeholder framework for analyzing and evaluating corporate social performance. *Academy of Management Review*, 20: 92–117.
- Cooke, T. E. 1992. The impact of size, stock market, and industry type on disclosure in the annual reports of Japanese listed corporations. *Accounting and Business Research*, 22: 229–237.
- CSRC (China Securities Regulatory Commission). 2001. *Code of corporate governance for listed companies in China, January 7*. Available from URL: http://www.ecgi.org/codes/documents/code_en.pdf (accessed December 12, 2007).
- Das Gupta, A. 2007. Social responsibility in India towards global compact approach. *International Journal of Social Economics*, 34: 637–636.
- Donaldson, L. & Preston, L. 1995. The stakeholder theory of the corporation: Concepts, evidence, and implications. *Academy of Management Review*, 20: 65–91.
- Economist. 2005. The good company: A survey of corporate social responsibility. January 22, 374(8410): 3–4.
- Esrock, S. & Leichty, G. 1998. Social responsibility and corporate web pages: Self-presentation or agenda-setting? *Public Relations Review*, 24: 305–319.
- Esrock, S. & Leichty, G. 2000. Organization of corporate web pages: Publics and functions. *Public Relations Review*, 26: 327–343.
- Ewing, M. & Windisch, L. 2007. *Contemporary corporate social responsibility in China: An extension of Confucian philosophy?* Discussion Paper No. 44, Monash University.
- Fama, E. F. & Jensen, M. C. 1983. Separation of ownership and control. *Journal of Law and Economics*, 26: 2301–2326.
- FDA (Food and Drug Administration). 2008. *OASIS refusals by country of manufacturer's for October 2008*. Available from URL: http://www.fda.gov/ora/oasis/10/ora_oasis_cntry_1st.html (accessed January 5, 2009).
- Firth, M. A. 1979. The effect of size, stock market listings, and auditors on voluntary disclosure in corporate annual reports. *Accounting and Business Research*, 9: 273–280.
- Forbes. 2007. *The world's 2,000 largest public companies, March 29*. Available from URL: http://www.forbes.com/2007/03/29/forbes-global-2000-biz-07forbes2000-cz_sd_0329global_land.html (accessed late 2007 to May 11, 2008).
- Gerson, B. 2007. CSR best practices. *China Business Review*, 34(3): 20–5.
- Global Information, Inc. 2006. *Targeting profitable consumer trends in Brazil, Russia, India, and China, December*. Available from URL: <http://www.the-infoshop.com/study/dc47949-targeting.html> (accessed May 11, 2008).
- Google. 2009. *A search of 中国人化学知识 (Chinese people's knowledge of chemistry)*. Available from URL: <http://www.google.com/search?sourceid=navclient&ie=UTF-8&rls=HPIA,HPIA:2005-42,HPIA:en&q=%e4%b8%ad%e5%9b%bd%e4%ba%e5%8c%96%e5%ad%a6%e7%9f%a5%e8%af%86> (accessed January 5, 2009).
- Gul, F. A. & Leung, S. 2004. Board leadership, outside directors' expertise and voluntary corporate disclosures. *Journal of Accounting and Public Policy*, 23: 351–379.
- Hair, J., Anderson, R., Tatham, R., & Black, W. 1998. *Multivariate Data analysis*, 5th edn. Upper Saddle River, NJ: Prentice Hall.
- Hart, S. 1995. A natural-resource-based view of the firm. *Academy of Management Review*, 20: 986–1014.
- Hitt, M., Ireland, R., & Hoskisson, R. 2005. *Strategic Management: Competitiveness and Globalization*. Mason, OH: Thomson South-Western.
- Hooghiemstra, R. 2000. Corporate communication and impression management: New perspectives why companies engage in corporate social reporting. *Journal of Business Ethics*, 27: 55–68.
- Husted, B. & Allen, D. 2006. Corporate social responsibility in the multinational enterprise: Strategic and institutional approaches. *Journal of International Business Studies*, 37: 838–849.
- IIC (India International Center). 1966. *Social responsibilities of business*. New Delhi: India International Center.
- Jamali, D., Safieddine, A. M., & Rabbath, M. 2008. Corporate governance and corporate social responsibility synergies and inter-relationships. *Corporate Governance: An International Review*, 16: 443–459.
