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# Diffusion of CSR in Global Business Networks: An Embeddedness Perspective

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**DIFFUSION OF CSR IN GLOBAL BUSINESS NETWORKS:  
AN EMBEDDEDNESS PERSPECTIVE**

by

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## **DEDICATION**

To Pete, Antonio, Stefania and Gaia.

## ABSTRACT

This dissertation examines the role of firm embeddedness in its global business network with regards to the adoption of Corporate Social Responsibility (CSR) practices. Global business networks refer to the nexus of inter-firm and intra-firm relationships, in which focal actors are engaged. These networks are focal firm specific, span multiple countries and involve different types of economic relationships between the focal actor and its business partners. This study argues that global business networks affect a focal organization's CSR adoption decisions, since they provide access to resources and information and also channel CSR-related institutional influences from the various countries where the focal firm's business partners are located.

The firm is exposed to a multiplicity of institutional forces concerning CSR because of its ties to business partners located in countries with varying CSR institutional requirements. Therefore, how should the firm prioritize these influences? In order to answer this question, this dissertation considers two aspects of the environment in which the firm operates, namely its institutional and its economic embeddedness in the global business network. In the context of this study, institutional embeddedness refers to the CSR-related norms rules, beliefs and the uniformity (or lack thereof) of these. Economic embeddedness is defined as the type and quantity of economic resources that flow

through a network and determine the degree of dependence of the focal firm on a specific business partner. A firm's institutional and economic embeddedness are considered jointly because economic ties channel the institutional forces that are present within the global business networks. Based on their strength and nature they also contribute to shaping the intensity with which these forces are experienced by the focal actors. Therefore, an actor's economic and institutional embeddedness represent the building blocks of the main constructs of interest of this study. These capture the strength of the institutional requirements concerning CSR within the global business network, their heterogeneity, and whether the firm operates in contexts with more stringent requirements for CSR than those of its home country. Results indicate that these factors are all important drivers of a firm's decision to adopt CSR practices. They also show that a focal firm's foreign direct investment- (FDI-) based relationships are more effective channels for the diffusion of institutional influences than trade-based relationships.

This dissertation makes several theoretical contributions. First, it contributes to the international business research area by expanding the conceptualization of the global space where MNCs operate. This has traditionally been analyzed in terms of its intra-firm network (Ghoshal & Bartlett, 1990). This work extends the conceptualization of this space to also include the organization's inter-firm ties. It also contributes to the emergent interest among international business scholars for considering both the "constraining" and "enabling" effects of institutional forces (e.g., Kostova, Roth & Dacin, 2008; Saka-Helmhout & Geppert, 2011). In addition, the dissertation contributes to organizational theory by narrowing the existing gap between institutional and network perspectives about organizational behavior, by making explicit the role that networks play as conduits

for the diffusion of institutional practices (Owen-Smith & Powell, 2008). The second contribution to organizational theory focuses on the embeddedness research area, by answering recent calls to focus not only on the structure of network ties, but also on their content, which are here explored in terms of the firm's institutional and economic embeddedness. This work also provides a nuanced investigation of the firm's embeddedness, by measuring and modeling the intensity and types of economic exchanges between the focal firm and its business partners as constitutive elements of the intensity with which the focal actor perceives these institutional influences that emerge from the global business network. This dissertation also contributes to CSR research by expanding the analytical focus in order to make sense of the firm's CSR adoption decisions beyond the traditional firm and national boundaries and to also consider the complex composite of institutional forces that emerge from firm's embeddedness in the global business network.

To conduct the study, longitudinal data was collected from a diverse range of sources. The sampling history extends from 2007 to 2011, and the number of sampled corporations is 710. The sample in this study consists of publicly traded U.S. firms listed on the Russell 3000 index, which includes the largest U.S. multinationals in terms of market capitalization, with matching information from the Kinder, Lydenberg and Domani (KLD), Port Import Export Report Service (PIERS), Corporate Affiliations and Compustat databases.

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## CHAPTER 1

### INTRODUCTION

Increasingly, business organizations whether domestic companies or multinational corporations (MNCs), are expected to demonstrate social responsibility, transparency, and accountability in their operations to their global customers and other stakeholders (Levy & Kaplan, 2008). This trend dates back to the early 1990s (World Bank, 2002, 2003) when a number of MNCs began addressing social and environmental conditions in their global business networks, by developing codes of conduct that stipulate social, environmental, and ethical requirements for their suppliers (Locke & Romis, 2007). Since then, firms' global networks of trade- and FDI-based relationships (i.e., their global business networks) have increasingly been regarded as important channels for stimulating the improvement of local suppliers' social, environmental and ethical performance (e.g., Locke, Amengual, & Mangla, 2009). The concept of global business network is akin to that of "global supply chain" (Ernst & Kim, 2002) or "global production network" (Levy, 2008), and refers to a firm's multi-country nexus of foreign direct investment- (FDI-) and trade-based exchange relationships.

While there is growing anecdotal evidence of the global diffusion of CSR-related practices in general (e.g., Levy & Kaplan, 2008), there is only limited systematic theorizing on this process (e.g. Guler, Guillén & Muir Macpherson, 1999). Furthermore, there is little research on the diffusion of CSR practices within a firm’s global business network. Only a handful of studies have focused on this context. This suggests that certain characteristics of the economic networks in which the firm operates, such as asset specificity, trust among network participants, and presence of socially responsible lead multinational buyers, can be critical drivers in a firms’ decision to become more socially responsible (see Locke & Romis, 2007; McKinsey, 2006, 2008). Nonetheless, scholars have developed incomplete understandings of the drivers and barriers to CSR adoption that firms might face within their global business networks. The objective of this dissertation is to add to this line of research by providing an in-depth theoretical and empirical examination of this phenomenon.

### **1.1 Research question**

I am particularly interested in understanding the role of firm embeddedness in its global business network, with regards to the decision to adopt CSR practices. CSR practices include a broad range of actions “within the firm, such as changing methods of production to reduce environmental impact or changing labor relationships both within the firm and across the firm’s value chain, as well as actions outside the firm, such as making infrastructure investments in local communities or developing philanthropic community initiatives” (Aguilera, Rupp, Williams & Ganapathi, 2007: 836). For example, these practices can include implementing codes of conduct (Kolk & Van Tulder, 2002a, 2002b; Tulder, Wjk & Kolk, 2009), international standards (e.g., Guler et

al., 2002), such as ISO 9000 or ISO 14000 (Christmann & Taylor, 2006; Delmas, 2002), ethical product and purchasing specifications (Starcher, 2005), stakeholder engagement routines, and philanthropic initiatives (Galaskiewicz, 1991).

As with most organizational practices, CSR is strongly influenced by the institutional environment in which the firm is embedded, including its regulations, social knowledge, and social norms (Busenitz, Gomez & Spencer, 2000; Kostova & Roth, 2002). Further, countries vary in the degree to which their institutional environments enforce or facilitate CSR actions (Williams & Aguilera, 2008). An interesting question related to practice adoption, which has been studied in international management, concerns how firms, and MNCs in particular, respond to the complex institutional effects of doing business in multiple national environments (Kostova, 1999; Kostova & Zaheer, 1999). I build on this research because the global business network context is somewhat similar to the context of the MNC. Both expose firms to influences from multiple countries. For example, while a firm might operate in a home country whose national laws are not favorable for CSR, its top buyer might be embedded in a CSR-oriented environment thus not only engaging in high levels of CSR but also expecting such behaviors from their partners. In such a scenario, the firm is exposed to differing CSR-related logics, which makes the decision to engage in CSR less straightforward. What mechanisms explain which pressures this firm is likely to prioritize then? How does a firm cope with the impediments to “resolve ambiguities and conflicts of what the situation is and what experience is relevant; ... and what the appropriate match and action are?” (March & Olsen, 2004: 7). In this dissertation I begin unpacking the nature of the complex embeddedness experienced by the focal firm in the context of the global

business network. While similar to the context of the MNC, global business networks have one notable theoretical distinction that entities in these networks are related to their partners through both inter- and intra-organizational ties, rather than only intra-organizational ties.

## **1.2 Research framework**

In order to capture the global business network context, I develop a model of CSR adoption under conditions of complex embeddedness, where the firm is responding to multiple and possibly divergent influences from the various institutional contexts that make up its global business network. I propose that an organization facing such complex influences concerning CSR prioritizes some over others (Oliver, 1991), based on the pattern of the relationships within the network (Greenwood, Raynard, Kodeih, Micelotta & Lounsbury, 2011).

I explore two types of firm embeddedness: institutional and economic embeddedness. Institutional embeddedness refers to the institutional content of a firm's global business network, in particular its CSR-related beliefs, norms and rules, and the uniformity (or lack thereof) of these forces among the various institutional contexts that make up the firm's business network. Economic embeddedness captures the intensity of the trade and FDI-based economic relationships in which the focal firm is engaged and make up the global business network (Ghoshal & Bartlett, 1990). Considering both institutional and economic embeddedness facilitates the examination of the combined effects of the multiple institutional environments where a firm does business and the strength of the economic relationships with its business partners. It also allows for exploration of both the "constraining" and "enabling" aspects of the social structure that

surrounds firms within their global business network (Giddens, 1976). As the multiplicity of institutional messages concerning the importance of CSR within the firm's global business network increases, I find that firms become less likely to adopt CSR practices solely because of isomorphic-related reasons, and instead become more likely to rely on an evaluation of the pros and cons associated with adoption. I posit that the complex embeddedness experienced by firms within their global business network stimulates their self-reflexivity, by forcing the firm to reflect upon alternative paths of action before choosing one (Emirbayer & Mische, 1998). This view is consistent with recent advances in institutional theory that point to the ability of organizations to learn by inferring the "potential efficiency benefits for themselves," based on the combined experiences of those actors that have previously adopted a practice (Haunschild & Chandler, 2008: 640). I argue that constraining and enabling institutional pressures can coexist within the same field, and that certain field-level conditions facilitate their emergence and interactive relationship towards a firm's adoption of CSR practices.

In brief, my model suggests that as firms embedded in global business networks face mounting levels of institutional diversity across their various operating contexts, they also face ambiguity concerning what represents appropriate courses of action in terms of CSR practice adoption. In order to operate legitimately, and thus effectively, across these multiple institutional environments that make up the global business network, the firm cannot simply conform to one set of CSR-related expectations and requirements. If it did, it would risk alienating stakeholders in other institutional contexts. Therefore, the firm needs to make sense of this complexity, and develop innovative solutions that would allow it to thrive across the various institutional contexts in which it

operates. As the firm tackles this complex institutional environment and tries to make sense of it and develop an appropriate course of action, it can also learn from the variety of institutional messages from which it is surrounded. In this context, I consider learning as the firm's ability to encode its understanding of the external environment into new CSR-related routines (Levitt & March, 1988). Because of the institutional complexity surrounding the firm, learning opportunities coexist with coercive influences. This is most likely to be the case when the CSR-related messages emerging from within the global business network have a high degree of consistency among them. Such a scenario induces firms to conformity; they no longer prioritize certain pressures over others, as they do when this consistency is lacking.

The presented model of a firm's adoption of CSR practices is aligned with recent developments in institutional theory focusing on the relationships between environmental complexity and the "awareness, skill and reflexivity" of organizations (Lawrence & Suddaby, 2006: 219; see also, Greenwood et al., 2011; Kostova, Roth & Dacin, 2008; Kraatz & Block, 2008). It complements this area of theory by explaining how firms with greater exposure to global markets, through their global business networks, do not seem as constrained by their home country institutional environments in their adoption decisions. Instead, many are able to transcend their home countries' institutional constraints as they adopt practices that are consistent with the requirements of other institutional environments (see Hoskisson et al., 2000). Previously, scholars have postulated that these dynamics are at play in emerging market firms (see Child & Rodrigues, 2005) and multinational corporations (MNCs; see Kostova, Roth & Dacin, 2008).

### 1.3 Contributions to theory

This dissertation aims to make several theoretical contributions. First, it seeks to contribute to the international business research area by expanding the conceptualization of the global space in which MNCs operate; this is traditionally analyzed in terms of its intra-firm network (Ghoshal & Bartlett, 1990). It does so by expanding the analytical focus to the firm's inter-firm relationships, in order to fully capture the institutional forces to which it is exposed. It also seeks to contribute to the emergent interest among international business scholars, considering both the "constraining" and "enabling" effects of institutional forces (e.g., Kostova, Roth & Dacin, 2008; Saka-Helmhout & Geppert, 2011). It does so by studying the concurrent importance of considering both strength and heterogeneity of institutional forces within the firm's global business network, which can exercise separate as well as joint influences on the focal actor's adoption decisions.

In the organizational theory area, the dissertation aims at narrowing the gap between institutional and network perspectives about organizational behavior by making explicit the role that networks play as conduits for the diffusion of institutional practices, as well as the co-constitutive relationship between networks and institutions (Owen-Smith & Powell, 2008). It does so by investigating the diffusion of CSR-related practices through the organizational network ties within global business networks in which firms operate. It also suggests a more encompassing effect of these networks: relational as well as structural characteristics, the quality of the type of economic ties in which the firm is engaged, and their relative importance towards explaining the firm's adoption of CSR-related practices.

The second contribution it attempts to make to organizational theory is in the embeddedness research area. The dissertation answers recent calls to focus not only on the structure of network ties, but also on their content (DiMaggio, 1992; Emirbayer & Goodwin, 1994; Powell & Smith-Doerr, 1994). It does so by considering both the economic and institutional content of networks. This work also responds to calls for greater attention to “the complexity, strength, and intensity of embeddedness” (Dacin et al., 1999: 337) by measuring and modeling the intensity and types of economic exchanges between the focal firm and its business partners.

This dissertation also aims at contributing to the CSR research area. Past research has examined the firm’s CSR adoption decisions as the result of forces located within the traditional firm- and national-level boundaries. This study examines how the complex composite of institutional forces that emerge from the firm’s embeddedness in the global business network can shape decisions related to the adoption of CSR-related practices.

#### **1.4 Managerial implications**

This study has several practical implications. First, it identifies some of the challenges and opportunities associated with making sense of institutional expectations emerging from the firm’s business network. For example, this study suggests that the intensity of the CSR-related institutional requirements, channeled through a firm’s global network of business partners and the institutional heterogeneity among them, can drive the firm’s decision to upgrade its CSR-related practices. However, this study’s findings also show that these two forces can work at cross-purposes when the firm is simultaneously exposed to the highest levels of commitment to CSR and the highest levels of within network heterogeneity of commitment to CSR. In this case, the firm is

less likely to adopt CSR practices. Therefore, conflicting demands from the firm's business network may make it difficult for the firm to correctly assess and internalize the cues it receives from its external environment. Additionally, results suggest that certain relationships tend to play a more influential role in decision-making in the CSR area, regardless of the strength of the overall network pressures or heterogeneity. Results also indicate that individual institutional environments with more stringent CSR-related expectations tend to have significant influence on the focal firm's adoption decisions in the CSR area. Taken together, the results highlight the importance of careful selection of business partners, given their contribution to the firm's ability to absorb and integrate information about specific sets of practices. They also indicate that successful CSR management requires that the firm be concerned with what happens inside its "walls", as well as with the CSR trends that emerge from within its global business network. In addition, the model presented in this work offers a useful set of analytical tools that can be used to gauge the type of strategies and resources that the firm might need to deploy to avoid CSR-related crises from within its global business network.

### **1.5 Organization of the dissertation**

The dissertation consists of six chapters. Following this introduction, the second chapter provides a review of the relevant literatures for the development of the theoretical model presented in chapter three. Chapter four describes the study design and methodology. Chapter five presents empirical results and robustness tests. Finally, chapter six presents the discussion and conclusions, describes more extensively the theoretical and practical implications associated with this research, its limitations, and directions for related future research.

## **CHAPTER 2**

### **LITERATURE REVIEW**

This chapter reviews the relevant literatures for the development of the proposed embeddedness approach to firm's adoption of CSR practices. It starts by reviewing the literature focused on the study of the global diffusion of CSR practices, which provides growing evidence about the importance of global business networks as relevant contexts for this process. These works emphasize the importance of firm characteristics, of the quality of inter- and intra-firm organizational relationships, and of other network characteristics such as asset specificity, power and dependence as important drivers of the adoption of CSR practices by local firms. However, this literature often seems to investigate CSR diffusion processes in a context-free manner, without taking into consideration the complex forces from the wider social context that might contribute to shaping firm's adoption decisions. To address this gap, the presented model also draws on those literatures that have developed useful analytical tools to make sense of the role of context with regards to diffusion processes. Organizational institutionalism and the embeddedness approach in organizational theory offer these conceptual tools and help bringing context into the main analytical framework. Specifically, these literatures help to explain how a manifestation of organizational change (in the case of this study—the

adoption of CSR practices) is shaped by field level forces and their interaction with important organizational filters such as firm's economic dependence on the business partners that make up the global business network. In addition, relevant contributions from the embeddedness research area are reviewed because they have provided some of the essential theoretical tools to conceptualize organizations as entities immersed in networks of institutional forces and economic relationships, which contribute to shaping firm's behavioral outcomes (Emirbayer & Goodwin, 1994).

Because of the global nature of the forces considered in this study to explain firm's decision to adopt CSR practices, the model also draws on a number of theoretical contributions from the field of international business that have provided effective conceptualizations of the global space where multinational actors operate. As it is suggested in the introductory chapter of the dissertation, the case of the global business network is conceptually similar to that of the MNC network. However, it is also different, because traditional conceptualizations of MNC networks include only intra-firm relationship, while the global business network expands the analytical scope to also include inter-firm relationships.

## **2.1 CSR in global business networks**

There is a growing body of evidence concerning the global diffusion of CSR (Levy & Kaplan, 2008). In addition, several practitioners and scholars identify global FDI-based and trade-based networks as important channels through which these practices can spread across countries (e.g., Lund-Thomsen & Nadvi, 2010; Locke & Romis, 2007; Millington, 2008; McKinsey, 2006, 2008, 2009). In parallel, a growing body of research focuses explicitly on the distinctive contribution of foreign multinational buyers to the

diffusion of CSR across global supply chains, especially among local suppliers in developing countries (e.g., Hughes, Wrigley & Buttle, 2008; Jørgensen, Pruzan-Jørgensen, Jungk & Cramer, 2003; Jørgensen & Knudsen, 2006; Palpacuer & Tozanli, 2008; Pietrobelli & Saliola, 2008; Schmitz & Knorrington, 2000; Spencer, 2008; Studer, Tsang, Welford & Hills, 2008). For example, Maignan and McAlister (2003) observe that many global buyers develop programs for training/education of suppliers, monitoring, ratings of suppliers' practices, certifications of individual suppliers by an industry association, labeling schemes (by the buying organization, industry association, and/or government agencies), and various discretionary intercompany initiatives. While some organizations do not engage in any of these activities, more proactive buyers can adopt several of these initiatives simultaneously.

Scholars have paid a great deal of attention to the specific motivations that guide the decision to adopt CSR practices by firms that are embedded in global business networks. For example, Maignan and McAlister (2003) show that global buyers' involvement in these initiatives can be driven by their own corporate values, if they emphasize the importance of CSR; by a legitimacy seeking motive, if their primary stakeholders demand compliance with certain social and environmental standards and can exercise a certain amount of normative and coercive power to this end; and/or by a profit motive, if they believe that there is an opportunity to increase profits by cutting costs (e.g., via process innovation), avoid negative publicity and thus potential consumer boycotts, or increase market share by appealing to more CSR-sensitive markets (Bansal & Roth, 2000; Maignan, Hillebrand & McAlister, 2002). Research in this area has paid special attention to organizations' desire to effectively manage risk as a very important

motivating factor for engaging in CSR. Firms often adopt CSR practices to mitigate the risk of being exposed to the criticisms and concerns from NGOs, the public and customers that might perceive the firm as not being responsible or responsible enough towards its stakeholders (Awaysheh & Klassen, 2010). Others point out that risk management considerations to engage in CSR extend beyond the firm's boundaries, to also include their global business partners. This is because increasingly firms are perceived to be responsible for what happens in their global business networks (McKinsey, 2013). Therefore their engagement in CSR initiatives or their attempts at spreading CSR among their business partners can also be motivated by the desire to mitigate their exposure to legitimacy threats that might emerge from their global business network (Druckman, 2005). Growing anecdotal evidence emphasizes the importance of firms' desire to meet customers' expectations as a key motivating factor for the adoption of CSR practices (e.g., Adriana, 2009; Forbes, 2012).

Scholars have also investigated multinational buyers' contribution to the emergence of the transnational institutional infrastructure concerning CSR in various ways, including their participation in industry-level initiatives aimed at developing coordinated standards-setting bodies and codes (Nadvi, 2008). For instance, the Electronics Industry Code of Conduct (EICC, 2010) is an attempt by the leading brand manufacturers, component producers and contract manufacturers in the computer-related electronics sector to agree on a common code addressing health safety, labor and environmental concerns. Multinational buyers have also played a major role in shaping the global debate surrounding firms' responsibilities about labor standards (e.g., Frenkel, 2001; Mosley, 2010) and climate change mitigation (e.g., Levy & Kolk, 2002). Kolk,

Levy and Pinkse (2008) indicate that by the mid-1990s many American MNCs directed their energies towards contesting international regimes that would cap on greenhouse gas (GHG) emissions through industry groups such as the Global Climate Coalition (GCC) and the Climate Council. These associations played a major role in influencing the United States' decision not to join the Kyoto Protocol (Levy & Egan, 2003). Such efforts were aimed at deterring policies that not only would have increased costs of managing GHG emissions for the focal firms, but also for their suppliers, since these costs would have been passed upstream. In contrast, European corporations were more receptive to climate policy measures and therefore more actively contributed to their institutionalization in the old continent. Wal-Mart offers another example of MNCs' ability to influence suppliers' behaviors around the globe in the area of green management initiatives. Since 2005, the company has been proactively involved in an effort to motivate its suppliers to "race to the top" (Plambeck, 2007) to improve the environmental sustainability of its supply chain. In 2007, Wal-Mart's 60,000 suppliers were asked to use a web-based scorecard that calculates each product's packaging against nine sustainability metrics (Plambeck, 2007). Beginning in 2008, Wal-Mart started to use this system to evaluate suppliers' environmental performance, and thus their ability to contribute to the company's stated goal to reduce the packaging used by all of its suppliers by five percent between 2008 and 2013 (Plambeck, 2007).

All in all, this review of the literature on the global diffusion of CSR shows a growing interest for this topic. The works reviewed in this section explain diffusion of CSR practices based on certain characteristics of buyer-supplier relationships, certain network characteristics such as power, dependence, and organizational drivers such as

firm's exposure to pressures from important stakeholders ranging from customers to the governments and NGOs. However, most of this research fails to properly take into consideration the complex forces from the wider social context in which these firms are embedded. Moreover, scholars are yet to tackle the issue of how pluralistic institutional environments (Kraatz & Block, 2008) might influence the diffusion of CSR practices within global business networks; how managers of firms facing multiple and varying institutional regimes concerning CSR might cope with this complexity in their decision making processes; and which factors might be more likely to shape their decisions in this area.

To develop a model that addresses these gaps, it is useful to turn to those literatures that have focused on the role of context with regards to practice diffusion processes. Diffusion and embeddedness approaches in organizational theory and the field of international business offer such conceptual tools, and are thus reviewed in the remainder of this chapter.

## **2.2 Diffusion research**

The study of the spread of ideas and behaviors falls under the general heading of the diffusion of innovation, which Rogers defined as the process by which innovation is communicated through certain channels among the members of a social system (2005: 3). While scholars trace the origins of diffusion research to Tarde's 1903 book on *The Laws of Imitation*, Ryan and Gross (1943) popularized this approach with their landmark study on the spread of hybrid-corn use among Iowa farmers. Since then, several thousand studies on the diffusion of innovation have appeared (Wejnert, 2002). For Rogers, paradigmatic cases of the diffusion of innovations include attempts by public health

workers to persuade Andean villagers to boil water, and to convince Korean couples to use birth control methods. In organizational sociology, classic diffusion studies include Coleman, Katz and Mentzel's (1966) study of the spread of tetracycline prescription within four physician communities, and Hagerstrand's (1967) investigation of the diffusion of telephone technology across rural Sweden.

Diffusion processes have been discussed across a number of disciplines. In the sociological subfield of organizational studies, Strang (2010) finds that three complementary lines of inquiry shape existing discussions about diffusion, namely social network, managerial cognition, and institutional approaches, briefly reviewed below. In social network analysis, researchers have focused their studies on the impact of strong social ties on the diffusion of innovation (Strang & Soule, 1998), given that frequent interactions allow for effective information exchange about the character, motivations, and effects of diffusing practices. In addition, when strong relationships are generated by similarities among the actors involved, they tend to further reinforce pressures for conformity (Strang & Soule, 1998). For example Morris (1981) shows that strong relationships among black churches, colleges, and movement organizations such as the Southern Christian Leadership Conference facilitated the diffusion of protest tactics in the civil rights movement. However, while strong ties favor socialization, they also tend to channel redundant information (Granovetter, 1973), and thus might slow the emergence of new ideas. For example, Carpenter, Esterling and Lazer's (2003) study of the emergence of innovations within policy networks finds that friends within policy networks share information with friends, before they share it with acquaintances. This social rule is illustrated by a lobbyist quote in Milbrath's classic study: "My contacts trust

me, and I think their trust is well placed. Most of the things they tell me are not of a secret nature; it's just a development that they have discovered which they think I could be interested in. It is very difficult to get information if you go out digging out for it... Actually you get much better information from people who know you, know what your interests are, and know that they can trust you" (1963: 260). Similarly, Friedkin (1982) shows that strong ties are more important for promoting information flows about organizational activities within an organizational subsystem, while weak ties are more important than strong ties in promoting information flows about activities outside an organizational subsystem. In a seminal article about the strength of weak ties, Granovetter (1973) shows that weak ties can perform as powerful channels for new ideas, as the related sources of information tend to have little overlap. Strang and Soule (1998) point to board interlocks as an example of relatively weak interpersonal ties that allow managers to gain a glimpse into what other firms do (Useem, 1984), thereby facilitating the diffusion of information about "high" corporate strategies. Board interlocks, however, do not provide the kind of "mutual socialization" that is produced by "cohesive interpersonal relations" (Strang & Soule, 1998). Burt (1987) identifies structural equivalence within a network as another meaningful channel for the diffusion of innovations. For example, Galaskiewicz and Burt (1991) find that corporate officers had very similar perspectives on local charities. Competing firms tend to be very responsive to each other's efforts at innovation (Strang & Soule, 1998). Relatedly, Osterman (1994) shows that Japanese managerial and production practices diffused more rapidly among firms exposed to external competition. Others have shown that firms tend to imitate other firms in their industry (Fligstein, 1985, 1990), and that states with similar political

systems imitate each other's policies (Zhou, 1993). Adopters of new practices are also influenced by central actors' prestige. For example, Fligstein (1990) posits that managerial styles can flow from central firms to the larger business community as they prove their usefulness in addressing new political and economic challenges.

Perhaps one of the most common findings in diffusion research is that spatial proximity favors diffusion, as it facilitates all kinds of interactions and influence (Strang & Soule, 1998). For example, Knoke (1982) demonstrated positive effects of geographic proximity on municipal reform and Davis and Greve (1997) point to the diffusion of golden parachutes via local business communities. Somewhat related to this stream is the work in economic geography, whose findings also support the notion that geographic proximity with competitors can be beneficial (e.g., Marshall, 1920; Krugman, 1991), as local accumulation of knowledge and trained labor lead to information spillovers. Famous examples include the Silicon Valley, which became the center of the technology industry as a result of tight networks of local firms (Saxenian, 1994); Detroit, Michigan, which became the capital of the auto industry by having fertile early training grounds (see Klepper, 2002); and Akron, Ohio, which produced a successful tire industry (Buenstorf and Klepper, 2005). Other relevant works in this tradition include Herrigel (1996), Locke (1995), McDermott (2002), Piore and Sabel (1984).

### *2.2.1 Organizational institutionalism and diffusion*

Organizational institutionalism (Meyer & Rowan, 1977; DiMaggio & Powell, 1983) makes sense of how organizations are influenced by their environments, broadly interpreted as including a variety of legal and regulatory authorities, belief systems, and taken for granted understandings (Strang, 2010). Its neo-institutional variant draws

heavily on the Carnegie School's work in cognitive psychology (e.g., Simon, 1947; March & Simon, 1958; Cyert & March, 1963), which argued that while actors strive to make rational choices (i.e., fully informed), they often find themselves making decisions with less than complete information. Simon and his colleagues showed how managers' understanding of their organization's external environment is often imprecise. Their understanding of how changes to the external environment might influence their organization can also be incomplete. Ambiguity and uncertainty are typical components of the decision making process, and are particularly common in the interorganizational arena, "inasmuch as the environment is made up of less than fully informed organizations that are making strategic choices in light of the strategic choices of other uninformed organizations" (Galaskiewicz & Wasserman, 1989: 454). Therefore, managers look for direction outside their organization boundaries, trying to model their behaviors upon those organizations they perceive as more successful, or based on societal expectations and/or existing rules and regulations (DiMaggio & Powell, 1983).

From this vantage point, diffusion has a triple significance (Scott, 2008). First, the extent to which a practice is diffused is also an indicator of the growing strength of an institutional structure. From this point of view, studies of institutional diffusion may be regarded as studies of increasing institutionalization. As a process, institutionalization refers to "social patterns that, when reproduced, owe their survival to relatively self-activating social processes" (Jepperson, 1991: 145). Selznick argues that "institutionalization is the emergence of orderly, stable social integrating patterns out of stable, loosely organized, or narrowly technical activities. The underlying reality—the basic source of stability and integration—is the creation of social entanglements or

commitments. Most of what we do in everyday life is mercifully free and reversible. But when actions touch important interests and salient values or when they are embedded in networks of interdependence, options are more limited. Institutionalization constrains conduct in two main ways: by bringing it within a normative order, and by making it hostage to its own history” (1992: 232). For example, Tolbert and Zucker’s (1983) study of the diffusion of municipal civil service reform in the United States at the turn of the century finds that as growing numbers of organizations adopt a program or policy, it becomes “progressively institutionalized, or widely understood to be a necessary component of rationalized organizational structure” (35). They also show that civil service procedures were adopted much more rapidly by cities when the state mandated them and the process of adoption was directed by a single source. Second, studies of diffusion are also studies of “institutional effects”, because early or late adoption is seen as dependent upon the “changing strength of the institutions” and also because of the “varying characteristics of the adopting organization” (Scott, 2008: 132). For example, Mezas (1990) studies the adoption of new procedures for reporting income tax credits by the 200 largest nonfinancial firms in the United States. He finds that a number of organization-level factors influence adoption, including whether the firm is under jurisdiction of the Interstate Commerce Commission. Casile and Davis-Blake (2002) find that business schools located in public universities are more responsive to changes in accreditation standards than those affiliated with private colleges. Also, numerous studies find that size is an important organizational attribute, with larger organizations being more prone to early adoption (e.g., Dobbin et al., 1988). In addition, several studies show that organizations that operate within or are more closely aligned with the public sector

are more likely to be responsive to regulatory and normative pressures (e.g., Dobbin et al., 1988). Third, the diffusion of a new form or practice is also an instance of institutional change, usually convergent change (Greenwood & Hinings, 1996), although in more recent times scholars have turned their attention to forms of divergent or contested institutional change. For example, Kraatz and Zajac (1996) report that the trend among liberal arts colleges toward offering professional programs, an innovation that faced significant opposition among traditional liberal arts colleges, did not seem to fit standard processes of institutionalization. Subsequently, Kraatz and Moore (2002) show that this institutionally contested form of change was facilitated by the arrival of organizational leaders with past involvement with similar contested practices at other organizations that operated on the periphery of the field.

Together, network and neo-institutional perspectives provide interpenetrating accounts of the process of diffusion (Strang, 2010). For example, Davis and Greve (1997) find that the legitimacy of the diffusing practice influences the ability of an interorganizational network to perform as a “transmission belt” (Strang, 2010: 8). Galaskiewicz and Wasserman (1989) show that, under conditions of uncertainty, managers are especially likely to mimic the behavior of organizations to which they have some kind of network tie via boundary-spanning personnel. Similarly, Westphal, Gulati and Shortell (1997) illustrate how the impact of network ties on organizational learning depends on whether the diffusing practice has symbolic legitimacy.

In recent times, the passive imagery associated with much diffusion research in organizational sociology has been called into question (Strang, 2010). Many critics have been particularly dissatisfied with how actors tend to be presented as “enacting scripts

written by others” (Strang, 2010: 10). The limitations of such an approach are all the more evident when cross-country diffusion processes are considered, where practices and ideas are transmitted through overlapping network of relations that often blur territorial and jurisdictional boundaries (Djelic & Quak, 2008). In these contexts, actors are more likely to be exposed to multiple and at time conflicting pressures, thus increasing the level of uncertainty and ambiguity in their decision making processes and their levels of self-reflexivity (Seo & Creed, 2002). Another point of criticism concerns the fact that most diffusion studies tend to focus only on the formal adoption of an innovation, with little attention paid to what follows (Strang, 2010). Indeed, most researchers do not discriminate between short-lived efforts at change and institutionalized ones (Strang, 2010), with some important exceptions (e.g., Kostova, 1999; Kostova & Roth, 2002). However, this focus would add to our understanding of diffusion processes because it enables the identification of the different mechanisms and processes at play in these scenarios – what drives the implementation of a new practice or idea does not always coincide with what drives its institutionalization. Kostova (1999) and Kostova and Roth (2002) argue this point and differentiate between drivers’ of a subsidiary’s practice implementation and internalization. Additionally, while classic institutional theory accounts of organizational change emphasize decoupling, whereby organizations publicly affirm certain principles but do not implement them in their actual work (Meyer & Rowan, 1977), they have tended to overlook the fact that ideas and practices change as they diffuse (e.g., Czarniawska & Sevón, 1996, 2005). To counter some of these tendencies, institutionalists have recently refocused their attention on issues of agency, particularly on the part of individuals and organizations that are subject to institutional

pressures (e.g., DiMaggio, 1988; Perrow, 1986). Some scholars investigate the field-level conditions that enable actor's agency. Examples include emphasis on jolts or crises that precipitate action that diverges from a field's existing institutions (e.g., Greenwood et al., 2002). Such jolts can take the form of social upheaval, competitive discontinuities, technological disruption and regulatory changes and thus contribute to agency in the form of the introduction of new ideas (Oliver, 1992; Greenwood et al., 2002). Others emphasize the importance of the field-level heterogeneity as a condition that enables an actor's exercise of agency (e.g., Sewell, 1992; Seo & Creed, 2002; Tolbert & Zucker, 1996; for a review see Dorado, 2005). At the organizational level, the marginalization of organizations and social movements (e.g., Leblelici, Salancik, Copay, King, 1991; Haveman & Rao, 1997) and organizations' location at the interstices of fields (e.g., Levy & Egan, 2003) are also likely to influence the likelihood they will act as an institutional entrepreneurs, and introduce new, and possibly contested practices in their institutional environments. Institutionalists have also developed new language to discuss the diffusion phenomenon. As mentioned earlier, Czarniawska and Sevón (1996, 2005) propose the concept of translation, with actors redesigning and adjusting global discourses rather than passively adopting them. Sahlin-Andersson (1996), Djelic (1998), and Sahlin-Andersson and Engwall (2002) develop the related constructs of editing, hybridization and creolization.

### **2.3 Firm embeddedness**

Karl Polanyi first introduced the concept of embeddedness, most famously in *The Great Transformation* in 1944. However, it was only after Mark Granovetter's 1985 essay titled "Economic Action and Social Structure: The problem of Embeddedness" that

the concept took firm root. Since then, the concept has not only emerged as the organizing principle of economic sociology (Krippner & Alvarez, 2007), but it has also spread to a variety of sociological subfields and other disciplines, including management, economics, political science, economic geography, anthropology, and sustainability (Krippner & Alvarez, 2007; Laville, 2007). In the following paragraphs, I review a subset of contributions from the economic sociology and management areas that are particularly relevant to understand firm embeddedness as it relates to firm's practice adoption.

Granovetter (1985) proposes embeddedness as an antidote against the "extremes of under- and oversocialized conceptions" of economic action, to indicate that the latter is located within networks of social relations that make up the social structure. In neoclassical economics, these tendencies are reflected in accounts of human behavior where actors "behave or decide as atoms outside a social context," and action is explained based on individual preferences and resource endowments (Granovetter, 1985). Once these elements are known, it is possible, in principle, to explain actor's behavior because "s/he will always try to maximize utility or profit in an economic setting" (Baum & Dutton, 1996: 3). From this perspective, economic action is not influenced by social structure, but governed by the competitive markets. These idealized markets that involve "large numbers of price-taking anonymous buyers and sellers supplied with perfect information... function without any prolonged human or social contact between the parties. Under perfect competition there is no room for bargaining, negotiation, remonstrance or mutual adjustment and the various operators that contract together need not enter into recurrent or continuing relationships as a result of which they would get to know each other well" (Hirschman, 1982: 1473). In sum, the atomized conceptualization

of economic action implies that “meaningful social relations are unimportant to competitive outcomes and lead only to anticompetitive results” (Baum & Dutton, 1996: 3). Researchers have examined a number of situations in which, rather than operating as a drag on markets, social relationships can actually enhance economic performance (Uzzi, 1996, 1997), and some of the related social network analysis ideas have already been reviewed above. As previously discussed, some researchers concentrate on the strength of interorganizational ties to explain actors’ behaviors (e.g., Granovetter, 1973; Friedkin, 1982). Others concentrate on the patterns of these ties. For example, Baker (1984) shows that price volatility is reduced in smaller as opposed to larger cliques on the trading floor. This is because the smaller group enables information to diffuse more effectively, along with the enforcement of traders’ obligations. Burt (1983) identifies conditions in which sparse social networks are associated with increased corporate profitability.

Subsequent research has paid more attention to the content of ties rather than merely the structure of ties (Powell & Smith-Doerr, 1996). For example, Uzzi (1996, 1997) distinguishes between arm’s length and embedded interfirm ties—the former characterized by impersonal, diffuse and shifting in membership relationships, while the latter characterized by ongoing exclusive relationships among firms. He shows that embedded ties create value through three mechanisms, namely trust, fine-grained information transfer, and joint problem solving. Although analytically distinct, these mechanisms are not fully separable in practice. He also shows that “these positive effects rise up to a threshold, however, after which embeddedness can derail economic performance by making firms vulnerable to exogenous shocks or insulating them from

information that exists beyond their network” (Uzzi, 1997: 35). Podolny (1993) focuses on firms’ status within a network to explain tie formation and firm’s performance.

The structural tradition has mostly dominated the embeddedness research agenda (Dacin et al., 1999). Structural approaches have downplayed the importance of the content of network ties (DiMaggio, 1992; Emirbayer & Goodwin, 1994; Powell, Koput & Smith-Doerr, 1996). However, increasingly researchers point to the need to focus on the content of networks, because a social analysis that does not take into consideration “the distinctive categories, beliefs, and motives” of a network, will be unable “to explain what kinds of social relations have what kind of effect on the behavior of organizations and individuals” (Friedland & Alford, 1991: 252). While progress has been made to address this gap (e.g., Podolny & Baron, 1997; Lin, 2001; McEvily & Marcus, 2005), many agree that there is still room to advance our understanding of these issues (e.g., Adler & Kwon, 2002; Dacin et al., 199; Kilduff & Brass, 2010).

Criticism has also been raised about structural approaches’ lack of attention for actors’ cognition and the emergence of structured patterns of beliefs within networks. For example, DiMaggio (1992) and Emirbayer and Goodwin (1994) posit that networks are not mere systems of information and resources, as many structural accounts of organizational embeddedness seem to imply, but also areas of social life where institutional arrangements emerge with which actors are engaged in a co-constitutive manner (Owen-Smith & Powell, 2008). Thus, researchers continue to emphasize the importance of an increased focus on collective cognition (e.g., Peteraf & Shanley, 1997) and on the emergence of patterned systems of beliefs within networks (e.g., Simsek, Lubatkin & Floyd, 2003). These are particularly important considerations when one

considers the role of networks as channels of institutional forces that might contribute to shaping firm's decision, including decisions about the adoption of new practices.

Another commonly raised criticism of social network research concerns its failure to take into account human agency (e.g., Salancik, 1995). On this topic, Emirbayer and Goodwin (1994: 1413) argue that network research fails to show how “intentional, creative human action serves in part to constitute those very social networks that so powerfully constrain actors in turn.” Instead, the assumption in much network research is that individual and organizational actors have the abilities, skills, and motivation to take advantage of beneficial network positions (Kilduff & Brass, 2010: 334). Actors that are in a disadvantageous position are similarly assumed to lack the skills, abilities, and motivation to overcome the constraints upon them. These issues have brought critics to accuse social network analysis of failing to “offer a plausible model of individual action” (Friedman & McAdam, 1992: 160).

Furthermore, Dacin et al. (1999) argue that more attention is needed to capture “the complexity, strength, and intensity of embeddedness” (337). They emphasize the importance of gathering a better understanding of multiplexity in networks of relationships, i.e., the multipurpose nature of interorganizational cooperation (Powell & Smith-Doerr, 1994). For example single ties might be multidimensional and embody many forms of embeddedness, such as “economic transaction, information exchange and social relationships” (Dacin, 1999: 337). Additionally, organizations' might participate in multiple networks with multiple objectives, which creates the “need to consider the impact of network overlap on member behavior and outcomes” (Dacin et al., 1999: 337). They also point to the importance of developing a better understanding of the issue of

embeddedness strength. In particular, they call for more attention to whether intensity of relationship and extensiveness of ties might actually represent non-equivalent measures of embeddedness, which could lead to different managerial challenges for the firm.

In an effort to advance the discussion about embeddedness and to explicitly describe its conceptual connections with other organizational theory approaches, in particular institutionalist approaches, Zukin and DiMaggio (1990) identify four different types of embeddedness, namely cognitive (i.e., “structured regularities of mental processes [that] limit the exercise of economic reasoning”: 15-16); cultural (i.e., “shared collective understandings [...] shaping economic strategies and goals”: 17); structural (i.e., “patterns of ongoing interpersonal relations”: 18); and political (i.e., how social, political and other nonmarket institutions shape economic institutions and decisions, Baum & Oliver, 1996). In so doing, they identify the different mechanisms through which embeddedness influences economic activity by attenuating the possibility and practice of (economically) rational activity (Dacin et al., 1999).

This approach is all the more appropriate if one considers the scenario faced by organizations that operate across multiple and varying institutional environments, which is the focus of this dissertation. When faced with the decision about whether to adopt CSR practices, not only do these organizations face differing and maybe even contradicting norms, beliefs and regulations in this area, which add complexity to the decision making process, and make it more likely to be influenced by non-rational factors. Patterns of ongoing interorganizational relationships are also likely to add varying pressures to this decision making process. Therefore, it is useful to concentrate on the economic and institutional aspects of firm’s embeddedness through which social

structure interacts to influence actor's behavior. Specifically, economic embeddedness provides an effective framework for discussing interactor tie, i.e., the linkages between social actors, which include a wide variety of social network arrangements (Dacin et al. 1999) and could act as carriers of institutional influences vis-à-vis a firm's decision to engage in CSR. In addition, institutional embeddedness provides a framework to discuss the normative, cognitive and regulatory forces that are likely to influence managerial decision making, including decisions about the adoption of CSR practices.

#### **2.4 The study of practice diffusion in International Business (IB)**

The investigation of the challenges associated with diffusion processes that span over heterogeneous institutional environments is central to much IB research about practice diffusion. Some scholars focus on the effects of national institutions and forces on the diffusion of certain practices within countries (e.g., Kieser, 1989; Barley & Kunda, 1992; Abrahamson & Fairchild, 1999; Jepperson & Meyer, 1991; Orrù, Biggart & Hamilton, 1991; Rosenzweig & Singh, 1991; Kostova & Roth, 2002). Others more specifically consider the institutional factors that shape the cross-national diffusion of practices, focusing on state structures, professionalization, and culture as possible drivers (e.g., Guillén, 1994; Meyer, Boli, Thomas & Ramirez, 1997; Westney, 1987). In addition, researchers have examined the global diffusion of quality standards. These studies tend to rely on neo-institutional explanations (e.g., Guler et al. 2002), arguing that country-level characteristics that stimulate coercive, normative, and mimetic adaptations drive the diffusion of standards across borders (DiMaggio & Powell, 1991). For example, Guler et al. (2002) find that the diffusion of international standards is favored by the coercive effects of powerful organizations, such as the state and multinational firms; that coercive

or normative processes result from cohesive trade ties between countries; and that competition-based mimicry is generated by role-equivalence in trade. Similarly, Christmann and Taylor (2001) find that the diffusion of standards within developing countries is positively correlated with increasing trade ties and foreign investment because of the coercive pressures exercised by foreign investors onto the local firms.

More recently, Czarniawska and Sevón (1996, 2005) develop the notion of translation to explain the global spread of an idea or practice. Translation describes diffusion as a combination of adaptation and construction as the practice spreads in space and time, and argues that local actors transform practices to fit their specific setting. Relatedly, Boxenbaum and Battilana (2005) identify the enabling factors for the cross-country spread of diversity management, from the United States into Denmark, at the individual, organizational and field levels. One of these conditions is a socially constructed field problem, which is perceived to be important in the local setting, but cannot be easily resolved with existing practices. Another condition is individuals who were enabled and motivated to import a foreign managerial practice as an alternative solution to the field problem.

A great deal of research has focused on how innovations, both in terms of practices and technology, travel through multinational firms' subsidiaries (e.g., Kostova, 1999; Kostova & Roth, 2002; Birkinshaw, 2000) and across firms in the context of cooperative ventures, such as strategic alliances (e.g., Simonin, 2009; Inkpen & Tsang, 2005; Lam, 1997). Research in this area considers the effective deployment of products, technology, and knowledge in multiple locations as critical success factors for the MNC (e.g., Buckley & Casson, 1976; Hymer, 1976, Dunning, 1977; Kogut & Zander, 1993,

Zaheer, 1995). Sociological explanations of these phenomena tend to consider at least three sets of factors that are likely to influence the pattern of cross-country practice diffusion, namely the structure and strategy of sending and recipient units; the specific characteristics of practices and policies; and the degree of “fit” between the nature of the national system and of the practice being transferred (Ferner, Almond & Colling, 2005).

First, in terms of structures and strategies of the sending and receiving units, some scholars study how the quality of the relationships might influence the transfer of practices (e.g., Ghoshal & Bartlett, 1990; Ghoshal & Nohria, 1993; Hill, Hitt, & Hoskisson, 1992; Kostova, 1999; Kostova & Roth, 2002; Tsai, 2001, 2002; Tsai & Ghoshal, 1998). Others examine the role of intra-corporate and external networks in which subsidiaries are embedded (e.g., Hamel, 1991; Inkpen & Beamish, 1997; Inkpen & Dinur, 1998; Yan, 1998). All these studies build on a conceptualization of the MNC as a differentiated network of relatively autonomous subsidiaries facing heterogeneous national contexts (Ghoshal & Bartlett, 1990). They emphasize that the structural characteristics of the MNC intra-firm network can be important drivers for the diffusion of practices. For example, some consider the degree to which subsidiaries are dependent, and vertically controlled (Hedlund, 1986) as an important explanatory factor of the transfer of practices from headquarters to subsidiaries. Others consider additional relational factors, such as the degree of trust, dependence and identification between subsidiaries and headquarters as key explanatory factors of the success of knowledge transfers with the MNC (e.g., Kostova, 1999; Kostova & Roth, 2002). In some cases, these studies have broadened the analytical focus beyond the firm boundaries to consider the characteristics of the various institutional environments where the organization

operates, and how these might contribute to shaping diffusion processes within the organization through their interaction with important firm- and network-level characteristics (Kostova, 1999; Kostova & Roth, 2002).

Second, in terms of specific characteristics of practices and policies that might affect the diffusion of practices, researchers have considered the degree to which the relevant knowledge is tacit or codified, and the extent to which decisions makers clearly understand the reasons for success or failure in reproducing a practice in a new context as important drivers of knowledge diffusion within the organization (Polanyi, 1962, 1966; Szulanski, 1996: 31). They also consider the degree to which the practice can be adapted to local needs, with higher levels of adaptability being likely to significantly improve the chances of transfer success (e.g., Jensen & Szulanski, 2004). Scholars of the area also explain the importance of interpreting the transfer of knowledge within the MNC as a multi-stage process, where each stage presents different challenges to the overall success of the transfer process (Szulanski, 1996, 2000).

A third group of studies investigates cross-country diffusion processes as being influenced by institutional differences between the multinational's country of origin and subsidiaries' host countries. In this area, culturalist perspectives played a dominant role for a good portion of the two decades that followed the publication of Hofstede's *Culture Consequences* in 1980. This approach has been criticized for its reductionist conceptualization of culture as a bounded, homogeneous, coherent, and stable entity (Brumann, 1999). More recent investigations of the macro levels influencing intra-firm diffusion processes focus on differences between national business systems and the way product, labor, and financial markets are governed, and the way market actors relate to

each other (e.g., Lane, 1989; Whitley, 1999; Hall & Soskice, 2001). These cross-national differences influence the spread of practices based on the degree to which the practice embodies an institutional logic that fits with the host countries' institutional environment. For example, Kostova (1999) and Kostova and Roth (200) find support for the notion that dissimilarities in the country institutional profiles (CIP) of the country of origin and the country of operation influence intra-firm transfer success. The CIP provides a measure of the regulatory, normative and cognitive institutions of a country (Busenitz, Gomez & Spencer, 2000). When transferred practices are inconsistent with the recipient country's CIP, transfer success is less likely.

A more recent development in the international business research area focuses on the agency opportunities associated with the complex institutional environment where MNC operates with regards to firm's decision to adopt novel practices (Kostova, Roth & Dacin, 2008). Emergent work in this area has identified intra-firm network characteristics that foster firm's ability to engage in an active evaluation of the costs and benefits associated with the adoption of certain practices. For example, Saka-Helmhout and Geppert (2011) find that the degree to which decision making in the MNC is decentralized fosters subsidiaries' ability to develop innovative strategies that draw on their accumulated local learning. They also find that institutional incompatibilities between home and host countries are unlikely to trigger the firm's reflective capacity to engage in a process of change, unless local subsidiaries can also draw on supportive intra-firm coordination structures.

Scholars of the area have also begun to unpack some of the political processes that guide MNCs decision making when these organizations are exposed to contradictory

institutional messages across the various contexts where they operate. Under these circumstances, skillful local actors can take advantage of conflicting rationalities about the importance of certain practices to introduce new practices that might not totally be consistent with local understandings, but might help the organization to strengthen its competitive advantage. From this point of view, subsidiaries' practice adoption is seen as being affected by local resource-building strategies, and the role of locally competent actors in micro-political games played within the company (Geppert & Dörrenbächer, 2011: 22-24).

Researchers have also investigated some of the conditions that make certain MNCs more likely to adopt 'contested practices'. Sanders & Tuschke (2007) define institutionally contested practices as those practices that conflict with local understandings of what represent appropriate corporate behavior. These practices are usually supported by some key constituents within the potential adopters' institutional environment, but also face stiff opposition from other key actors within the same context. As they explore the emergence of stock-based options executive pay in Germany, they find that MNC adoption of contested practices is favored by the company's connection with business partners that are located in institutional contexts with overall stronger institutional requirements and that consider the practice under consideration to be legitimate. In addition, their ability to engage in this kind of contested practice adoption is further inspired by their pre-existing stock of knowledge on the specific set of practices under consideration. They also find that privileged access to information further improve the chances of adoption by early mover organizations.

An interesting trait of these early works exploring some of the agency opportunities that stem from MNCs' complex institutional environments is that, unlike most diffusion research, they frame practice adoption as a manifestation of non-convergent change. They also point to the importance of an organization's dexterity in dealing with the complexity of the multiple institutional environments where the firm operates as a key driver of successful adoption processes. In the model of firm's adoption of CSR practices that I present in the next chapter, I build on some of these insights as well as others from previous sections of the literature review.

## CHAPTER 3

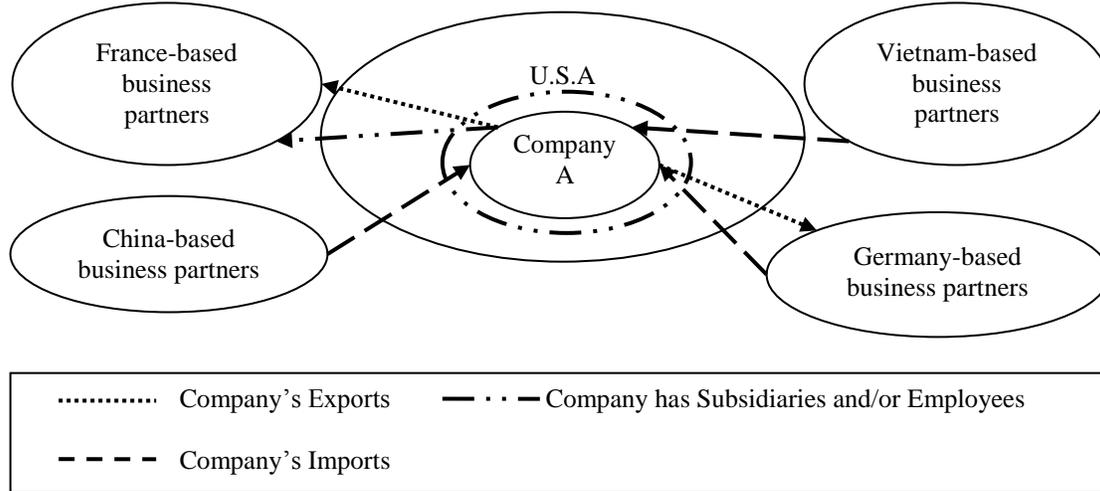
### MODEL AND HYPOTHESES

Drawing on the theoretical perspectives reviewed in Chapter 2, the conceptual model presented in this chapter explores the role of firm's embeddedness in the global business network with regards to its decision to adopt CSR practices. In summary, the model suggests that global business networks affect a focal organization's adoption decisions as they provide access to resources and information and channel CSR related institutional influences from the countries where the focal firm's multiple partners are located. The nature of the economic relationships in which the focal actor is engaged contributes to shaping their effectiveness as conduits of institutional pressures. In addition, the presented model suggests that the strength of the institutional requirements concerning CSR within the global business network, their heterogeneity, and whether the firm operates in institutional contexts with more stringent requirements for CSR than those of its home country, are all important drivers of the firm's decision to adopt CSR practices.

#### **3.1 Theoretical background**

I focus on the role of a firm's embeddedness in its global business network with regards to the decision to adopt CSR practices. I describe firm's adoption of CSR practices as the degree to which it implements organizational practices that are aimed at furthering some social good, whether by reducing the negative impacts that the firm might have on its stakeholders, or by creating positive impacts (Sethi, 1990). CSR-related practices can be viewed as organizational routines that are directed at preventing negative externalities or compensating affected stakeholders for their impact, or that are directed at creating positive externalities (Husted & Allen, 2006; Kostova & Roth, 2002). Some main firm's stakeholder groups include customers, employees, shareholders, suppliers, the government and members of the communities where the firm operates (Clarkson, 1995). For example, a firm would create a negative externality if it released toxins that affect the health of its neighboring community. On the other hand, a firm would create a positive externality if its operations in a poor inner city neighborhood contributed to economic development that reduced crime in the area (Keim, 1978). CSR-related practices can help firms establish legitimacy and create some social capital or goodwill for itself in the environments in which they operate (Kostova & Zaheer, 1999)

Figure 1.1 provides a visual representation of a firm's global business network. In this hypothetical example, the U.S. based manufacturer named "Company A" owns operations and has employees in the United States. In addition, Company A has import/export ties with Germany-based suppliers/buyers, import ties with Vietnam- and China-based suppliers, and export ties with France-based buyers. Company A also owns plants and/or has employees in France.



**Figure 3.1: Example of a company global business network**

Given the global geographic dispersion of Company A's global business network, the firm is likely to be exposed to a variety of institutional arrangements concerning CSR. This is because as the firm interacts with the alter organizations (both through trade- and FDI-based relationships) that make up its global business network, it is also exposed to these organizations' CSR-related expectations and actual practices, which reflect, to some degree, their respective institutional environments. Flows of information between the focal firm and its business partners may take place because of repeated exchanges among their employees, general exposure to the partner's technologies, organizational practices, and strategies to imitate these techniques in the focal firm's operations, interactions with common third parties (e.g., other suppliers, distributors), informal inter-firm interactions, and employee turnover (Gereffi, 1999; Gereffi, Humphrey & Sturgeon, 2005; Gibbon & Ponte, 2005; Hess & Coe, 2006; Palpacuer & Tozanli, 2008; Spencer, 2008).

To explain the role of the complex embeddedness faced by firms in their global business networks as they consider the adoption of CSR practices, I focus on two aspects of the environment in which the firm operates: institutional and economic embeddedness in the global business network. In the context of this study, institutional embeddedness refers to the institutional content of the network, in particular its CSR-related norms, rules, beliefs (Kostova, 1997; Scott, 2008) and the uniformity (or lack thereof) of such forces within the global business network. For example, a firm might be engaged with business partners located in countries where certain CSR-related practices are mandated by law, and/or where organizations are expected to engage in certain philanthropic initiatives, and/or where individuals have strong beliefs about the importance of environmental conservation. Through its exchanges with these business partners, the focal firm is also exposed to these rules, norms and beliefs concerning CSR. The anchoring of the institutional content of a global business network to a specific issue (i.e., CSR) is consistent with previous work showing that institutional dimensions are domain specific (e.g., Kostova & Roth, 2002). In some cases, the firm might experience a high level of consistency in the degree of CSR-related institutional favorability it faces within its global business network. In other instances, firms might experience varying expectations, beliefs and/or requirements concerning CSR. For example, a firm with business partners located in Germany, Somalia and Vietnam is likely to experience more variance in the types of norms, beliefs and rules concerning CSR emanating from these firms, compared to a firm with business partners in Canada, the United Kingdom and the United States.

Economic embeddedness is defined as the type and quantity of economic resources that flow through a network and determine the degree of dependence of the focal firm on a specific partner. I focus on two different types of dependence of the focal firm on the alter organizations that make up its global business network, which reflects the perceived importance of the relationship, namely trade- and FDI-based dependence. In the case of buyer-supplier relationships, dependence could reflect the proportion of the focal firm's outputs that are purchased by a buyer organization (Provan, 1993). For FDI-based ties, dependence arises in the relationships among parent firms and their subsidiaries (i.e., among multinational corporation headquarters and subsidiaries; e.g., Kostova & Roth, 2002; Ghoshal & Bartlett, 1990). On the one hand, a multinational's subunits can be dependent on headquarters for "providing major resources, including technology, capital, and expertise" (Kostova & Roth, 2002: 218). On the other hand, headquarters' dependence on a subsidiary arises when a "subsidiary represents a pool of rich resources in an overall resource distribution that cannot be altered at will, and indeed tends to persist over time" (Ghoshal & Nohria, 1989: 325). FDI-based dependence involves the shared fate of the MNC with its subunits, and a greater likelihood that subunits will cooperate and exchange knowledge for the good of the entire organization. A focal firm's dependence can be associated with perceived threat of jeopardizing the relationship with an important business partner, and as such, influences firm response. Despite the variety of possible CSR behaviors suggested by the diverse institutional templates coming from various partners, the firm is likely to model its response after the more influential ones. In other words, the more a focal firm perceives a particular alter

organization to be critical for its success, the more likely it is to model its behavior after that firm (Peteraf & Shanley, 1997).

### **3.2 Global business networks**

The proposed conceptualization of a global business network is related to the constructs of “global production networks” and “global supply chain” put forward by scholars of international production, including Henderson, Dicken, Hess, Coe and eung (2002), Dicken and Henderson (2003) and Coe, Hess, Yeung, Dicken and Henderson (2004). Consistently with the definition of a global business network presented above, these researchers characterize global business networks as structures that blur traditional organizational boundaries through the development of diverse forms of equity and non-equity relationships, which span across multiple regional and national economies (Coe et al., 2004: 471). These researchers concentrate on understanding how these networks might influence sub-national regional development and clustering dynamics. I argue that research on global business networks can also emphasize their role as social communities where specific institutional arrangements concerning CSR emerge over time. Specifically, I suggest that global business networks are focal firm-specific, span multiple countries, and entail different types of economic ties between the focal firm and its business partners, namely inter-firm trade-based relationships and intra-firm, FDI-based relationships. These economic ties are both channels through which resources and information can be accessed and “networks of meanings” (Emirbayer & Goodwin, 1994), or sensemaking communities, in which focal firms are socialized into certain institutional arrangements, including CSR-related matters. As focal firms become increasingly involved in these networks, they develop understandings and views about what they

consider to be appropriate courses of action (Emirbayer & Goodwin, 1994: 1441). Thus, participation in these networks can influence the degree to which a firm positively or negatively evaluates CSR issues, and its propensity to adopt CSR practices.

There are different types of global business networks. As I further elaborate in the construct development section of this chapter, I consider a number of economic and institutional characteristics that can be used to classify these networks. Specifically, they can vary because of focal actor's degree of economic embeddedness across the various countries where the focal firm's business partners are located. At one extreme, there are firms with very small business networks, which are predominantly embedded in their home countries or have small exchange relationships with business partners located outside of their home countries. At the other extreme, there are firms with large business networks, where the focal actor engages in sizable economic exchanges with actors that are located outside of their home countries. These economic relationships can be of different types, including FDI-based relationships and trade-based relationships. Global business networks also vary based on the different types of institutional forces that they harbor. Because I rely on an issue-based approach to evaluating the role of institutions with regards to firm's behavior (Kostova & Roth, 2002), I consider how the composite forces of the various institutional contexts in a global business network support the diffusion of CSR practices, as well as the heterogeneity of these forces within the network.

These properties of a firm's global business network are discussed in greater detail in subsequent sections of this chapter. For now, I illustrate four examples of global business networks. Based on the analytical dimensions discussed above, I investigate the

global business networks of two firms (i.e., General Mills and FMC) with very large and geographically spread sets of economic relationships. In addition, while General Mills operates across a large number of CSR-friendly countries, FMC is more tied to business partners located in countries with weaker CSR-related institutional settings. The other two firms (i.e., Applied Materials and Acuity Brands) have much smaller global business networks compared to those of General Mills and FMC. Like General Mills, Applied Materials operates in an overall CSR-friendly global business network. Like FMC, Acuity Brands' global business network includes a majority of countries with weaker support for CSR initiatives. These examples can be organized along the two by two matrix depicted in Table 3.1 below. In this table, size of the global business network refers to the number of countries across which the firm operates, both through import/export ties and FDI. For illustrative purposes, I arbitrarily set a threshold of 15 countries to separate "small" global business networks (which would include up to 15 countries) from "large" ones (which would include more than 15 countries). I choose this value because it represents the average number of countries in which firms in the sample operate, as I further discuss in the methods section of the dissertation. As for the degree of CSR-related institutional favorability, this refers to the degree to which a country where the focal firm's business partners are located adopts policies and initiatives that support the diffusion of CSR initiatives (Kostova & Roth, 2002). To capture this CSR-related institutional favorability, which I also further discuss in subsequent sections of this chapter, I rely on the Responsible Competitiveness Index (RCI), an index that researchers have used in the past to measure the quality of the national institutional context for CSR (e.g., Peng & Beamish, 2008). This index ranges from 0-100, with

higher values indicating a more favorable institutional environment for the diffusion of CSR practices (Zadek & McGillivray, 2007, 2008). I further describe this index in the methods section of the dissertation. Again, I set an arbitrary analytical threshold to separate countries with “low” CSR-related institutional favorability from those with “high” CSR-related institutional favorability. I set this threshold at 60, because this value separates the top half from the bottom half of the actual distribution of the index values.

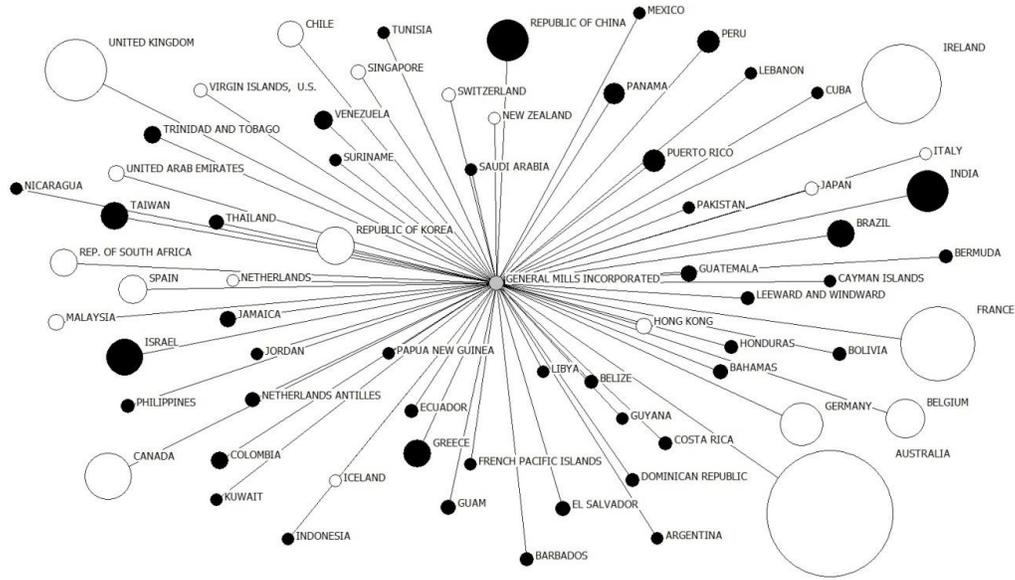
**Table 3.1: Typology of global business networks, based on the cases of General Mills, FMC, Applied Materials and Acuity Brands**

Degree of CSR-related institutional favorability of the global business network		Size of the global business network	
		Small	Large
Low	Low	I. Acuity Brands	II. FMC
	High	IV. Applied Materials	III. General Mills

The graphical representations of these firms’ global business networks are created with UCINET 6.0, a popular social network analysis software. In these network charts, the grey circle at the center of the network represents the company of interest. The size of this circle is not commensurate with the company’s size. Black and white circles connected to the grey circle at the center of the network represent the countries where the firm’s business partners are located. Their size varies with the intensity of the firm’s business relationship with local business partners – larger circles indicate that the focal firm has a deeper economic embeddedness in that context, because of more intense import/export ties and/or FDI. In addition, white circles represent countries with high levels of CSR-related institutional favorability, while black circles represent countries with low levels of CSR-related institutional favorability. The charts below represent the

above-mentioned companies' networks in 2010. Appendix A illustrates the evolution of these networks between 2007 and 2010.

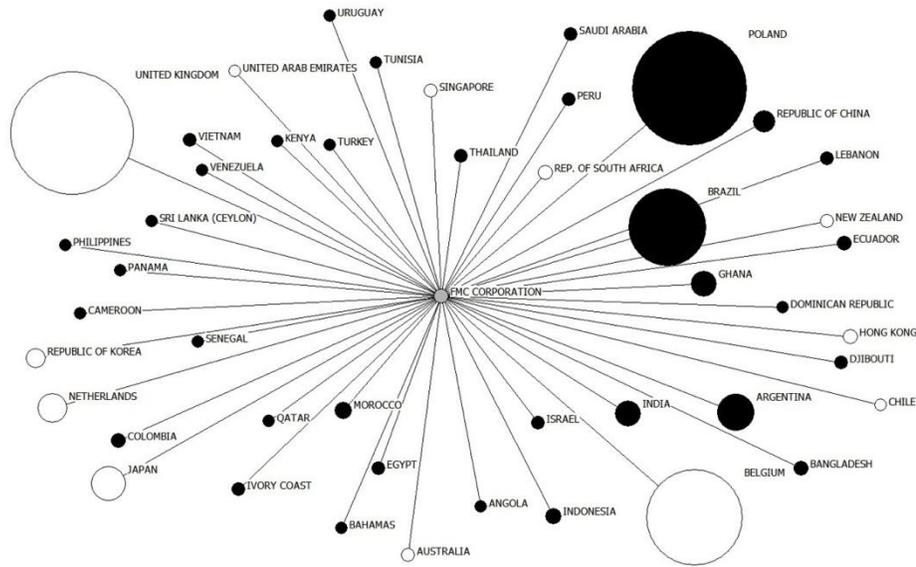
Figure 3.2 depicts General Mills' global business network in 2010. General Mills is headquartered in Minnesota and is one of the largest food companies in the world. Its brand portfolio includes more than 100 leading U.S. brands, including Betty Crocker, Yoplait, Häagen-Dazs, Cheerios and Trix, and numerous category leaders around the world. In 2012, the company had sales for \$14.7 billion worldwide, the majority of which were in the United States (Hoover, 2013a). In 2010 General Mills' business network stretched over 60 countries. In this network, about one third of the countries where the focal firm business partners are located are characterized by high levels of CSR-related institutional favorability. As one can see from the chart, there is a certain degree of variability in the CSR-related institutional quality of the countries where the firm operates, ranging from Pakistan's low levels of CSR-related institutional favorability (RCI score = 41.4) to Sweden's very high levels of institutional favorability (RCI score = 81.4). However, the firm tends to have more intense and durable economic relationships with business partners that operate in countries with stronger CSR-related institutional frameworks (e.g., United Kingdom, Australia, Canada, France and Ireland; see also Appendix A). Furthermore, the less CSR-oriented countries with which the firm has the most sizable economic relationships are not at the bottom of the RCI rankings and include countries such as Peru (RCI score = 56.8) and Mexico (RCI score = 54.8).



**Figure 3.2: General Mills’ global business network, 2010**

FMC’s 2010 global business network is depicted in Figure 3.3. FMC Corporation is headquartered in Pennsylvania and is a large chemical manufacturing company. In 2012, 35% of the company’s sales were in North America, 31% in Latin America, 17% in Asia/Pacific, and 17% Europe/Middle East/North Africa (Hoover, 2013b). As the chart suggests, the company is also embedded in a large global business network, stretching over 40 countries. In addition, it suggests that FMC tends to predominantly operate in countries with low CSR-related institutional quality. Further, some of FMC’s most intense and durable economic relationships involve business partners located in countries with generally low levels of CSR-related institutional favorability (see also Appendix A). In sum, while both General Mills and FMC experience a considerable amount of heterogeneity of CSR-related institutional quality across the various countries that make up their global business networks, FMC’s network is less CSR-friendly than General

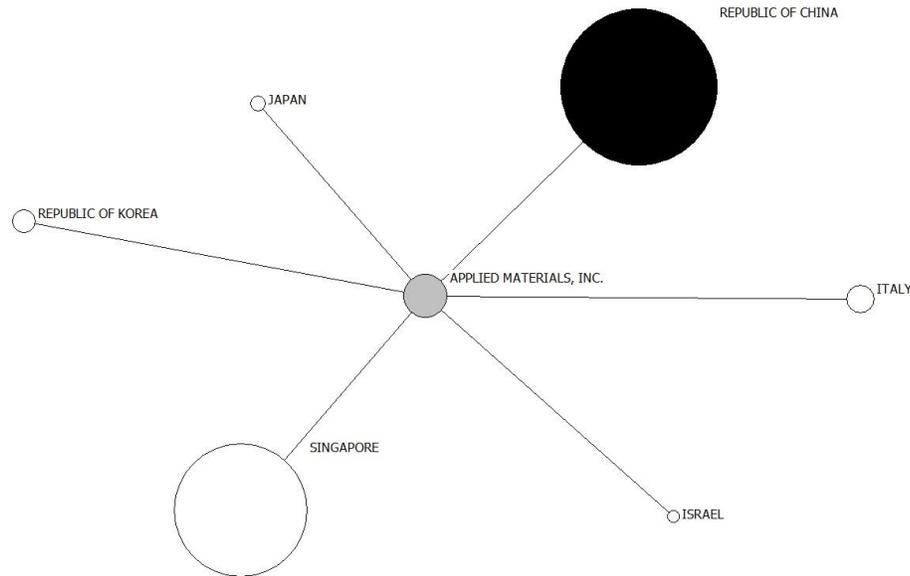
Mills'. These observations are also confirmed by a quick inspection of the RCI scores for all the countries where these firms operate between 2007 and 2010: while the average RCI score for FMC is 57, that for General Mills is 61.



**Figure 3.3: FMC's global business network, 2010**

Applied Materials' global business network is one of the world's largest producers of semiconductor production equipment. Headquartered in Santa Clara, California, the company had \$10.5 billion sales in 2011, the majority of which were in Asia (Hoover, 2013c). Figure 3.4 indicates that the firm has a smaller global business network with regards to those of General Mills and FMC. Between 2007-2010, the company operated in about 10 countries (see also Appendix A). The company has durable and intense economic relationships with business partners located in countries characterized by high levels of CSR-related institutional favorability, including Singapore, the Netherlands, and Japan. The only exception is its relationships with

business partners located in China. Based on the RCI ratings, the average CSR-related institutional quality of Applied Materials’ global business network between 2007 and 2010 is about 66.

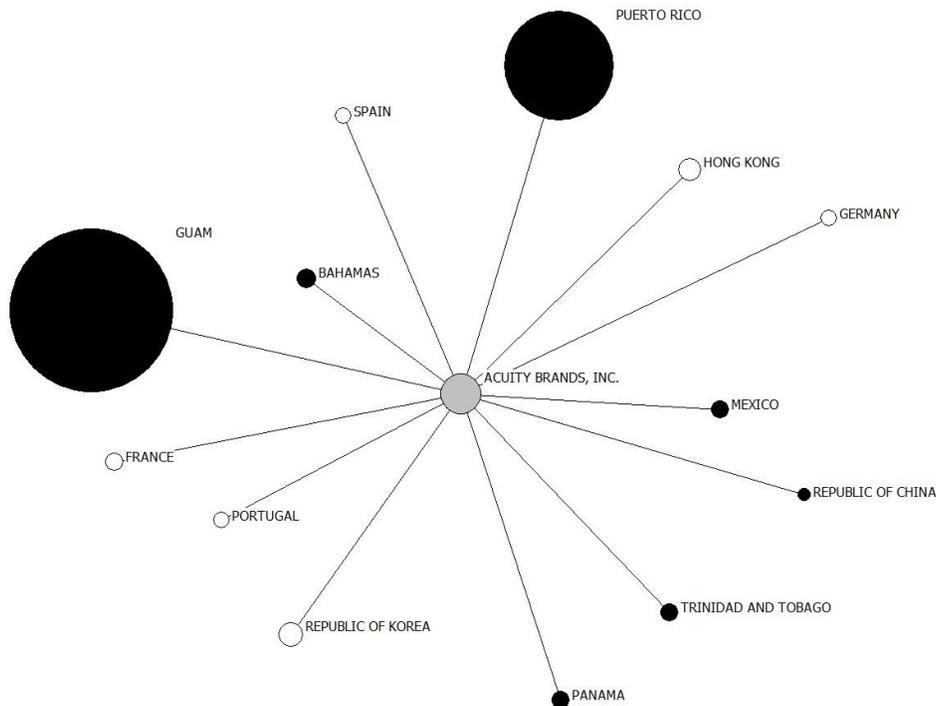


**Figure 3.4: Applied Materials’ global business network, 2010**

Acuity Brands is a leading producer of indoor/outdoor lighting fixtures based in Georgia. In 2012 the company had sales for \$1.9 billion, the majority of which were in the United States (Hoover, 2013d). Figure 3.5 depicts Acuity Brands’ 2010 global business network. Acuity Brands’ global business network consists of 8 countries on the average between 2007 and 2010. Between 2007 and 2010, some of the company’s more sizable and durable economic relationships involved business partners located in countries with lower CSR-related institutional quality, e.g., China (47.2) and Mexico (54.2). In addition, the firm does not have strong and enduring economic ties with

business partners located in countries with high levels of CSR-related institutional settings.

Appendix A includes additional examples of the global business networks of General Mills, FMC, Applied Materials and Acuity Brands.



**Figure 3.5: Acuity Brands' global business network, 2010**

### 3.3 Hypotheses development

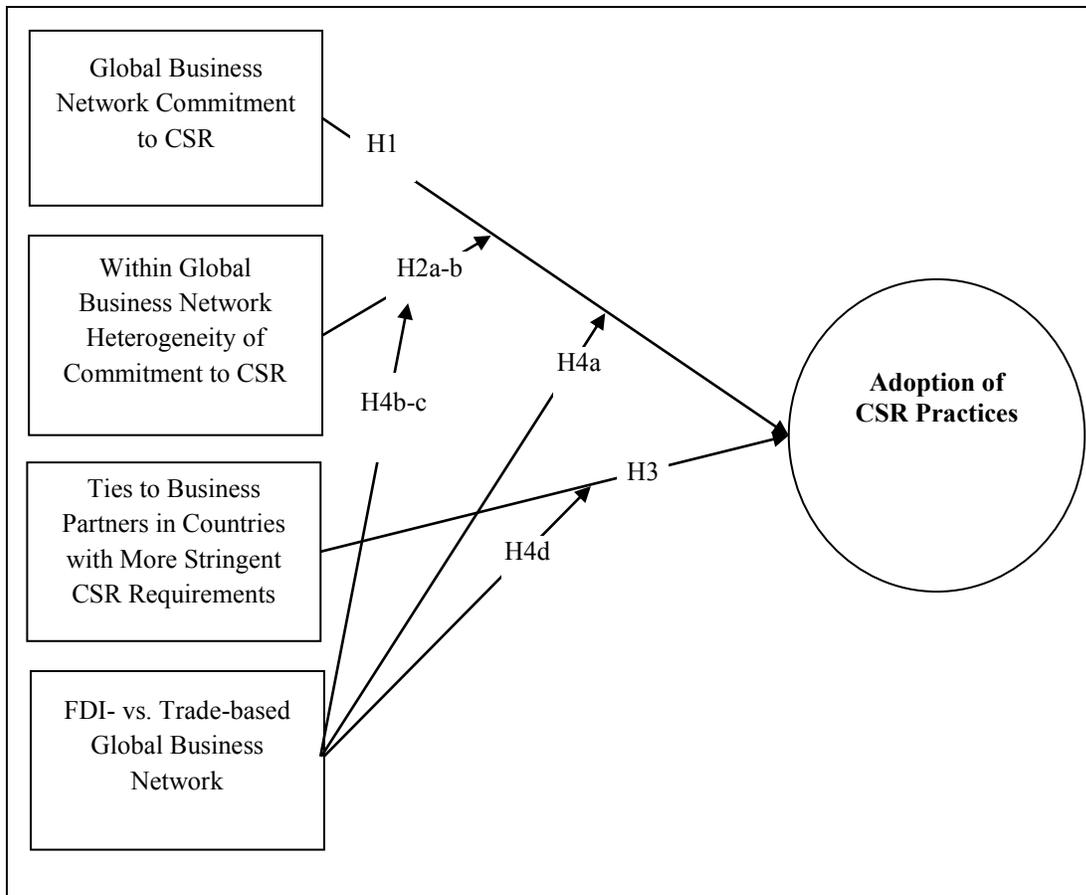
Consistent with the proposed embeddedness approach, I suggest that CSR adoption by a focal firm will be influenced by factors reflecting both institutional and economic aspects of the firm's participation in the global business network. Institutional and economic aspects of embeddedness should be considered jointly because the nature of the economic relationship between partners (economic embeddedness) affects how

social pressures (institutional embeddedness) are channeled through the network (Owen-Smith & Powell, 2008). To capture the joint relationship of institutional and economic influences with regards to a firm's decision to adopt CSR practices, I introduce the novel constructs of global business network commitment to CSR and within global business network heterogeneity of commitment to CSR, and then explore the interaction effect between these two factors on the firm's adoption of CSR-related practices. I also examine the role of ties to business partners located in countries with more stringent CSR institutional requirements with regards to the firm's decision to adopt CSR practices. I also investigate the differing effects of different types of economic ties on firm's adoption decisions, looking at both FDI- and trade-based ties.

My explanation of the decision to adopt CSR practices has three components. First, firms embedded in global business networks are exposed to mounting levels of institutional diversity across the various institutional contexts where they directly operate or through their ties to business partners. This creates a condition of heightened complexity and ambiguity—in other words, the firm is exposed to multiple, overlapping and sometimes conflicting institutional pressures concerning CSR; as a result, the firm must interpret this complexity and/or ambiguity before responding to institutional forces, and may have to prioritize among competing pressures (Oliver, 1991). Second, this condition of heightened ambiguity and institutional complexity as to what might represent appropriate behavior in terms of adopting CSR practices is also associated with learning opportunities about novel organizational arrangements and practices (Zahra, Ireland & Hitt, 2000). This is because competing institutional messages about the importance of CSR force the firm to reflect on the appropriate course of action and

develop innovative routines to deal with this complexity in a manner that does not hinder its ability to operate effectively and legitimately across the various institutional contexts that make up the global business network. Third, these networks of domestic and foreign business partners represent important channels through which institutional pressures can reach the focal actor (Emirbayer & Goodwin, 1994). As these firms' economic dependence on domestic and foreign business partners grows, the home country-based institutional constraints might become less relevant in shaping their behavior (Greenwood et al., 2011; Kraatz & Block, 2008).

Figure 3.6 below provides a graphical summary of the hypotheses.



**Figure 3.6: Summary of hypotheses**

### 3.3.1 Global business network's commitment to CSR

CSR-related institutional influences flow to the focal actor through the channels of its exchange relationships with the business partners that make up its global business network. The first conceptualization of the joint effect of institutional and economic embeddedness is through the construct of the global business network commitment to CSR, as the joint effect of the favorability to CSR of the various institutional environments where a focal firm's business partners are located and the firm's degree of economic dependence on those alter organizations. Kostova and Roth (2002) define

favorable institutional environments as “those that contribute in a positive way to the adoption of a practice through regulations, laws, and rules supporting and/or requiring the practice; cognitive structures that help people understand and interpret the practice correctly; and social norms enforcing the practice” (218). The proposed definition accounts for the CSR-related institutional favorability of each of the environments where the firm operates, but weights each of them based on the level of economic embeddedness the firm has on business partners operating in those environments both in the context of FDI-based and trade-based relationships.

Global business network’s commitment to CSR is focal firm-specific, because each firm depends on a specific set of alter firms from a unique set of countries to unique degrees. It is also a network-level construct, because it captures the cumulative effect of all the CSR-related institutional favorability that is found within the focal firm’s global business network. Business partners operating in countries characterized by higher levels of commitment to CSR are enabled by favorable local institutions (e.g., laws, norms and shared beliefs) concerning CSR. Pressed into higher degrees of compliance by national laws, norms and/or shared beliefs, these alter organizations are also more likely to channel CSR-related pressures to the focal firm, as they engage in economic exchanges with it. However, the importance of these influences will also be contingent upon the degree to which the focal firm depends on these alter firms.

Higher levels of network commitment to CSR should help focus organizational leaders’ attention on CSR issues and stimulate the emergence of an organizational climate that favors implementation and appreciation of CSR-related initiatives (Andersson & Batemen, 1998). Furthermore, if such higher levels of commitment also

come from partners on whom the focal firm is highly dependent, focal firms' managers will be more likely to view CSR initiatives as critical to their organization and act on these pressures (Bansal & Roth, 2000). Higher global business network's commitment will also provide the focal firm with a better understanding of the possible benefits and challenges associated with CSR. This is because higher network commitment reflects more intense economic relationships with actors that hail from institutional contexts that are more favorable to CSR. More intense economic relationships have been found to perform as better conduits of information (Zahra, Ireland & Hitt, 2000). Such conditions will also alleviate some of the uncertainty associated with the adoption of CSR initiatives (George, Chattopadhyay, Sitkin & Barden, 2006). Therefore, I propose:

Hypothesis 1: A focal firm's adoption of CSR practices will be positively related to the overall CSR commitment of its global business network.

### 3.3.2 *Within global business network heterogeneity of commitment to CSR*

As global business networks include partners in multiple countries, they are also likely to channel institutional environments that have substantial variance in terms of their favorability for CSR. For example, a focal firm whose global business network spans Germany, the United States, and China is likely to experience a certain degree of variance in terms of its business partners' commitment to CSR. In Germany and the United States, support for CSR issues is widespread. In both countries companies are held to high standards of compliance with regard to labor issues, consumer rights, and environmental concerns (Tolhurst & Embaye, 2010). However, the relevance of particular CSR issues, such as the use of Genetically Modified Organisms (GMOs), or the importance of health care insurance appears to be greater for American than German firms (Matten & Moon, 2005). Far from being the expression of German firms' lesser

concern for these issues, this situation instead reflects the stricter German regulations in these areas. Scholars agree that the different institutional requirements in the two countries have fostered a more “implicit” CSR approach among German firms, and a more “explicit” CSR approach among U.S. firms (Matten & Moon, 2005). Finally, in China, support for CSR practices is not widespread or uniform, although attitudes towards these practices have improved since the 1990s and early 2000s, when government officials still expressed skepticism and hostility towards international CSR standards (Lee & Wickerham, 2010). For example, environmental damage brought about by industrial activity still costs China between 3% and 10% of its GDP according to some estimates (Lee & Wickerham, 2010). In addition, there are widespread concerns about product safety, with several scandals in this area, including the melamine scare in dairy and egg products in late 2008 (Moore, 2008) or the Mattel toy safety incident in 2007 (Story, 2007). Corruption is also endemic, as indicated by the 6227 commercial bribery cases that were documented by China’s General Industrial and Commercial Administration in 2008 (Lee & Wickerham, 2010).

While the overall global business network’s commitment to CSR provides an adequate indicator of the general strength of existing CSR-related pressures within the network, it does not capture the varying level of support for these practices across the multiple institutional contexts that make up the global business network. Indeed, a high level of a global business network’s commitment to CSR could reflect both a homogenous distribution of high commitment levels among the various institutional environments that make up the global business network, as well as a combination of very high commitment and low commitment levels. A firm that is embedded in the latter

scenario might experience contradicting CSR-related demands. I refer to the variance in the commitment to CSR as *within global business network heterogeneity of commitment to CSR*. Greater within global business network heterogeneity of commitment to CSR implies less convergence about the importance of CSR across the various institutional contexts that make up the global business network. This lack of convergence is likely to make it more difficult for the firm to develop a clear understanding about the importance of CSR practices. This is because the firm is exposed to varying messages about these practices, so that what would make its conduct legitimate in one context might not work in others. Heterogeneity of institutional messages concerning CSR therefore contributes to shaping the relationship between global business network commitment to CSR and firm's adoption of CSR practices, by weakening the isomorphic pressures associated with commitment. Conversely, when a firm's global business network is consistently supportive (or non-supportive) of the diffusion of CSR practices and there is little variation in the institutional messages concerning the importance of CSR that reach the focal actor, the firm becomes more likely to adopt (or not adopt) these practices because of the strong legitimacy incentives associated with the institutional pressures in this area. In other words, when the global business network commitment to CSR grows and within global business network heterogeneity decreases, firms are more likely to adopt CSR practices because of the consistently uniform cues to do so that they receive from within their network. More formally, I argue that:

Hypothesis 2a: As within global business network heterogeneity of commitment to CSR decreases, focal firm's adoption of CSR practices becomes more positively related to global business network commitment to CSR.