- Jenkins, H. 2004. A critique of conventional CSR theory: An SME perspective. *Journal of General Management*, 29(4): 37–57.
- Karmayog. 2009. *CSR rating of 756 Indian companies*. Available from URL: <http://www.karmayog.org/csr/> (accessed January 6, 2009).
- Kimber, D. & Lipton, P. 2005. Corporate governance and business ethics in the Asia-Pacific region. *Business and Society*, 44: 178–210.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. 1998. Law and finance. *Journal of Political Economy*, 106: 1113–1155.
- Lattemann, C., Schneider, A. M., & Kupke, S. 2007. Corporate social responsibility and the capabilities based view: A case study of a multinational enterprise (MNE). *Revue de l'Organisation Responsable*, 2(3): 18–29.
- Li, S. 2004. Why is property right protection lacking in China? An institutional explanation. *California Management Review*, 46(3): 100–115.
- Li, S. & Filer, L. 2007. The effects of the governance environment on the choice of investment mode and the strategic implications. *Journal of World Business*, 42(1): 80–98.
- Li, S. & Nair, A. 2007. A comparative study of the economic reforms in China and India: What can we learn? *Global Economic Review*, 36(2): 147–166.
- Li, S., Park, S. H., & Li, S. 2004. The great leap forward: The transition from relation-based governance to rule-based governance. *Organizational Dynamics*, 33(1): 63–78.
- Lichtenstein, D. R., Drumwright, M. E., & Braig, B. M. 2004. The effect of corporate social responsibility on customer donations to corporate-supported nonprofits. *Journal of Marketing*, 68(4): 16–32.
- Logsdon, J. & Wood, D. 2005. Global business citizenship and voluntary codes of ethical conduct. *Journal of Business Ethics*, 59: 55–67.
- McWilliams, A., Siegel, D., & Wright, P. 2006. Corporate social responsibility: Strategic implications. *Journal of Management Studies*, 43(1): 1–18.
- Maignan, I. & Ralston, D. 2002. Corporate social responsibility in Europe and the US: Insights from businesses self-presentations. *Journal of International Business Studies*, 33: 497–514.

- Margolis, J., Elfenbein, H., & Walsh, J. 2007. *Does it pay to be good? A meta-analysis and redirection of research on the relationship between corporate social and financial performance*. Working Paper.
- Marlin, A. & Marlin, T. J. 2003. A brief history of social reporting. *Business Respect*, 51: March 9. Available from URL: http://www.mallenbaker.net/csr/CSRfiles/page.php?Story_ID=857 (accessed May 11, 2008).
- Martin, A. & Palmer, G. 2007. China not sole source of dubious food. *New York Times*, July 12.
- Matten, D. and Moon, J. 2004. "Implicit" and "explicit" CSR: A conceptual framework for understanding CSR. In A. Habisch, J. Jonker, M. Wegner, & R. Schmidpeter (Eds.), *CSR across Europe*: 335–56. Berlin: Springer.
- Mohan, A. 2001. Corporate citizenship: Perspectives from India. *Journal of Corporate Citizenship*, 2: 107–117.
- National Geographic Special. 2008. *Illicit: The dark trade (DVD)*. Washington: Nat'l Geographic Vid.
- Nikkel, M. 1995. Note: "Chinese characteristics" in corporate clothing: Questions of fiduciary duty in China's company law. *Minnesota Law Review*, 80: 503–542.
- North, D. 1990. *Institutions, institutional change, and economic performance*. Cambridge: Cambridge University Press.
- Pei, M. 2008. *Public governance and corporate governance in China*. Keynote speech delivered at the Symposium on Corporate Governance, sponsored by Old Dominion University and Wiley and Blackwell. Virginia Beach, VA, October 25.
- PIC (Partners in Change). 2003. *Third report on corporate involvement in social development in India*. New Delhi: Partners in Change.
- Platteau, J. 1994. Behind the market stage where real societies exist – Parts I and II: The role of moral norms and the role of public and private order. *Journal of Development Studies*, 30: 533–77 and 30(4): 753–817.
- Porter, M. E. 1990. *Competitive advantage of nations*. New York: Free Press.