While growing levels of within global business network commitment to CSR make it harder for the firm to develop a clear understanding about the importance of CSR practices by exposing the organization to varying assessments of these practices, they can also strengthen firm's learning in this area. This is because as the firm is exposed to a broader spectrum of business partners from different countries (Zhara, Ireland & Hitt, 2000) with varying understandings of the importance of CSR practices, it also becomes less likely to take any specific set of institutional influences for granted (Battilana, Leca & Boxenbaum, 2002; Emirbayer & Mische, 1998; Seo & Creed, 2002; Sewell, 1992). In addition, the firm is faced with the related challenge of not being able to just conform to one set of expectations (Kraatz & Block, 2008; Kostova, Roth & Dacin, 2008). This means that in order to be legitimate across the various institutional contexts where it operates, the firm is forced to search for innovative solutions that are better suited to satisfying diverse and potentially conflicting expectations (Simon, 1955). Therefore, as firms attempt to develop inferences from the multiplicity of CSR-related institutional messages that they experience within their global business network, they can also develop richer understandings, skills and routines in this area (Cohen & Levinthal, 1989, 1990; Levitt & March, 1988).

As within global business network heterogeneity of commitment to CSR grows, firm's decision to adopt of CSR practices might not always be a simple response to pressures and legitimacy threats. Firms might instead learn from the multiplicity of experiences of their business partners, and make decisions based on the anticipated efficiency benefits (Haunschild & Chandler, 2008). This is even more likely to be the case when global business network commitment to CSR is low, because weaker

isomorphic pressures imply that firm's decision making in this area is more likely to be inspired by the firm's active evaluation of the potential benefits associated with a certain course of action. Therefore, I more formally argue that:

Hypothesis 2b: As global business network commitment to CSR decreases, focal firm's adoption of CSR practices becomes more positively related to within global business network heterogeneity of commitment to CSR.

### *3.3.3 Ties with business partners located in countries with more stringent CSR institutional requirements*

Global business network commitment to CSR and within global business network heterogeneity of commitment to CSR reflect network-level institutional and economic forces that contribute to shaping a firm's decision to adopt CSR practices. However, it is also possible that some particular relationships might exert unique effects on focal firms' adoption of CSR-related practices, because they connect the firm to institutional contexts that have more stringent CSR institutional requirements. Such exchange relationships expose the firm to the rationale and local legitimacy of practices that might not be as strongly supported in the firm's home country. This could then result in a reevaluation of the firm's assumptions about these novel practices (Greenwood & Hinings, 1996).

Research has shown that when organizations operate in a country of similar or greater standing than its home base, they become more likely to be influenced by the rationale and local legitimacy of practices stemming from that institutional context (Sanders & Tuschke, 2007). Exchange relationships with business partners located in countries with more stringent institutional requirements in the CSR area operate as conduits for these influences to reach the focal firm. These relationships offer the focal firm an opportunity to understand that while these practices might not be widely accepted in its home

country, they are embraced in a prestigious institutional environment, and are adopted by firms of similar or higher status (Sanders & Tuschke, 2007). In these circumstances, the focal firm is more likely to upgrade its own CSR practices in order to achieve legitimacy in these host countries. Thus, I predict that:

Hypothesis 3: A firm is more likely to adopt CSR practices to the extent that it has ties with business partners in countries with more stringent CSR institutional requirements.

#### 3.3.4 *FDI- versus trade-based relationships in the global business network*

Distinguishing between the effects of focal firm's trade based and FDI-based ties within the global business network is also important, because they imply varying degrees of tie strength among the focal firm and its business partners, and, by extension, differing capacities to channel pressures from the local institutional environment into the global business network and onto the focal firm (e.g., Kogut & Zander, 1992). Trade relationships based on a firm's exports and imports ties reflect the proportion of the focal firm's inputs and outputs that are exchanged with alter organizations (e.g., Provan, 1993). FDI-based relationships are those that exist between parent firms and their subsidiaries (i.e., among multinational corporation headquarters and subsidiaries; e.g., Kostova & Roth, 2002).

While both trade- and FDI-based relationships help defining the degree to which the focal actor is exposed to social forces stemming from its global business network, the former should be a less effective conduit for CSR-related institutional pressures than the latter since trade-based ties tend be weaker than FDI-based ties. Unlike trade ties, FDI-based relationships involve transfers of capital, managerial expertise, shared organizational values, and a lasting interest in the assets owned by the company in the

host country, and, therefore, in the host country itself (Bandelj, 2002). This lasting interest implies the focal organization's capability to work within the social expectations of its various local institutional environments, including those concerning CSR. This is not necessarily the case with trade-based ties between focal firm and alter organizations, which tend to be more impersonal, shifting in membership (Uzzi, 1996), and perform as a less effective knowledge transfer channel than FDI-based relationships (Kogut & Zander, 1992). The varying strength of these relationships is likely to impact all forces stemming from within the global business network. Therefore I put forward the following hypotheses:

Hypothesis 4a: The type of tie between the focal firm and its partners in the global business network moderates the effect of global business network commitment to CSR on firm's adoption of CSR practices, such that the positive effect of global business network commitment to CSR is stronger for FDI-based relationships than trade-based relationships.

Hypothesis 4b: The type of tie between the focal firm and its partners in the global business network moderates the effect of within global business network heterogeneity of commitment to CSR on the relationship between global business network commitment to CSR and firm's adoption of CSR practices, such that this effect is stronger for FDI-based relationships than trade-based relationships.

Hypothesis 4c: The type of tie between the focal firm and its partners in the global business network moderates the effect of global business network commitment to CSR on the relationship between within global business network heterogeneity of commitment to CSR and firm's adoption of CSR practices, such that this effect is stronger for FDI-based relationships than trade-based relationships.

Hypothesis 4d: The type of tie between the focal firm and its partners in the global business network moderates the effect of the firm's ties to business partners in countries with more stringent CSR requirements on adoption of CSR practices, such that this effect is stronger for FDI-based relationships than trade-based relationships.

## CHAPTER 4

### RESEARCH DESIGN AND METHODOLOGY

This chapter describes the research design and methodology to test the theoretical model presented in chapter 3. It illustrates data sources and population sample; variable operationalizations; a description of the statistical method, model specification, and approach to hypotheses testing.<sup>1</sup>

#### 4.1 Sample

The sample in this study consists of publicly traded U.S. firms listed on the Russell 3000 index with matching information from the Kinder, Lydenberg and Domani (KLD), Port Import Export Report Service (PIERS), Corporate Affiliations and Compustat databases. The Russell 3000 index lists the largest U.S. multinationals in terms of market capitalization. This is an appropriate sample because these firms have

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<sup>1</sup> At an early stage of this project, I conducted ten interviews with managers from several large corporations such as Wal-Mart, BMW, Michelin, and Whole Foods. These interviews illustrated some of challenges associated with the implementation of ambitious CSR programs within MNCs and their global business networks both from the point of view of large multinational buyers, their suppliers and civil society stakeholders. They also helped refine my thinking about the construct of global business network as an actor-centered nexus of equity and non-equity relationships that span multiple countries. Also, the conversations and the research I carried out to support the related outreach activities helped me refine my understanding about the importance of these global networks for the study of the diffusion of CSR practices.

extensive global trade-based and FDI-based ties, and their social and environmental performance has been tracked for a number of years. The sampling history covers the years 2007-2011 since this is the coverage of the PIRS and KLD databases. After matching these databases, the sample consisted of 710 firms. The average firm size in 2007 was US\$182.6 billion in total assets. The largest firm was Citigroup Inc. (US\$218.7 billion) and the smallest was Jones Soda Co. (US\$41.6 million). The sampled firms operated in up to 114 countries and 15 on average. Table 4.1 describes the industries represented in the sample, and provides a sample breakdown by industrial sector. The largest group of firms in the sample belongs to the manufacturing sector (340 firms), followed by the consumer goods sector (100 firms), professional and information services sector (95 firms), pharmaceutical and biotechnology sector (79 firms), energy and extractive sector (58 firms), and lastly food and agriculture sector (38 firms).

**Table 4.1: Definitions and sample breakdown by industrial sector**

Industry sectors represented in the sample	Definition	Number of firms in the sample	%
Consumer Goods	This sector includes companies that relate to items purchased by individuals rather than by manufacturers and industries (e.g., packaged goods, clothing, automobiles and electronics)	100	14.08%
Energy & Extractive	This sector includes companies involved in the production and sale of energy, including extraction (e.g., mining, oil and gas drilling, forestry), manufacturing, refining and distribution.	58	8.18%
Food & Agriculture	This sector includes companies that manufacture and distribute a wide range of food and beverages; crop producers, livestock and meat producers, poultry and egg companies, dairy farmers, tobacco companies, food manufacturers and stores.	38	5.35%
Professional and Information Services	This sector includes companies operating in the provision of professional, scientific and technical services (e.g., legal advice and representation; accounting, bookkeeping and payroll services; architectural, engineering, and specialized design services; computer services; consulting services; research services; advertising services). It also includes companies offering services in the finance and insurance sectors.	95	13.38%
Manufacturing	This sector includes companies engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products.	340	47.88%
Pharmaceutical and Biotechnology	This sector includes companies that operate in the development, production, and marketing of drugs or pharmaceuticals licensed for use as medications; as well as companies involved in the application of biology and technology to develop innovative products and services.	79	11.13%
<i>Total</i>		710	100%

## 4.2 Data sources

To measure the dependent variable - *adoption of CSR practices*, I use the KLD database. Launched in 1991, KLD's categorical ratings comprise the largest and most comprehensive multidimensional database of firm-specific social performance ratings. As

such, KLD ratings are used widely by academics and investors (e.g., Berman, Wicks, Kotha, & Jones, 1999; Waddock & Graves, 1997). Starting in 2003, KLD's coverage was extended to the 3,000 largest U.S.-based companies by market capitalization. KLD rates firm's adoption of CSR practices across seven areas: community relations, diversity, corporate governance, employee relations, environment, human rights, and product quality and safety. Each category is subcategorized into strengths, which rate positive environmental and social externalities, and concerns, ratings of firm's negative environmental and social externalities (Tashman & Rivera, 2010). KLD ratings can receive a score of 1 or 0. A score of 1 indicates that the firm has been rated positively on a specific criterion, while 0 indicates lack of strength. Similarly, KLD concerns ratings can also receive a score of 1 or 0. Here a score of 1 would indicate the presence of a concern, while a score of 0 would indicate its absence. KLD ratings are based on a number of sources, including reports from company data, research partners, articles ranking companies on particular issues (e.g., Working Mother Magazine's "100 Best Companies to Work For"), public documents such as Securities and Exchange Commission filings, and information from government and nongovernmental organizations.

To measure focal firm's economic embeddedness in global business networks, I use firm-level exports and imports data from the PIERS database and data on firm-level foreign direct investment from the Corporate Affiliations database. The PIERS database is one of the most accurate and comprehensive databases available concerning U.S. export and import activities (Peng, Zhou & York, 2006). PIERS collects information directly from U.S. Customs documents about every export and import shipment to and

from the U.S. and then verifies the data with their quality control staff. The Corporate Affiliations database contains historical sales and employment levels of corporate family trees, including parent companies and domestic and foreign subsidiaries.

To measure institutional embeddedness, I follow Peng and Beamish (2008) and rely on the Responsible Competitiveness Index (RCI), which is a measure of country-level CSR-related institutional favorability from the Institute of Social and Ethical Accountability (AccountAbility) and the Fundação Dom Cabral (Zadek & MacGillivray, 2007, 2008). The RCI was originally created in 2003 with the intention to create a summary measure to rate a country's degree of support for CSR-related initiatives. It relies on 21 indicators, clustered around three primary domains, namely: (1) "policy drivers" (measuring the degree to which public policies encourage responsible business practices); (2) "business action" (measuring the application of governance, social and environmental good practice, codes and management systems at the firm level); and (3) "social enablers" (measuring the broader social and political environment as they support collaborative efforts among government and civil society organizations).

Finally, I rely on the Compustat database to develop several firm-level control variables and the NAICS industry classifications to control for industry effects.

### **4.3 Measures**

Table 4.2 lists the variables and measures I use in the main analyses.

**Table 4.2: Variables, measures, and sources of data**

Variable	Measure	Value	Source
Adoption of CSR practices	Indicator of the degree of focal firm's implementation of CSR practices	Continuous	Computed using data from KLD
Global business network commitment to CSR	Indicator of the degree to which the focal actor is economically embedded through FDI and import/export ties in institutional contexts that are favorable to the diffusion of CSR practices  Global business network's commitment to CSR <sub>i</sub> = $\Sigma (\text{Dependence}_{ij} * \text{Favorability}_j)$  Dependence <sub>ij</sub> = degree of FDI- and import/export-based dependence of firm i at time t on economic ties within country j;  Favorability <sub>j</sub> = institutional favorability of country j for CSR at time t.	Continuous  0-4  0-100	Computed using data from Piers and Corporate Affiliations  Responsible Competitiveness Index (RCI)
FDI-based global business network commitment to CSR	Indicator of the degree to which the focal actor is embedded through FDI ties in institutional contexts that are favorable to the diffusion of CSR practices  FDI-based global business network's commitment to CSR <sub>i</sub> = $\Sigma (\text{FDI-based Dependence}_{ij} * \text{Favorability}_j)$  FDI-based Dependence <sub>ij</sub> = degree of FDI-based dependence of firm i on relationships within country j;  Favorability <sub>j</sub> = institutional favorability of country j for CSR.	Continuous  0-2  0-100	Computed using data from Corporate Affiliations  Responsible Competitiveness Index (RCI)
Trade-based global business network commitment to CSR	Indicator of the degree to which the focal actor is embedded through import/export ties in institutional contexts that are favorable to the diffusion of CSR practices  Trade-based global business network's commitment to CSR <sub>i</sub> = $\Sigma (\text{Trade-based Dependence}_{ij} * \text{Favorability}_j)$	Continuous	

	Trade-based Dependence <sub>ij</sub> = degree of import/export-based dependence of firm i on economic ties within country j; Favorability <sub>j</sub> = institutional favorability of country j for CSR.	0-2 0-100	Computed using data from Piers Responsible Competitiveness Index (RCI)
Within global business network heterogeneity of commitment to CSR	Indicator of the variance of commitment to CSR within the focal firm's global business network $\sigma (\text{Dependence}_{ij} * \text{Favorability}_j)^2$ Dependence <sub>ij</sub> = degree of FDI- and import/export-based dependence of firm i on economic ties within country j; Favorability <sub>j</sub> = institutional favorability of country j for CSR.	Continuous 0-4 0-100	Computed using data from Piers and Corporate Affiliations RCI
Within FDI-based global business network heterogeneity of commitment to CSR	Indicator of the variance of commitment to CSR within the focal firm's FDI-based global business network $\sigma (\text{FDI-based Dependence}_{ij} * \text{Favorability}_j)^2$ Dependence <sub>ij</sub> = degree of FDI-based dependence of firm i on economic ties within country j; Favorability <sub>j</sub> = institutional favorability of country j for CSR.	Continuous 0-2 0-100	Computed using data from Piers and Corporate Affiliations RCI
Within trade-based global business network heterogeneity of commitment to CSR	Indicator of the variance of commitment to CSR within the focal firm's trade-based global business network $\sigma (\text{Trade-based Dependence}_{ij} * \text{Favorability}_j)^2$ Trade-based Dependence <sub>ij</sub> = degree of import/export-based dependence of firm i on economic ties within country j; Favorability <sub>j</sub> = institutional favorability of country j for CSR.	Continuous 0-2 0-100	Computed using data from Piers RCI

Ties to business partners in countries with more stringent CSR institutional requirements	Indicator of whether the firm has FDI and/or import/export ties in at least a country with more favorable CSR-related institutional context than that of its home country	0 or 1	RCI
FDI-ties in countries with more stringent CSR institutional requirements	Indicator of whether the firm has FDI ties in at least a country with more favorable CSR-related institutional context than that of its home country	0 or 1	RCI
Trade-ties in countries with more stringent CSR institutional requirements	Indicator of whether the firm has import/export ties in at least a country with more favorable CSR-related institutional context than that of its home country	0 or 1	RCI
ROA	Returns on assets, measured as the ratio of net income to net assets	Continuous	Compustat
R&D Intensity	Ratio of R&D expenditures to total sales	Continuous	Compustat
Capital Intensity	Ratio of total assets to total sales	Continuous	Compustat
Leverage	Ratio of long term debt to total sales	Continuous	Compustat
Industry	Indicator of the industry of the firm at the 2-digit NAICS level (6 industries)	0 or 1	Compustat

#### 4.3.1 *Dependent Variable*

I develop a summary score of CSR practice adoption capturing all of the KLD categories (community relations, diversity, corporate governance, employee relations, human rights, product quality and safety, and environment) following the convention established by Waddock and Graves (1997) and Waldman, Siegel and Javidan (2006). Specifically, separate estimates for strengths and concerns are combined into a single measure of environmental and social practices for each of the seven KLD categories. Concerns ratings in this set were first reverse-coded, so that -1 indicated the presence of a concern and 0 indicated the absence of. Then, I add the strength and concern assessments to form a single measure for each KLD rating for each year.

Research on corporate social performance frequently aggregates KLD indicators (e.g., Bouquet & Deutsch, 2008; David, Bloom & Hillman, 2007; Deckop, Merriman & Gupta, 2006; Graves & Waddock, 1994; Van der Laan, Van Ees & Van Witteloostuijn, 2008). Some researchers have operationalized adoption of CSR practices as the sum of all seven KLD category scores (e.g., Van der Laan et al., 2008), while others have relied on only a subset of indicators. Because the presented predictions do not suggest that any specific area would be more important than another, I used the method that involves summing all seven indicators into one aggregate KLD score.

Summing KLD scores is an appropriate method for measuring firm's adoption of CSR-related practices because the dependent variable is a theory-based formative construct, for which the issues of construct validity and reliability typical of reflective constructs are not as relevant. Bagozzi (1994) argues that "reliability in the internal consistency sense and construct validity in terms of convergent validity are not

meaningful when indexes are formed as a linear sum of measurements” (333).

Diamantopoulos and Winklhofer (2001) and Strike, Gao and Bansal (2006) identify four critical issues that need to be addressed in order to create a valid formative index, namely content specification, indicator specification, indicator collinearity, and external validity.

I address the first two by explicitly defining *adoption of CSR practices* and using commonly employed component indicators (e.g., Agle, Mitchell & Sonnenfeld, 1999; Berman, Wicks, Kotha & Jones, 1999; Deckop et al., 2006; Strike et al., 2006; Waddock & Graves, 2008). In addition, the indicator condition is met because there is weak correlation among the indicators that make up the measure and small variation inflation factors (VIFs) when regressing adoption of CSR practices on its component parts.

Moreover, other studies have used similar measures of CSR to predict other outcomes, which is evidence that the construct is externally valid (Strike et al., 2006). Similar aggregate measures have been used in previous studies and proved to be reliable, and, despite their limitations, they have been acknowledged to be the best available (Waddock, 2003). One reason is the KLD indicators’ reliance on a broad number of sources to measure firm social performance, which sets them apart from other measures of corporate social performance that have been criticized for their bias towards specific interests (e.g., Entine, 2003). Results of these tests are reported in Appendix B. Appendix C lists all the KLD indicators included in the development of this measure.

It is important to note that the number of KLD indicators within each sub-category changed from time to time across years over the sampling history. For this reason, I follow the recommendations of Mattingly and Berman (2006), who suggested

standardizing the count scores within years to z-scores so that the scores are comparable across years.

Table 4.3 reports the 2011 top 5% adopters of CSR practices in this study's sample. Table 4.4 reports the 2011 bottom 5% adopters of CSR practices in the sample. These rankings are based on the previously described measure of CSR practice adoption. Top performers include a majority of firms in the consumer goods, manufacturing and professional and information sectors. Worst performers include a majority of firms from the energy & extractive and manufacturing sectors.

These results are consistent with recent CSR trends, which indicate the growing desire among global consumers for products that incorporate CSR- and sustainability-related concerns (Forbes, 2012). This would help explaining the presence of firms from the consumer products sector at the top of the 2011 CSR adopters list. This trend is for example currently reflected in the renewed interest for green labeling among companies in the United States and Europe, exemplified Wal-Mart's great strides in this area with its sustainability index<sup>2</sup>. Relatedly, industry experts predict that cause-related marketing will keep growing in the near future (Forbes, 2012).

The presence of a considerable number of firms from the professional service and information sector among the 2011 top CSR adopters is also consistent with recent trends in this industry, which suggest a considerable growth of interest for environmental management issues (e.g., Accenture, 2013; Duff & Guo, 2010).

The presence of manufacturing firms among both the top and worst adopters of

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<sup>2</sup> <http://corporate.walmart.com/global-responsibility/environment-sustainability/sustainability-index>

CSR practices reflects the fact that firm in more controversial sectors are often at the forefront of new CSR and sustainability initiatives in large part to improve their corporate image and reduce the threat of investors' disapproval and government's sanctions (see McGladrey, 2010). Large MNCs like those included in the sample for this study are more likely to attract the attention of regulators and governmental sanctions than smaller firms or of firms that operate in less controversial sectors. For these firms, preserving their "license to operate" in different locations across the various countries that make up the focal firm's global business network is still a very important consideration. In other words, regulatory compliance, safety and social concerns, and investments in other sustainability areas are all important components of these firms' strategy to ensure financial returns on long-lived investments, such as utility plants and oil refineries (Baier, 2011).

The large presence of firms from the energy & extractive sector among the worst CSR performers is also not surprising, given these firms' unique challenges in the CSR area (see Ali & O'Faircheallaigh, 2007). These stem, among the other things, from the physically irreversible impact of many mining operations on the environment, their reliance on processes and inputs that can destroy the environment and often have major social impacts on the adjacent communities (see Ali & O'Faircheallaigh, 2007). Nonetheless, industry experts observe that many European and U.S. companies in this sector have begun to take environmental and social issues very seriously, often because of the negative repercussions associated with their previous inability to effectively deal with such issues along their global business networks (Vigeo, 2010).

**Table 4.3: Top 5% adopters of CSR practices in 2011**

Rank within sample	Company name	Industrial sector
1	General Mills Incorporated	Manufacturing
2	Xerox Corporation	Manufacturing
3	Johnson & Johnson	Consumer Goods
4	Procter & Gamble Company	Consumer Goods
5	Dell Inc.	Professional and Information Services
6	Avon Products, Inc.	Consumer Goods
7	International Business Machines Corporation	Professional and Information Services
8	Merck & Co., Inc.	Pharmaceutical and Biotechnology
9	Estee Lauder Companies Inc. (The)	Consumer Goods
10	Sara Lee Corporation	Consumer Goods
11	Gap, Inc. (The)	Consumer Goods
12	NIKE, Inc.	Consumer Goods
13	Ecolab Inc.	Manufacturing
14	Seagate Technology	Manufacturing
15	Whirlpool Corporation	Manufacturing
16	Cisco Systems, Inc.	Professional and Information Services
17	Macy's, Inc.	Consumer Goods
18	Lexmark International, Inc.	Manufacturing
19	Applied Materials, Inc.	Manufacturing
20	Eaton Corporation	Manufacturing
21	Hewlett-Packard Company	Manufacturing
22	Microsoft Corporation	Professional and Information Services
23	Wells Fargo & Company	Professional and Information Services
24	Green Mountain Coffee Roasters, Inc.	Food & Agriculture
25	Hormel Foods Corporation	Food & Agriculture
26	Clorox Company (The)	Consumer Goods
27	Office Depot, Inc.	Consumer Goods
28	Colgate-Palmolive Company	Consumer Goods
29	Abbott Laboratories	Pharmaceutical and Biotechnology
30	Kimberly-Clark Corporation	Manufacturing
31	Alcoa, Inc.	Manufacturing
32	NVIDIA Corporation	Professional and Information Services
33	Campbell Soup Company	Food & Agriculture
34	Coca-Cola Enterprises Inc.	Food & Agriculture
35	PepsiCo, Inc.	Food & Agriculture

**Table 4.4: Bottom 5% adopters of CSR practices in 2011**

Rank within sample	Company name	Industrial sector
678	Dril-Quip, Inc.	Energy & Extractive
679	Helix Energy Solutions Group	Energy & Extractive
680	Walter Energy, Inc.	Energy & Extractive
681	Helmerich & Payne, Inc.	Energy & Extractive
682	CONSOL Energy, Inc.	Energy & Extractive
683	American Apparel, Inc.	Consumer Goods
684	Audiovox Corporation	Consumer Goods
685	MarineMax, Inc.	Consumer Goods
686	CROCS, Inc.	Consumer Goods
687	Lorillard, Inc.	Consumer Goods
688	Cynosure, Inc.	Pharmaceutical and Biotechnology
689	General Maritime Corp	Pharmaceutical and Biotechnology
690	USANA Health Sciences, Inc.	Pharmaceutical and Biotechnology
691	USA Truck, Inc.	Pharmaceutical and Biotechnology
692	Old Dominion Freight Lines, Inc.	Pharmaceutical and Biotechnology
693	Solutia, Inc.	Manufacturing
694	Exide Technologies	Manufacturing
695	Cytec Industries, Inc.	Manufacturing
696	Cintas Corporation	Manufacturing
697	Jarden Corporation	Manufacturing
698	AK Steel Holding Corporation	Manufacturing
699	Dana Holding Corporation	Manufacturing
700	Oshkosh Corporation	Manufacturing
701	Rent-A-Center, Inc.	Professional and Information Services
702	Chiquita Brands International, Inc.	Food & Agriculture
703	Rowan Companies, Inc.	Energy & Extractive
704	Arch Coal, Inc.	Energy & Extractive
705	National Oilwell Varco, Inc.	Energy & Extractive
706	Rite Aid Corporation	Consumer Goods
707	URS Corporation	Professional and Information Services
708	Halliburton Company	Energy & Extractive
709	Alliant Techsystems Inc.	Pharmaceutical and Biotechnology
710	Innospec, Inc.	Manufacturing

#### 4.3.2 Independent variables

I measure *global business network's commitment to CSR* as the weighted average of the *institutional favorabilities* for CSR of the countries comprising the focal firm's global business network (capturing the firm's institutional embeddedness), by the focal firm's *degree of dependence* on economic ties in those countries (capturing the firm's economic embeddedness). The following formula was used to calculate this measure:

$$\text{Global Business Network's Commitment to CSR}_i = \Sigma (\text{Dependence}_{ij} * \text{Favorability}_j)$$

(1)

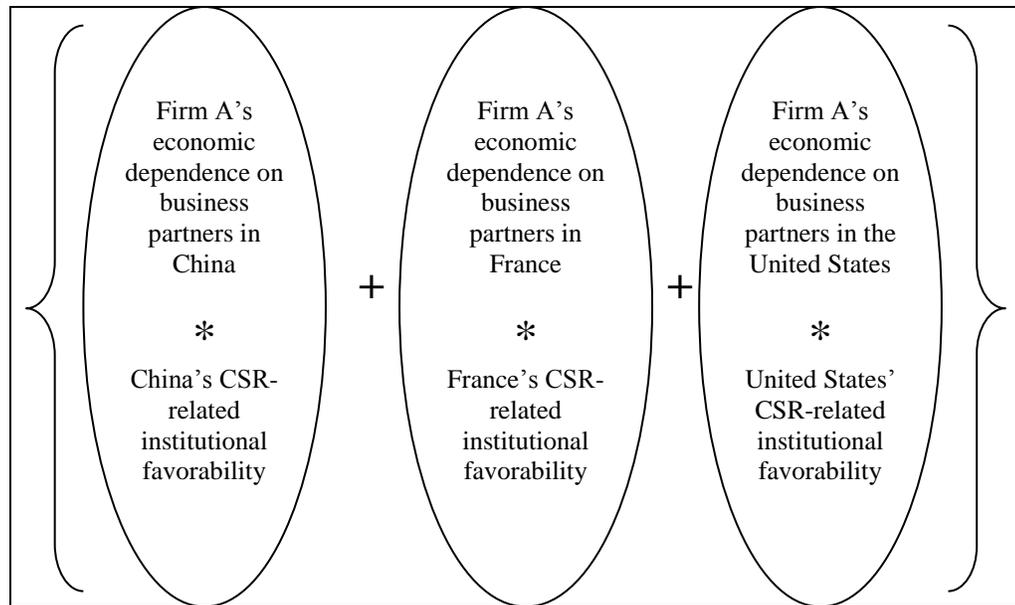
where:

$\text{Dependence}_{ij}$  = degree of dependence of firm i on economic ties within country j;

$\text{Favorability}_j$  = institutional favorability of country j for CSR.

Below, I further describe how  $\text{Dependence}_{ij}$  and  $\text{Favorability}_j$  are measured.

Figure 3.7 offers a stylized representation of the measurement approach described above for global business network commitment to CSR for hypothetical focal firm.



**Figure 3.7: Measurement approach to global business network commitment to CSR for a hypothetical focal firm**

Following other studies, I measure the focal firm's *degree of dependence* as the intensity of the economic exchange between the focal firm and its business partners located in a specific national market (Pfeffer and Salancik, 1978; Elango & Sethi, 2007; Sullivan, 1994; Thomas & Eden, 2004). Specifically, the proposed operationalization is based on Sullivan's (1994) measure of internationalization, as the sum of four ratios, namely: (1) ratio of country-specific yearly exports to total yearly exports; (2) ratio of country-specific yearly imports to total yearly imports; (3) ratio of number of employees per country per year to the total number of employees per year; and (4) ratio of the number of subsidiaries per country per year to the total number of subsidiaries per year. The former two ratios are drawn from the PIERS database, while the latter two from the Corporate Affiliations database. The resulting index displays values between 0 and 4.

Given the formative nature of this index, I followed the same approach to ensuring construct validity and reliability that was discussed above for the dependent variable. Specifically, Diamantopoulos and Winklhofer's (2001) indicator condition was satisfied because of the weak correlation among the indicators that make up  $Dependence_{ij}$  and the small VIFs when regressing firm's degree of dependence on its component parts. In addition, other studies have used similar measures of firm's intensity of economic exchange with foreign business partners to predict other outcomes, providing evidence that the construct is externally valid (Strike et al., 2006). Results of these tests are reported in Appendix B at the end of this document. The advantage of this measure of firm's *degree of dependence* on a set of business partners located in a specific foreign market is that it captures its multidimensional nature by considering both its FDI- and trade-related components. Thus, the proposed measure is more comprehensive and nuanced than other unidimensional operationalizations of this construct.

*Institutional favorability for CSR.* I follow Peng and Beamish (2008) and rely on the 2007 Responsible Competitiveness Index (RCI) to measure the degree of country-level CSR-related institutional favorability. The RCI relies on 21 indicators, which are arranged in three sub-indexes, each with seven indicators, all drawn from authoritative sources as diverse as Amnesty International, the International Organization for Standardization, the ILO, Transparency International, the World Economic Forum, and the World Bank (Zadek & McGillivray, 2007, 2008). Data for the RCI are only available for 2007. In accordance with Peng and Beamish (2008), I used them for the entire time period covered by the independent variables (2007-2010), assuming that they are relatively stable over time, because institutions tend to change slowly (North, 1993). I

also standardize this measure. Appendix D lists all the 21 indicators making up the RCI, as well as the countries included in the RCI and their rankings.

I measure *FDI-based Global Business Network's Commitment to CSR* as the weighted average of the *institutional favorabilities* for CSR of countries comprising the focal firm's FDI-based global business network, by the focal firm's *degree of dependence* on FDI-based economic ties in those countries. The following formula was used to calculate this measure:

$$\text{FDI-based Global Business Network's Commitment to CSR}_i = \frac{\sum (\text{FDI-based Dependence}_{ij} * \text{Favorability}_j)}{\text{Total FDI-based Dependence}_i} \quad (2)$$

where:

$\text{FDI-based Dependence}_{ij}$  = degree of FDI-based dependence of firm i on FDI-based economic ties within country j;

$\text{Favorability}_j$  = institutional favorability of country j for CSR.

While  $\text{Favorability}_j$  is measured as it was explained above,  $\text{FDI-based Dependence}_{ij}$  is measured as the sum of two of the ratios that were listed above, namely: (1) ratio of number of employees per country per year to the total number of employees per year; and (2) ratio of the number of subsidiaries per country per year to the total number of subsidiaries per year. The resulting measure of dependence displays values between 0 and 2.

I measure *Trade-based Global Business Network's Commitment to CSR* as the weighted average of the *institutional favorabilities* for CSR of countries comprising the focal firm's trade-based global business network, by the focal firm's *degree of dependence* on import/export-based economic ties in those countries (capturing the firm's

trade-based economic embeddedness). The following formula was used to calculate this measure:

$$\text{Trade-based Global Business Network's Commitment to CSR}_i = \Sigma (\text{Trade-based Dependence}_{ij} * \text{Favorability}_j) \quad (2)$$

where:

Trade-based Dependence<sub>ij</sub> = degree of trade-based dependence of firm i on import/export-based economic ties within country j;

Favorability<sub>j</sub> = institutional favorability of country j for CSR.

Favorability<sub>jt</sub> is measured as it was explained above. Trade-based Dependence<sub>ij</sub> is measured as the sum of two of the four ratios that were listed above for Global Business Network Commitment to CSR, namely: (1) ratio of country-specific yearly exports to total yearly exports; (2) ratio of country-specific yearly imports to total yearly imports. The resulting measure displays values between 0 and 2.

*Within Global Business Network Heterogeneity of Commitment to CSR:* I measure this variable as the variance of commitment to CSR within a focal firm's global business network in a given year. This measure was calculated using the following formula:

$$\text{Within Global Business Network Heterogeneity of Commitment to CSR}_i = \sigma(\text{Dependence}_{ij} * \text{Favorability}_j)^2 \quad (2)$$

where:

Dependence<sub>ij</sub> = degree of dependence of firm i on economic ties within country j;

Favorability<sub>j</sub> = institutional favorability of country j for CSR.

The proposed operationalization uses the same components (i.e., degree of dependence and favorability of the institutional environments) of the *Global Business Network's Commitment to CSR* variable.

*Within FDI-based Global Business Network Heterogeneity of Commitment to CSR*: I measure this variable as the variance of commitment to CSR within a focal firm's FDI-based global business network in a given year. This measure was calculated using the following formula:

$$\text{Within FDI-based Global Business Network Heterogeneity of commitment to CSR}_i = \Sigma (\text{FDI-based Dependence}_{ij} * \text{Favorability}_j)^2 \quad (2)$$

where:

FDI-based Dependence<sub>ij</sub> = degree of dependence of firm i on the FDI-based economic ties within country j;

Favorability<sub>j</sub> = institutional favorability of country j for CSR.

This variable relies on the same components that were discussed above for the *FDI-Based Global Business Network's Commitment to CSR* variable.

*Within Trade-based Global Business Network Heterogeneity of Commitment to CSR*: I measure this variable as the variance of commitment to CSR within a focal firm's trade-based global business network in a given year. This measure was calculated using the following formula:

$$\text{Within Trade-based Global Business Network Heterogeneity of Commitment to CSR}_i = \Sigma (\text{Trade-based Dependence}_{ij} * \text{Favorability}_j)^2 \quad (2)$$

where:

Trade-based Dependence<sub>ij</sub> = degree of dependence of firm i on the imports/exports-based economic ties within country j;

Favorability<sub>jt</sub> = institutional favorability of country j for CSR.

This variable relies on the same components that were discussed above for *Trade-Based Global Business Network's Commitment to CSR* variable.

*Ties to Business Partners in Countries with More Stringent CSR Institutional Requirements.* I operationalize this variable as a dummy variable, taking the value of 1 if the focal firm has global business network's partners or operates in at least one country with a better RCI score than that of its home country, and 0 otherwise.

*FDI-Ties to Countries with More Stringent CSR Institutional Requirements.* I operationalize this variable as a dummy variable, taking the value of 1 if the focal firm has FDI in at least one country with a better RCI score than that of its home country, and 0 otherwise.

*Trade-Ties to Countries with More Stringent CSR Institutional Requirements.* I operationalize this variable as a dummy variable, taking the value of 1 if the focal firm has trade partners in at least one country with a better RCI score than that of its home country, and 0 otherwise.

*Control variables.* To account for other factors that could affect the focal firm's CSR-related practices, I include a number of control variables. I control for *firm size*, which has been found to have positive effects on a firm corporate social performance (e.g., Christmann & Taylor, 2001). Existing research explains that larger companies are more likely to invest in CSR initiatives because of the greater public scrutiny over their behavior. I operationalize firm size as the log of firm sales (Sharma, 2000). I also control

for *firm profitability*, which several studies have found to be positively related to a firm's social performance (e.g., Mattingly & Berman, 2006; McWilliams & Siegel, 2000, 2001; Russo & Fouts, 1997), as firms with superior financial performance are likely to have more resources to invest in CSR. I propose to measure firm profitability as the return on firm assets (Hart, 1995). Following McWilliams and Siegel (2000), I also control for a focal firm's *research and development (R&D) intensity*, which has been found to influence a firm's adoption of CSR practices. R&D intensity was measured as the ratio of R&D expenditures to firm sales. Given the high number of missing values for this variable, I followed previous studies (e.g., Russo & Fouts, 1997; Strike et al., 2006) that have used industry averages as a proxy for missing observations. In addition, I control for *capital intensity* (Russo & Fouts, 1997), measuring it as the ratio of assets to sales, and *leverage* as the ratio of debt to sales (Tashman & Rivera, 2010).

Because industry level factors may also affect firm's adoption of CSR practices (e.g., Waddock & Graves, 1997), I control for *industry effects* by classifying each firm by its two-digit North American Industry Classification System code. I coded each firm into one of six industry sectors using five dummy variables. These industry sector categories include Consumer Goods, Energy and Extractive, Food and Agriculture, Professional and Information Services, Manufacturing, and Pharmaceutical and Biotechnology. The Pharmaceutical and Biotechnology is the reference industry sector.

All controls were standardized so that their coefficients in the model are comparable.

#### **4.4 Method of Analysis**

I analyze the data following the approach by Hull and Rothenberg (2008) who also rely on KLD data to investigate firm's adoption of CSR practices as it relates to their corporate financial performance. Specifically, I calculate the averages for all independent measures and control variables over the four-year period from 2007 through. To assess the impact of the independent variables on future adoption of CSR practices, I measured the dependent variable in the year 2011. This approach is appropriate not only because it helps to reduce noise in the data, but also because it is consistent with the likely longer-term nature of the effects of institutional and economic embeddedness. Other empirical studies of institutional effects have relied on similar statistical approach (e.g., Holburn and Zellner, 2010; Kwok & Reeb, 2000). A significant Breusch-Pagen  $\chi^2$  test for the two main models (156.98;  $p < .01$  for Model 2 in Table 6.2; and 141.47;  $p < .01$  for Model 2 in Table 6.4) indicated heteroscedastic error variances. I therefore rely on OLS regression with Huber-White estimators, whose robust standard errors deal with the failure to meet the homoscedasticity assumption. The analysis was done in Stata version 12.

This model specification, in tests of Hypotheses 1, 2 a-b and 3, can be expressed as follows:

$$Y_{it} = \beta_0 + \beta_1 X1_{it-1} + \beta_2 X2_{it-1} + \beta_3 X3_{it-1} + \beta_4 X1_{it-1} * X2_{it-1} + \beta_n C_{it-1} + \varepsilon_i \quad (1)$$

where:

$Y_{it}$  = predicted adoption of CSR practices for focal firm  $i$ , year  $t$ ,

$\beta_0$  = the intercept of  $Y_{it}$ ,

$\beta_1$  = the direct effect of  $X1_{it-1}$  on  $Y_{it}$ ,

$X1_{it-1}$  = global business network's commitment to CSR, firm  $i$ , year  $t-1$ ,

$\beta_2$  = the direct effect of  $X2_i$  on  $Y_{it}$ ,

$X2_{it-1}$  = within global business network heterogeneity of commitment to CSR,  
firm i, year t-1,

$\beta_3$  = the direct effect of  $X3_{it-1}$  on  $Y_{it}$ ,

$X3_{it-1}$  = ties to business partners in countries with more stringent CSR institutional  
requirements, firm i, year t-1,

$\beta_4$  = the interaction effect of  $X1_{it-1}$  and  $X2_{it-1}$  on  $Y_{it}$ ,

$\beta_n$  = the direct effects of the  $C_{it-1}$  on  $Y_{it}$ ,

$C_i$  = vector of control variables for firm i year t-1,

$\varepsilon_i$  = the randomly varying unique error term contributed by firm i, year t, to  $\beta_0$

(where  $\varepsilon_i: N(0, \sigma^2)$ )

Hypothesis 1 (*H1: A focal firm's adoption of CSR practices will be positively related to the overall CSR commitment of its global business network*) is supported if the coefficient for global business network commitment to CSR is positive and significant (i.e.,  $H_a: \beta_1 > 0$  in equation (1)).

Support for Hypothesis 2a is present when two conditions are met (*H2a: As within global business network heterogeneity of commitment to CSR decreases, focal firm's adoption of CSR practices becomes more positively related to global business network commitment to CSR*). First, the interaction of global business network commitment to CSR and within global business network heterogeneity of commitment to CSR needs to be negative and significant (i.e.,  $H_a: \beta_4 < 0$  in equation (1)). In addition, simple slopes analysis (Aiken & West, 1991) at different levels of these variables (i.e., average; low; and high) should indicate that the coefficient of global business network's commitment to CSR

(i.e.,  $\beta_1$  in equation 1) becomes more positive as within global business network heterogeneity of commitment to CSR decreases in value.

Similarly, Hypothesis 2b is supported when two conditions are met (*H2b: As global business network commitment to CSR decreases, focal firm's adoption of CSR practices becomes more positively related to within global business network heterogeneity of commitment to CSR*). First, the interaction of global business network commitment to CSR and within global business network heterogeneity of commitment to CSR needs to be negative and significant (i.e.,  $H_a: \beta_4 < 0$  in equation (1)). In addition, simple slopes analysis (Aiken & West, 1991) at different levels of these variables (i.e., average; low; and high) needs to show that the coefficient of within global business network heterogeneity of commitment to CSR (i.e.,  $\beta_2$  in equation 1) becomes more positive as global business network commitment to CSR decreases in value.

Hypothesis 3 (*H3: A firm is more likely to adopt CSR practices to the extent that it has ties with business partners in countries with more stringent CSR institutional requirements*) is supported if the coefficient of ties to business partners in countries with more stringent CSR institutional requirements is positive and significant (i.e.,  $\beta_3 > 0$  in equation (1)).

The model specification for testing Hypotheses 4a, b, c and d, can be expressed as follows:

$$Y_{it} = \beta_0 + \beta_1 X_{1it-1} + \beta_2 X_{2it-1} + \beta_3 X_{3it-1} + \beta_4 X_{1it-1} * X_{2it-1} + \beta_5 X_{4it-1} + \beta_6 X_{5it-1} + \beta_7 X_{6it-1} + \beta_8 X_{4it-1} * X_{5it-1} + \varepsilon_i \quad (2)$$

where:

$Y_{it}$  = predicted adoption of CSR practices for focal firm  $i$ , year  $t$ ,

$\beta_0$  = the intercept of  $Y_{it}$ ,

$\beta_1$  = the direct effect of  $X1_{it-1}$  on  $Y_{it}$ ,

$X1_{it-1}$  = FDI-based global business network's commitment to CSR, firm  $i$ , year  $t-1$ ,

$\beta_2$  = the direct effect of  $X2_{it-1}$  on  $Y_{it}$ ,

$X2_{it-1}$  = within FDI-based global business network heterogeneity of commitment to CSR, firm  $i$ , year  $t-1$ ,

$\beta_3$  = the direct effect of  $X3_{it-1}$  on  $Y_{it}$ ,

$X3_{it-1}$  = FDI-ties to countries with more stringent CSR institutional requirements, firm  $i$ , year  $t-1$ ,

$\beta_4$  = the interaction effect of  $X1_{it-1}$  and  $X2_{it-1}$  on  $Y_{it}$ ,

$\beta_5$  = the direct effect of  $X4_{it-1}$  on  $Y_{it}$ ,

$X4_{it-1}$  = trade-based global business network's commitment to CSR, firm  $i$ , year  $t-1$ ,

$\beta_6$  = the direct effect of  $X5_{it-1}$  on  $Y_{it}$ ,

$X5_{it-1}$  = within trade-based global business network heterogeneity of commitment to CSR, firm  $i$ , year  $t-1$ ,

$\beta_7$  = the direct effect of  $X6_{it-1}$  on  $Y_{it}$ ,

$X6_{it-1}$  = trade-ties to countries with more stringent CSR institutional requirements, firm  $i$ , year  $t-1$ ,

$\beta_8$  = the interaction effect of  $X4_{it-1}$  and  $X5_{it-1}$  on  $Y_{it}$ ,

$\beta_n$  = the direct effects of the  $C_{it-1}$  on  $Y_{it}$ ,

$C_i$  = vector of control variables for firm  $i$  year  $t-1$ ,

$\varepsilon_i$  = the randomly varying unique error term contributed by firm  $i$ , year  $t$ , to  $\beta_0$

(where  $\varepsilon_i: N(0, \sigma^2)$ )

Hypothesis 4a (*H4a: The type of tie between the focal firm and its partners in the global business network moderates the effect of global business network commitment to CSR on firm's adoption of CSR practices, such that the positive effects of global business network commitment to CSR is stronger for FDI-based relationships than trade-based relationships*), is supported if the coefficient for FDI-based global business network commitment to CSR is positive and significant (i.e.,  $H_a: \beta_1 > 0$  in equation (2)) and the coefficient for trade-based global business network commitment to CSR is insignificant ( $\beta_5$ ).

Hypothesis 4b (*H4b: The type of tie between the focal firm and its partners in the global business network moderates the effect of within global business network heterogeneity of commitment to CSR on the relationship between global business network commitment to CSR and firm's adoption of CSR practices, such that this effect is stronger for FDI-based relationships than trade-based relationships*), is supported if three conditions are met:

- (a) The coefficient of the interaction of FDI-based global business network commitment to CSR and within FDI-based global business network heterogeneity of commitment to CSR is negative and significant (i.e.,  $H_a: \beta_4 > 0$  in equation (2));
- (b) Simple slopes analysis (Aiken & West, 1991) at different levels of

- these variables (i.e., average; low; and high) should indicate that the coefficient of FDI-based global business network's commitment to CSR (i.e.,  $\beta_1$  in equation 2) becomes more positive as within FDI-based global business network heterogeneity of commitment to CSR decreases in value;
- (c) The coefficient of the interaction of trade-based global business network commitment to CSR and within trade-based global business network heterogeneity of commitment to CSR is insignificant ( $\beta_8$ ).

Hypothesis 4c (*H4c: The type of tie between the focal firm and its partners in the global business network moderates the effect of global business network commitment to CSR on the relationship between within global business network heterogeneity of commitment to CSR and firm's adoption of CSR practices, such that this effect is stronger for FDI-based relationships than trade-based relationships*), is supported if three conditions are met:

- (a) The coefficient of the interaction of FDI-based global business network commitment to CSR and within FDI-based global business network heterogeneity of commitment to CSR is negative and significant (i.e.,  $H_a: \beta_4 > 0$  in equation (2));
- (b) Simple slopes analysis (Aiken & West, 1991) at different levels of these variables (i.e., average; low; and high) should indicate that the coefficient of within FDI-based global business network heterogeneity of commitment to CSR (i.e.,  $\beta_2$  in equation 2) becomes more positive as FDI-based global business network commitment to CSR decreases in value;

- (c) The coefficient of the interaction of trade-based global business network commitment to CSR and within trade-based global business network heterogeneity of commitment to CSR is insignificant ( $\beta_8$ ).

Hypothesis 4d (*H4d: The type of tie between the focal firm and its partners in the global business network moderates the effect of the firm's ties to business partners in countries with more stringent CSR requirements on adoption of CSR practices, such that the positive effect is stronger for FDI-based relationships than trade-based relationships*), is supported if the coefficient of FDI-ties to countries with more stringent CSR institutional requirements is positive and significant (i.e.,  $\beta_3 > 0$  in equation (2)) and the coefficient of trade-ties to countries with more stringent CSR institutional requirements is insignificant (i.e.,  $\beta_7$  in equation (2)).

#### **4.5 Alternative model specification**

I conduct several robustness tests. One set of them relies on an alternative model specification. Specifically, since the original dataset contains multi-year observations for each firm, it is effectively a pool-time series, or panel data set (Johnson, 1995). To verify whether observations are dependent within firm, I conduct a Wooldridge F test (Wooldridge, 2002; Drukker, 2003). Significant test statistics (357.67;  $p < .01$  for Models in Table 6.2; and 471.958;  $p < .01$  for Models in Table 6.4) indicate the presence of serial correlation. In addition I perform a Breusch-Pagen  $\chi^2$  test for heteroskedasticity to examine whether error variances differed across firms. Significant test statistics (610.83;  $p < .01$  for Models in Table 6.2; and 589.82;  $p < .01$  for Models in Table 6.4) indicate heteroscedastic error variances.

Given the presence of these violations, I rely on cross-sectional time series regression with generalized least square (GLS) estimators with controls for autocorrelation (*xtregar* in STATA). The Hausman  $\chi^2$  test was significant, which indicated that fixed effects are more appropriate than random-effects (Hausman, 1978;  $\chi^2 = 26.83$ ;  $p < .01$  for Models in Table 6.2 and 30.14;  $p < .01$  for Models in Table 6.4). However, I could not use a fixed-effects approach as several of the hypothesized variables did not vary. Therefore I implement panel-corrected standard error regression (PCSE) with panel-specific corrections for autocorrelation and heteroscedasticity. PCSE regression has been used extensively in the management research by researchers with panel data, and has appeared in numerous articles in high ranking management journals (e.g. Banker, Field, Schroeder & Sinha, 1996; Berman, Wicks, Kotha & Jones, 1999; Gimeno, 1999; He & Heli, 2009). Management scholars have used other analytical options for panel data including feasible generalized least squares (FGLS) regression (Beck & Katz, 1995). FGLS is however inappropriate because the panel in the current study consists of a large number of cross-sections and small number of time-periods. Via Monte Carlo simulations, Beck and Katz (1995) showed, in these cases, that this procedure often led to significant Type I errors. In comparison, they found that PCSE regression produced accurate and efficient estimations in simulations of the same models and data.

This alternative model specification is further detailed in Appendix E.

## CHAPTER 5

### RESULTS

#### 5.1 Main results

Table 5.1 presents the descriptive statistics – means, standard deviations, and correlations for all non-dichotomous variables. Tables 5.2, 5.3, 5.4 and 5.5 report the results of the main analyses. Correlations are generally low, with the exception of the correlation between the variables *within trade-based global business network heterogeneity of commitment to CSR* and *trade-based global business network commitment to CSR* ( $\rho = .76$ ;  $p < .01$ ). To address potential multicollinearity concerns, I rely on variance inflation factors (VIFs) to test for multicollinearity in the main analyses that includes these variables and obtain mean values considerably lower than the recommended cutoff value of 10 (Kutner et al., 2004: 409). Specifically, the mean VIFs for Models 1 and 2 in Table 5.2 are, respectively, 1.85 and 2.28. This suggests that multicollinearity is not an important concern in these models.

**Table 5.1: Descriptive statistics and correlations**

	Mean	s.d.	1	2	3	4	5	6	7	8	9	10	11	12
1 Adoption of CSR Practices	-0.53	3.07	1											
2 Size <sup>a</sup>	7.79	1.64	0.56 ***	1										
3 ROA	0.03	0.12	0.14 ***	0.28 ***	1									
4 R&D Intensity	0.05	0.08	-0.04	-0.18 ***	-0.32 ***	1								
5 Capital Intensity	1.69	3.00	0.05	-0.09 ***	-0.14 ***	0.31 ***	1							
6 Leverage	0.32	0.49	0.04	-0.04	-0.25 ***	0.02	0.62 ***	1						
7 Global Business Network Commitment to CSR	0.61	1.14	0.09 ***	0.02	0.00	0.03	-0.08 ***	-0.04	1					
8 FDI-based Global Business Network Commitment to CSR	0.17	0.42	0.15 ***	0.09 ***	0.05	-0.03	-0.10 ***	-0.08 ***	0.39 ***	1				
9 Trade-based Global Business Network Commitment to CSR	0.29	0.89	-0.10 ***	-0.13 ***	0.00	-0.01	-0.07 **	-0.05	0.15 ***	0.14 ***	1			
10 Within Global Business Network Heterogeneity of Commitment to CSR	0.22	0.38	-0.03	-0.04	-0.03	0.00	-0.03	-0.01	0.11 ***	0.27 ***	0.18 ***	1		
11 Within FDI-based Global Business Network Heterogeneity of Commitment to CSR	0.01	0.06	0.02	-0.03	-0.02	0.04	-0.06 *	-0.01	0.94 ***	0.11 ***	0.13 ***	0.02	1	
12 Within Trade-based Global Business Network Heterogeneity of Commitment to CSR	0.13	0.27	-0.09 **	-0.12 ***	-0.01	-0.01	-0.07 **	-0.05	0.13 ***	-0.06 **	0.76 ***	0.01	0.18 ***	1

<sup>a</sup> = Log transformed variable; \* < .10; \*\* < .05; \*\*\* < .01

**Table 5.2: OLS regression with Huber-White estimators (Hypotheses 1, 2a-b, and 3)**

	Model 1		Model 2 GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR		Model 3 GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR (-1 $\delta$ )	
	Coeff.	St. E.	Coeff.	St. E.	Coeff.	St. E.
Size	0.33 ***	0.02	0.33 ***	0.02	0.33 ***	0.02
ROA	0.60 *	0.34	0.66 *	0.34	0.66 *	0.34
R&D Intensity	0.58 ***	0.18	0.59 ***	0.18	0.59 ***	0.18
Capital Intensity	0.02 **	0.01	0.03 ***	0.01	0.03 ***	0.01
Leverage	0.11 *	0.06	0.12 *	0.06	0.12 *	0.06
<i>Industry Controls</i>						
Consumer Goods	0.27 *	0.14	0.31 **	0.14	0.31 **	0.14
Energy & Extractive	-0.32 **	0.14	-0.31 **	0.13	-0.31 **	0.13
Food & Agriculture	0.31 *	0.19	0.34 *	0.18	0.34 *	0.18
Professional and Information Services	-0.03	0.13	-0.04	0.13	-0.04	0.13
Manufacturing	-0.06	0.09	-0.05	0.09	-0.05	0.09
GBN Commitment to CSR	0.08 **	0.04	0.15 ***	0.05	0.26 ***	0.07
Within GBN Heterogeneity of Commitment to CSR	0.02	0.09	0.36 ***	0.13	0.36 ***	0.13
GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR			-0.30 ***	0.08	-0.30 ***	0.08
Ties to More Stringent CSR Requirements	0.18 **	0.07	0.19 ***	0.07	0.19 ***	0.07
Intercept	-8.59 ***	1.85	-8.81 ***	1.83	-8.94 ***	1.83
Observations	710		710		710	
Number of Firms	710		710		710	
R <sup>2</sup>	35.56%		36.54%		36.54%	
F	(13, 696) 21.52***		(14, 695) 20.63***		(14, 695) 20.63***	
Root MSE	0.83		0.83		0.83	

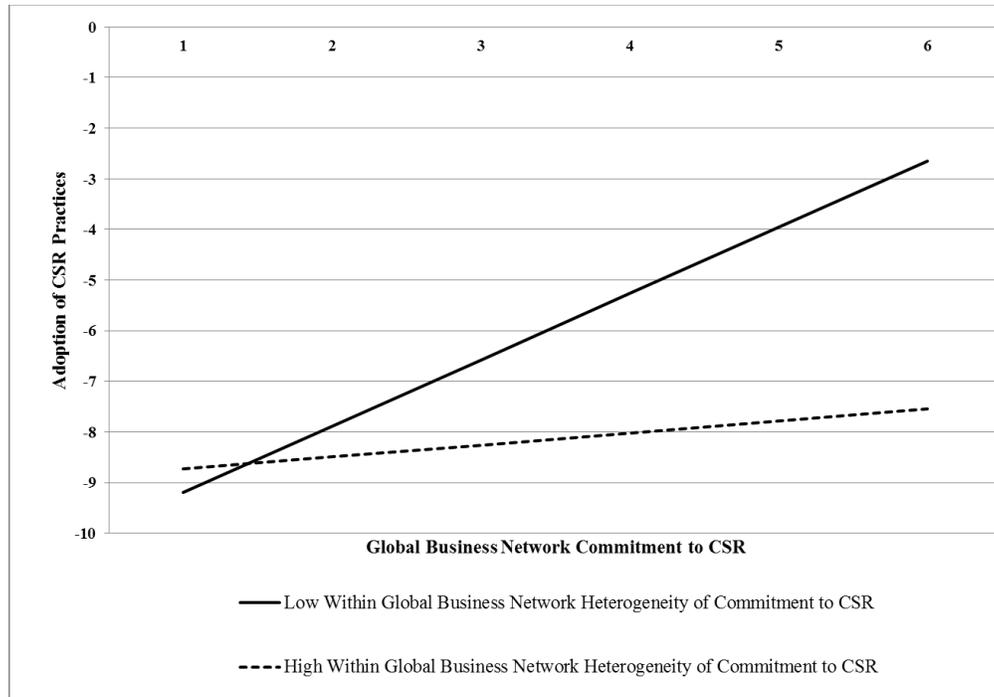
**Table 5.2—Cont'd.**

	Model 4		Model 5		Model 6		Model 7		Model 8		Model 9		Model 10	
	GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR (+1 $\delta$ ) Coeff. St. E.		GBN Commitment to CSR (-1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR Coeff. St. E.		GBN Commitment to CSR (-1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR (-1 $\delta$ ) Coeff. St. E.		GBN Commitment to CSR (-1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR (+1 $\delta$ ) Coeff. St. E.		GBN Commitment to CSR (+1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR Coeff. St. E.		GBN Commitment to CSR (+1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR (-1 $\delta$ ) Coeff. St. E.		GBN Commitment to CSR (+1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR (+1 $\delta$ ) Coeff. St. E.	
Size	0.33 ***	0.02	0.33 ***	0.02	0.33 ***	0.02	0.33 ***	0.02	0.33 ***	0.02	0.33 ***	0.02	0.33 ***	0.02
ROA	0.66 *	0.34	0.66 *	0.34	0.66 *	0.34	0.66 *	0.34	0.66 **	0.34	0.66 *	0.34	0.66 *	0.34
R&D Intensity	0.59 ***	0.18	0.59 ***	0.18	0.59 ***	0.18	0.59 ***	0.18	0.59 ***	0.18	0.59 ***	0.18	0.59 ***	0.18
Capital Intensity	0.03 ***	0.01	0.03 ***	0.01	0.03 ***	0.01	0.03 ***	0.01	0.03 ***	0.01	0.03 ***	0.01	0.03 ***	0.01
Leverage	0.12 *	0.06	0.12 *	0.06	0.12 *	0.06	0.12 *	0.06	0.12 *	0.06	0.12 *	0.06	0.12 *	0.06
<i>Industry Controls</i>														
Consumer Goods	0.31 **	0.14	0.31 **	0.14	0.31 **	0.14	0.31 **	0.14	0.31 **	0.14	0.31 **	0.14	0.31 **	0.14
Energy & Extractive	-0.31 **	0.13	-0.31 **	0.13	-0.31 **	0.13	-0.31 **	0.13	-0.31 **	0.13	-0.31 **	0.13	-0.31 **	0.13
Food & Agriculture	0.34 *	0.18	0.34 *	0.18	0.34 *	0.18	0.34 *	0.18	0.34 *	0.18	0.34 *	0.18	0.34 *	0.18
Professional and Information Services	-0.04	0.13	-0.04	0.13	-0.04	0.13	-0.04	0.13	-0.04	0.13	-0.04	0.13	-0.04	0.13
Manufacturing	-0.05	0.09	-0.05	0.09	-0.05	0.09	-0.05	0.09	-0.05	0.09	-0.05	0.09	-0.05	0.09
GBN Commitment to CSR	0.05	0.04	0.15 ***	0.05	0.26 ***	0.07	0.05	0.04	0.15 ***	0.05	0.26 ***	0.07	0.05	0.04
Within GBN Heterogeneity of Commitment to CSR	0.36 ***	0.13	0.65 ***	0.20	0.65 ***	0.20	0.65 ***	0.20	0.07	0.07	0.07	0.07	0.07	0.07
GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR	-0.30 ***	0.08	-0.30 ***	0.08	-0.30 ***	0.08	-0.30 ***	0.08	-0.30 ***	0.08	-0.30 ***	0.08	-0.30 ***	0.08
Ties to More Stringent CSR Requirements	0.19 ***	0.07	0.19 ***	0.07	0.19 ***	0.07	0.19 ***	0.07	0.19 ***	0.07	0.19 ***	0.07	0.19 ***	0.07
Intercept	-8.68 ***	1.82	-8.96 ***	1.83	-9.20 ***	1.84	-8.73 ***	1.82	-8.66 ***	1.83	-8.68 ***	1.83	-8.64 ***	1.83
Observations	710		710		710		710		710		710		710	
Number of Firms	710		710		710		710		710		710		710	
R <sup>2</sup>	36.54%		36.54%		36.54%		36.54%		36.54%		36.54%		36.54%	
F	(14, 695) 20.63***		(14, 695) 20.63***		(14, 695) 20.63***		(14, 695) 20.63***		(14, 695) 20.63***		(14, 695) 20.63***		(14, 695) 20.63***	
Root MSE	0.83		0.83		0.83		0.83		0.83		0.83		0.83	

Hypothesis 1 predicts that *global business network's commitment to CSR is positively related to the focal firm's adoption of CSR-related practices*. Results in Table 5.2 for Model 1, which only includes the predicted direct effects, indicate a positive significant relationship between global business network's commitment to CSR and focal firm's adoption of CSR practices ( $\beta = 0.08$ ;  $p < .05$ ), supporting H1. This result is also confirmed in Model 2 ( $\beta = 0.15$ ;  $p < .01$ ), which also includes the interaction, at average levels, of global business network commitment to CSR and within global business network heterogeneity of commitment to CSR.

I explore the interactive relationship between global business network commitment to CSR and within global business network heterogeneity of commitment to CSR, as predicted in Hypotheses 2a and 2b, following the steps recommended by Aiken and West (1991). Therefore Models 2 through 9 include this interaction term at different levels of global business network commitment to CSR and within global business network heterogeneity of commitment to CSR (i.e., average; low; and high). The first necessary step involves confirming that the interaction of global business network commitment to CSR and within global business network heterogeneity of commitment to CSR is negative and significant. This is supported in Model 2 ( $\beta = -0.3$ ;  $p < .01$ ). I then look at how within global business network heterogeneity of commitment to CSR moderates the relationship between global business network's commitment to CSR and firm's adoption of CSR practices. Hypothesis 2a is confirmed if the coefficient of global business network commitment to CSR becomes more positive as within global business network heterogeneity of commitment to CSR decreases in value. This is supported by Models 3, 2 and 4. Specifically, at low levels of within global business network heterogeneity of commitment to CSR (Model 3), the coefficient of global business network's commitment to CSR is positive and significant ( $\beta = 0.26$ ;  $p < .01$ ). At average levels of within global business network heterogeneity

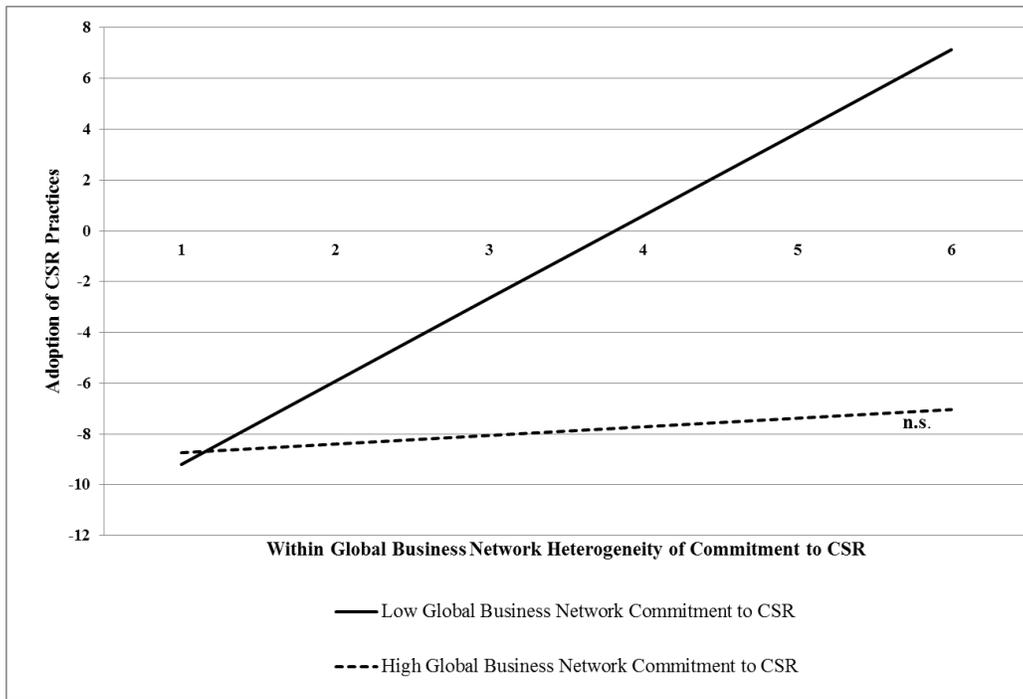
of commitment to CSR (Model 2), the coefficient of global business network's commitment to CSR is also positive and significant ( $\beta = 0.15$ ;  $p < .01$ ), but of a lower magnitude than that in Model 3. Then, at high levels of within global business network heterogeneity of commitment to CSR (Model 4), the coefficient of global business network commitment to CSR is insignificant ( $\beta = 0.05$ ; n.s.). Figure 5.1 illustrates how within global business network heterogeneity of commitment to CSR moderates the relationship between global business network's commitment to CSR and firm's adoption of CSR practices.



**Figure 5.1: Interaction plot for the moderating effect of within global business network heterogeneity of commitment to CSR on the relationship between global business network commitment to CSR and firm's adoption of CSR-related practices, using OLS regression with Huber-White estimators (Hypothesis 2a)**

I follow the same steps to also examine how global business network's commitment to CSR moderates the relationship between within global business network heterogeneity of

commitment to CSR and firm's adoption of CSR practices, as predicted in Hypothesis 2b. This hypothesis is supported if the coefficient of within global business network commitment to CSR becomes more positive as global business network commitment to CSR decreases in value. This is indeed the case in Models 5, 2 and 8. These models show that at low levels of global business network's commitment to CSR (Model 5), the coefficient of within global business network heterogeneity of commitment to CSR is positive and significant ( $\beta = 0.65$ ;  $p < .01$ ). In addition, at average levels of global business network commitment to CSR (Model 2), the coefficient of within global business network heterogeneity of commitment to CSR is also positive and significant ( $\beta = 0.36$ ;  $p < .01$ ), but of a lower magnitude than that in Model 5. Finally, at high levels of global business network commitment to CSR (Model 8), the coefficient of within global business network heterogeneity of commitment to CSR is insignificant ( $\beta = 0.07$ ; n.s.). Figure 5.2 illustrates how global business network commitment to CSR moderates the relationship between heterogeneity of commitment to CSR and firm's adoption of CSR practices.



**Figure 5.2: Interaction plot for the moderating effect of global business network commitment to CSR on the relation between within global business network heterogeneity of commitment to CSR and firm’s adoption of CSR-related practices, using OLS regression with Huber-White estimators (Hypothesis 2b)**

Table 5.3 further summarizes the results for Hypotheses 2a and 2b discussed above.

**Table 5.3: Summary of results from Models 2-9 using OLS regression with Huber-White estimators (Hypotheses 2a and b)**

Commitment -1 $\delta$ ; Heterogeneity -1 $\delta$			Commitment -1 $\delta$ ; Heterogeneity			Commitment -1 $\delta$ ; Heterogeneity +1 $\delta$		
	Coef.	Sig.		Coef.	Sig.		Coef.	Sig.
Commit. -1 $\delta$	0.26	***	Commit. -1 $\delta$	0.15	***	Commit. -1 $\delta$	0.05	
Heter. -1 $\delta$	0.65	***	Heter.	0.65	***	Heter. +1 $\delta$	0.65	***
Commitment; Heterogeneity -1 $\delta$			Commitment; Heterogeneity			Commitment; Heterogeneity +1 $\delta$		
	Coef.	Sig.		Coef.	Sig.		Coef.	Sig.
Commit.	0.26	***	Commit.	0.15	***	Commit.	0.05	
Heter. -1 $\delta$	0.36	***	Heter.	0.36	***	Heter. +1 $\delta$	0.36	***
Commitment +1 $\delta$ ; Heterogeneity -1 $\delta$			Commitment +1 $\delta$ ; Heterogeneity			Commitment +1 $\delta$ ; Heterogeneity +1 $\delta$		
	Coef.	Sig.		Coef.	Sig.		Coef.	Sig.
Commit. +1 $\delta$	0.26	***	Commit. +1 $\delta$	0.15	***	Commit. +1 $\delta$	0.05	
Heter. -1 $\delta$	0.07		Heter.	0.07		Heter. +1 $\delta$	0.07	

Results also support Hypothesis 3, as shown by the positive and significant coefficient of the dummy variable for ties to business partners in countries with more stringent CSR institutional requirements in Models 1 ( $\beta = 0.18$ ;  $p < .05$ ) and 2 ( $\beta = 0.19$ ;  $p < .01$ ).

Results in Table 5.2 above indicate that the control variables *size*, *ROA*, *R&D intensity*, *capital intensity*, *leverage*, and *industry*, these variables are all significantly related to firm adoption of CSR practices. The only exceptions are the effects of the controls for professional and information services and manufacturing sectors.

Tables 5.4 and 5.5 report the results for tests of Hypotheses 4a, b, c and d.

**Table 5.4: OLS regression with Huber-White estimators (Hypotheses 4a, b, c and d)**

	Model 1		Model 2 GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR		Model 3 GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR (-1 $\delta$ )	
	Coeff.	St. E.	Coeff.	St. E.	Coeff.	St. E.
Size	0.32 ***	0.02	0.32 ***	0.02	0.32 ***	0.02
ROA	0.55 *	0.34	0.61 *	0.34	0.61 *	0.34
R&D Intensity	0.58 ***	0.18	0.58 ***	0.18	0.58 ***	0.18
Capital Intensity	0.03 ***	0.01	0.03 ***	0.01	0.03 ***	0.01
Leverage	0.11 *	0.06	0.12 **	0.06	0.12 **	0.06
<i>Industry Controls</i>						
Consumer Goods	0.28 **	0.14	0.28 **	0.14	0.28 **	0.14
Energy & Extractive	-0.32 **	0.14	-0.33 **	0.14	-0.33 **	0.14
Food & Agriculture	0.34 *	0.19	0.33 *	0.19	0.33 *	0.19
Professional and Information Services	-0.07	0.13	-0.07	0.13	-0.07	0.13
Manufacturing	-0.09	0.09	-0.10	0.09	-0.10	0.09
FDI-based GBN Commitment to CSR	0.17 **	0.08	0.24 ***	0.09	1.25 ***	0.34
Within FDI-based GBN Heterogeneity of Commitment to CSR	-0.19	0.18	1.06 ***	0.33	1.06 ***	0.33
FDI-based GBN Commitment to CSR * Within FDI-based GBN Heterogeneity of Commitment to CSR			-1.01 ***	0.28	-1.01 ***	0.28
FDI Ties to More Stringent CSR Requirements	0.25 ***	0.09	0.21 **	0.09	0.21 **	0.09
Trade-based GBN Commitment to CSR	0.01	0.04	0.02	0.06	0.02	0.06
Within Trade-based GBN Heterogeneity of Commitment to CSR	0.25 **	0.11	0.26 **	0.12	0.26 **	0.12
Trade-based GBN Commitment to CSR * Within Trade-based GBN Heterogeneity of Commitment to CSR			-0.04	0.12	-0.04	0.12
Trade Ties to More Stringent CSR Requirements	0.08	0.08	0.09	0.08	0.09	0.08
Intercept	-8.58 ***	1.88	-8.66 ***	1.83	-9.72 ***	1.89
<i>Observations</i>	710		710		710	
<i>Number of Firms</i>	710		710		710	
$R^2$	37.30%		37.89%		37.89%	
$F$	(16, 693) 20.07***		(18, 691) 18.14***		(18, 691) 18.14***	
<i>Root MSE</i>	0.82		0.82		0.82	

**Table 5.4—Cont'd.**

	Model 4		Model 5		Model 6	
	GBN Commitment to CSR *		GBN Commitment to CSR (-1 $\delta$ ) *		GBN Commitment to CSR (-1 $\delta$ ) *	
	Within GBN Heterogeneity of Commitment to CSR (+1 $\delta$ )		Within GBN Heterogeneity of Commitment to CSR		Within GBN Heterogeneity of Commitment to CSR (-1 $\delta$ )	
	Coeff.	St. E.	Coeff.	St. E.	Coeff.	St. E.
Size	0.32 ***	0.02	0.32 ***	0.02	0.32 ***	0.02
ROA	0.61 *	0.34	0.61 *	0.34	0.61 *	0.34
R&D Intensity	0.58 ***	0.18	0.58 ***	0.18	0.58 ***	0.18
Capital Intensity	0.03 ***	0.01	0.03 ***	0.01	0.03 ***	0.01
Leverage	0.12 **	0.06	0.12 **	0.06	0.12 **	0.06
<i>Industry Controls</i>						
Consumer Goods	0.28 **	0.14	0.28 **	0.14	0.28 **	0.14
Energy & Extractive	-0.33 **	0.14	-0.33 **	0.14	-0.33 **	0.14
Food & Agriculture	0.33 *	0.19	0.33 *	0.19	0.33 *	0.19
Professional and Information Services	-0.07	0.13	-0.07	0.13	-0.07	0.13
Manufacturing	-0.10	0.09	-0.10	0.09	-0.10	0.09
FDI-based GBN Commitment to CSR	-0.76 ***	0.23	0.24 ***	0.09	1.25 ***	0.34
Within FDI-based GBN Heterogeneity of Commitment to CSR	1.06 ***	0.33	2.07 ***	0.59	2.07 ***	0.59
FDI-based GBN Commitment to CSR *	-1.01 ***	0.28	-1.01 ***	0.28	-1.01 ***	0.28
Within FDI-based GBN Heterogeneity of Commitment to CSR						
FDI Ties to More Stringent CSR Requirements	0.21 **	0.09	0.21 **	0.09	0.21 **	0.09
Trade-based GBN Commitment to CSR	0.02	0.06	0.02	0.06	0.02	0.06
Within Trade-based GBN Heterogeneity of Commitment to CSR	0.26 **	0.12	0.26 **	0.12	0.26 **	0.12
Trade-based GBN Commitment to CSR *	-0.04	0.12	-0.04	0.12	-0.04	0.12
Within Trade-based GBN Heterogeneity of Commitment to CSR						
Trade Ties to More Stringent CSR Requirements	0.09	0.08	0.09	0.08	0.09	0.08
Intercept	-7.60 ***	1.83	-8.90 ***	1.84	-10.97 ***	2.00
<i>Observations</i>	710		710		710	
<i>Number of Firms</i>	710		710		710	
$R^2$	37.89%		37.89%		37.89%	
$F$	(18, 691) 18.14***		(18, 691) 18.14***		(18, 691) 18.14***	
<i>Root MSE</i>	0.82		0.82		0.82	

**Table 5.4—Cont'd.**

	Model 7		Model 8		Model 9		Model 10	
	GBN Commitment to CSR (-1 $\delta$ ) *		GBN Commitment to CSR (+1 $\delta$ ) *		GBN Commitment to CSR (+1 $\delta$ ) *		GBN Commitment to CSR (+1 $\delta$ ) *	
	Within GBN Heterogeneity of Commitment to CSR (+1 $\delta$ )		Within GBN Heterogeneity of Commitment to CSR		Within GBN Heterogeneity of Commitment to CSR (-1 $\delta$ )		Within GBN Heterogeneity of Commitment to CSR (+1 $\delta$ )	
	Coeff.	St. E.	Coeff.	St. E.	Coeff.	St. E.	Coeff.	St. E.
Size	0.32 ***	0.02	0.32 ***	0.02	0.32 ***	0.02	0.32 ***	0.02
ROA	0.61 *	0.34	0.61 *	0.34	0.61 *	0.34	0.61 *	0.34
R&D Intensity	0.58 ***	0.18	0.58 ***	0.18	0.58 ***	0.18	0.58 ***	0.18
Capital Intensity	0.03 ***	0.01	0.03 ***	0.01	0.03 ***	0.01	0.03 ***	0.01
Leverage	0.12 **	0.06	0.12 **	0.06	0.12 **	0.06	0.12 **	0.06
<i>Industry Controls</i>								
Consumer Goods	0.28 **	0.14	0.28 **	0.14	0.28 **	0.14	0.28 **	0.14
Energy & Extractive	-0.33 **	0.14	-0.33 **	0.14	-0.33 **	0.14	-0.33 **	0.14
Food & Agriculture	0.33 *	0.19	0.33 *	0.19	0.33 *	0.19	0.33 *	0.19
Professional and Information Services	-0.07	0.13	-0.07	0.13	-0.07	0.13	-0.07	0.13
Manufacturing	-0.10	0.09	-0.10	0.09	-0.10	0.09	-0.10	0.09
FDI-based GBN Commitment to CSR	-0.76 ***	0.23	0.24 ***	0.09	1.25 ***	0.34	-0.76 ***	0.23
Within FDI-based GBN Heterogeneity of Commitment to CSR	2.07 ***	0.59	0.06	0.16	0.06	0.16	0.06	0.16
FDI-based GBN Commitment to CSR *	-1.01 ***	0.28	-1.01 ***	0.28	-1.01 ***	0.28	-1.01 ***	0.28
Within FDI-based GBN Heterogeneity of Commitment to CSR								
FDI Ties to More Stringent CSR Requirements	0.21 **	0.09	0.21 **	0.09	0.21 **	0.09	0.21 **	0.09
Trade-based GBN Commitment to CSR	0.02	0.06	0.02	0.06	0.02	0.06	0.02	0.06
Within Trade-based GBN Heterogeneity of Commitment to CSR	0.26 **	0.12	0.26 **	0.12	0.26 **	0.12	0.26 **	0.12
Trade-based GBN Commitment to CSR *	-0.04	0.12	-0.04	0.12	-0.04	0.12	-0.04	0.12
Within Trade-based GBN Heterogeneity of Commitment to CSR								
Trade Ties to More Stringent CSR Requirements	0.09	0.08	0.09	0.08	0.09	0.08	0.09	0.08
Intercept	-6.83 ***	1.86	-8.42 ***	1.82	-8.47 ***	1.84	-8.36 ***	1.82
<i>Observations</i>	710		710		710		710	
<i>Number of Firms</i>	710		710		710		710	
$R^2$	37.89%		37.89%		37.89%		37.89%	
$F$	(18, 691) 18.14***		(18, 691) 18.14***		(18, 691) 18.14***		(18, 691) 18.14***	
<i>Root MSE</i>	0.82		0.82		0.82		0.82	

Model 1 includes all the independent and control variables without the interaction terms. Model 2 includes all independent and control variables and the two interaction terms of interest. Results in Models 1 and 2 in Table 5.4 above provide support for Hypothesis 4a and show that the positive effects of global business network commitment to CSR is stronger for FDI-based relationships than trade-based relationships, because the coefficient for FDI-based global business network commitment to CSR is positive and significant in both models ( $\beta = 0.17$ ;  $p < .05$ ;  $\beta = 0.24$ ;  $p < .01$ ), while the coefficient for trade-based global business network commitment to CSR is always insignificant.

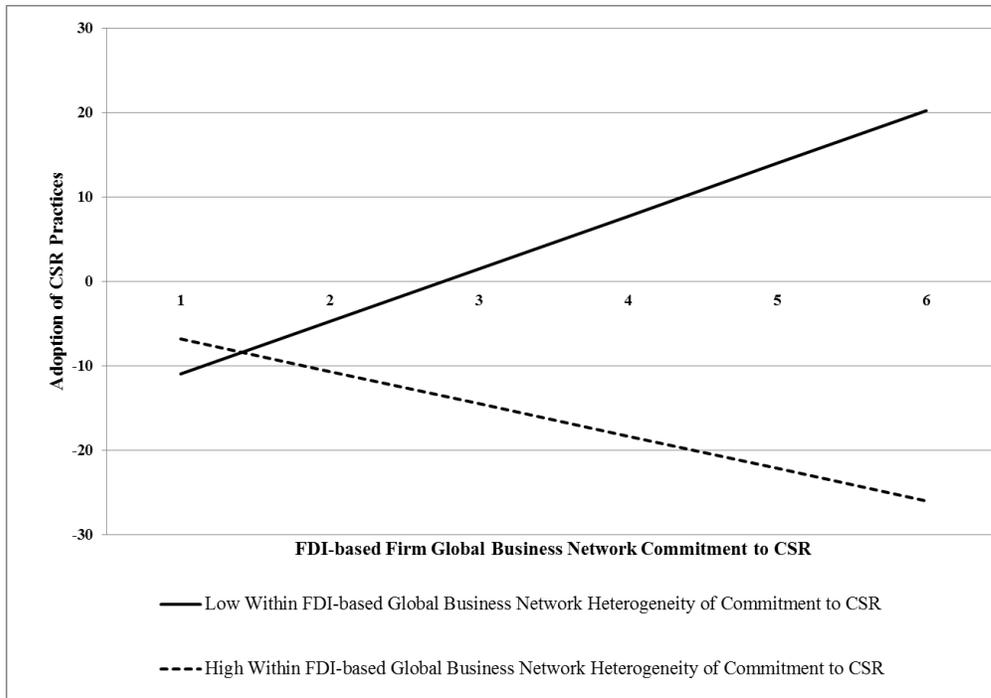
To investigate Hypothesis 4b, I follow the steps suggested by Aiken and West (1991). Results support H4b and show that the moderating effect of within FDI-based global business network heterogeneity of commitment to CSR on the relationship between FDI-based commitment to CSR and firm's adoption of CSR practices is stronger than that of within trade-based global business network heterogeneity of commitment to CSR on the relationship between trade-based global business network commitment to CSR and firm's adoption of CSR practices. Models 2 through 9 in Table 5.4 include the interaction of FDI-based global business network commitment to CSR and within FDI-based global business network heterogeneity of commitment to CSR at different levels of these two variables (i.e., average; low; and high). In support of H4b, results show that:

- (a) the coefficient of the interaction of FDI-based global business network commitment to CSR and within FDI-based global business network heterogeneity of commitment to CSR in Model 2 is negative and significant ( $\beta = -1.01$ ;  $p < .01$ ); Model 2 also shows that the coefficient of the interaction of trade-based global

business network commitment to CSR and within trade-based global business network heterogeneity of commitment to CSR is insignificant;

(b) In addition, Models 3, 2 and 4 show that the coefficient of FDI-based global business network's commitment to CSR becomes more positive as within FDI-based global business network heterogeneity of commitment to CSR decreases in value. Specifically, at low levels of within FDI-based global business network heterogeneity of commitment to CSR (Model 3), the coefficient of FDI-based global business network's commitment to CSR is positive and significant ( $\beta = 1.25$ ;  $p < .01$ ). At average levels of within FDI-based global business network heterogeneity of commitment to CSR (Model 2), the coefficient of FDI-based global business network's commitment to CSR is also positive and significant ( $\beta = 0.24$ ;  $p < .01$ ), but of a lower magnitude than that in Model 3. Then, at high levels of within FDI-based global business network heterogeneity of commitment to CSR (Model 4), the coefficient of FDI-based global business network's commitment to CSR is negative and significant ( $\beta = -0.76$ ;  $p < .01$ ).

Figure 5.3 illustrates how within FDI-based global business network heterogeneity of commitment to CSR moderates the relationship between FDI-based global business network's commitment to CSR and firm's adoption of CSR practices.



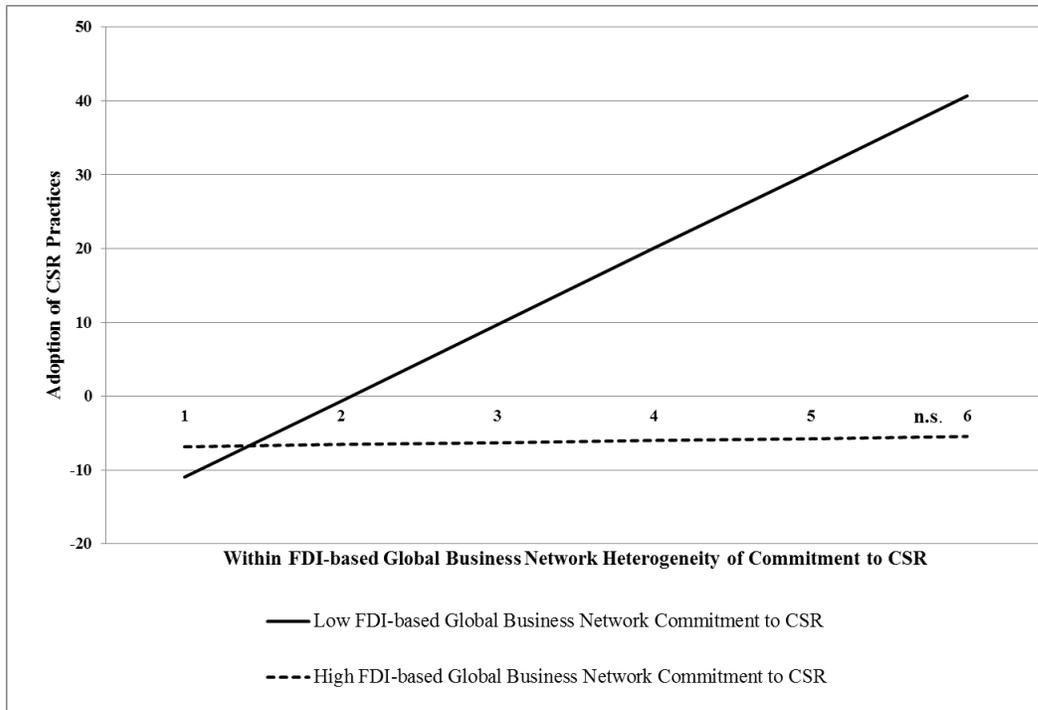
**Figure 5.3: Interaction plot for the moderating effect of within FDI-based global business network heterogeneity of commitment to CSR on the relationship between FDI-based global business network commitment to CSR and firm's adoption of CSR-related practices, using OLS regression with Huber-White estimators (Hypothesis 4b)**

I follow the same steps for H4c, and examine whether the moderating effect of FDI-based global business network's commitment to CSR on the relationship between within intra global business network heterogeneity of commitment to CSR and firm's adoption of CSR practices is stronger than that of trade-based global business network commitment to CSR on the relationship between within trade-based global business network heterogeneity of commitment to CSR and firm's adoption of CSR practices. This hypothesis is supported because:

- (a) First, the coefficient of the interaction of FDI-based global business network commitment to CSR and within FDI-based global business network heterogeneity of commitment to CSR in Model 2 is negative and significant (

- $\beta = -1.01$ ;  $p < .01$ ); Model 2 also shows that the coefficient of the interaction of trade-based global business network commitment to CSR and within trade-based global business network heterogeneity of commitment to CSR is insignificant;
- (b) The coefficient of within FDI-based global business network heterogeneity of commitment to CSR becomes more positive as FDI-based global business network commitment to CSR decreases in value. This is indeed the case in Models 5, 2 and 8. These models show that at low levels of FDI-based global business network's commitment to CSR (Model 5), the coefficient of within FDI-based global business network heterogeneity of commitment to CSR is positive and significant ( $\beta = 2.07$ ;  $p < .01$ ). In addition, at average levels of FDI-based global business network commitment to CSR (Model 2), the coefficient of within FDI-based global business network heterogeneity of commitment to CSR is also positive and significant ( $\beta = 1.06$ ;  $p < .01$ ), but of a lower magnitude than that in Model 5. Finally, at high levels of FDI-based global business network commitment to CSR (Model 8), the coefficient of within FDI-based global business network heterogeneity of commitment to CSR is insignificant ( $\beta = 0.06$ ; n.s.).