- Porter, M. E. & Kramer, M. R. 2006. Strategy and society: The link between competitive advantage and corporate social responsibility. *Harvard Business Review*, 84(12): 78–92.
- Qu, R. 2007. Effects of government regulations, market orientation and ownership structure on corporate social responsibility in China: An empirical study. *International Journal of Management*, 24: 582–591.
- Reuters. 2007. *Company search*. Available at: <http://www.reuters.com/finance/stocks/stocks> (accessed May 15, 2007).
- Ringov, D. & Zollo, M. 2007. The impact of national culture on corporate social performance. *Corporate Governance*, 7: 476–485.
- Roper, J. & Weymes, E. 2007. Reinstating the collective: A Confucian approach to well-being and social capital development in a globalized economy. *Journal of Corporate Citizenship*, 26: 135–144.
- Sagar, P. & Singla, A. 2004. Trust and corporate social responsibility: Lessons from India. *Journal of Communication Management*, 8: 282–290.
- Scott, W. R. 1999. *Institutions and organizations*. Thousand Oaks, CA: Sage Publications.
- Sen, A. 1999. *Development as freedom*. New York: Anchor Books.
- Sen, S. & Bhattacharya, C. B. 2001. Does doing good always lead to doing better? Consumer reactions to corporate social responsibility. *Journal of Marketing Research*, 38: 225–243.
- Sharma, S. & Vredenburg, H. 1998. Proactive corporate environmental strategy and the development of competitively valuable organizational capabilities. *Strategic Management Journal*, 19: 729–753.
- SHRM (Society for Human Resource Management). 2007. *2007 corporate social responsibility: United States, Australia, India, China, Canada, Mexico, and Brazil: A pilot study*. Virginia: SHRM.
- Smith, N. C. 2003. Corporate social responsibility: Whether or how? *California Management Review*, 45(4): 52–76.
- Staples, C. 2004. What does corporate social responsibility mean for charitable fundraising in the UK? *International Journal of Non-profit and Voluntary Sector Marketing*, 9(2): 154–158.
- Su, C., Mitchell, R., & Sirgy, M. J. 2007. Enabling guanxi management in China: A hierarchical stakeholder model of effective guanxi. *Journal of Business Ethics*, 71: 301–319.
- SustainAbility. 2005. *India: Ancient civilization, largest democracy*. London: SustainAbility Ltd.
- Swanson, D. 1995. Addressing a theoretical problem by reorienting the corporate social performance model. *Academy of Management Review*, 20: 43–64.
- Turban, D. & Greening, D. 1997. Corporate social performance and organizational attractiveness to prospective employees. *Academy of Management Journal*, 40: 658–672.
- United Nations. 2008. *GDP per capita, current international dollars (PPPs)*. Available from URL: <http://data.un.org/Data.aspx?q=GDP+per+capita&d=CDB&f=srID%3a29922> (accessed May 10, 2008).
- US Customs and Border Protection. 2009. *Intellectual property rights seizure statistics: FY 2008*. Washington, DC: US Customs and Border Protection.
- USA Today. 2008. *FDA will open inspection office in China this year*, October 16. Available from URL: http://www.usatoday.com/money/industries/food/2008-10-16-FDA-china_N.htm (accessed January 5, 2009).
- Visser, W. 2008. Corporate social responsibility in developing countries. In A. Crane, A. McWilliams, D. Matten, J. Moon, & D. Siegel (Eds.), *The oxford handbook of corporate social responsibility*: 473–79. Oxford: Oxford University Press.
- Welford, R. 2004. Corporate social responsibility in Europe and Asia: Critical elements and best practice. *Journal of Corporate Citizenship*, 13: 31–47.
- WHO (World Health Organization). 2009. *Melamine-contamination event*. Available from URL: http://www.who.int/foodsafety/fs_management/infosan_events/en/index.html (accessed January 5, 2009).
- Xiao, H. & Yuan, J. 2007. Ownership structure, board composition and corporate voluntary disclosure: Evidence from listed companies in China. *Managerial Auditing Journal*, 22: 604–619.
- Zheng, Y. & Chen, M. 2006. *China moves to enhance corporate social responsibility in multinational companies*. Briefing Series 11. Nottingham, UK: China Policy Institute, University of Nottingham.

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