Figure 5.4 illustrates how FDI-based global business network commitment to CSR moderates the relationship between FDI-based global business network heterogeneity of commitment to CSR and firm's adoption of CSR practices. Table 5.5 summarizes the results for Hypotheses 4b and 4c discussed above.



**Figure 5.4: Interaction plot for the moderating effect of FDI-based global business network commitment to CSR on the relation between within FDI-based global business network heterogeneity of commitment to CSR and firm's adoption of CSR-related practices, using OLS regression with Huber-White estimators (Hypothesis 4c)**

Results in Table 5.4 also support Hypothesis 4d, and show that the type of tie between the focal firm and its partners in the global business network moderates the effect of ties to business partners in countries with more stringent CSR institutional requirements on firm's adoption of CSR practices, such that the positive effect is stronger for FDI ties than trade ties. This is because (a) the coefficient of FDI ties to countries with more stringent CSR institutional requirements is positive and significant in Models 1 and 2 ( $\beta = 0.25$ ;  $p < .01$ ;  $\beta = 0.21$ ;  $p < .05$ ). In addition, the coefficient of trade ties to countries with more stringent CSR institutional requirements is insignificant in both models.

**Table 5.5: Summary of results from Models 2-9 using OLS regression with Huber-White estimators (Hypotheses 4b and c)**

<b>Commitment -1<math>\delta</math>; Heterogeneity -1<math>\delta</math></b>			<b>Commitment -1<math>\delta</math>; Heterogeneity</b>			<b>Commitment -1<math>\delta</math>; Heterogeneity +1<math>\delta</math></b>		
	Coef.	Sig.		Coef.	Sig.		Coef.	Sig.
Commit. -1 $\delta$	1.25	***	Commit. -1 $\delta$	0.24	***	Commit. -1 $\delta$	0.76	***
Heter. -1 $\delta$	2.07	***	Heter.	2.07	***	Heter. +1 $\delta$	2.07	***
<b>Commitment; Heterogeneity -1<math>\delta</math></b>			<b>Commitment; Heterogeneity</b>			<b>Commitment; Heterogeneity +1<math>\delta</math></b>		
	Coef.	Sig.		Coef.	Sig.		Coef.	Sig.
Commit.	1.25	***	Commit.	0.24	***	Commit.	0.76	***
Heter. -1 $\delta$	1.06	***	Heter.	1.06	***	Heter. +1 $\delta$	1.06	***
<b>Commitment +1<math>\delta</math>; Heterogeneity -1<math>\delta</math></b>			<b>Commitment +1<math>\delta</math>; Heterogeneity</b>			<b>Commitment +1<math>\delta</math>; Heterogeneity +1<math>\delta</math></b>		
	Coef.	Sig.		Coef.	Sig.		Coef.	Sig.
Commit. +1 $\delta$	1.25	***	Commit. +1 $\delta$	0.24	***	Commit. +1 $\delta$	0.76	***
Heter. -1 $\delta$	0.06		Heter.	0.06		Heter. +1 $\delta$	0.06	

Similarly to Table 5.2, results in Table 5.4 above indicate that *size*, *ROA*, *R&D intensity*, *capital intensity*, *leverage*, and *industry* are all significantly related to firm adoption of CSR practices. Like in the other set of results, the only insignificant control variables are professional and information services and manufacturing sectors.

## 5.2 Robustness tests using alternative model specification

To test the robustness of the results, I run several robustness tests. First, I rely on the alternative model specification that was discussed in the methods section of the dissertation. Specifically, I implement panel-corrected standard error regression (PCSE) with panel-specific corrections for autocorrelation and heteroscedasticity. PCSE regression has been used extensively in the management research with panel data, and has appeared in numerous articles

in high ranking management journals (e.g. Banker, Field, Schroeder & Sinha, 1996; Berman, Wicks, Kotha & Jones, 1999; Gimeno, 1999; He & Heli, 2009).

All independent variables and controls in these analyses are standardized so that the coefficients of all continuous variables in the model are comparable. In addition, to mitigate the potential for reverse-causality, I lag all independent and control variables by one year.

Table 5.6 confirms previous findings. As in Table 6.2, Models 1 and 2 in Table 5.6 provide support for Hypothesis 1, because the coefficient of global business network commitment to CSR is positive and significant ( $\beta = 0.05$ ;  $p < .05$ ;  $\beta = 0.05$ ;  $p < .05$ ). They also provide support for Hypothesis 3, as the coefficient of ties to business partners located in countries with more stringent CSR requirements is positive and significant ( $\beta = 0.19$ ;  $p < .05$ ;  $\beta = 0.21$ ;  $p < .01$ ). In addition, Models 4 ( $\beta = n.s.$ ), 2 ( $\beta = 0.05$ ;  $p < .05$ ) and 3 ( $\beta = 0.11$ ;  $p < .01$ ) provide support for Hypothesis 2a and confirm that as within global business network heterogeneity of commitment to CSR decreases, the relationship between global business network commitment to CSR and firm's adoption of CSR practices becomes more positive. Furthermore, Models 8 ( $\beta = n.s.$ ), 2 ( $\beta = 0.06$ ;  $p < .01$ ), and 5 ( $\beta = 0.13$ ;  $p < .01$ ), provide support for Hypothesis 2b and show that as global business network commitment to CSR decreases, the relationships between within global business network heterogeneity of commitment to CSR and firm's adoption of CSR practices becomes more positive. Table 5.7 further summarizes the results for Hypotheses 2a and 2b discussed above.

**Table 5.6: Panel-corrected standard error regression with panel-specific corrections for autocorrelation and heteroscedasticity (Hypotheses 1, 2a-b, and 3)**

	Model 1		Model 2 GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR		Model 3 GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR (-1 $\delta$ )	
	Coeff.	St. E.	Coeff.	St. E.	Coeff.	St. E.
Size	0.22 ***	0.03	0.22 ***	0.03	0.22 ***	0.03
ROA	0.07 ***	0.02	0.07 ***	0.02	0.07 ***	0.02
R&D Intensity	0.18	0.12	0.17	0.12	0.17	0.12
Capital Intensity	0.12 ***	0.03	0.13 ***	0.03	0.13 ***	0.03
Leverage	-0.03	0.04	-0.03	0.04	-0.03	0.04
<i>Industry Controls</i>						
Consumer Goods	0.32 ***	0.09	0.35 ***	0.09	0.35 ***	0.09
Energy & Extractive	-0.33 ***	0.09	-0.32 ***	0.09	-0.32 ***	0.09
Food & Agriculture	0.26 **	0.13	0.29 **	0.13	0.29 **	0.13
Professional and Information Services	0.18 **	0.08	0.18 **	0.08	0.18 **	0.08
Manufacturing	0.08	0.06	0.09	0.06	0.09	0.06
GBN Commitment to CSR	0.05 **	0.02	0.05 **	0.02	0.11 ***	0.03
Within GBN Heterogeneity of Commitment to CSR	0.01	0.02	0.06 ***	0.03	0.06 ***	0.03
GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR			-0.06 ***	0.02	-0.06 ***	0.02
Ties to More Stringent CSR Requirements	0.19 ***	0.04	0.21 ***	0.04	0.21 ***	0.04
Intercept	-0.27 ***	0.06	-0.28 ***	0.06	-0.34 ***	0.07
Observations	2386		2386		2386	
Number of Firms	764		764		764	
Wald $\chi^2$	158.24 ***		164.54***		164.54***	
R <sup>2</sup>	8.68%		9.10%		9.10%	

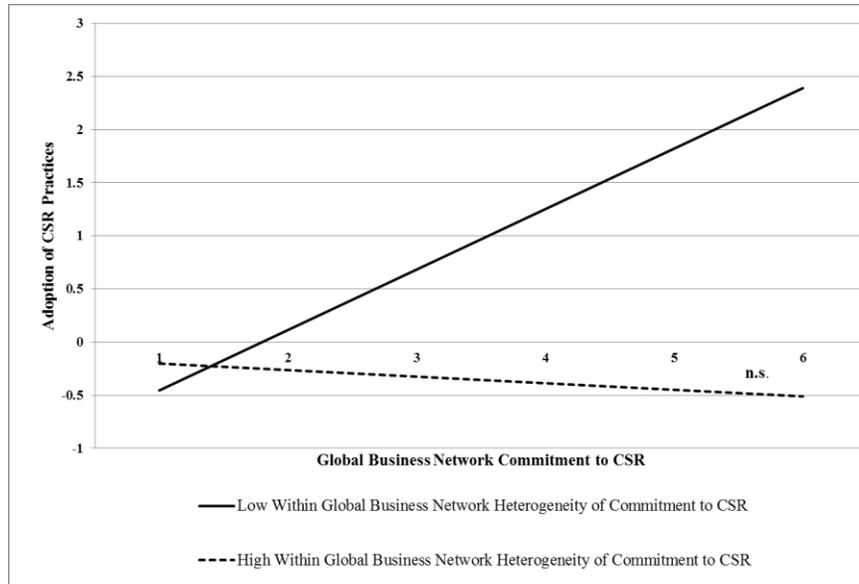
**Table 5.6—Cont'd**

	Model 4 GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR (+1 δ)		Model 5 GBN Commitment to CSR (-1 δ) * Within GBN Heterogeneity of Commitment to CSR		Model 6 GBN Commitment to CSR (-1 δ) * Within GBN Heterogeneity of Commitment to CSR (-1 δ)		Model 7 GBN Commitment to CSR (-1 δ) * Within GBN Heterogeneity of Commitment to CSR (+1 δ)		Model 8 GBN Commitment to CSR (+1 δ) * Within GBN Heterogeneity of Commitment to CSR		Model 9 GBN Commitment to CSR (+1 δ) * Within GBN Heterogeneity of Commitment to CSR (-1 δ)		Model 10 GBN Commitment to CSR (+1 δ) * Within GBN Heterogeneity of Commitment to CSR (+1 δ)	
	Coeff.	St. E.	Coeff.	St. E.	Coeff.	St. E.	Coeff.	St. E.	Coeff.	St. E.	Coeff.	St. E.	Coeff.	St. E.
	Size	0.22 ***	0.03	0.22 ***	0.03	0.22 ***	0.03	0.22 ***	0.03	0.22 ***	0.03	0.22 ***	0.03	0.22 ***
ROA	0.07 ***	0.02	0.07 ***	0.02	0.07 ***	0.02	0.07 ***	0.02	0.07 ***	0.02	0.07 ***	0.02	0.07 ***	0.02
R&D Intensity	0.17	0.12	0.17	0.12	0.17	0.12	0.17	0.12	0.17	0.12	0.17	0.12	0.17	0.12
Capital Intensity	0.13 ***	0.03	0.13 ***	0.03	0.13 ***	0.03	0.13 ***	0.03	0.13 ***	0.03	0.13 ***	0.03	0.13 ***	0.03
Leverage	-0.03	0.04	-0.03	0.04	-0.03	0.04	-0.03	0.04	-0.03	0.04	-0.03	0.04	-0.03	0.04
<i>Industry Controls</i>														
Consumer Goods	0.35 ***	0.09	0.35 ***	0.09	0.35 ***	0.09	0.35 ***	0.09	0.35 ***	0.09	0.35 ***	0.09	0.35 ***	0.09
Energy & Extractive	-0.32 ***	0.09	-0.32 ***	0.09	-0.32 ***	0.09	-0.32 ***	0.09	-0.32 ***	0.09	-0.32 ***	0.09	-0.32 ***	0.09
Food & Agriculture	0.29 **	0.13	0.29 **	0.13	0.29 **	0.13	0.29 **	0.13	0.29 **	0.13	0.29 **	0.13	0.29 **	0.13
Professional and Information Services	0.18 **	0.08	0.18 **	0.08	0.18 **	0.08	0.18 **	0.08	0.18 **	0.08	0.18 **	0.08	0.18 **	0.08
Manufacturing	0.09	0.06	0.09	0.06	0.09	0.06	0.09	0.06	0.09	0.06	0.09	0.06	0.09	0.06
GBN Commitment to CSR	-0.01	0.03	0.05 **	0.02	0.11 ***	0.03	-0.01	0.03	0.05 **	0.02	0.11 ***	0.03	-0.01	0.03
Within GBN Heterogeneity of Commitment to CSR	0.06 ***	0.03	0.13 ***	0.04	0.13 ***	0.04	0.13 ***	0.04	0.00	0.02	0.00	0.02	0.00	0.02
GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR	-0.06 ***	0.02	-0.06 ***	0.02	-0.06 ***	0.02	-0.06 ***	0.02	-0.06 ***	0.02	-0.06 ***	0.02	-0.06 ***	0.02
Ties to More Stringent CSR Requirements	0.21 ***	0.04	0.21 ***	0.04	0.21 ***	0.04	0.21 ***	0.04	0.21 ***	0.04	0.21 ***	0.04	0.21 ***	0.04
Intercept	-0.21 ***	0.07	-0.33 ***	0.06	-0.46 ***	0.08	-0.20 ***	0.07	-0.23 ***	0.07	-0.23 ***	0.07	-0.23 ***	0.07
Observations	2386		2386		2386		2386		2386		2386		2386	
Number of Firms	764		764		764		764		764		764		764	
Wald $\chi^2$	164.54***		164.54***		164.54***		164.54***		164.54***		164.54***		164.54***	
R <sup>2</sup>	9.10%		9.10%		9.10%		9.10%		9.10%		9.10%		9.10%	

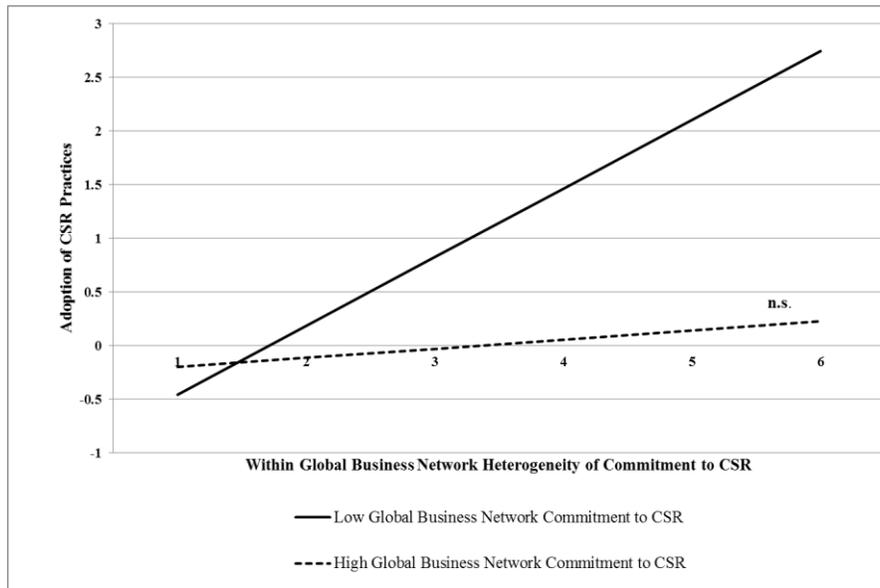
**Table 5.7: Summary of results from Models 2-9 using panel-corrected standard error regression with panel-specific corrections for autocorrelation and heteroscedasticity (Hypotheses 2a and b)**

<b>Commitment -1<math>\delta</math>; Heterogeneity -1<math>\delta</math></b>			<b>Commitment -1<math>\delta</math>; Heterogeneity</b>			<b>Commitment -1<math>\delta</math>; Heterogeneity +1<math>\delta</math></b>		
	Coef.	Sig.		Coef.	Sig.		Coef.	Sig.
Commit. -1 $\delta$	0.11	***	Commit. -1 $\delta$	0.05	**	Commit. -1 $\delta$	-0.01	
Heter. -1 $\delta$	0.13	***	Heter.	0.13	***	Heter. +1 $\delta$	0.13	***
<b>Commitment; Heterogeneity -1<math>\delta</math></b>			<b>Commitment; Heterogeneity</b>			<b>Commitment; Heterogeneity +1<math>\delta</math></b>		
	Coef.	Sig.		Coef.	Sig.		Coef.	Sig.
Commit.	0.11	***	Commit.	0.05	**	Commit.	-0.01	
Heter. -1 $\delta$	0.06	***	Heter.	0.06	***	Heter. +1 $\delta$	0.06	***
<b>Commitment +1<math>\delta</math>;</b>			<b>Commitment +1<math>\delta</math>;</b>			<b>Commitment +1<math>\delta</math>;</b>		
	Coef.	Sig.		Coef.	Sig.		Coef.	Sig.
Commit. +1 $\delta$	0.03	***	Commit. +1 $\delta$	0.05	**	Commit. +1 $\delta$	-0.01	
Heter. -1 $\delta$	0.02		Heter.	0.00		Heter. +1 $\delta$	0.00	

Figure 5.5 illustrates how within global business network heterogeneity of commitment to CSR moderates the relationship between global business network's commitment to CSR and firm's adoption of CSR practices. Figure 5.6 illustrates how global business network commitment to CSR moderates the relationship between within global business network heterogeneity of commitment to CSR and firm's adoption of CSR practices.



**Figure 5.5: Interaction plot for the moderating effect of within global business network heterogeneity of commitment to CSR on the relationship between global business network commitment to CSR and firm's adoption of CSR-related practices using panel corrected standard error regression (Hypothesis 2a)**



**Figure 5.6: Interaction plot for the moderating effect of global business network commitment to CSR on the relation between within global business network heterogeneity of commitment to CSR and firm's adoption of CSR-related practices using panel-corrected standard error regression (Hypothesis 2b)**

Table 5.8 reports the results for the tests of Hypotheses 4a, b, c and d.

**Table 5.8: Panel-corrected standard error regression with panel-specific corrections for autocorrelation and heteroscedasticity (Hypotheses 4a, b, c and d)**

	Model 1		Model 2 GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR		Model 3 GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR (-1 $\delta$ )	
	Coeff.	St. E.	Coeff.	St. E.	Coeff.	St. E.
Size	0.18 ***	0.0274	0.18 ***	0.03	0.18 ***	0.03
ROA	0.06 ***	0.0221	0.06 ***	0.02	0.06 ***	0.02
R&D Intensity	0.18	0.1226	0.17	0.12	0.17	0.12
Capital Intensity	0.12 ***	0.0252	0.13 ***	0.03	0.13 ***	0.03
Leverage	-0.03	0.037	-0.03	0.04	-0.03	0.04
<i>Industry Controls</i>						
Consumer Goods	0.35 ***	0.0877	0.36 ***	0.09	0.36 ***	0.09
Energy & Extractive	-0.30 ***	0.0937	-0.31 ***	0.09	-0.31 ***	0.09
Food & Agriculture	0.28 **	0.1242	0.28 **	0.12	0.28 **	0.12
Professional and Information Services	0.16 **	0.0817	0.16 **	0.08	0.16 **	0.08
Manufacturing	0.05	0.0622	0.05	0.06	0.05	0.06
FDI-based GBN Commitment to CSR	0.10 ***	0.0301	0.10 ***	0.03	0.11 ***	0.03
Within FDI-based GBN Heterogeneity of Commitment to CSR	-0.06 ***	0.0192	-0.01	0.02	-0.01	0.02
FDI-based GBN Commitment to CSR *		0.051	-0.01 *	0.01	-0.01 *	0.01
Within FDI-based GBN Heterogeneity of Commitment to CSR						
FDI Ties to More Stringent CSR Requirements	0.21 ***	0.0211	0.19 ***	0.05	0.19 ***	0.05
Trade-based GBN Commitment to CSR	-0.01	0.0147	-0.01	0.02	-0.01	0.02
Within Trade-based GBN Heterogeneity of Commitment to CSR	0.02	0.0506	0.04 *	0.02	0.04 *	0.02
Trade-based GBN Commitment to CSR *		0.0699	-0.01	0.01	-0.01	0.01
Within Trade-based GBN Heterogeneity of Commitment to CSR						
Trade Ties to More Stringent CSR Requirements	0.10 *		0.10 *	0.05	0.10 **	0.05
Intercept	-0.27 ***		-0.26 ***	0.07	-0.25 ***	0.07
<i>Observations</i>	2386		2386		2386	
<i>Number of Firms</i>	764		764		764	
<i>Wald <math>\chi^2</math></i>	179.17***		181.43***		181.43***	
<i>R<sup>2</sup></i>	10.12%		10.28%		10.28%	

**Table 5.8—Cont'd**

	Model 4 GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR (+1 $\delta$ )		Model 5 GBN Commitment to CSR (-1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR		Model 6 GBN Commitment to CSR (-1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR (-1 $\delta$ )	
	Coeff.	St. E.	Coeff.	St. E.	Coeff.	St. E.
Size	0.18 ***	0.03	0.18 ***	0.03	0.18 ***	0.03
ROA	0.06 ***	0.02	0.06 ***	0.02	0.06 ***	0.02
R&D Intensity	0.17	0.12	0.17	0.12	0.17	0.12
Capital Intensity	0.13 ***	0.03	0.13 ***	0.03	0.13 ***	0.03
Leverage	-0.03	0.04	-0.03	0.04	-0.03	0.04
<i>Industry Controls</i>						
Consumer Goods	0.36 ***	0.09	0.36 ***	0.09	0.36 ***	0.09
Energy & Extractive	-0.31 ***	0.09	-0.31 ***	0.09	-0.31 ***	0.09
Food & Agriculture	0.28 **	0.12	0.28 **	0.12	0.28 **	0.12
Professional and Information Services	0.16 **	0.08	0.16 **	0.08	0.16 **	0.08
Manufacturing	0.05	0.06	0.05	0.06	0.05	0.06
FDI-based GBN Commitment to CSR	0.09 ***	0.03	0.10 ***	0.03	0.11 ***	0.03
Within FDI-based GBN Heterogeneity of Commitment to CSR	-0.01	0.02	0.00	0.03	0.00	0.03
FDI-based GBN Commitment to CSR *	-0.01 *	0.01	-0.01 *	0.01	-0.01 *	0.01
Within FDI-based GBN Heterogeneity of Commitment to CSR						
FDI Ties to More Stringent CSR Requirements	0.19 ***	0.05	0.19 ***	0.05	0.19 ***	0.05
Trade-based GBN Commitment to CSR	-0.01	0.02	-0.01	0.02	-0.01	0.02
Within Trade-based GBN Heterogeneity of Commitment to CSR	0.04 *	0.02	0.04 *	0.02	0.04 *	0.02
Trade-based GBN Commitment to CSR *	-0.01	0.01	-0.01	0.01	-0.01	0.01
Within Trade-based GBN Heterogeneity of Commitment to CSR						
Trade Ties to More Stringent CSR Requirements	0.10 **	0.05	0.10 **	0.05	0.10 **	0.05
Intercept	-0.28 ***	0.08	-0.36 ***	0.07	-0.36 ***	0.07
Observations	2386		2386		2386	
Number of Firms	764		764		764	
Wald $\chi^2$	181.43***		181.43***		181.43***	
R <sup>2</sup>	10.28%		10.28%		10.28%	

**Table 5.8—Cont'd**

	Model 7 GBN Commitment to CSR (-1 $\delta$ ) *		Model 8 GBN Commitment to CSR (+1 $\delta$ ) *		Model 9 GBN Commitment to CSR (+1 $\delta$ ) *		Model 10 GBN Commitment to CSR (+1 $\delta$ ) *	
	Within GBN Heterogeneity of Commitment to CSR (+1 $\delta$ )		Within GBN Heterogeneity of Commitment to CSR (+1 $\delta$ )		Within GBN Heterogeneity of Commitment to CSR (-1 $\delta$ )		Within GBN Heterogeneity of Commitment to CSR (+1 $\delta$ )	
	Coeff.	St. E.						
Size	0.18 ***	0.03	0.18 ***	0.03	0.18 ***	0.03	0.18 ***	0.03
ROA	0.06 ***	0.02	0.06 ***	0.02	0.06 ***	0.02	0.06 ***	0.02
R&D Intensity	0.17	0.12	0.17	0.12	0.17	0.12	0.17	0.12
Capital Intensity	0.13 ***	0.03	0.13 ***	0.03	0.13 ***	0.03	0.13 ***	0.03
Leverage	-0.03	0.04	-0.03	0.04	-0.03	0.04	-0.03	0.04
<i>Industry Controls</i>								
Consumer Goods	0.36 ***	0.09	0.36 ***	0.09	0.36 ***	0.09	0.36 ***	0.09
Energy & Extractive	-0.31 ***	0.09	-0.31 ***	0.09	-0.31 ***	0.09	-0.31 ***	0.09
Food & Agriculture	0.28 **	0.12	0.28 **	0.12	0.28 **	0.12	0.28 **	0.12
Professional and Information Services	0.16 **	0.08	0.16 **	0.08	0.16 **	0.08	0.16 **	0.08
Manufacturing	0.05	0.06	0.05	0.06	0.05	0.06	0.05	0.06
FDI-based GBN Commitment to CSR	0.09 ***	0.03	0.10 ***	0.03	0.11 ***	0.03	0.09 ***	0.03
Within FDI-based GBN Heterogeneity of Commitment to CSR	0.00	0.03	-0.02	0.02	-0.02	0.02	-0.02	0.02
FDI-based GBN Commitment to CSR *	-0.01 *	0.01	-0.01 *	0.01	-0.01 *	0.01	-0.01 *	0.01
Within FDI-based GBN Heterogeneity of Commitment to CSR								
FDI Ties to More Stringent CSR Requirements	0.19 ***	0.05	0.19 ***	0.05	0.19 ***	0.05	0.19 ***	0.05
Trade-based GBN Commitment to CSR	-0.01	0.02	-0.01	0.02	-0.01	0.02	-0.01	0.02
Within Trade-based GBN Heterogeneity of Commitment to CSR	0.04 *	0.02	0.04 *	0.02	0.04 *	0.02	0.04 *	0.02
Trade-based GBN Commitment to CSR *	-0.01	0.01	-0.01	0.01	-0.01	0.01	-0.01	0.01
Within Trade-based GBN Heterogeneity of Commitment to CSR								
Trade Ties to More Stringent CSR Requirements	0.10 **	0.05	0.10 **	0.05	0.10 **	0.05	0.10 **	0.05
Intercept	-0.37 ***	0.08	-0.16 **	0.08	-0.14 *	0.08	-0.19 **	0.08
<i>Observations</i>	2386		2386		2386		2386	
<i>Number of Firms</i>	764		764		764		764	
<i>Wald <math>\chi^2</math></i>	181.43***		181.43***		181.43***		181.43***	
<i>R<sup>2</sup></i>	10.28%		10.28%		10.28%		10.28%	

Model 1 includes all the independent and control variables without the interaction terms. Model 2 includes all independent and control variables and the two interaction terms of interest. Results in Models 1 and 2 provide support for Hypothesis 4a and show that the positive effects of global business network commitment to CSR is stronger for

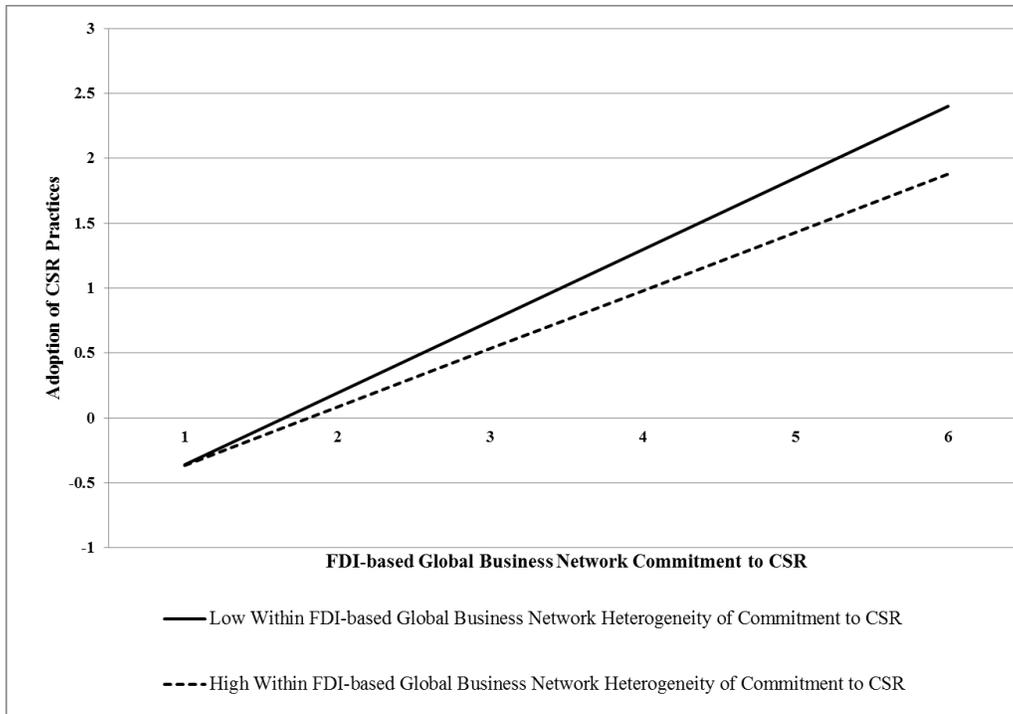
FDI-based relationships than trade-based relationships, because the coefficient for FDI-based global business network commitment to CSR is positive and significant in both Models ( $\beta = 0.10$ ;  $p < .01$ ;  $\beta = 0.10$ ;  $p < .01$ ), while the coefficient for trade-based global business network commitment to CSR is always insignificant.

To investigate Hypothesis 4b I follow the steps suggested by Aiken and West (1991). Results show that as within global business network heterogeneity of commitment to CSR decreases, focal firm's adoption of CSR practices becomes more positively related to global business network commitment to CSR and that this effect is stronger for FDI-based relationships than trade-based relationships. Models 2 through 9 include the interaction of FDI-based global business network commitment to CSR and within FDI-based global business network heterogeneity of commitment to CSR at different levels of these two variables (i.e., average; low; and high). Hypothesis 4a is supported because:

- (a) the coefficient of the interaction of FDI-based global business network commitment to CSR and within FDI-based global business network heterogeneity of commitment to CSR in Model 2 is negative and significant ( $\beta = -.01$ ;  $p < .10$ ); Model 2 also shows that the coefficient of the interaction of trade-based global business network commitment to CSR and within trade-based global business network heterogeneity of commitment to CSR is insignificant;
- (b) In addition, Models 3, 2 and 4 show that the coefficient of FDI-based global business network's commitment to CSR becomes more positive as within FDI-based global business network heterogeneity of commitment

to CSR decreases in value. Specifically, at low levels of within global business network heterogeneity of commitment to CSR (Model 3), the coefficient of global business network's commitment to CSR is positive and significant ( $\beta = 0.11$ ;  $p < .01$ ). At average levels of within global business network heterogeneity of commitment to CSR (Model 2), the coefficient of global business network's commitment to CSR is also positive and significant ( $\beta = 0.10$ ;  $p < .01$ ), but of a lower magnitude than that in Model 3. Then, at high levels of within global business network heterogeneity of commitment to CSR (Model 4), the coefficient of global business network's commitment to CSR is positive and significant ( $\beta = 0.09$ ;  $p < .01$ ) but of a lower magnitude than that in Model 2.

Figure 5.7 illustrates how within FDI-based global business network heterogeneity of commitment to CSR moderates the relationship between FDI-based global business network's commitment to CSR and firm's adoption of CSR practices.



**Figure 5.7: Interaction plot for the moderating effect of within FDI-based global business network heterogeneity of commitment to CSR on the relationship between FDI-based global business network commitment to CSR and firm's adoption of CSR-related practices, using panel-corrected standard error regression (Hypothesis 4b)**

Hypothesis 4c is not supported, indicating that the moderating effect of FDI-based global business network's commitment to CSR on the relationship between within global business network heterogeneity of commitment to CSR and firm's adoption of CSR practices is not stronger for FDI-based ties than trade-based ties. This is because one of the three relevant conditions is not met. Specifically, the coefficient of the interaction of FDI-based global business network commitment to CSR and within FDI-based global business network heterogeneity of commitment to CSR in Model 2 is negative and significant ( $\beta = -.01$ ;  $p < .10$ ). In addition, Model 2 also shows that the coefficient of the

interaction of trade-based global business network commitment to CSR and within trade-based global business network heterogeneity of commitment to CSR is insignificant. However, the coefficient of within FDI-based global business network commitment to CSR does not become more positive as FDI-based global business network commitment to CSR decreases in value. This is indeed the case in Models 5, 2 and 8, where the coefficients of within FDI-based global business network heterogeneity of commitment to CSR are insignificant.

Table 6.9 summarizes the results for Hypotheses 4b and 4c discussed above.

Results do not support Hypothesis 4d, which means that the positive effects of ties to business partners in countries with more stringent CSR institutional requirements is not stronger for FDI ties than trade ties. Results show that the coefficient of within FDI ties to countries with more stringent CSR requirements is positive and significant in Models 1 and 2 ( $\beta = 0.21$ ;  $p < .01$ ;  $\beta = 0.19$ ;  $p < .01$ ), and that the coefficient of trade ties to countries with more stringent CSR requirements is also positive and significant ( $\beta = 0.10$ ;  $p < .10$ ;  $\beta = 0.10$ ;  $p < .10$ ) and of a lower magnitude than that of FDI ties. However, a Wald test of the differences between these coefficients was not statistically significant at the .05 level.

**Table 5.9: Summary of results from Models 2-9 using panel-corrected standard error regression with panel-specific corrections for autocorrelation and heteroscedasticity (Hypotheses 4b and c)**

<b>Commitment -1<math>\delta</math>; Heterogeneity -1<math>\delta</math></b>			<b>Commitment -1<math>\delta</math>; Heterogeneity</b>			<b>Commitment -1<math>\delta</math>; Heterogeneity +1<math>\delta</math></b>		
	Coef.	Sig.		Coef.	Sig.		Coef.	Sig.
Commit. -1 $\delta$	0.11	***	Commit. -1 $\delta$	0.10	***	Commit. -1 $\delta$	0.09	***
Heter. -1 $\delta$	0.00		Heter.	0.00		Heter. +1 $\delta$	0.00	
<b>Commitment; Heterogeneity -1<math>\delta</math></b>			<b>Commitment; Heterogeneity</b>			<b>Commitment; Heterogeneity +1<math>\delta</math></b>		
	Coef.	Sig.		Coef.	Sig.		Coef.	Sig.
Commit.	0.11	***	Commit.	0.10	***	Commit.	0.09	***
Heter. -1 $\delta$	-0.01		Heter.	-0.01		Heter. +1 $\delta$	-0.01	
<b>Commitment +1<math>\delta</math>; Heterogeneity -1<math>\delta</math></b>			<b>Commitment +1<math>\delta</math>; Heterogeneity</b>			<b>Commitment +1<math>\delta</math>; Heterogeneity +1<math>\delta</math></b>		
	Coef.	Sig.		Coef.	Sig.		Coef.	Sig.
Commit. +1 $\delta$	0.11	***	Commit. +1 $\delta$	0.10	***	Commit. +1 $\delta$	0.09	***
Heter. -1 $\delta$	-0.02		Heter.	-0.02		Heter. +1 $\delta$	-0.02	

### 5.3 Robustness tests using alternative specification of the dependent variable

To ensure accurate inference, I present additional sensitivity checks, by introducing an alternative specification of the dependent variable. I rely on the main analytical approach discussed above, i.e., OLS regression with Huber-White estimators, and averaged independent and control variables over the four-year 2007-2010 period (Hull & Rothenberg, 2008). The dependent variable is measured in the year 2011 to allow for lagged effects. (In Appendix F, I present the results of another set of robustness tests using a second alternative specification of the dependent variable.) As I further discuss in the discussion section (as well as in Appendix F for the second set of robustness tests

using an alternative dependent variable specification), all these analyses corroborate the findings of the main analyses that were presented above.

Here I follow Strike et al. (2006) and separate the strengths and weaknesses components of each KLD category. This allows me to create two variables—one based on the sum of all the strength components of each category, which reflects firm's adoption of CSR practices; the other based on the sum of all the weakness components of each category, which measures firm's adoption of what researchers have referred to as corporate social "irresponsibility" (CSiR) practices (see Strike et al., 2006; McGuire, Dow & Argheyd, 2003). Following the established literature in this area, I define CSiR practices as those organizational routines that create negative externalities on a firm's stakeholders. Prior research has found inconsistent results between CSR and CSiR, suggesting that they are subject to different dynamics (McGuire et al., 2003). Therefore, while I would expect my models to hold with the above discussed alternative specification of the dependent variable, I do not expect this to be the case for firm's adoption of CSiR practices. However, for the purpose of completeness, I report the results concerning CSiR in Appendix G.

Tables 5.10, 5.11, 5.12 and 5.13 confirm previous findings. As in Tables 5.2 and 5.6, Models 1 and 2 in Table 5.10 provide support for Hypothesis 1, because the coefficient of global business network commitment to CSR is positive and significant ( $\beta = 0.11$ ;  $p < .01$ ;  $\beta = 0.17$ ;  $p < .01$ ). They also provide support for Hypothesis 3, as the coefficient of ties to business partners in countries with more stringent CSR requirements is positive and significant ( $\beta = 0.16$ ;  $p < .01$ ;  $\beta = 0.17$ ;  $p < .01$ ). In addition, Models 4 ( $\beta = 0.08$ ;  $p < .01$ ), 2 ( $\beta = 0.17$ ;  $p < .01$ ) and 3 ( $\beta = 0.26$ ;  $p < .01$ ) provide support for

Hypothesis 2a and confirm that as within global business network heterogeneity of commitment to CSR decreases, the relationship between global business network commitment to CSR and firm's adoption of CSR practices becomes more positive. Furthermore, Models 8 ( $\beta = -.16$ ;  $p < .1$ ), 2 ( $\beta = 0.17$ , n.s.), and 5 ( $\beta = 0.5$ ;  $p < .01$ ) provide support for Hypothesis 2b and show that as global business network commitment to CSR decreases, the relationships between within global business network heterogeneity of commitment to CSR and firm's adoption of CSR practices becomes more positive. Table 5.11 further summarizes the results for Hypotheses 2a and 2b.

**Table 5.10: OLS regression with Huber-White estimators and alternative specification of the dependent variable (Adoption of CSR practices = Sum of all the strength components of each KLD category; Hypotheses 1, 2a-b, and 3)**

	Model 1		Model 2 GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR		Model 3 GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR (-1 $\delta$ )	
	Coeff.	St. E.	Coeff.	St. E.	Coeff.	St. E.
Size	0.43 ***	0.02	0.42 ***	0.02	0.42 ***	0.02
ROA	0.29	0.33	0.34	0.33	0.34	0.33
R&D Intensity	0.65 ***	0.18	0.66 ***	0.17	0.66 ***	0.17
Capital Intensity	0.02 *	0.01	0.02 ***	0.01	0.02 ***	0.01
Leverage	0.09	0.06	0.10 *	0.06	0.10 *	0.06
<i>Industry Controls</i>						
Consumer Goods	0.13	0.13	0.16	0.13	0.16	0.13
Energy & Extractive	-0.13	0.12	-0.13	0.12	-0.13	0.12
Food & Agriculture	0.39 ***	0.17	0.41 ***	0.17	0.41 ***	0.17
Professional and Information Services	-0.05	0.12	-0.06	0.12	-0.06	0.12
Manufacturing	-0.05	0.09	-0.04	0.09	-0.04	0.09
GBN Commitment to CSR	0.11 ***	0.03	0.17 ***	0.04	0.26 ***	0.06
Within GBN Heterogeneity of Commitment to CSR	0.01	0.08	0.30 ***	0.1	0.30 ***	0.10
GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR			-0.25 ***	0.06	-0.25 ***	0.06
Ties to More Stringent CSR Requirements	0.16 ***	0.06	0.17 ***	0.06	0.17 ***	0.06
Intercept	-10.00 ***	1.81	-10.19 ***	1.79	-10.30 ***	1.80
<i>Observations</i>	710		710		710	
<i>Number of Firms</i>	710		710		710	
$R^2$	52.43%		53.14%		53.14%	
$F$	(13, 696) 37.85***		(14, 695) 20.63***		(14, 695) 20.63***	
<i>Root MSE</i>	0.72		0.71		0.71	

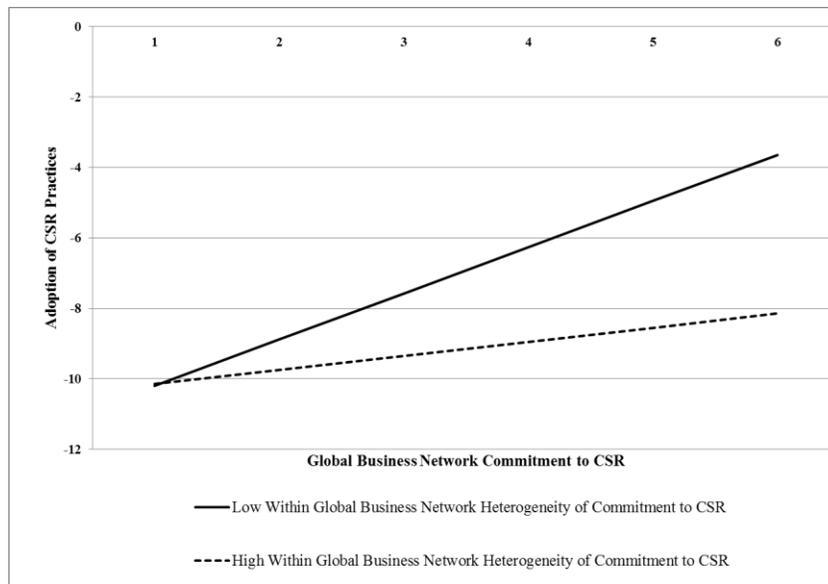
**Table 5.10—Cont'd**

	Model 4		Model 5		Model 6		Model 7		Model 8		Model 9		Model 10	
	GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR (+1 $\delta$ ) Coeff. St. E.		GBN Commitment to CSR (-1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR Coeff. St. E.		GBN Commitment to CSR (-1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR (-1 $\delta$ ) Coeff. St. E.		GBN Commitment to CSR (-1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR (+1 $\delta$ ) Coeff. St. E.		GBN Commitment to CSR (+1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR Coeff. St. E.		GBN Commitment to CSR (+1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR (-1 $\delta$ ) Coeff. St. E.		GBN Commitment to CSR (+1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR (+1 $\delta$ ) Coeff. St. E.	
Size	0.42 ***	0.02	0.42 ***	0.02	0.42 ***	0.02	0.42 ***	0.02	0.42 ***	0.02	0.42 ***	0.02	0.42 ***	0.02
ROA	0.34	0.33	0.34	0.33	0.34	0.33	0.34	0.33	0.34	0.33	0.34	0.33	0.34	0.33
R&D Intensity	0.66 ***	0.17	0.66 ***	0.17	0.66 ***	0.17	0.66 ***	0.17	0.66 ***	0.17	0.66 ***	0.17	0.66 ***	0.17
Capital Intensity	0.02 ***	0.01	0.02 ***	0.01	0.02 ***	0.01	0.02 ***	0.01	0.02 ***	0.01	0.02 ***	0.01	0.02 ***	0.01
Leverage	0.10 *	0.06	0.10 *	0.06	0.10 *	0.06	0.10 *	0.06	0.10 *	0.06	0.10 *	0.06	0.10 *	0.06
<i>Industry Controls</i>														
Consumer Goods	0.16	0.13	0.16	0.13	0.16	0.13	0.16	0.13	0.16	0.13	0.16	0.13	0.16	0.13
Energy & Extractive	-0.13	0.12	-0.13	0.12	-0.13	0.12	-0.13	0.12	-0.13	0.12	-0.13	0.12	-0.13	0.12
Food & Agriculture	0.41 ***	0.17	0.41 ***	0.17	0.41 ***	0.17	0.41 ***	0.17	0.41 ***	0.17	0.41 ***	0.17	0.41 ***	0.17
Professional and Information Services	-0.06	0.12	-0.06	0.12	-0.06	0.12	-0.06	0.12	-0.06	0.12	-0.06	0.12	-0.06	0.12
Manufacturing	-0.04	0.09	-0.04	0.09	-0.04	0.09	-0.04	0.09	-0.04	0.09	-0.04	0.09	-0.04	0.09
GBN Commitment to CSR	0.08 ***	0.03	0.17 ***	0.04	0.26 ***	0.06	0.08 ***	0.03	0.17 ***	0.04	0.26 ***	0.06	0.08 ***	0.03
Within GBN Heterogeneity of Commitment to CSR	0.30 ***	0.1	0.55 ***	0.15	0.55 ***	0.15	0.55 ***	0.15	0.05	0.06	0.05	0.06	0.05	0.06
GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR	-0.25 ***	0.06	-0.25 ***	0.06	-0.25 ***	0.06	-0.25 ***	0.06	-0.25 ***	0.06	-0.25 ***	0.06	-0.25 ***	0.06
Ties to More Stringent CSR Requirements	0.17 ***	0.06	0.17 ***	0.06	0.17 ***	0.06	0.17 ***	0.06	0.17 ***	0.06	0.17 ***	0.06	0.17 ***	0.06
Intercept	-10.08 ***	1.79	-10.36 ***	1.79	-10.55 ***	1.8	-10.16 ***	1.79	-10.02 ***	1.79	-10.04 ***	1.79	-10.00 ***	1.79
Observations	710		710		710		710		710		710		710	
Number of Firms	710		710		710		710		710		710		710	
R <sup>2</sup>	53.14%		53.14%		53.14%		53.14%		53.14%		53.14%		53.14%	
F	(14, 695) 20.63***		(14, 695) 20.63***		(14, 695) 20.63***		(14, 695) 20.63***		(14, 695) 20.63***		(14, 695) 20.63***		(14, 695) 20.63***	
Root MSE	0.71		0.71		0.71		0.71		0.71		0.71		0.71	

**Table 5.11: Summary of results from Models 2-9 using OLS regression with Huber-White estimators and first alternative specification of the dependent variable (Hypotheses 2a-b)**

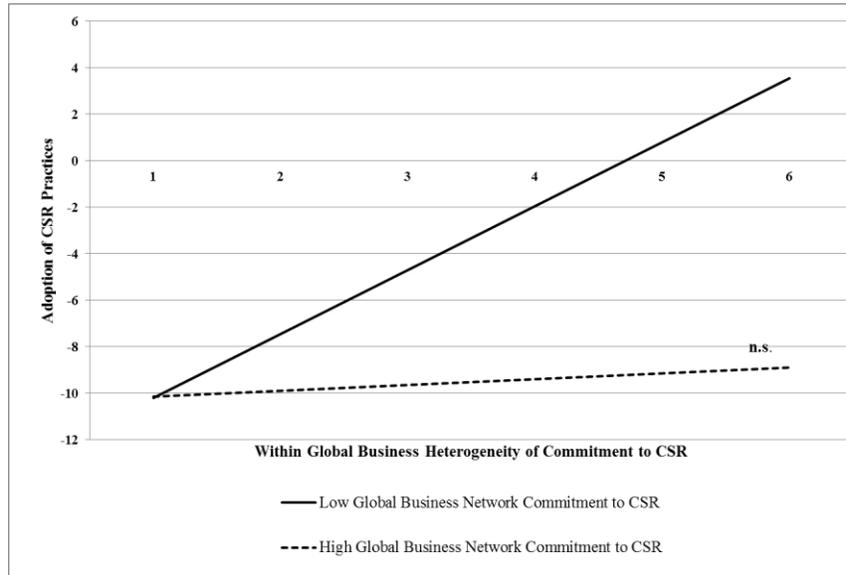
Commitment $-1\delta$ ; Heterogeneity $-1\delta$			Commitment $-1\delta$ ; Heterogeneity			Commitment $-1\delta$ ; Heterogeneity $+1\delta$		
	Coef.	Sig.		Coef.	Sig.		Coef.	Sig.
Commit. $-1\delta$	0.26	***	Commit. $-1\delta$	0.17	***	Commit. $-1\delta$	0.08	***
Heter. $-1\delta$	0.55	***	Heter.	0.55	***	Heter. $+1\delta$	0.55	***
Commitment; Heterogeneity $-1\delta$			Commitment; Heterogeneity			Commitment; Heterogeneity $+1\delta$		
	Coef.	Sig.		Coef.	Sig.		Coef.	Sig.
Commit.	0.26	***	Commit.	0.17	***	Commit.	0.08	***
Heter. $-1\delta$	0.30	***	Heter.	0.30	***	Heter. $+1\delta$	0.30	***
Commitment $+1\delta$ ; Heterogeneity $-1\delta$			Commitment $+1\delta$ ; Heterogeneity			Commitment $+1\delta$ ; Heterogeneity $+1\delta$		
	Coef.	Sig.		Coef.	Sig.		Coef.	Sig.
Commit. $+1\delta$	0.26	***	Commit. $+1\delta$	0.17	***	Commit. $+1\delta$	0.08	***
Heter. $-1\delta$	0.05		Heter.	0.05		Heter. $+1\delta$	0.05	

Figures 5.8 and 5.9 provide a visual illustration of the results for Hypotheses 2a and b.



**Figure 5.8: Interaction plot for the moderating effect of within global business network heterogeneity of commitment to CSR on the relationship between global business network commitment to CSR and firm's adoption of CSR-related**

practices, using OLS regression with Huber-White estimators and alternative specification of the dependent variable (Hypothesis 2a)



**Figure 5.9: Interaction plot for the moderating effect of global business network commitment to CSR on the relation between within global business network heterogeneity of commitment to CSR and firm’s adoption of CSR-related practices, using OLS regression with Huber-White estimators and alternative specification of the dependent variable (Hypothesis 2b)**

Table 5.12 reports the results for the tests of Hypotheses 4a, b, c and d.

**Table 5.12: OLS regression with Huber-White estimators and alternative specification of the dependent variable (Adoption of CSR practices = Sum of all the strength components of each KLD category; Hypotheses 4a, b, c and d)**

	Model 1		Model 2 GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR		Model 3 GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR (-1 $\delta$ )	
	Coeff.	St. E.	Coeff.	St. E.	Coeff.	St. E.
Size	0.42 ***	0.02	0.42 ***	0.02	0.42 ***	0.02
ROA	0.26	0.33	0.28	0.33	0.28	0.33
R&D Intensity	0.65 ***	0.18	0.66 ***	0.18	0.66 ***	0.18
Capital Intensity	0.02 **	0.01	0.02 **	0.01	0.02 **	0.01
Leverage	0.09	0.06	0.09 *	0.06	0.09 *	0.06
<i>Industry Controls</i>						
Consumer Goods	0.13	0.12	0.13	0.13	0.13	0.13
Energy & Extractive	-0.16	0.12	-0.16	0.12	-0.16	0.12
Food & Agriculture	0.39 **	0.17	0.39 **	0.17	0.39 **	0.17
Professional and Information Services	-0.09	0.12	-0.09	0.12	-0.09	0.12
Manufacturing	-0.09	0.09	-0.09	0.09	-0.09	0.09
FDI-based GBN Commitment to CSR	0.10	0.06	0.13 *	0.07	0.60 **	0.25
Within FDI-based GBN Heterogeneity of Commitment to CSR	-0.07	0.12	0.51 **	0.25	0.51 **	0.25
FDI-based GBN Commitment to CSR * Within FDI-based GBN Heterogeneity of Commitment to CSR			-0.47 **	0.19	-0.47 **	0.19
FDI Ties to More Stringent CSR Requirements	0.23 ***	0.07	0.22 ***	0.07	0.22 ***	0.07
Trade-based GBN Commitment to CSR	0.05	0.03	0.07	0.05	0.07	0.05
Within Trade-based GBN Heterogeneity of Commitment to CSR	0.16 *	0.10	0.22 **	0.10	0.22 **	0.10
Trade-based GBN Commitment to CSR * Within Trade-based GBN Heterogeneity of Commitment to CSR			-0.08	0.11	-0.08	0.11
Trade Ties to More Stringent CSR Requirements	0.13 *	0.07	0.13 *	0.07	0.13 *	0.07
Intercept	-10.06 ***	1.85	-10.12 ***	1.83	-10.63 ***	1.87
<i>Observations</i>	710		710		710	
<i>Number of Firms</i>	710		710		710	
$R^2$	53.34%		53.50%		53.50%	
$F$	(16, 693) 32.47***		(18, 691) 29.47***		(18, 691) 29.47***	
<i>Root MSE</i>	0.71		0.71		0.71	

**Table 5.12—Cont'd.**

	Model 4		Model 5		Model 6	
	GBN Commitment to CSR *		GBN Commitment to CSR (-1 $\delta$ ) *		GBN Commitment to CSR (-1 $\delta$ ) *	
	Within GBN Heterogeneity of Commitment to CSR (+1 $\delta$ )		Within GBN Heterogeneity of Commitment to CSR		Within GBN Heterogeneity of Commitment to CSR (-1 $\delta$ )	
	Coeff.	St. E.	Coeff.	St. E.	Coeff.	St. E.
Size	0.42 ***	0.02	0.42 ***	0.02	0.42 ***	0.02
ROA	0.28	0.33	0.28	0.33	0.28	0.33
R&D Intensity	0.66 ***	0.18	0.66 ***	0.18	0.66 ***	0.18
Capital Intensity	0.02 **	0.01	0.02 **	0.01	0.02 **	0.01
Leverage	0.09 *	0.06	0.09 *	0.06	0.09 *	0.06
<i>Industry Controls</i>						
Consumer Goods	0.13	0.13	0.13	0.13	0.13	0.13
Energy & Extractive	-0.16	0.12	-0.16	0.12	-0.16	0.12
Food & Agriculture	0.39 **	0.17	0.39 **	0.17	0.39 **	0.17
Professional and Information Services	-0.09	0.12	-0.09	0.12	-0.09	0.12
Manufacturing	-0.09	0.09	-0.09	0.09	-0.09	0.09
FDI-based GBN Commitment to CSR	-0.34 **	0.16	0.13 *	0.07	0.60 **	0.25
Within FDI-based GBN Heterogeneity of Commitment to CSR	0.51 **	0.25	0.98 **	0.43	0.98 **	0.43
FDI-based GBN Commitment to CSR * Within FDI-based GBN Heterogeneity of Commitment to CSR	-0.47 **	0.19	-0.47 **	0.19	-0.47 **	0.19
FDI Ties to More Stringent CSR Requirements	0.22 ***	0.07	0.22 ***	0.07	0.22 ***	0.07
Trade-based GBN Commitment to CSR	0.07	0.05	0.07	0.05	0.07	0.05
Within Trade-based GBN Heterogeneity of Commitment to CSR	0.22 **	0.10	0.22 **	0.10	0.22 **	0.10
Trade-based GBN Commitment to CSR * Within Trade-based GBN Heterogeneity of Commitment to CSR	-0.08	0.11	-0.08	0.11	-0.08	0.11
Trade Ties to More Stringent CSR Requirements	0.13 *	0.07	0.13 *	0.07	0.13 *	0.07
Intercept	-9.60 ***	1.82	-10.25 ***	1.83	-11.22 ***	1.93
<i>Observations</i>	710		710		710	
<i>Number of Firms</i>	710		710		710	
$R^2$	53.50%		53.50%		53.50%	
$F$	(18, 691) 29.47***		(18, 691) 29.47***		(18, 691) 29.47***	
<i>Root MSE</i>	0.71		0.71		0.71	

**Table 5.12—Cont'd.**

	Model 7		Model 8		Model 9		Model 10	
	GBN Commitment to CSR (-1 $\delta$ ) *		GBN Commitment to CSR (+1 $\delta$ ) *		GBN Commitment to CSR (+1 $\delta$ ) *		GBN Commitment to CSR (+1 $\delta$ ) *	
	Within GBN Heterogeneity of Commitment to CSR (+1 $\delta$ )		Within GBN Heterogeneity of Commitment to CSR		Within GBN Heterogeneity of Commitment to CSR (-1 $\delta$ )		Within GBN Heterogeneity of Commitment to CSR (+1 $\delta$ )	
	Coeff.	St. E.	Coeff.	St. E.	Coeff.	St. E.	Coeff.	St. E.
Size	0.42 ***	0.02	0.42 ***	0.02	0.42 ***	0.02	0.42 ***	0.02
ROA	0.28	0.33	0.28	0.33	0.28	0.33	0.28	0.33
R&D Intensity	0.66 ***	0.18	0.66 ***	0.18	0.66 ***	0.18	0.66 ***	0.18
Capital Intensity	0.02 **	0.01	0.02 **	0.01	0.02 **	0.01	0.02 **	0.01
Leverage	0.09 *	0.06	0.09 *	0.06	0.09 *	0.06	0.09 *	0.06
<i>Industry Controls</i>								
Consumer Goods	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Energy & Extractive	-0.16	0.12	-0.16	0.12	-0.16	0.12	-0.16	0.12
Food & Agriculture	0.39 **	0.17	0.39 **	0.17	0.39 **	0.17	0.39 **	0.17
Professional and Information Services	-0.09	0.12	-0.09	0.12	-0.09	0.12	-0.09	0.12
Manufacturing	-0.09	0.09	-0.09	0.09	-0.09	0.09	-0.09	0.09
FDI-based GBN Commitment to CSR	-0.34 **	0.16	0.13 *	0.07	0.60 **	0.25	-0.34 **	0.16
Within FDI-based GBN Heterogeneity of Commitment to CSR	0.98 **	0.43	0.05	0.14	0.05	0.14	0.05	0.14
FDI-based GBN Commitment to CSR * Within FDI-based GBN Heterogeneity of Commitment to CSR	-0.47 **	0.19	-0.47 **	0.19	-0.47 **	0.19	-0.47 **	0.19
FDI Ties to More Stringent CSR Requirements	0.22 ***	0.07	0.22 ***	0.07	0.22 ***	0.07	0.22 ***	0.07
Trade-based GBN Commitment to CSR	0.07	0.05	0.07	0.05	0.07	0.05	0.07	0.05
Within Trade-based GBN Heterogeneity of Commitment to CSR	0.22 **	0.10	0.22 **	0.10	0.22 **	0.10	0.22 **	0.10
Trade-based GBN Commitment to CSR * Within Trade-based GBN Heterogeneity of Commitment to CSR	-0.08	0.11	-0.08	0.11	-0.08	0.11	-0.08	0.11
Trade Ties to More Stringent CSR Requirements	0.13 *	0.07	0.13 *	0.07	0.13 *	0.07	0.13 *	0.07
Intercept	-9.27 ***	1.83	-9.99 ***	1.82	-10.03 ***	1.84	-9.94 ***	1.82
Observations	710		710		710		710	
Number of Firms	710		710		710		710	
R <sup>2</sup>	53.50%		53.50%		53.50%		53.50%	
F	(18, 691) 29.47***		(18, 691) 29.47***		(18, 691) 29.47***		(18, 691) 29.47***	
Root MSE	0.71		0.71		0.71		0.71	

Model 1 in Table 5.12 above includes all the independent and control variables without the interaction terms. Model 2 includes all independent and control variables as well as the two interaction terms of interest. Results in Models 1 and 2 provide partial support for Hypothesis 4a. This is because the coefficients for FDI-based global business network commitment to CSR and trade-based global business network commitment to CSR are insignificant in Model 1. However, FDI-based global business network commitment to CSR is positive and significant in Model 2 ( $\beta = 0.13$ ;  $p < .10$ ), while the coefficient for trade-based global business network commitment to CSR is insignificant.

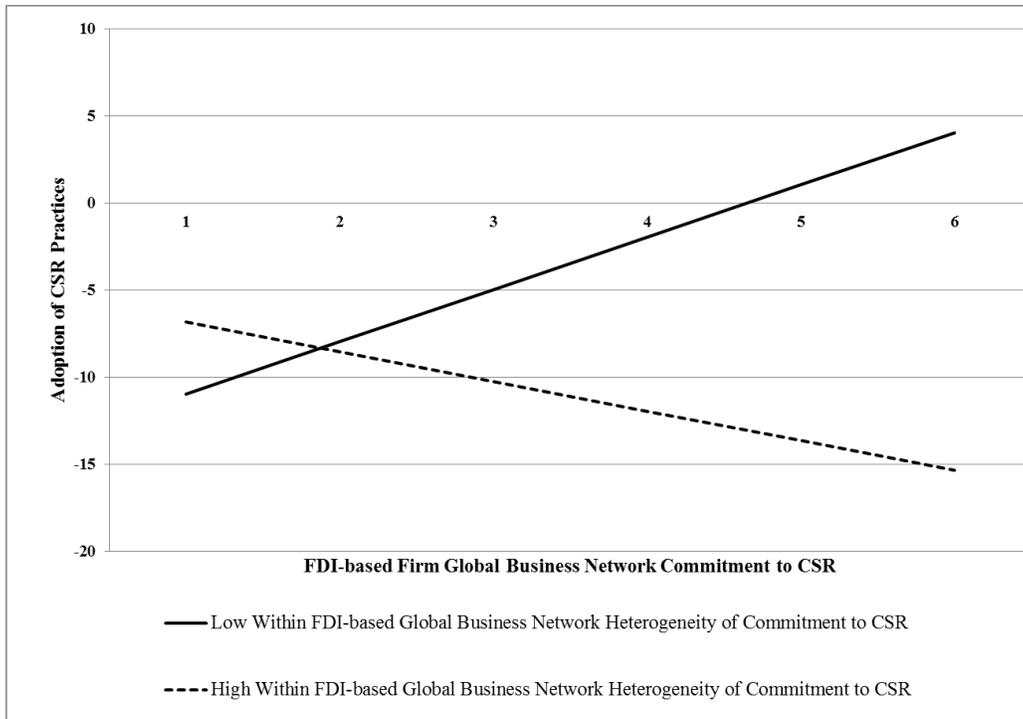
To investigate Hypothesis 4b I follow the steps suggested by Aiken and West (1991). These results are consistent with previous findings and indicate that as within global business network heterogeneity of commitment to CSR decreases, focal firm's adoption of CSR practices becomes more positively related to global business network commitment to CSR and that this effect is stronger for FDI-based relationships than trade-based relationships. Models 2 through 9 include the interaction of FDI-based global business network commitment to CSR and within FDI-based global business network heterogeneity of commitment to CSR at different levels of these two variables (i.e., average; low; and high). Hypothesis 4a is supported because:

- (a) The coefficient of the interaction of FDI-based global business network commitment to CSR and within FDI-based global business network heterogeneity of commitment to CSR in Model 2 is negative and significant ( $\beta = -.47$ ;  $p < .05$ ); Model 2 also shows that the coefficient of the interaction of trade-based global business network

commitment to CSR and within trade-based global business network heterogeneity of commitment to CSR is insignificant;

- (b) In addition, the coefficient of FDI-based global business network's commitment to CSR becomes more positive as within FDI-based global business network heterogeneity of commitment to CSR decreases in value. This is supported by Models 3, 2 and 4. Specifically, at low levels of within FDI-based global business network heterogeneity of commitment to CSR (Model 3), the coefficient of FDI-based global business network's commitment to CSR is positive and significant ( $\beta = 0.6$ ;  $p < .05$ ). At average levels of within FDI-based global business network heterogeneity of commitment to CSR (Model 2), the coefficient of FDI-based global business network's commitment to CSR is also positive and significant ( $\beta = 0.13$ ;  $p < .10$ ), but of a lower magnitude than that in Model 3. Then, at high levels of within FDI-based global business network heterogeneity of commitment to CSR (Model 4), the coefficient of FDI-based global business network's commitment to CSR is insignificant ( $\beta = -0.34$ ;  $p < .05$ ).

Figure 5.10 illustrates how within FDI-based global business network heterogeneity of commitment to CSR moderates the relationship between FDI-based global business network's commitment to CSR and firm's adoption of CSR practices.



**Figure 5.10: Interaction plot for the moderating effect of within FDI-based global business network heterogeneity of commitment to CSR on the relationship between FDI-based global business network commitment to CSR and firm’s adoption of CSR-related practices, using OLS regression with Huber-White estimators and alternative specification of the dependent variable (Adoption of CSR practices = Sum of all the strength components of each KLD category; Hypothesis 4b)**

I follow the same steps to also examine whether the moderating effect of global business network’s commitment to CSR on the relationship between within global business network heterogeneity of commitment to CSR and firm’s adoption of CSR practices is stronger for FDI-based relationships than trade-based relationships, as predicted in Hypothesis 4c. H4c is supported because:

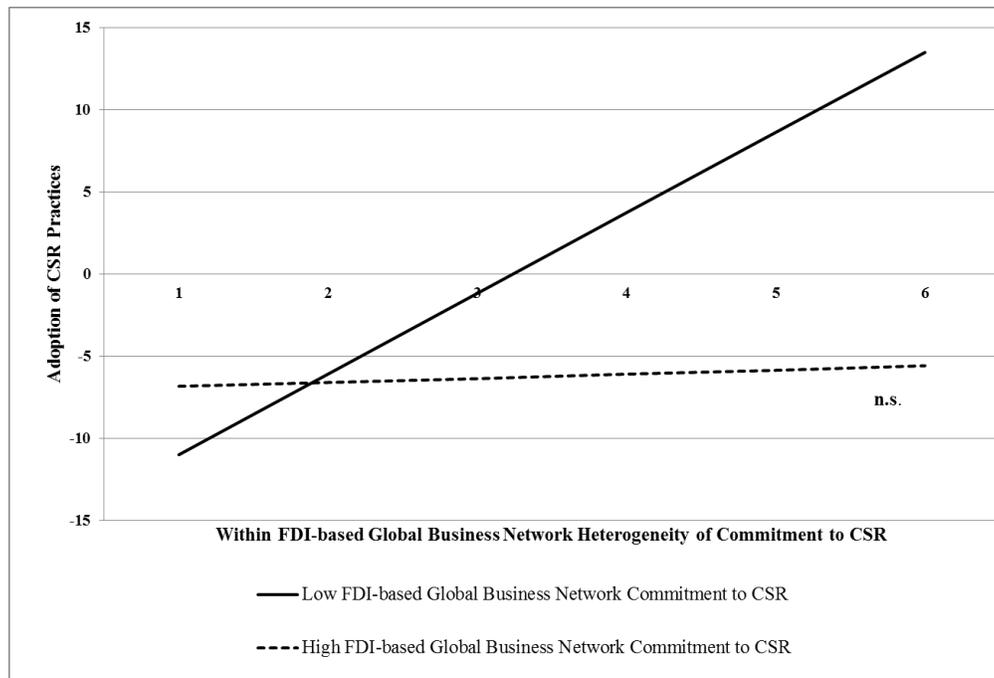
- (a) The coefficient of the interaction of FDI-based global business network commitment to CSR and within FDI-based global business network heterogeneity of commitment to CSR in Model 2 is negative and significant ( $\beta = -.47$ ;  $p < .01$ ); Model 2 also shows that the

coefficient of the interaction of trade-based global business network commitment to CSR and within trade-based global business network heterogeneity of commitment to CSR is insignificant;

- (b) Finally, the coefficient of within FDI-based global business network heterogeneity of commitment to CSR becomes more positive as FDI-based global business network commitment to CSR decreases in value. This is indeed the case in Models 5, 2 and 8. These models show that at low levels of FDI-based global business network's commitment to CSR (Model 5), the coefficient of within FDI-based global business network heterogeneity of commitment to CSR is positive and significant ( $\beta = .98$ ;  $p < .05$ ). In addition, at average levels of FDI-based global business network commitment to CSR (Model 2), the coefficient of within FDI-based global business network heterogeneity of commitment to CSR is also positive and significant ( $\beta = 0.51$ ;  $p < .05$ ), but of a lower magnitude than that in Model 5. Finally, at high levels of FDI-based global business network commitment to CSR (Model 8), the coefficient of within FDI-based global business network heterogeneity of commitment to CSR is insignificant.

Figure 5.11 illustrates how FDI-based global business network commitment to CSR moderates the relationship between within FDI-based global business network heterogeneity of commitment to CSR and firm's adoption of CSR practices.

Table 5.13 summarizes the results for Hypotheses 4b and 4c discussed above.



**Figure 5.11: Interaction plot for the moderating effect of FDI-based global business network commitment to CSR on the relation between within FDI-based global business network heterogeneity of commitment to CSR and firm’s adoption of CSR-related practices, using OLS regression with Huber-White estimators and alternative specification of the dependent variable (Adoption of CSR practices = Sum of all the strength components of each KLD category; Hypothesis 4c)**

Results do not support Hypothesis 4d, which means that the positive effect of ties to business partners in countries with more stringent CSR requirements is not stronger for FDI ties than trade ties. Results show that the coefficient of within FDI ties to business partners in countries with more stringent CSR requirements is positive and significant in Models 1 and 2 ( $\beta = 0.23$ ;  $p < .01$ ;  $\beta = 0.22$ ;  $p < .01$ ), and that the coefficient of trade ties to business partners in countries with more stringent CSR requirements is also positive and significant ( $\beta = 0.13$ ;  $p < .10$ ;  $\beta = 0.13$ ;  $p < .10$ ) and of a lower magnitude than that of FDI ties. However, a

Wald test of the differences between these two coefficients was not statistically significant at the .05 level.

**Table 5.13: Summary of results from Models 2-9 using OLS regression with Huber-White estimators and alternative specification of the dependent variable (Adoption of CSR practices = Sum of all the strength components of each KLD category; Hypotheses 4b and c)**

<b>Commitment -1<math>\delta</math>; Heterogeneity -1<math>\delta</math></b>			<b>Commitment -1<math>\delta</math>; Heterogeneity</b>			<b>Commitment -1<math>\delta</math>; Heterogeneity +1<math>\delta</math></b>		
	Coef.	Sig.		Coef.	Sig.		Coef.	Sig.
Commit. -1 $\delta$	0.60	**	Commit. -1 $\delta$	0.13	*	Commit. -1 $\delta$	-0.34	**
Heter. -1 $\delta$	0.98	**	Heter.	0.98	**	Heter. +1 $\delta$	0.98	**
<b>Commitment; Heterogeneity -1<math>\delta</math></b>			<b>Commitment; Heterogeneity</b>			<b>Commitment; Heterogeneity +1<math>\delta</math></b>		
	Coef.	Sig.		Coef.	Sig.		Coef.	Sig.
Commit.	0.60	**	Commit.	0.13	*	Commit.	-0.34	**
Heter. -1 $\delta$	0.51	**	Heter.	0.51	**	Heter. +1 $\delta$	0.51	**
<b>Commitment +1<math>\delta</math>; Heterogeneity -1<math>\delta</math></b>			<b>Commitment +1<math>\delta</math>; Heterogeneity</b>			<b>Commitment +1<math>\delta</math>; Heterogeneity +1<math>\delta</math></b>		
	Coef.	Sig.		Coef.	Sig.		Coef.	Sig.
Commit. +1 $\delta$	0.60	**	Commit. +1 $\delta$	0.13	*	Commit. +1 $\delta$	-0.34	**
Heter. -1 $\delta$	0.05		Heter.	0.05		Heter. +1 $\delta$	0.05	

Table 5.14 below summarizes hypotheses testing results based on main analytical method, as well as alternative model- and alternative dependent variable- specifications.

Appendix F reports the results of additional robustness test using a second set of alternative dependent variable specifications, which consider each individual components of the main dependent variable, i.e., community relations, diversity, corporate governance, employee relations, environment, human rights, and product quality and safety. In Appendix F, I further elaborate on the relevance of these results.

**Table 5.14: Summary of main and robustness tests results**

	OLS with Huber-White estimators	Alternative model specification: Panel-corrected standard errors	Alternative specification of the dependent variable (i.e., All strength components of KLD indicators)
<i>H1: A focal firm's adoption of CSR practices will be positively related to the overall CSR commitment of its global business network.</i>	Supported	Supported	Supported
<i>H2a: As within global business network heterogeneity of commitment to CSR decreases, focal firm's adoption of CSR practices becomes more positively related to global business network commitment to CSR.</i>	Supported	Supported	Supported
<i>H2b: As global business network commitment to CSR decreases, focal firm's adoption of CSR practices becomes more positively related to within global business network heterogeneity of commitment to CSR.</i>	Supported	Supported	Supported
<i>H3: A firm is more likely to adopt CSR practices to the extent that it has ties with business partners in countries with more stringent CSR institutional requirements.</i>	Supported	Supported	Supported
<i>H4a: The type of tie between the focal firm and its partners in the global business network moderates the effect of global business network commitment to CSR on firm's adoption of CSR practices, such that the positive effects of global business network commitment to CSR is stronger for FDI-based relationships than trade-based relationships.</i>	Supported	Supported	Supported
<i>H4b: The type of tie between the focal firm and its partners in the global business network moderates the effect of within global business network heterogeneity of commitment to CSR on the relationship between global business network commitment to CSR and firm's adoption of CSR practices, such that the effect is stronger for FDI-based relationships than trade-based relationships.</i>	Supported	Supported	Supported

<i>H4c: The type of tie between the focal firm and its partners in the global business network moderates the effect of global business network commitment to CSR on the relationship between within global business network heterogeneity of commitment to CSR and firm's adoption of CSR practices, such that the effect is stronger for FDI-based relationships than trade-based relationships.</i>	Supported	Not Supported	Supported
<i>H4d: The type of tie between the focal firm and its partners in the global business network moderates the effect of the firm's ties to business partners in countries with more stringent CSR requirements on adoption of CSR practices, such that the positive effect of ties to business partners in countries with more stringent CSR requirements is stronger for FDI-based relationships than trade-based relationships.</i>	Supported	Not Supported	Not Supported

## CHAPTER 6

### DISCUSSION AND CONCLUSION

#### 6.1 Summary

This dissertation examined how the complexity of the firm's trade- and FDI-based business partner networks contributes to shaping its adoption of CSR practices. The empirical study found support for the notion that embeddedness, or the joint effect of CSR-related institutional influences and the intensity of the economic relationships within a focal firm's global business network, shapes the extent to which the firm engages in CSR. Results also showed that higher levels of overall global business network's commitment to CSR increase the likelihood that firms adopt related practices. This implies that, as firms deepen their economic ties to business partners located in countries with more stringent institutional requirements for CSR, they become more influenced by pro-CSR institutional forces and are more likely to adopt related practices. I argued that this occurs because economic ties perform as channels for institutional influences related to CSR, and the nature of these relationships contributes to shaping the intensity with which they experience these institutional forces.

Results also indicate that *within global business network heterogeneity of commitment to CSR* and *global business network commitment to CSR* jointly contribute to shaping firm's decision to adopt CSR practices. Specifically, results indicate that, in support of Hypothesis 2a, as *within global business network heterogeneity of commitment to CSR* decreases, the relationship between *global business network commitment to CSR* and firm's *adoption of CSR practices* becomes stronger. In addition, results indicate that, in support of Hypothesis 2b, as *global business network commitment to CSR* decreases, the influence of *within global business network heterogeneity of commitment to CSR* with regards to a firm's decision to adopt CSR practices becomes stronger.

Support for H2a indicates that a firm's decision to adopt CSR practices is more positively affected by *global business network commitment to CSR* when that commitment is fairly consistent across the various institutional contexts in which the firm operates. It also indicates that the overall intensity of *global business network commitment to CSR* is not very important to firm's adoption of CSR practices when this consistency is lacking. One possible explanation for this is that higher levels of *within global business network heterogeneity of commitment to CSR* imply multiple logics around the importance of CSR, meaning the institutional pressures to adopt CSR practices are less cohesive. This weakens a firm's incentives to acquiesce to any particular set of institutional influences (Oliver, 1991). This could be especially relevant to the firms in my sample. These are all large MNCs, which, according to Kostova, Roth & Dacin (2008: 999) tend to view institutional heterogeneity as a means to achieve "institutional freedom" to "choose the patterns of behavior that they think fit them best." Indeed, support for H2b suggests that heterogeneity-induced learning opportunities

become more important to the firm's adoption decision as *global business network commitment to CSR* becomes weaker. Under these circumstances, I argue that firms seem to adopt CSR practices less because of the isomorphic pressures regarding the importance of CSR (DiMaggio & Powell, 1983), and more because of the learning opportunities associated with the multiplicity of institutional influences concerning the importance of CSR to which they are exposed within their global business network. While heterogeneity may make it more difficult to operate legitimately across a variety of institutional environments that vary with regards to their CSR-related institutional requirements (Kostova & Zaheer, 1999), it also forces firms to develop innovative solutions and routines to achieve this goal., This ultimately strengthen their knowledge base in this area and make it more likely that they would adopt CSR practices. More intense *global business network commitment to CSR* would instead constrain firms into specific patterns of behaviors (DiMaggio & Powell, 1983).

Hypothesis 3, which predicted that some of the institutional contexts that make up the global business network can exercise distinct effects on firm's decision to adopt CSR-related practices, was also supported. Results show that relationships that tie the focal firm to institutional contexts characterized by more stringent requirements for CSR than those of the firm's home country are more likely to adopt related practices.

Furthermore, results indicate that the type of economic relationships in which the focal actor is engaged is also important with regards to its decision to adopt CSR practices, as predicted in Hypotheses 4a, b, c and d. Specifically, results show that a firm's FDI ties perform as more effective channels of the institutional forces that stem from the global business network, when compared to trade-based ties. Support for this

general hypothesis is consistent with an interpretation of the firm as a social community that specializes in the creation and transfer of knowledge across borders (Kogut and Zander, 1993). FDI-based relationships imply more intense relationships between focal actors and alter organizations than trade-based relationships. This is because FDI-based relationships usually involve transfers of capital, managerial expertise, shared organizational values, a lasting interest in the local assets that are owned by the focal actor and, therefore, in the host country (Bandelj, 2002). Given that the firm has more to gain from being perceived as a legitimate local player and more to lose if it is not perceived as such, this lasting interest for the host country implies that the focal firm is more exposed to demands that might emerge from the local institutional context as to the firm's adoption decisions. It also implies that the firm might be more likely to have already done the necessary due diligence to understand its ability to perform effectively within the local institutional context and to work within the local social expectations, including those concerning CSR. This is not necessarily the case with trade-based economic relationships because, while still very important to the economic success of the firm, they are not as durable, and do not imply equally strong incentives to adapt to and learn from the local context as FDI-based relationships (Kogut & Zander, 1992). However, it is also important to note that FDI and much trade are linked: a significant portion of world's trade is FDI-based and another portion involves trade between MNCs and independent parties. This would suggest that to the extent that trade and FDI are complements, trade measures might reflect institutional effects on firm's adoption decisions that also depend on FDI (Hejazi & Safarian, 1999).

More specifically, support of Hypothesis 4a indicates that FDI ties perform as better conduits of the isomorphic pressures stemming from the global business network when compared with trade-based ties. In addition, support for Hypothesis 4b indicates that as heterogeneity in the FDI-based global business network commitment to CSR grows, the importance of this network's commitment to CSR with regards to the firm's decision to engage in CSR becomes weaker. Furthermore, it shows that the moderating effect of within FDI-based global business network heterogeneity is stronger than the moderating effect of within trade-based global business network heterogeneity. This means that, as expected, heterogeneity can more effectively impede the effect of isomorphic pressures in the context of FDI-based relationships than in the context of trade-based relationships. Also, support for Hypothesis 4c indicates that commitment to CSR is more disruptive of the learning opportunities associated with heterogeneity in the case of FDI-based relationships than are trade-based relationships. Both scenarios are likely to take place because the institutional pressures and learning opportunities that flow through trade-based ties are not as intense as those that flow through a firm's FDI ties.

It is important to note that while main analyses and robustness tests relying on the alternative specification of the dependent variable all provide support for H4c, this is not the case for those analyses that rely on the alternative model specification. These results suggest that when one considers only FDI-based relationships, heterogeneity-induced learning is not always an important driver of the firm's decision to adopt CSR practices, even when network's commitment to CSR is low. This could be, in some instances, because the overall degree of cumulative heterogeneity experienced within trade and FDI

relationships is more consequential to a firm's decision to engage in CSR, rather than just that experienced within the firm's FDI-based network.

Finally, results from the main analyses support Hypothesis 4d indicating that a firm's FDI ties to countries with more stringent CSR requirements are more important with regards to its decision to adopt CSR practices than are trade ties to countries with more stringent CSR requirements. However, robustness tests relying on alternative model and dependent variable specifications do not support H4d, because Wald tests of significance did not show that these coefficients are significantly different at the .95 level. These results suggest that while ties to business partners in countries with more stringent CSR requirements matter with regards to firm's decisions to adopt CSR practices, they may not always be as important whether the firm is exposed to more stringent institutional environments in the context of trade or FDI-based relationships. This could depend on the fact that ties to business partners in countries with more stringent CSR requirements create incentives for firms to learn that do not depend on the type of economic relationship that channels them.

## **6.2 Implications for research**

The results of this study inform three areas of research—international business, organizational institutionalism, and CSR.

### *6.2.1 Implications for international business research*

This study contributes to the international business research area by providing a novel conceptualization of the global space where internationalized firms, and in particular MNCs, operate. Traditional approaches to the study of this global space tend to focus on the differentiated intra-firm network spanning multiple national contexts that

make up the organization and on the challenges to effective knowledge transfer that might emerge within it (Ghoshal & Bartlett, 1990). In this study, I demonstrate the importance of expanding this analytical focus in order to consider inter-firm relationships, because they also contribute to channeling important issue-specific institutional forces.

This work also contributes to the international business research area because it provides an investigation of the organizational- and field-level factors that contribute to the emergence of both the “constraining” and “enabling” effects of institutional forces (Saka-Helmhout & Geppert, 2011). Indeed, while institutional theory has provided a rich theoretical foundation to analyze MNCs, much of international business research only considers their constraining effects (Saka-Helmhout & Geppert, 2011), based on an understanding of institutions as “rules of the game” that impose transaction costs that shape actors’ behavior (North, 1990). However, I suggest that the institutional forces that emerge from the global business network where the firm operates expose the firm to isomorphic pressures, as well as learning opportunities about CSR practices (Kostova et al., 2008). I do so by considering not only the intensity of the institutional pressures emerging from the global business network, but also their heterogeneity. While stronger institutional pressures about CSR stimulate conformity, their heterogeneity makes it more difficult for the firm to take any specific course of action for granted (Oliver, 1991). Therefore, one of the novel findings in this work is that strength and heterogeneity of institutional forces within the firm’s global business network can coexist, and exercise separate, as well as joint influences on the focal actor’s CSR adoption decisions.

#### *6.2.2 Implications for organizational research*

In the organizational institutionalism area, the first proposed contribution is the narrowing of the existing gap between institutional and network perspectives about organizational behavior, by making explicit the role that networks play as conduits for the diffusion of institutional practices, as well as the co-constitutive relationship between networks and institutions (Owen-Smith & Powell, 2008). This idea is consistent with many institutional studies that presume that professional or inter-organizational networks serve as conduits for the diffusion of appropriate practices and ideas (Owen-Smith & Powell, 2008). For example, Meyer and Rowan (1977) pointed to the ‘explosive organizational potential’ of organizations’ relational networks, and how this greatly increased both the spread and number of rationalized myths. Networks were also essential components of DiMaggio and Powell’s (1983) conception of organizational field, which emphasized ‘connectedness and structural equivalence’ (Owen-Smith & Powell, 2008). However, existing work concerning how organizational fields shape firms’ behaviors tends to fall short on providing an explicit discussion of the mechanisms through which networks might contribute to the diffusion of practices.

This dissertation makes those network mechanisms more explicit by investigating the diffusion of CSR-related practices through the organizational network ties within global business networks in which firms operate. It suggests a more encompassing effect of these networks, that includes not only structural links, but also relational characteristics, the quality of the type of economic ties in which the firm is engaged, and their relative importance towards explaining the firm’s adoption of CSR-related practices. As such, this work also contributes to the emerging literature at the intersection of institutional and network theories (e.g., McDermott, Corredora & Kruse, 2009;

McDermott & Corredoira, 2010), which has offered initial explanations of how firms' embeddedness, in certain inter-organizational networks, promotes knowledge diffusion. This work advances the field by focusing, not only on ties structure but also on their quality and composition.

The second contribution to organizational theory focuses on the embeddedness research area. Indeed, whereas much existing research in this tradition has downplayed the importance of the content of network ties in favor of their structure (DiMaggio, 1992; Emirbayer & Goodwin, 1994; Powell & Smith-Doerr, 1994), several scholars agree that network ties requires further attention (e.g., Adler & Kwon, 2002; Dacin et al., 1997; Kilduff & Brass, 2010). In this study, I answer this call by considering both the economic and institutional content of networks. Specifically, I conceptualize global business networks as systems of economic resources, and also rules, norms, and beliefs concerning CSR. I also respond to calls for greater attention to "the complexity, strength, and intensity of embeddedness" (Dacin et al., 1999: 337). The study does so by measuring and modeling the intensity and types of economic exchanges between the focal firm and its business partners as constitutive elements of the intensity with which the focal actor perceives these influences.

### *6.2.3 Implications for CSR research*

The main contribution to CSR research is the development of an embeddedness explanation of CSR adoption. This approach extends existing explanations of firm social and environmental behaviors, which have been focused on the identification of firm-level drivers, including top leadership's values (e.g., Branzei, Ursacki-Bryant, Vertinsky & Zhang, 2006); stakeholder pressures (including NGOs, government, various consumer

groups) (e.g., Doh & Guay, 2006); certain firm's characteristics and resources, including the level of R&D spending; competitive pressures; industry type (e.g., McWilliams & Siegel, 2000); and employees turnover (e.g., Turban & Greening, 1996). However, as suggested by the emerging comparative research in this area, firms' understandings about their role in society vary across institutional settings (Aguilera & Jackson, 2008).

Additionally, there are important inter-organizational aspects to corporate decisions to engage in CSR that have not been investigated until now. In particular, the quality of the relationship between buyer and supplier firms across countries has influenced the latter's propensity to engage in CSR initiatives. For example, Nike is well-known for mandating fair labor standards for its production outsourcing partners, because of stakeholder expectations in developed countries, even though the factories are independently owned and located in developing countries (Locke & Romis, 2007). In this case, a buyer firm channels pressures from its composite institutional environment to suppliers in other countries. These forces reflect normative and cognitive understandings about the role of business in society in the firm's home and host countries. They also reflect normative, cognitive and coercive pressures stemming from inter-organizational linkages within global business network, either directly or indirectly, through its value-added chain and/or outsourcing service providers. As a result, studies of the drivers of adoption of CSR practices narrowly focused on the firm-level of analysis and/or a single country might not have the power to address the complex set of forces that govern firm's decision making in this area.

### **6.3 Implications for practice**

This study has also several managerial implications. At a general level, it demonstrates the importance of a firm's network of business partners in shaping its CSR practices. Findings from this study show that firms need to be concerned not only with what happens inside its own "walls", but also with the general CSR trends in its global business network. This finding is corroborated by the mounting anecdotal evidence that even firms with the glossiest CSR reports have found themselves cast as public enemy, often because of accidents or wrongdoings in their global business networks. This was, for example, the case with BP, following the April 2010 oil spill in the Gulf of Mexico. The spill was caused by an explosion on the Deepwater Horizon, an offshore oil drilling rig owned by Transocean, one of the BP's main contractors in the United States. In the aftermath of the oil spill, BP experienced one of the most severe reputational crises.- These created negative financial consequences when investors began to question the company's ability to salvage its reputation. Before then, however, BP had been often labeled as one of the most progressive and socially responsible firms in the oil industry (e.g., Levy & Kolk, 2002). These events further highlight the need for corporations to carefully monitor their global business networks to ensure that CSR issues are as much of a priority for their business partners as much as they are for them.

Societal CSR expectations have never been higher; therefore these create a large component of the challenge that is currently faced by large corporation (McKinsey, 2013). Experts agree that companies are increasingly expected to not only obey the law or meet certain standards within their business, but also to ensure high standards within their global business networks, among their subsidiaries and suppliers. Larger companies are expected to go even further to help solve major economic, environmental, and social

problems (McKinsey, 2009, 2013). Furthermore, as expectations have increased, so have the means available to monitor corporate behavior. Digital communications ensure that individuals and NGOs can monitor business impacts on society and quickly rally support against firms that they perceive as inadequate at almost zero cost (Chouinard & Stanley, 2012).

The dissertation also has implications for developing successful CSR strategies. More specifically, it offers managers a theoretically-grounded framework to develop a better understanding of their CSR-related decision-making and to assess whether their company's CSR-related behaviors are aligned with the overall organizational strategy and business partners' expectations. For example, embeddedness in a global business network, with strong overall commitment to CSR, would indicate that there are strong incentives for the firm to adopt CSR-related practices, as well as potentially sizable costs associated with non-conformity in this area. Furthermore, divergence between the firm's CSR practice adoption, with related trends in its global business network, is another useful source of information for the firm. Specifically, if the firm is embedded in a network that is considerably better at CSR than the focal firm, then, such discrepancies could suggest the need for the firm to improve its CSR record. Alternatively, if the firm operates in a global business network that tends to care less about CSR than it does, then it might need to be prepared to deal with the possibility that something could go wrong in this area among its FDI- and/or trade-based partners. In sum, mapping of global business network CSR-related expectations can help managers reduce the likelihood that the firm might be unprepared to deal with a CSR-related crisis.

In addition, awareness of the degree of within global business network heterogeneity of commitment to CSR can help managers refine their understanding of conflicting messages concerning its importance. Firms embedded in more heterogeneous environments should consider whether they have the internal resources and capabilities to deal effectively with the more challenging nature of the global business network where they operate. Examples of such resources and capabilities include: managerial focus on CSR issues, and expertise in this area; ties with relevant local civil society groups across the various institutional contexts where the firm operates, helping the firm tailor its CSR offerings to the local needs and providing more refined understandings of what these needs are; and the ability of the firm to tap those relationships to acquire information about local CSR needs and how they fit into the organization's overall strategy, in order to avoid tensions that might expose it to damaging legitimacy crisis (Kostova & Zaheer, 1999). In sum, awareness of the challenges and opportunities associated with the global business network would improve managers' ability to recognize when and where to expect potential crises in this area, and what kind of resources and capabilities they might need to deploy in order to tackle them.

#### **6.4 Limitations and future research**

There are several limitations to this study that must be noted. First, this is an early effort at unpacking the characteristics and impacts of a firm's institutional and economic embeddedness within its global business network with regards to its decision to adopt CSR practices. One of the main challenges is the lack of partner-specific CSR performance data, which I capture, instead, with a measure of the CSR-related institutional favorability of the countries where the focal firm's business partners are

located. While this measure only proxies business partners' CSR track record, it is consistent with existing research that measures the effects of country level institutional arrangements on firm practice adoption (e.g., Busenitz, Gomez & Spencer, 2000; Ferner & Quintanilla, 1998; Quack, Morgan & Whitley, 2000; Orrù, Biggart & Hamilton, 1991; Rosenzweig & Nohria, 1994). In addition I conducted this study with reference to a single set of practices and a population of only U.S. firms. For the purpose of generalizability, it would be important to replicate this study with other practices, as well as with non-U.S. firms, although I would expect my model to be generalizable to all types of practices and firms. Nonetheless, the current lack of variation in the firms' home countries does allow one to conduct a conservative test of the presented model, given that fewer countries possess CSR-related institutional arrangements that are more sophisticated than those found in the United States. For example, it would be interesting to also include firms based in Europe and several emerging markets. This would increase the variance in the variables describing the strength and heterogeneity of the practice-related institutional quality found within the networks where firms operate. As I further discuss in the next section of this chapter, this inclusion would allow for a more nuanced investigation of the role of a firm's home country as it relates to the forces that stem from the global business network. I would also expect that firms that are located in countries with less developed institutional frameworks for the practice under consideration would be more exposed to the influences emerging from their global business network.

Finally, while this study covers five years of corporate decision making in the CSR area, future research would certainly benefit from a more in-depth evaluation of the role of time in these processes. This is an increasingly important issue as firms deepen

their ties to specific institutional contexts through their economic exchange relationships with local business partners.

## **6.5 Next steps**

Currently, there are two manuscripts planned. The first manuscript is an empirical paper based on the quantitative study in the dissertation. The main goal of this paper will be to explore the role of a firm's institutional and economic embeddedness in its global business network with regards to the decision to adopt CSR practices. The second manuscript is a survey-based study of the adoption of innovative managerial practices by emerging market firms. Innovative managerial practices are defined as practices that are new to the firm. This study would also draw on interviews with and surveys of firm managers. It would be based on the main theoretical insights developed in the dissertation. One benefit of this approach is that it allows collecting focal firm's partner-specific performance data, thus addressing one of this dissertation's main limitations. This manuscript would also focus on managerial cognitive processes that contribute to shaping firm's interpretation of the social and economic forces to which it is exposed in the global business network. Thus, another benefit of this approach is that it would offer a more nuanced investigation at the level of the individual firm whose characteristics contribute to the phenomenon under investigation. In addition, this study would investigate the role of a firm's embeddedness in its global business network for a sample of non-U.S. firms, thus addressing the sample-related concern associated with the dissertation that was discussed above. I believe that a population sample with greater variation in terms of the countries of origin of the organizations would help to better understand the role of ties to business partners located in countries with more stringent

institutional requirements with regards to a firm's decision to adopt innovative managerial practices. While the related variables included in my study already provide an indication of the importance of this construct, I believe that the effects would be even stronger when one considers firms headquartered in emerging markets.

There are other areas for future research on related topics. While I focus on the adoption of broadly defined CSR practices, future studies could investigate the global business network-related drivers of the adoption of specific sets of CSR practices as captured by the KLD database (e.g., community relations, diversity, corporate governance, employee relations, environment, human rights, and product quality and safety). This would be interesting as there are important differences in the way these practices tend to be regulated within each country, a condition that could affect the relative importance of global business network-related forces vis-à-vis firm's adoption decisions. Finally, it would also be interesting to investigate the unique effects associated with the firm's economic relationships with business partners located in countries with less stringent CSR-related institutional requirements than those of the firm's home country on its adoption decisions. While a small number of studies has begun unpacking the varying effects of firm's embeddedness in more and less stringent institutional contexts relative to the firm's home country, scholars agree that more research is needed to disentangle these effects (e.g., Dau, 2013; Ramamurty & Singh, 2009).

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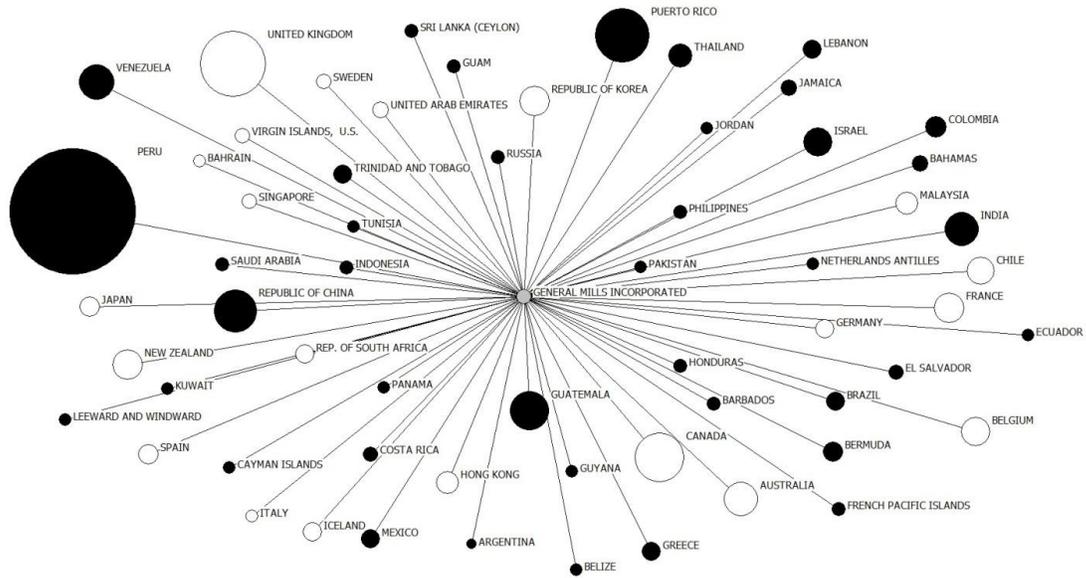
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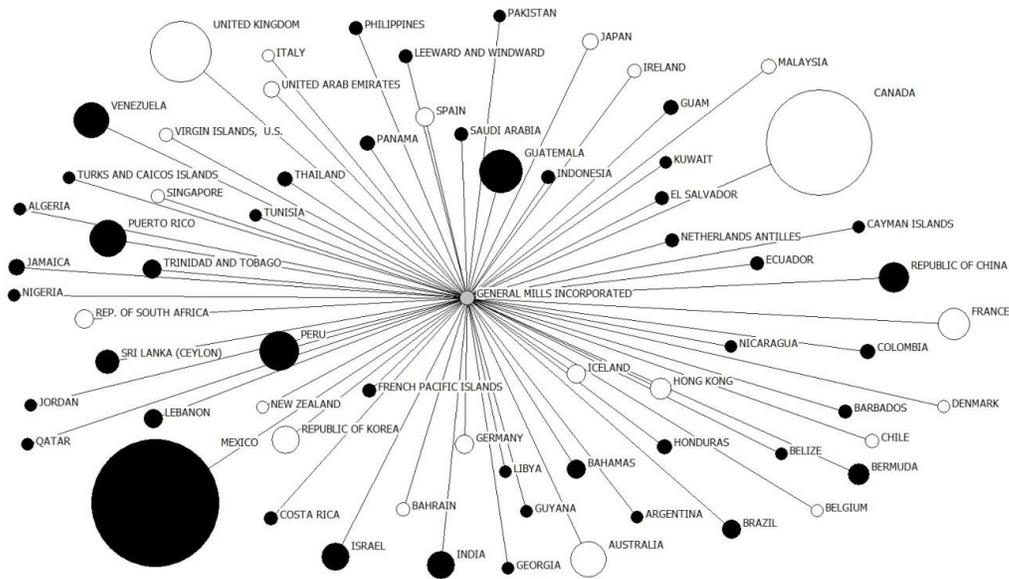
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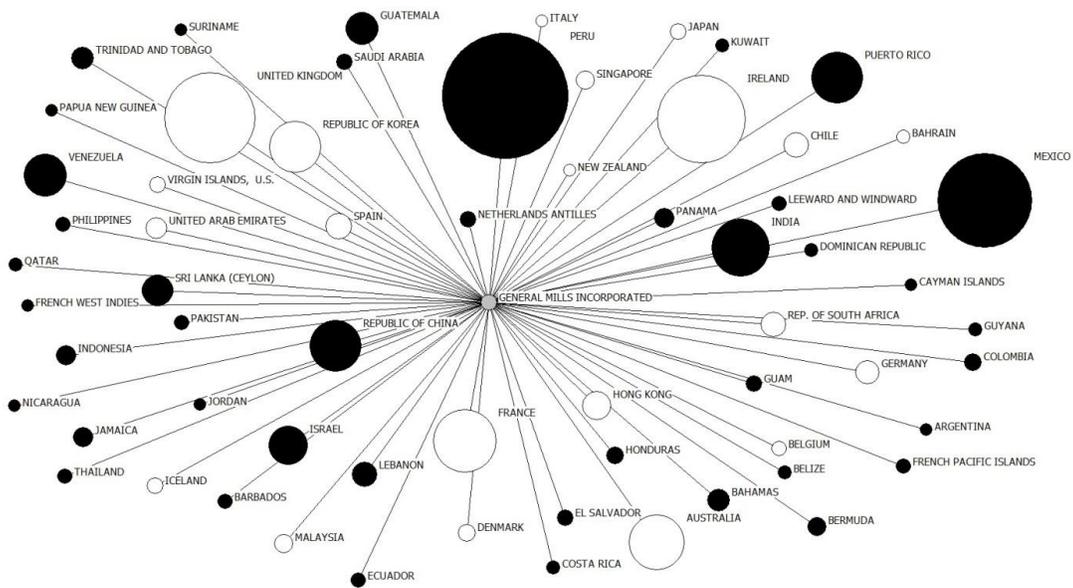
**APPENDIX A: GLOBAL BUSINESS NETWORKS OF GENERAL MILLS, FMC, APPLIED MATERIALS AND ACUITY BRANDS, 2007-2010**



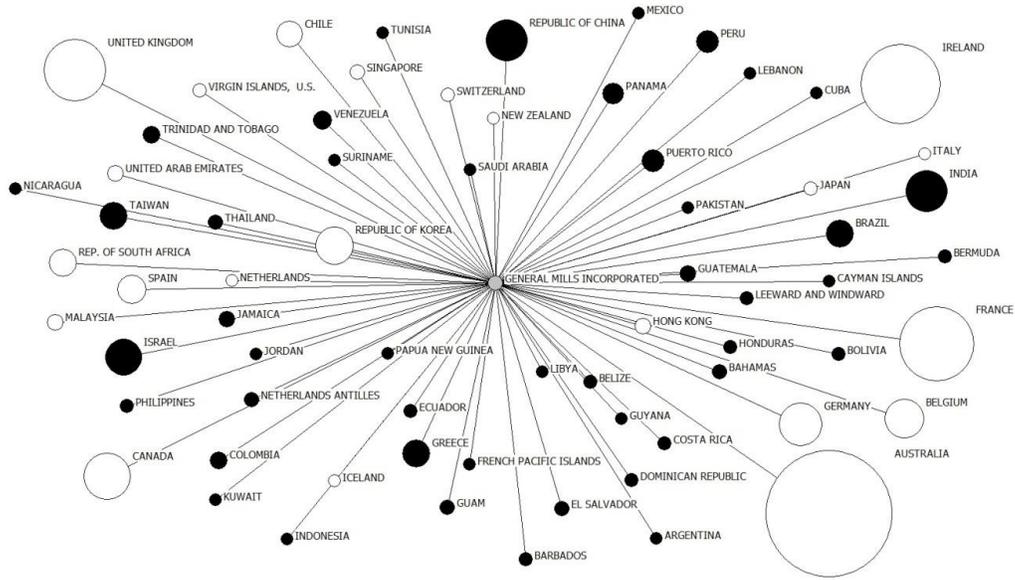
**Figure A.1: General Mills' Global Business Network, 2007**



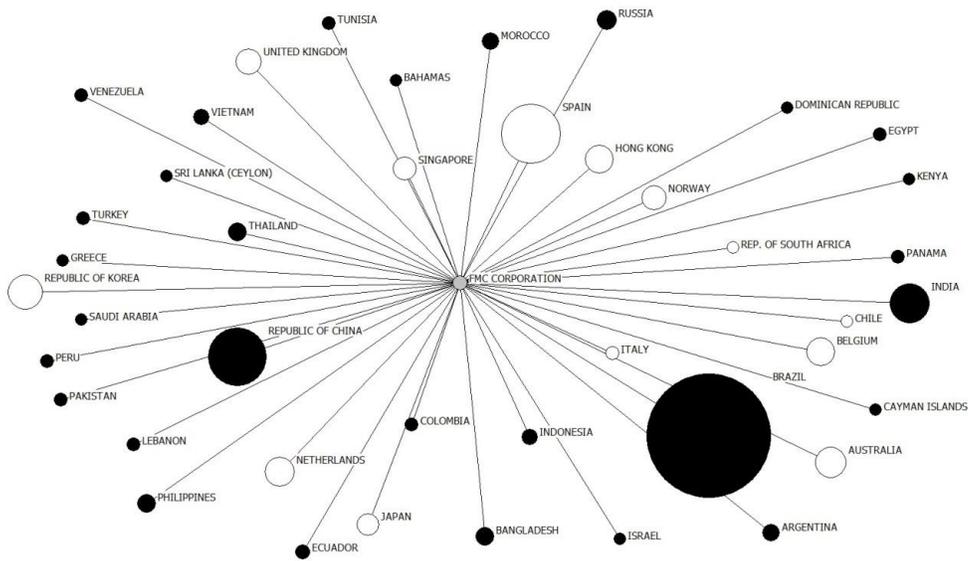
**Figure A.2: General Mills' global business network, 2008**



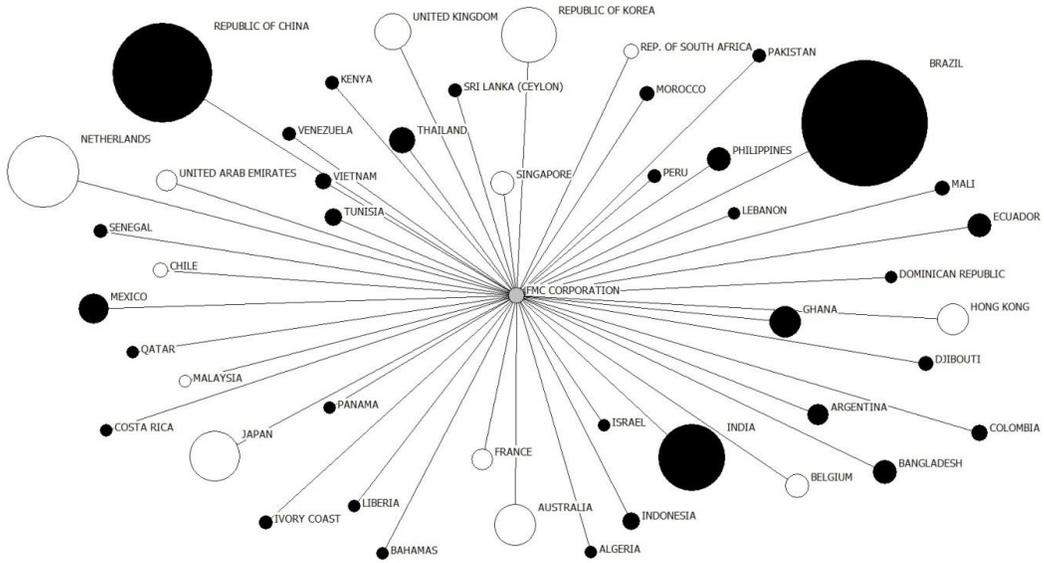
**Figure A.3: General Mills' global business network, 2009**



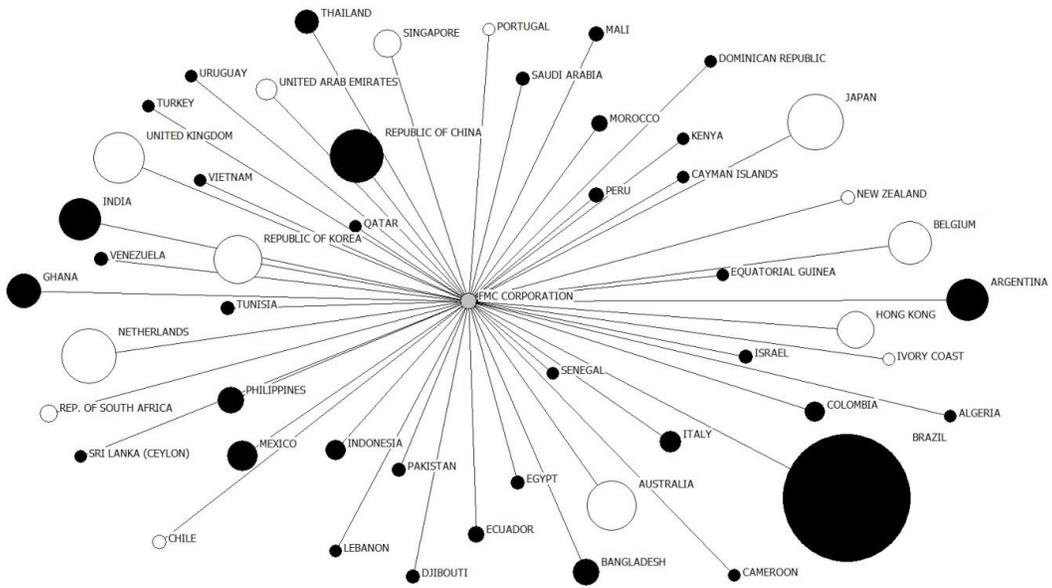
**Figure A.4: General Mills' global business network, 2010**



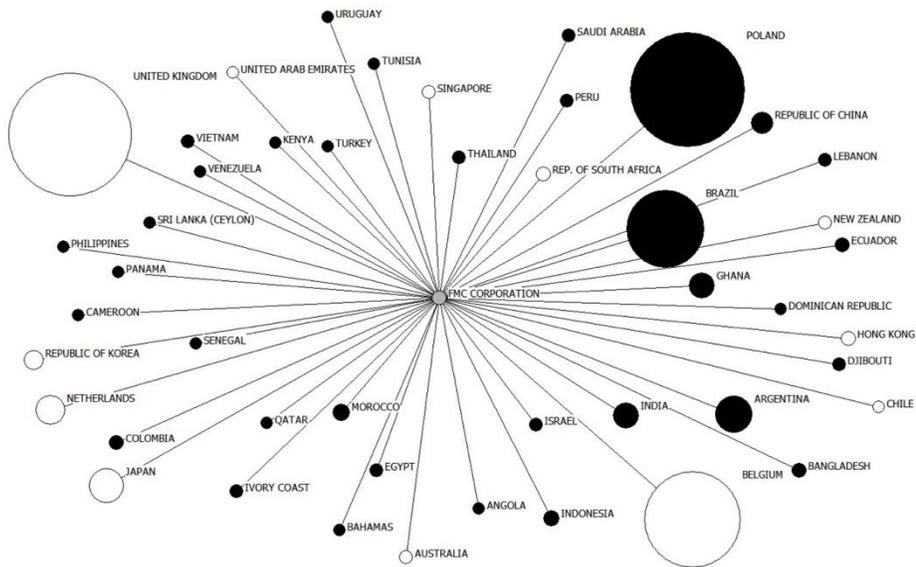
**Figure A.5: FMC's global business network, 2007**



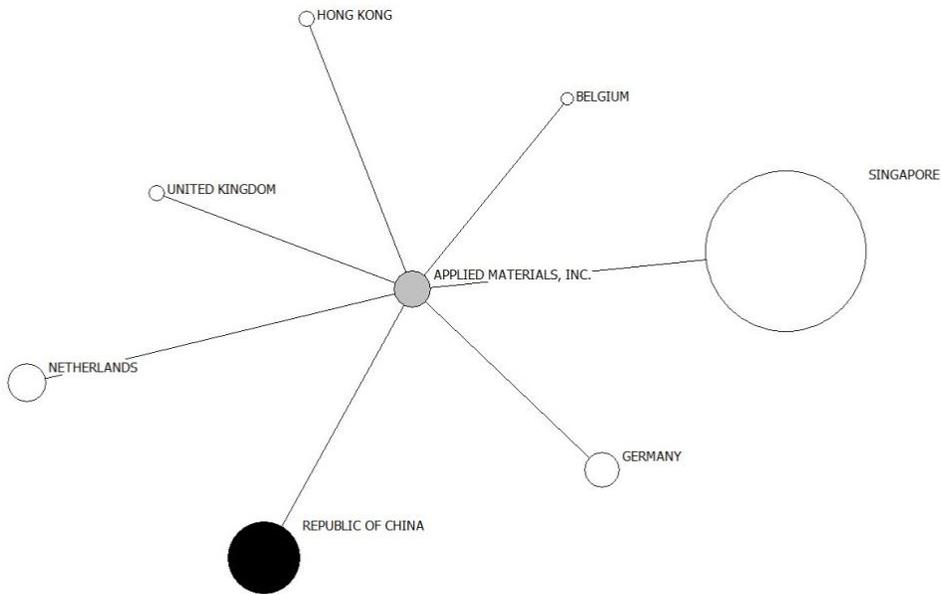
**Figure A.6: FMC's global business network, 2008**



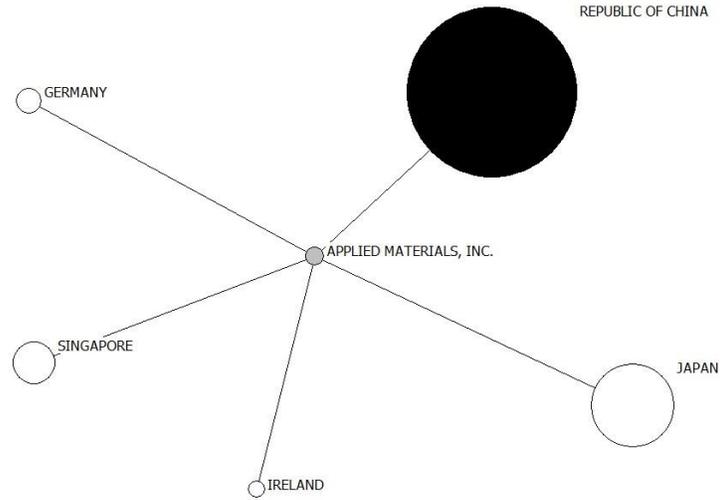
**Figure A.7: FMC's global business network, 2009**



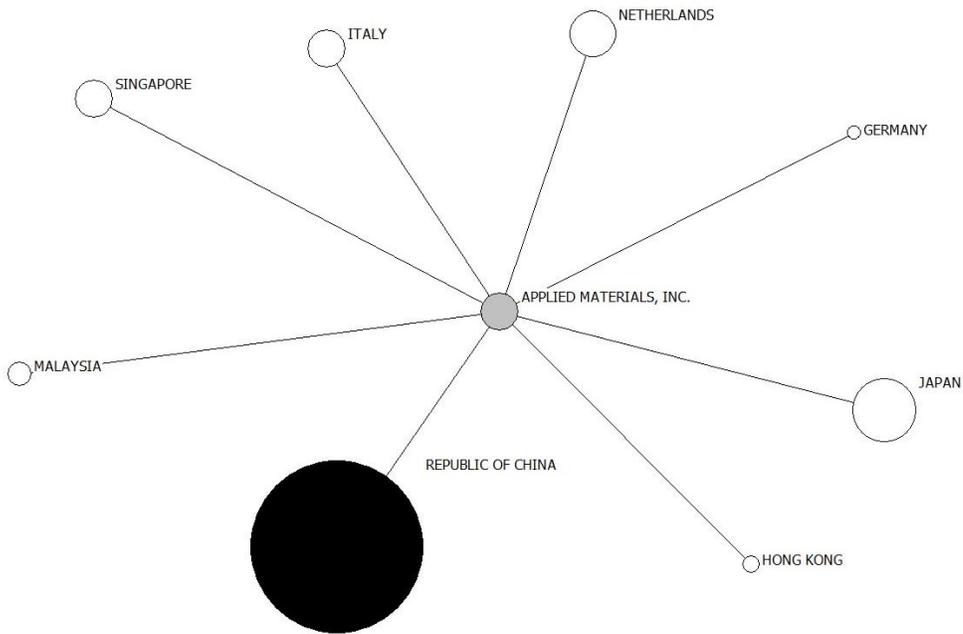
**Figure A.8: FMC’s global business network, 2010**



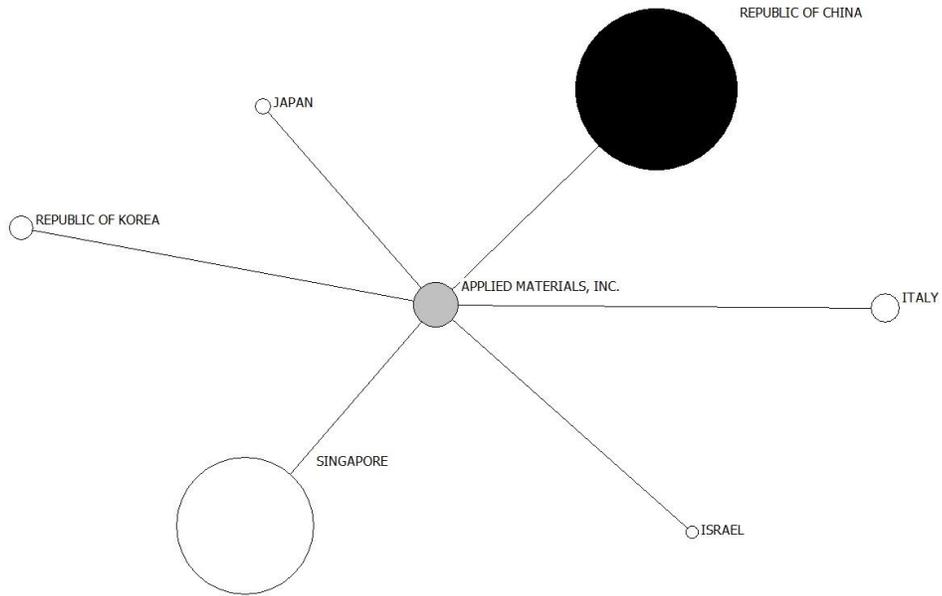
**Figures A.9: Applied Materials’ global business network, 2007**



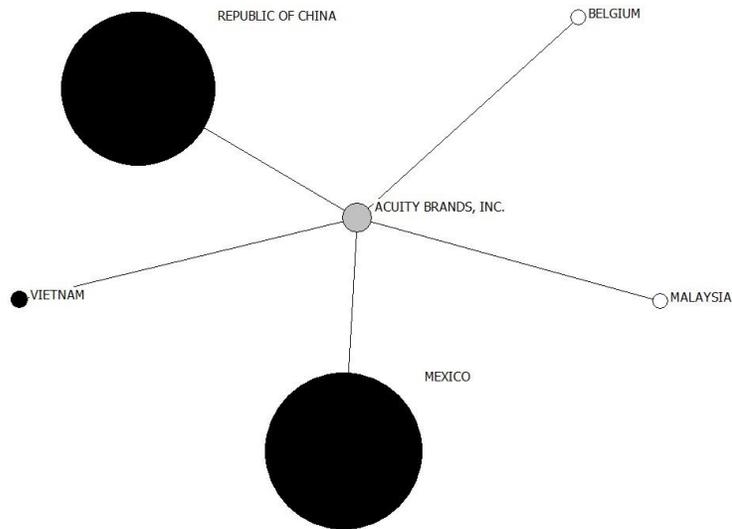
**Figure A.10: Applied Materials’ global business network, 2008**



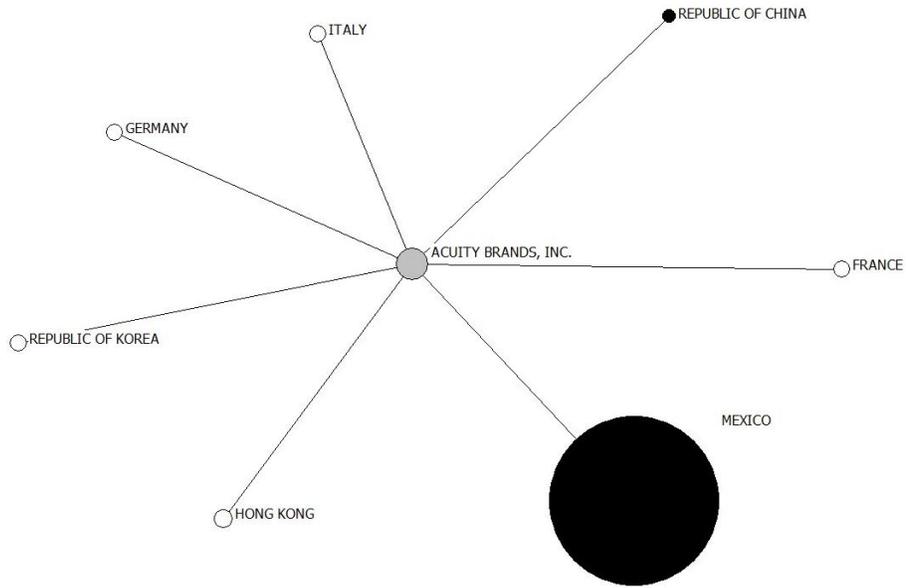
**Figure A.11: Applied Materials’ global business network, 2009**



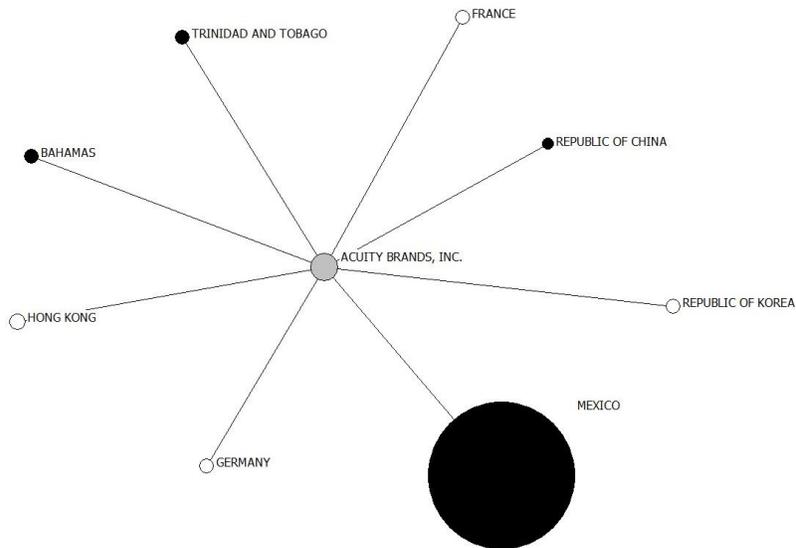
**Figure A.12: Applied Materials’ global business network, 2010**



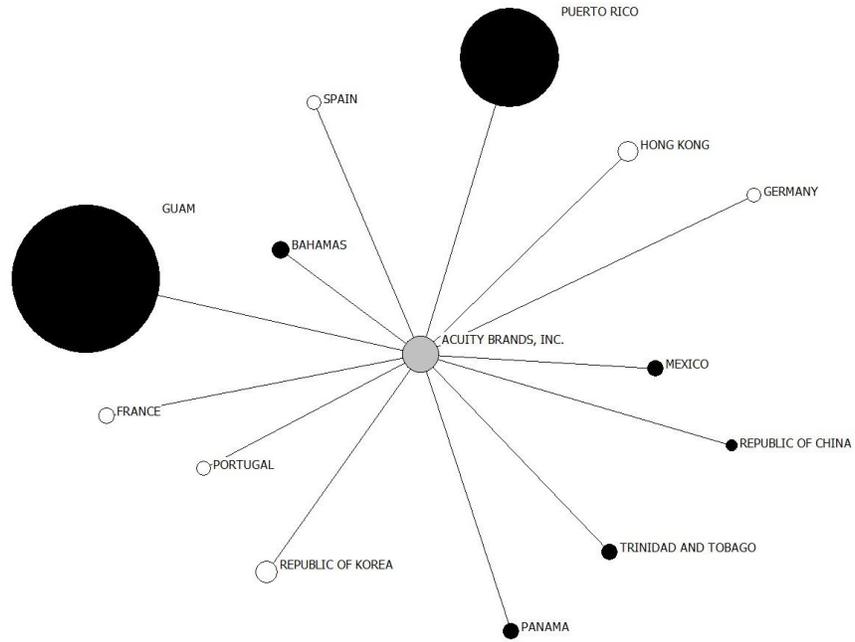
**Figure A.13: Acuity Brands’ global business network, 2007**



**Figure A.14: Acuity Brands' global business network, 2008**



**Figure A.15: Acuity Brands' global business network, 2009**



**Figure A.16: Acuity Brands' global business network, 2010**

**APPENDIX B: VALIDITY AND RELIABILITY TESTS BASED ON DIAMANTOPOULOS &  
WINKLHOFFER (2001)**

The tables below report the results of the tests carried out to evaluate construct validity and reliability based on Diamantopoulos & Winklhofer (2001) for the main dependent variable of interest and the presented measure of firm's dependence on the business partners that make up the global business network.

**Adoption of CSR Practices**

**Year 2008**

The following tables show low correlations among the index components, and low average VIF.

	1	2	3	4	5	6	7
1 Corporate Governance	1.0000						
2 Community	0.0584	1.0000					
3 Diversity	-0.1490	0.2537	1.0000				
4 Employee Relations	0.0657	0.1396	0.1850	1.0000			
5 Environment	0.0965	0.3476	0.1576	0.1515	1.0000		
6 Human Rights	0.1238	0.0318	-0.2002	0.0170	0.1758	1.0000	
7 Product	-0.0789	0.0930	0.1930	0.1192	0.1092	-0.0437	1.0000

Variable	VIF	1/VIF
Diversity	1.22	0.820250
Environment	1.21	0.824025
Community	1.20	0.831950
Human Rights	1.10	0.909861
Employee Relations	1.07	0.934319
Corporate Governance	1.06	0.944009
Product	1.06	0.945291
Mean VIF	1.13	

## Year 2009

The following tables show low correlations among the index components, and low average VIF.

	1	2	3	4	5	6	7
1 Corporate Governance	1.0000						
2 Community	0.0369	1.0000					
3 Diversity	-0.1499	0.2455	1.0000				
4 Employee Relations	0.0513	0.1521	0.2025	1.0000			
5 Environment	0.0924	0.3356	0.1650	0.1670	1.0000		
6 Human Rights	0.1447	-0.0125	-0.2195	0.0212	0.1472	1.0000	
7 Product	-0.0943	0.1129	0.2339	0.1233	0.1138	-0.0624	1.0000

Variable	VIF	1/VIF
Diversity	1.24	0.807936
Environment	1.20	0.832374
Community	1.19	0.843536
Human Rights	1.10	0.906674
Employee Relations	1.08	0.925617
Product	1.08	0.927770
Corporate Governance	1.06	0.943667
Mean VIF	1.14	

## Year 2010

The following tables show low correlations among the index components, and low average VIF.

	1	2	3	4	5	6	7
1 Corporate Governance	1.0000						
2 Community	0.1752	1.0000					
3 Diversity	0.1189	0.5028	1.0000				
4 Employee Relations	0.1167	0.1131	0.0482	1.0000			
5 Environment	0.2191	0.3884	0.4186	0.0710	1.0000		
6 Human Rights	0.1621	0.0822	-0.0150	0.2466	0.0454	1.0000	
7 Product	0.0357	0.3965	0.4142	0.0243	0.3009	0.0680	1.0000

Variable	VIF	1/VIF
Diversity	1.55	0.645737
Community	1.51	0.662698
Environment	1.33	0.751192
Product	1.31	0.764469
Human Rights	1.10	0.910677
Corporate Governance	1.10	0.912525
Employee Relations	1.08	0.925198
Mean VIF	1.28	

## Year 2011

The following tables show low correlations among the index components, and low average VIF.

	1	2	3	4	5		
1 Corporate Governance	1.0000						
2 Community	0.4735	1.0000					
3 Diversity	0.5709	0.5551	1.0000				
4 Employee Relations	0.1254	0.2567	0.2003	1.0000			
5 Environment	0.5893	0.4662	0.5285	0.2351	1.0000		
6 Human Rights	0.1288	0.1612	0.1085	0.1670	0.0766	1.0000	
7 Product	0.3693	0.3838	0.4393	0.0497	0.3492	0.1373	1.0000

Variable	VIF	1/VIF
Diversity	1.93	0.519087
Community	1.86	0.538059
Environment	1.77	0.563835
Community	1.66	0.602818
Product	1.33	0.751037
Employee Relations	1.13	0.884636
Human Rights	1.06	0.943573
Mean VIF	1.53	

## **Index of firm's dependence**

### Year 2007

The following tables show very low correlations among the index components, and low average VIF.

	1	2	3	4
1 Imports Ratio	1.0000			
2 Exports Ratio	0.1031	1.0000		
3 Subs. Ratio	0.1730	0.0702	1.0000	
4 Empl. Ratio	0.1640	0.1185	0.3155	1.0000

Variable	VIF	1/VIF
1 Imports Ratio	1.14	0.880588
2 Exports Ratio	1.13	0.884809
3 Subs. Ratio	1.05	0.950403
4 Empl. Ratio	1.02	0.978201
Mean VIF	1.09	

## Year 2008

The following tables show very low correlations among the index components, and low average VIF.

	1	2	3	4
1 Imports Ratio	1.0000			
2 Exports Ratio	0.0966	1.0000		
3 Subs. Ratio	0.2728	0.0051	1.0000	
4 Empl. Ratio	0.2349	0.0911	0.3338	1.0000

Variable	VIF	1/VIF
1 Imports Ratio	1.18	0.846890
2 Exports Ratio	1.16	0.860616
3 Subs. Ratio	1.12	0.895710
4 Empl. Ratio	1.02	0.983743
Mean VIF	1.12	

## Year 2009

The following tables also show very low correlations among the index components, and low average VIF.

	1	2	3	4
1 Imports Ratio	1.0000			
2 Exports Ratio	0.1083	1.0000		
3 Subs. Ratio	0.2425	0.0476	1.0000	
4 Empl. Ratio	0.2588	0.1299	0.3042	1.0000

Variable	VIF	1/VIF
1 Imports Ratio	1.16	0.861706
2 Exports Ratio	1.14	0.878686
3 Subs. Ratio	1.11	0.898002
4 Empl. Ratio	1.02	0.977115
Mean VIF	1.11	

## Year 2010

The following tables also show very low correlations among the index components, and low average VIF.

	1	2	3	4
1 Imports Ratio	1.0000			
2 Exports Ratio	0.1046	1.0000		
3 Subs. Ratio	0.1531	0.1738	1.0000	
4 Empl. Ratio	0.2340	0.1117	0.3673	1.0000

Variable	VIF	1/VIF
1 Imports Ratio	1.20	0.831584
2 Exports Ratio	1.19	0.843856
3 Subs. Ratio	1.07	0.935234
4 Empl. Ratio	1.04	0.962211
Mean VIF	1.12	

## APPENDIX C: LIST OF KLD SOCRATES RATINGS IN 2011 (KLD, 2011)

### ENVIRONMENT (ENV-)

#### Strengths

##### *Beneficial Products and Services (ENV-str-A)*

This indicator measures the positive environmental impact of a firm's products and/or services. Factors affecting this evaluation include, but are not limited to, products/services that reduce other firms' and individuals' consumption of energy, production/consumption of hazardous chemicals, and overall patterns of resource consumption.

##### *Pollution Prevention (ENV-str-B)*

This indicator measures a firm's method of mitigating non-carbon air emissions, water discharges, and solid waste from its operations. Factors affecting this evaluation include, but are not limited to, initiatives to reduce a firm's non-carbon air emissions from its operations; to reduce the release of raw sewage, industrial chemicals, and other regulated substances; to reduce hazardous and non-hazardous waste; and programs to reduce the use of packaging materials, to support recycling; and to recycle old products such as televisions and other consumer electronics.

##### *Recycling (ENV-str-C)*

This indicator measures a firm's use of recycled materials in its products/services. Factors affecting this evaluation include, but are not limited to: assessment of the volume and recycled content of products made with recycled input materials, including paper, metal, plastic; and any certification of its practices by a third party, such as the Forest Stewardship Council for timber product companies.

##### *Clean Energy (ENV-str-D)*

This indicator measures a firm's policies regarding climate change. Factors affecting this evaluation include, but are not limited to, acknowledgement of direct and/or indirect impacts on operations due to climate change and formal commitments to: reduce greenhouse gas emissions; and initiatives to reduce energy consumption and to increase the use of renewable energy.

##### *Management Systems (ENV-str-G)*

This indicator measures a firm's monitoring and management of its environmental practices. Factors affecting this evaluation include, but are not limited to, the

establishment and monitoring of environmental performance targets, the presence of environmental training and communications programs for employees, and stakeholder engagement.

*Other Strength (ENV-str-X)*

This indicator measures a firm's environmental management policies. Factors affecting this evaluation include, but are not limited to, a stated commitment to: integrate environmental considerations into all operations; reduce environmental impact of operations, products and services; and comply with regulations.

**Concerns**

*Regulatory Problems (ENV-con-B)*

This indicator measures a firm's record of compliance with environmental regulations. Factors affecting this evaluation include, but are not limited to, fines/sanctions for causing environmental damage, and/or violations of operating permits.

*Substantial Emissions (ENV-con-D)*

This indicator measures a firm's emission of toxic chemicals according to data from the Toxics Release Inventory (TRI), a U.S. Environmental Protection Agency (EPA) database of information on toxic chemical releases and waste management activities. Factors affecting this evaluation include, but are not limited to, how the firm compares to its industry peers.

*Climate Change (ENV-con-F)*

This indicator measures the severity of controversies related to a firm's climate change related policies and initiatives. Factors affecting this evaluation include, but are not limited to, a history of involvement in greenhouse gas (GHG)-related legal cases, widespread or egregious impacts due to corporate GHG emissions, resistance to improved practices, and criticism by non- governmental organizations (NGOs) and/or other third-party observers. In addition, factors cover whether a company derives substantial revenues from the sale of coal or oil and its derivative fuel products, or whether the company derives substantial revenues indirectly from the combustion of coal or oil and its derivative fuel products.

*Negative Impact of Products & Services (ENV-con-G)*

This indicator measures the negative environmental impact of a firm's products and/or services. Factors affecting this evaluation include, but are not limited to, products/services that involve regulated substances, the production/consumption of hazardous chemicals, and controversial products such as those that use genetically modified organisms or nanotechnology.

*Land Use & Biodiversity (ENV-con-H)*

This indicator measures the severity of controversies related to a firm's use or

management of natural resources. Factors affecting this evaluation include, but are not limited to, a history of involvement in natural resource-related legal cases, widespread or egregious impacts due to the firm's use of natural resources, resistance to improved practices, and criticism by NGOs and/or other third-party observers.

*Non-Carbon Emissions (ENV-con-I)*

This indicator measures the severity of controversies related to a firm's non-GHG emissions. Factors affecting this evaluation include, but are not limited to, a history of involvement in land, air, or water emissions-related legal cases, widespread or egregious impacts due to corporate non-GHG emissions, resistance to improved practices, and criticism by NGOs and/or other third-party observers.

*Other Concern (ENV-con-X)*

This indicator measures the severity of controversies related to a firm's environmental impact. Factors affecting this evaluation include, but are not limited to widespread or egregious environmental impacts, resistance to improved practices, criticism by NGOs and/or other third-party observers, and any other environmental controversies not covered by other environmental ratings.

## **COMMUNITY (COM-)**

### **Strengths**

*Charitable Giving (COM-str-A)*

The company has given 1% or more of trailing three-year net earnings before taxes to charity, or has otherwise been notably generous in its giving.

*Innovative Giving (COM-str-B)*

The company donates 25% or more of its charitable giving to support NGOs involved with affordable housing, access to healthcare, K-12 education, and initiatives to relieve hunger and/or other services to disadvantaged communities.

*Community Engagement (COM-str-H)*

The company has a notable community engagement program concerning involvement of local communities in areas where the firm has major operations.

*Other Strength (COM-str-X)*

The company has either an exceptionally strong in-kind giving program or engages in other notably positive community activities.

### **Concerns**

*Community Impact (COM-con-B)*

This indicator measures the severity of controversies related to a firm's interactions with communities in which it does business. Factors affecting this evaluation include, but are not limited to, a history of involvement in land use and/or development-related legal cases, widespread or egregious community impacts due to company operations, and criticism by NGOs and/or other third-party observers.

## **HUMAN RIGHTS (HUM-)**

### **Strengths**

#### *Indigenous Peoples Relations Strength (HUM-str-D)*

The company has established relations with indigenous peoples near its proposed or current operations (either in or outside the U.S.) that respect the sovereignty, land, culture, human rights, and intellectual property of indigenous peoples.

#### *Human Rights Policies & Initiatives (HUM-str-X)*

The company has undertaken exceptional human rights initiatives, including outstanding transparency or disclosure on human rights issues, or has otherwise shown industry leadership on human rights issues not covered by other MSCI human rights ratings.

### **Concerns**

#### *Burma Concern (HUM-con-C)*

The company has operations or direct investment in, or sourcing from, Burma.

#### *Sudan Concern (HUM-con-H)*

The company has operations or direct investment in, or sourcing from, Sudan.

#### *Other Concern (HUM-con-X)*

This indicator measures the severity of controversies related to the impact of a firm's operations on human rights. Factors affecting this evaluation include, but are not limited to, a history of involvement in human rights-related legal cases, widespread or egregious complicity in killings, physical abuse, or violation of free speech and other rights, resistance to improved practices, substantive involvement in countries with poor human rights records such as Sudan and Burma, and criticism by NGOs and/or other third-party observers.

## **EMPLOYEE RELATIONS (EMP-)**

### **Strengths**

#### *Union Relations (EMP-str-A)*

The company has taken exceptional steps to treat its unionized workforce fairly.

*Cash Profit Sharing (EMP-str-C)*

The company has a cash profit-sharing program through which it has recently made distributions to a majority of its workforce.

*Employee Involvement (EMP-str-D)*

The company strongly encourages worker involvement and/or ownership through stock options available to a majority of its employees; gain sharing, stock ownership, sharing of financial information, or participation in management decision-making.

*Health and Safety Strength (EMP-str-G)*

The company has strong health and safety programs.

*Supply Chain Policies, Programs & Initiatives (EMP-str-H)*

This indicator measures a firm's policy commitments and management systems designed to monitor the human and labor rights performance of its suppliers and contractors. Factors affecting this evaluation include, but are not limited to, the protection of supply chain workers' rights, including freedom of association, freedom from forced labor and child labor, safe working environments and other rights described by the International Labor Organization (ILO) Conventions and other applicable standards, and initiatives towards improving the labor conditions of its supply chain workforce. Factors affecting this evaluation include, but are not limited to, efforts to use purchasing power to improve performance, company-led programs that improve the labor conditions and health of supply chain workers, and participation in multi-stakeholder initiatives.

**Concerns**

*Other Benefits & Programs (EMP-str-X)*

The company has strong employee relations initiatives not covered by other MSCI ratings.

*Union Relations (EMP-con-A)*

The company has a history of notably poor union relations.

*Health and Safety Concern (EMP-con-B)*

The company recently has either paid substantial fines or civil penalties for willful violations of employee health and safety standards, or has been otherwise involved in major health and safety controversies.

*Supply Chain Controversies (EMP-con-F)*

This indicator measures the severity of controversies related to a firm's supply chain. Factors affecting this evaluation include, but are not limited to, a history of involvement in supply chain related legal cases, widespread or egregious instances of abuses of supply chain employee labor rights – including forced labor, supply chain employee safety,

resistance to improved practices, and criticism by NGOs and/or other third-party observers.

*Labor-Management Relations Controversies (EMP-con-X)*

The company is involved in an employee relations controversy that is not covered by other MSCI ratings.

## **DIVERSITY (DIV-)**

### **Strengths**

*Representation (DIV-str-B)*

The company has made notable progress in the promotion of women and minorities, particularly to line positions with profit-and-loss responsibilities in the corporation.

*Board of Directors (DIV-str-C)*

This indicator measures the diversity of a firm's board. Factors affecting this evaluation include, but are not limited to, the representation of women and minorities on the board, with adjustment for nation-specific demographic conditions.

*Work/Life Benefits (DIV-str-D)*

The company has outstanding employee benefits or other programs addressing work/life concerns, e.g., childcare, elder care, or flextime.

*Women & Minority Contracting (DIV-str-E)*

The company does at least 5% of its subcontracting, or otherwise has a demonstrably strong record on purchasing or contracting, with women- and/or minority-owned businesses.

*Gay & Lesbian Policies (DIV-str-G)*

The company has implemented notably progressive policies toward its gay and lesbian employees. In particular, it provides benefits to the domestic partners of its employees.

*Employment of Underrepresented Groups (DIV-str-H)*

This indicator measures a firm's efforts to promote diversity in its workforce. Factors affecting this evaluation include, but are not limited to, its recruitment efforts to women and minority communities, and its participation in multi-stakeholder diversity initiatives.

*Other Strength (DIV-str-X)*

The company has made a notable commitment to diversity that is not covered by other MSCI ratings.

### **Concerns**

*Workforce Diversity Controversies (DIV-con-A)*

The company has either paid substantial fines or civil penalties as a result of affirmative action controversies, or has otherwise been involved in major controversies related to affirmative action issues.

*Representation (DIV-con-B)*

This indicator measures the diversity of a firm's workforce. Factors affecting this evaluation include, but are not limited to, the percentage of women and minorities in senior management.

*Board of Directors (DIV-con-C)*

This indicator measures the diversity of a firm's board. Factors affecting this evaluation include, but are not limited to, the representation of women and minorities on the board, with adjustment for nation-specific demographic conditions.

## **PRODUCT (PRO-)**

### **Strengths**

*Quality (PRO-str-A)*

This indicator measures a firm's efforts to improve the safety and health effects of its products/services. Factors affecting this evaluation include, but are not limited to, customer health and safety policies, participation in industry or multi-stakeholder initiatives, and openness to third party oversight of its practices.

*Benefits to Economically Disadvantaged (PRO-str-C)*

This indicator measures the positive community impact of a firm's operations. Factors affecting this evaluation include bottom-of-the-pyramid efforts that benefit the disadvantaged such as access to medicine initiatives, access to education, and appropriate technology products.

*Access to Capital (PRO-str-D)*

This indicator measures the positive impact of a firm's products. Factors affecting this evaluation include, but are not limited to, strong commitment to microfinance, and community development loans and investments.

### **Concerns**

*Product Safety (PRO-con-A)*

This indicator measures the severity of controversies related to the quality/safety of a firm's products and services. Factors affecting this evaluation include, but are not limited to, a history of involvement in product safety-related legal cases, widespread or egregious

instances of recalls or fines due to defective or unsafe products and services, resistance to improved practices, and criticism by NGOs and/or other third-party observers.

*Marketing/Contracting Concern (PRO-con-D)*

This indicator measures the severity of controversies related to a firm's marketing and advertising practices. Factors affecting this evaluation include, but are not limited to, widespread or egregious instances of false, discriminatory, or improper marketing/advertising, marketing targeted at disadvantaged groups, resistance to improved practices, and criticism by NGOs and/or other third party observers.

*Antitrust (PRO-con-E)*

This indicator measures the severity of controversies related to a firm's anti-competitive business practices. Factors affecting this evaluation include, but are not limited to, a history of involvement in anti-trust legal cases, widespread or egregious instances of price-fixing, collusion, or bid-rigging, resistance to improved practices, and evidence-based criticism by NGOs and/or other third-party observers.

*Other Concern (PRO-con-X)*

This indicator measures the severity of controversies related to a firm's customer relations. Factors affecting this evaluation include, but are not limited to, a history of involvement in customer-related legal cases, predatory lending, widespread or egregious instances of discrimination, fraud or unfair treatment, resistance to improved practices, and criticism by NGOs and/or other third-party observers.

## **GOVERNANCE (CGOV-)**

### **Strengths**

*Reporting Quality (CGOV-str-D)*

This indicator measures the quality of a firm's reporting on its corporate social responsibility (CSR)/sustainability efforts. Factors affecting this evaluation include, but are not limited to, the completeness and specificity of a firm's reporting, its setting of specific goals for its CSR efforts, and quantitative measurement of progress towards these goals. This indicator also measures whether a firm follows agreed-upon guidelines, such as those established by the Global Reporting Initiative.

*Public Policy (CGOV-str-F)*

This indicator measures a firm's support for public policies that have noteworthy benefit s for the environment, communities, employees, or consumers. Factors affecting this evaluation include, but are not limited to, support/lack of support for regulations addressing climate change, improved labor rights, enhancement of shareholder rights, and protections for consumers.

## Concerns

### *Reporting Quality (CGOV-str-H)*

This indicator measures the quality of a firm's reporting on its CSR/sustainability efforts. Factors affecting this evaluation include, but are not limited to, the completeness and specificity of a firm's reporting, its setting of specific goals for its CSR efforts, and quantitative measurement of progress towards these goals. This indicator also measures whether a firm follows agreed-upon guidelines, such as those established by the Global Reporting Initiative.

### *Public Policy (CGOV-con-J)*

This indicator measures a firm's lack of support for public policies that have noteworthy benefits for the environment, communities, employees, or consumers. Factors affecting this evaluation include, but are not limited to, support/lack of support for regulations addressing climate change, improved labor rights, enhancement of shareholder rights, and protections for consumers.

### *Governance Structures Controversies (CGOV-con-K)*

This indicator measures the severity of controversies related to a firm's executive compensation and governance practices. Factors affecting this evaluation include, but are not limited to, a history of involvement in compensation-related legal cases, widespread or egregious instances of shareholder or board-level objections to pay practices and governance structures, resistance to improved practices, and criticism by NGOs and/or other third-party observers.

### *Other Controversies (CGOV-con-X)*

This indicator measures the severity of controversies related to a firm's business ethics practices. Factors affecting this evaluation include, but are not limited to, a history of involvement in widespread or egregious instances of bribery, tax evasion, insider trading, accounting irregularities, resistance to improved practices, and criticism by NGOs and/or other third-party observers.

**APPENDIX D: LIST OF INDICATORS INCLUDED IN THE RESPONSIBLE COMPETITIVENESS INDEX & COUNTRY RANKINGS**

**Table D.1: Areas and Indicators included in the Responsible Competitiveness Index (RCI)**

<b>Component</b>	<b>Indicators</b>
<b><u>A. Policy Drivers:</u></b>	<ol style="list-style-type: none"> <li>1. Signing and Ratification of Environmental Treaties, specifically:               <ol style="list-style-type: none"> <li>a. the United Nations Framework Convention on Climate Change in New York in 1992;</li> <li>b. the Convention on Biological Diversity in Rio de Janeiro in 1992;</li> <li>c. the Kyoto Protocol to the United Nations Framework Convention on Climate Change in Kyoto in 1997;</li> <li>d. and the Cartagena Protocol on Biosafety signed in Cartagena in 2000</li> </ol> </li> <li>2. Ratification of Basic Workers Conventions, specifically:               <ol style="list-style-type: none"> <li>a. Freedom of association and collective bargaining (conventions 87, 98);</li> <li>b. Elimination of forced and compulsory labour (conventions 29, 105);</li> <li>c. Elimination of discrimination in respect of employment and occupation (conventions 100, 111);</li> <li>d. Abolition of child labour (conventions 138, 182);</li> </ol> </li> <li>3. Rigidity of Employment Index, which encompasses three sub-indexes: a difficulty of hiring index, a rigidity of hours index and a difficulty of firing index;</li> <li>4. Stringency of Environmental Protection;</li> <li>5. Carbon Dioxide Emissions per US\$ billion Gross National Income;</li> <li>6. Private Sector Employment of Women;</li> <li>7. Responsible Tax Environment which combines the number of tax payments each year and the time needed by a business to comply.</li> </ol>
<b><u>B. Business Action:</u></b>	<ol style="list-style-type: none"> <li>1. Efficacy of Corporate Boards;</li> <li>2. Ethical Behaviour of Firms;</li> <li>3. Wage Equality for Similar Work;</li> <li>4. Strength of Auditing and Accounting Standards;</li> </ol>

	<ul style="list-style-type: none"> <li>5. Extent of Staff Training;</li> <li>6. Ratio of ISO 14001 to ISO 9001 certification: the uptake of environmental management systems compared to other ISO standards;</li> <li>7. Occupational Fatalities</li> </ul>
<b><u>C. Social Enablers:</u></b>	<ul style="list-style-type: none"> <li>1. Corruption Perception Index;</li> <li>2. The Degree of Customer Orientation;</li> <li>3. Freedom of the Press;</li> <li>4. Transparency of Transactions;</li> <li>5. NGO Membership;</li> <li>6. Civil Liberties: the existence of basic political rights and civil liberties, gauged by relevant portions of the Universal Declaration of Human Rights;</li> <li>7. Impact of Clean Air and Water on Business Operations.</li> </ul>

**Table D.2: The Responsible Competitiveness Index (RCI) country rankings**

Rank	Country	RCI	Rank	Country	RCI	Rank	Country	RCI
1	Sweden	81.5	41	Botswana	59.3	81	Zambia	49
2	Denmark	81	42	Mauritius	59.3	82	Uganda	48.1
3	Finland	78.8	43	Kuwait	58.7	83	Kenya	48
4	Iceland	76.7	44	Slovakia	58.2	84	Liberia	48
5	United Kingdom	75.8	45	Hungary	57.7	85	Nigeria	48
6	Norway	75.5	46	Yugoslavia	56.85	86	Russia	48
7	New Zealand	74.9	47	Peru	56.8	87	Bolivia	47.5
8	Ireland	74.6	48	Trinidad and Tobago	56.7	88	Cameroon	47.4
9	Australia	73	49	Namibia	56.4	89	Paraguay	47.3
10	Canada	73	50	Sierra Leone	56.4	90	R. of China	47.2
11	Germany	72.7	51	Indonesia	56.1	91	Zimbabwe	47.2
12	Netherlands	72.6	52	El Salvador	55.9	92	Tanzania	47.1
13	Switzerland	72.5	53	Jordan	55.7	93	Malawi	47
14	Belgium	71.9	54	Turkey	55.6	94	Niger	47
15	Macau	71.3	55	Uruguay	55.6	95	Sudan	47
16	Singapore	71.3	56	Poland	55.4	96	Morocco	46.4
17	Austria	70.9	57	Colombia	55.1	97	Mozambique	46.1
18	France	70.1	58	Brazil	55	98	Ukraine	45.2
19	United States	69.6	59	Mexico	54.8	99	Ghana	45.1
20	Japan	68.8	60	Romania	54.6	100	Guinea	45.1
21	Hong Kong	68.3	61	Bulgaria	54.4	101	Ivory Coast	45.1
22	Portugal	65.9	62	Algeria	54.3	102	The Gambia	45.1
23	Estonia	65	63	Iran	54.3	103	Cambodia	44.3
24	Chile	64	64	Tunisia	54.3	104	Mongolia	43.9
25	Malaysia	63.7	65	Philippines	54	105	Angola	43.4
26	Spain	63.7	66	Panama	53.9	106	Mauritania	41.6
27	R. of Korea	63	67	Georgia	53.4	107	Afghanistan	41.4
28	R.of South Africa	62.5	68	Argentina	53.1	108	Pakistan	41.4
29	Bahrain	62.4	69	Egypt	52.6	109	Ethiopia	40.8
30	United Araba Emirates	62.4	70	Dominican R.	52.4	110	Bangladesh	39.8
31	Lithuania	62.1	71	Sri Lanka	52.4	111	Nepal	37.5
32	Israel	61.6	72	India	52.2			
33	Italy	61.2	73	Guatemala	52			
34	Greece	61	74	Albania	50.4			
35	Taiwan	60.7	75	Iraq	50.3			
36	Latvia	60.3	76	Haiti	49.9			
37	Costa Rica	60.2	77	Honduras	49.9			
38	Thailand	60	78	Venezuela	49.8			
39	Jamaica	59.8	79	Nicaragua	49.5			
40	Czech R.	59.7	80	Ecuador	49			

## APPENDIX E: ALTERNATIVE MODEL SPECIFICATION

The advantage of panel-corrected standard error procedure is that it allows the error  $u_i$  to be correlated over  $i$ , and allows  $u_{it}$  to be heteroscedastic. The PCSE model specification, in tests of Hypotheses 1, 2 a-b and 3, can be expressed as follows:

$$Y_{it} = \beta_0 + \beta_1 X1_{it-1} + \beta_2 X2_{it-1} + \beta_3 X3_{it-1} + \beta_4 X1_{it-1} * X2_{it-1} + \beta_n C_{it-1} + U_{it} \quad (3)$$

where:

$Y_{it}$  = predicted adoption of CSR practices for focal firm  $i$ , year  $t$ ,

$\beta_0$  = the intercept of  $Y_{it}$ ,

$\beta_1$  = the direct effect of  $X1_{it-1}$  on  $Y_{it}$ ,

$X1_{it-1}$  = global business network's commitment to CSR, firm  $i$ , year  $t-1$ ,

$\beta_2$  = the direct effect of  $X2_i$  on  $Y_{it}$ ,

$X2_{it-1}$  = within global business network heterogeneity of commitment to CSR, firm  $i$ , year  $t-1$ ,

$\beta_3$  = the direct effect of  $X3_{it-1}$  on  $Y_{it}$ ,

$X3_{it-1}$  = ties to business partners in countries with more stringent institutional requirements, firm  $i$ , year  $t-1$ ,

$\beta_4$  = the interaction effect of  $X1_{it-1}$  and  $X2_{it-1}$  on  $Y_{it}$ ,

$\beta_n$  = the direct effects of the  $C_{it-1}$  on  $Y_{it}$ ,

$C_i$  = vector of control variables for firm  $i$  year  $t-1$ ,

$U_{it}$  = the unique error contributed by firm  $i$  year  $t$  to  $\beta_0$

The PCSE model specification for testing Hypotheses 4a, b, c and d, can be expressed as follows:

$$Y_{it} = \beta_0 + \beta_1 X1_{it-1} + \beta_2 X2_{it-1} + \beta_3 X3_{it-1} + \beta_4 X1_{it-1} * X2_{it-1} + \beta_5 X4_{it-1} + \beta_6 X5_{it-1} + \beta_7 X6_{it-1} + \beta_8 X4_{it-1} * X5_{it-1} + U_{it}$$

$U_{it}$  = the unique error contributed by firm  $i$  year  $t$  to  $\beta_0$

(2)

where:

$Y_{it}$  = predicted adoption of CSR practices for focal firm  $i$ , year  $t$ ,

$\beta_0$  = the intercept of  $Y_{it}$ ,

$\beta_1$  = the direct effect of  $X1_{it-1}$  on  $Y_{it}$ ,

$X1_{it-1}$  = FDI-based global business network's commitment to CSR, firm  $i$ , year  $t-1$ ,

$\beta_2$  = the direct effect of  $X2_{it-1}$  on  $Y_{it}$ ,

$X2_{it-1}$  = within FDI-based global business network heterogeneity of commitment to CSR, firm  $i$ , year  $t-1$ ,

$\beta_3$  = the direct effect of  $X3_{it-1}$  on  $Y_{it}$ ,

$X3_{it-1}$  = FDI ties to countries with more stringent CSR institutional requirements, firm  $i$ , year  $t-1$ ,

$\beta_4$  = the interaction effect of  $X1_{it-1}$  and  $X2_{it-1}$  on  $Y_{it}$ ,

$\beta_5$  = the direct effect of  $X4_{it-1}$  on  $Y_{it}$ ,

$X4_{it-1}$  = trade-based global business network's commitment to CSR, firm  $i$ , year  $t-1$ ,

$\beta_6$  = the direct effect of  $X5_{it-1}$  on  $Y_{it}$ ,

$X5_{it-1}$  = within trade-based global business network heterogeneity of commitment to CSR, firm i, year t-1,

$\beta_7$  = the direct effect of  $X6_{it-1}$  on  $Y_{it}$ ,

$X6_{it-1}$  = trade ties to countries with more stringent CSR institutional requirements, firm i, year t-1,

$\beta_8$  = the interaction effect of  $X4_{it-1}$  and  $X5_{it-1}$  on  $Y_{it}$ ,

$\beta_n$  = the direct effects of the  $C_{it-1}$  on  $Y_{it}$ ,

$C_i$  = vector of control variables for firm i year t-1,

$U_{it}$  = the unique error contributed by firm i year t to  $\beta_0$

## **APPENDIX F: ADDITIONAL ROBUSTNESS TESTS WITH ALTERNATIVE SPECIFICATIONS OF THE DEPENDENT VARIABLE**

Here I describe a second set of alternative specifications of the dependent variable, where I consider each individual components of the dependent variable, i.e., community relations, diversity, corporate governance, employee relations, environment, human rights, and product quality and safety. These tests rely on the main analytical approach that was discussed above, i.e., OLS regression with Huber-White estimators, and averaged independent and control variables over the four-year 2007-2010 period (Hull & Rothenberg, 2008). The dependent variable is measured in the year 2011 to allow for lagged effects.

I follow the convention established by Waddock and Graves (1997) and Waldman, Siegel and Javidan (2006), which I have previously illustrated. Here I combine strengths and concerns within each category and not across all categories as I did in the main analyses that I reported above. I obtain seven new dependent variables, each one focusing on a specific set of CSR practices. These variables include: (1) Adoption of Corporate Governance-related CSR practices; (2) Adoption of Community-related CSR practices; (3) Adoption of Diversity-related CSR practices; (4) Adoption of Employee-related CSR practices; (5) Adoption of Environment-related CSR practices; (6) Adoption of Human Rights-related CSR practices; and (7) Adoption of Product Quality-related CSR practices. I run separate analyses for each one of them. I would expect my models to

hold with these alternative specifications of firm's adoption of CSR practices. Overall, these analyses provide overwhelming support for the presented model. I detail these results in the next paragraphs and provide in-depth explanations of these results in the discussion section of the dissertation.

### **A.F.1 Results**

#### *A.F.1.1 Adoption of Corporate Governance-related CSR practices*

I start by considering the adoption of Corporate Governance-related CSR practices. Table F.1 confirms previous findings. As in Tables 6.2 and 6.6, Models 1 and 2 in Table F.1 provide support for Hypothesis 1, because the coefficient of global business network commitment to CSR is positive and significant ( $\beta = 0.11$ ;  $p < .01$ ;  $\beta = 0.19$ ;  $p < .01$ ). Results also support for Hypothesis 3, as the coefficient of ties to countries with more stringent CSR institutional requirements is positive and significant ( $\beta = 0.22$ ;  $p < .01$ ;  $\beta = 0.23$ ;  $p < .01$ ). In addition, Models 4 ( $\beta = 0.07$ ;  $p < .01$ ), 2 ( $\beta = 0.19$ ;  $p < .01$ ) and 3 ( $\beta = 0.31$ ;  $p < .01$ ) provide support for Hypothesis 2a and confirm that as within global business network heterogeneity of commitment to CSR decreases, the relationship between global business network commitment to CSR and firm's adoption of Corporate Governance-related CSR practices becomes more positive. Furthermore, Models 8 ( $\beta = n.s.$ ), 2 ( $\beta = 0.30$ ;  $p < .01$ ), and 5 ( $\beta = 0.55$ ;  $p < .01$ ) provide support for Hypothesis 2b and show that as global business network commitment to CSR decreases, the relationships between within global business network heterogeneity of commitment to CSR and firm's adoption of Corporate Governance-related CSR practices becomes more positive. Table F.2 further summarizes the results for Hypotheses 2a and 2b.

**Table F.1: OLS regression with Huber-White estimators and alternative specification of the dependent variable (Adoption of Corporate Governance-related CSR practices; Hypotheses 1, 2a-b, and 3)**

	Model 1		Model 2 GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR		Model 3 GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR (-1 $\delta$ )	
	Coeff.	St. E.	Coeff.	St. E.	Coeff.	St. E.
Size	0.29 ***	0.03	0.29 ***	0.03	0.29 ***	0.03
ROA	-0.08	0.34	-0.02	0.34	-0.02	0.34
R&D Intensity	0.31 ***	0.10	0.32 ***	0.10	0.32 ***	0.10
Capital Intensity	0.02	0.01	0.02 *	0.01	0.02 *	0.01
Leverage	0.04	0.06	0.05	0.06	0.05	0.06
<i>Industry Controls</i>						
Consumer Goods	0.08	0.14	0.12	0.15	0.12	0.15
Energy & Extractive	0.01	0.16	0.01	0.16	0.01	0.16
Food & Agriculture	0.09	0.20	0.12	0.20	0.12	0.20
Professional and Information Services	-0.07	0.14	-0.07	0.14	-0.07	0.14
Manufacturing	0.05	0.11	0.06	0.11	0.06	0.11
GBN Commitment to CSR	0.11 ***	0.04	0.19 ***	0.05	0.31 ***	0.07
Within GBN Heterogeneity of Commitment to CSR	-0.21 ***	0.08	0.17	0.12	0.17	0.12
GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR			-0.33 ***	0.08	-0.33 ***	0.08
Ties to More Stringent CSR Requirements	0.22 ***	0.07	0.23 ***	0.07	0.23 ***	0.07
Intercept	-5.52 ***	1.09	-5.76 ***	1.09	-5.82 ***	1.09
<i>Observations</i>	710		710		710	
<i>Number of Firms</i>	710		710		710	
$R^2$	27.17%		28.37%		28.37%	
$F$	(13, 696) 17.77***		(14, 695) 17.32***		(14, 695) 17.32***	
<i>Root MSE</i>	0.89		0.89		0.89	

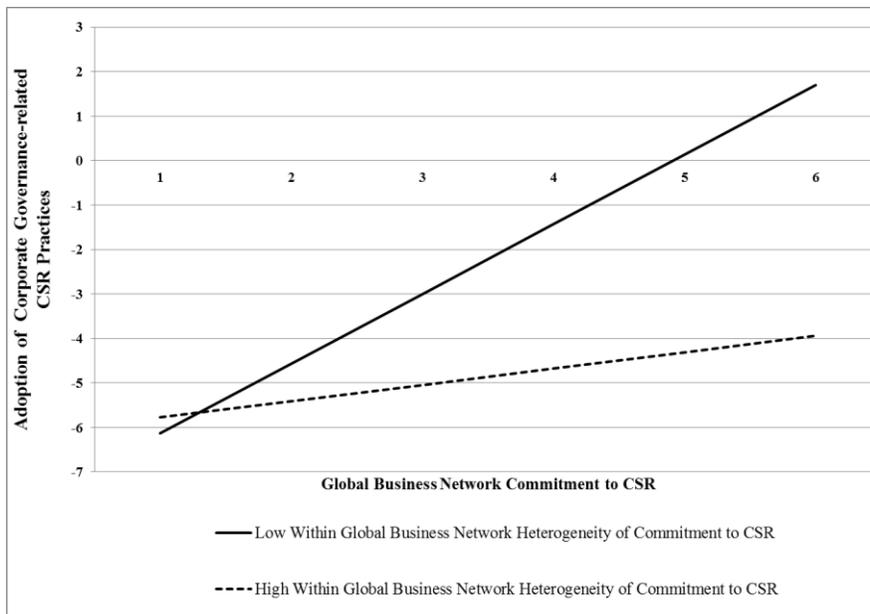
**Table F.1—Cont'd**

	Model 4		Model 5		Model 6		Model 7		Model 8		Model 9		Model 10	
	GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR (+1 $\delta$ )		GBN Commitment to CSR (-1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR		GBN Commitment to CSR (-1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR (-1 $\delta$ )		GBN Commitment to CSR (-1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR (+1 $\delta$ )		GBN Commitment to CSR (+1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR		GBN Commitment to CSR (+1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR (-1 $\delta$ )		GBN Commitment to CSR (+1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR (+1 $\delta$ )	
	Coeff.	St. E.	Coeff.	St. E.	Coeff.	St. E.	Coeff.	St. E.	Coeff.	St. E.	Coeff.	St. E.	Coeff.	St. E.
Size	0.29 ***	0.03	0.29 ***	0.03	0.29 ***	0.03	0.29 ***	0.03	0.29 ***	0.03	0.29 ***	0.03	0.29 ***	0.03
ROA	-0.02	0.34	-0.02	0.34	-0.02	0.34	-0.02	0.34	-0.02	0.34	-0.02	0.34	-0.02	0.34
R&D Intensity	0.32 ***	0.10	0.32 ***	0.10	0.32 ***	0.10	0.32 ***	0.10	0.32 ***	0.10	0.32 ***	0.10	0.32 ***	0.10
Capital Intensity	0.02 *	0.01	0.02 *	0.01	0.02 *	0.01	0.02 *	0.01	0.02 *	0.01	0.02 *	0.01	0.02 *	0.01
Leverage	0.05	0.06	0.05	0.06	0.05	0.06	0.05	0.06	0.05	0.06	0.05	0.06	0.05	0.06
<i>Industry Controls</i>														
Consumer Goods	0.12	0.15	0.12	0.15	0.12	0.15	0.12	0.15	0.12	0.15	0.12	0.15	0.12	0.15
Energy & Extractive	0.01	0.16	0.01	0.16	0.01	0.16	0.01	0.16	0.01	0.16	0.01	0.16	0.01	0.16
Food & Agriculture	0.12	0.20	0.12	0.20	0.12	0.20	0.12	0.20	0.12	0.20	0.12	0.20	0.12	0.20
Professional and Information Services	-0.07	0.14	-0.07	0.14	-0.07	0.14	-0.07	0.14	-0.07	0.14	-0.07	0.14	-0.07	0.14
Manufacturing	0.06	0.11	0.06	0.11	0.06	0.11	0.06	0.11	0.06	0.11	0.06	0.11	0.06	0.11
GBN Commitment to CSR	0.07 ***	0.04	0.19 ***	0.05	0.31 ***	0.07	0.07 ***	0.04	0.19 ***	0.05	0.31 ***	0.07	0.07 ***	0.04
Within GBN Heterogeneity of Commitment to CSR	0.17	0.12	0.50 ***	0.19	0.50 ***	0.19	0.50 ***	0.19	-0.16 *	0.08	-0.16 *	0.08	-0.16 *	0.08
GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR	-0.33 ***	0.08	-0.33 ***	0.08	-0.33 ***	0.08	-0.33 ***	0.08	-0.33 ***	0.08	-0.33 ***	0.08	-0.33 ***	0.08
Ties to More Stringent CSR Requirements	0.23 ***	0.07	0.23 ***	0.07	0.23 ***	0.07	0.23 ***	0.07	0.23 ***	0.07	0.23 ***	0.07	0.23 ***	0.07
Intercept	-5.70 ***	1.08	-5.95 ***	1.09	-6.13 ***	1.10	-5.77 ***	1.08	-5.57 ***	1.09	-5.52 ***	1.09	-5.63 ***	1.08
<i>Observations</i>	710		710		710		710		710		710		710	
<i>Number of Firms</i>	710		710		710		710		710		710		710	
$R^2$	28.37%		28.37%		28.37%		28.37%		28.37%		28.37%		28.37%	
$F$	(14, 695) 17.32***		(14, 695) 17.32***		(14, 695) 17.32***		(14, 695) 17.32***		(14, 695) 17.32***		(14, 695) 17.32***		(14, 695) 17.32***	
<i>Root MSE</i>	0.89		0.89		0.89		0.89		0.89		0.89		0.89	

**Table F.2: Summary of results from Models 2-9 using OLS regression with Huber-White estimators and Adoption of Corporate Governance-related CSR practices as the dependent variable (Hypotheses 2a-b)**

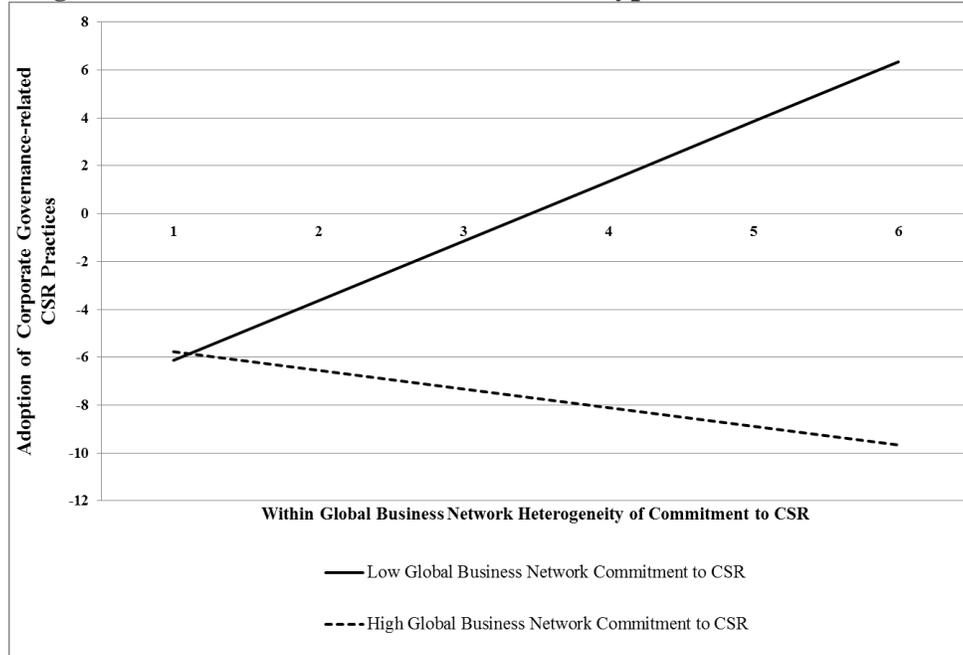
Commitment $-1\delta$ ; Heterogeneity $-1\delta$			Commitment $-1\delta$ ; Heterogeneity			Commitment $-1\delta$ ; Heterogeneity $+1\delta$		
	Coef.	Sig.		Coef.	Sig.		Coef.	Sig.
Commit. $-1\delta$	0.31	***	Commit. $-1\delta$	0.19	***	Commit. $-1\delta$	0.07	**
Heter. $-1\delta$	0.50	***	Heter.	0.50	***	Heter. $+1\delta$	0.50	***
Commitment; Heterogeneity $-1\delta$			Commitment; Heterogeneity			Commitment; Heterogeneity $+1\delta$		
	Coef.	Sig.		Coef.	Sig.		Coef.	Sig.
Commit.	0.31	***	Commit.	0.19	***	Commit.	0.07	**
Heter. $-1\delta$	0.17		Heter.	0.17		Heter. $+1\delta$	0.171	
Commitment $+1\delta$ ; Heterogeneity $-1\delta$			Commitment $+1\delta$ ; Heterogeneity			Commitment $+1\delta$ ; Heterogeneity $+1\delta$		
	Coef.	Sig.		Coef.	Sig.		Coef.	Sig.
Commit. $+1\delta$	0.31	***	Commit. $+1\delta$	0.19	***	Commit. $+1\delta$	0.073	**
Heter. $-1\delta$	-0.16	*	Heter.	-0.16	*	Heter. $+1\delta$	-0.16	*

Figures F.1 and F.2 provide a visual illustration of the results for Hypotheses 2a and b.



**Figure F.1: Interaction plot for the moderating effect of within global business network heterogeneity of commitment to CSR on the relationship between global business network**

commitment to CSR and firm's adoption of Corporate Governance-related CSR practices, using OLS regression with Huber-White estimators (Hypothesis 2a)



**Figure F.2: Interaction plot for the moderating effect of global business network commitment to CSR on the relation between within global business network heterogeneity of commitment to CSR and firm's adoption of Corporate Governance-related CSR practices, using OLS regression with Huber-White estimators (Hypothesis 2b)**

#### A.F.1.2 Adoption of Community-related CSR practices

I then consider the adoption of Community-related CSR practices. Results in Table F.3 support Hypothesis 1, as shown by the positive and significant coefficient of global business network commitment to CSR in Models 1 and 2 ( $\beta = 0.10$ ;  $p < .01$ ;  $\beta = 0.17$ ;  $p < .01$ ). However, results do not support Hypothesis 3, as the coefficient of ties to countries with more stringent CSR institutional requirements is insignificant in Models 1 and 2 ( $\beta = 0.07$ ; n.s.;  $\beta = 0.09$ ; n.s.). Models 4 ( $\beta = 0.07$ ;  $p < .1$ ), 2 ( $\beta = 0.17$ ;  $p < .01$ ) and 3 ( $\beta = 0.28$ ;  $p < .01$ ) provide support for Hypothesis 2a and confirm that as within global business network heterogeneity of commitment to CSR decreases, the relationship between global business network commitment to CSR and

firm's adoption of Community-related CSR practices becomes more positive. Furthermore, Models 8 ( $\beta = 0.11$ ; n.s.), 2 ( $\beta = 0.40$ ;  $p < .01$ ), and 5 ( $\beta = 0.68$ ;  $p < .01$ ) provide support for Hypothesis 2b and show that as global business network commitment to CSR decreases, the relationships between within global business network heterogeneity of commitment to CSR and firm's adoption of Community-related CSR practices becomes more positive. Table F.4 further summarizes the results for Hypotheses 2a and 2b.

**Table F.3: OLS regression with Huber-White estimators and alternative specification of the dependent variable (Adoption of Community-related CSR practices; Hypotheses 1, 2a-b, and 3)**

	Model 1		Model 2 GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR		Model 3 GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR (-1 $\delta$ )	
	Coeff.	St. E.	Coeff.	St. E.	Coeff.	St. E.
Size	0.22 ***	0.03	0.22 ***	0.03	0.22 ***	0.03
ROA	0.24	0.35	0.29	0.35	0.29	0.35
R&D Intensity	0.45 ***	0.16	0.47 ***	0.16	0.47 ***	0.16
Capital Intensity	-0.01	0.01	0.00	0.01	0.00	0.01
Leverage	0.03	0.07	0.04	0.07	0.04	0.07
<i>Industry Controls</i>						
Consumer Goods	0.48 ***	0.17	0.52 ***	0.17	0.52 ***	0.17
Energy & Extractive	-0.03	0.20	-0.02	0.20	-0.02	0.20
Food & Agriculture	0.45 ***	0.20	0.48 **	0.20	0.48 **	0.20
Professional and Information Services	0.11	0.15	0.10	0.15	0.10	0.15
Manufacturing	-0.05	0.11	-0.05	0.11	-0.05	0.11
GBN Commitment to CSR	0.10 ***	0.05	0.17 ***	0.06	0.28 ***	0.08
Within GBN Heterogeneity of Commitment to CSR	0.06	0.09	0.40 ***	0.14	0.40 ***	0.14
GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR			-0.29 ***	0.09	-0.29 ***	0.09
Ties to More Stringent CSR Requirements	0.07	0.08	0.09	0.07	0.09	0.07
Intercept	-6.45 ***	1.69	-6.66 ***	1.66	-6.80 ***	1.67
<i>Observations</i>	710		710		710	
<i>Number of Firms</i>	710		710		710	
$R^2$	18.92%		19.80%		19.80%	
$F$	(13, 696) 9.25***		(14, 695) 8.69***		(14, 695) 8.69***	
<i>Root MSE</i>	0.94		0.94		0.94	

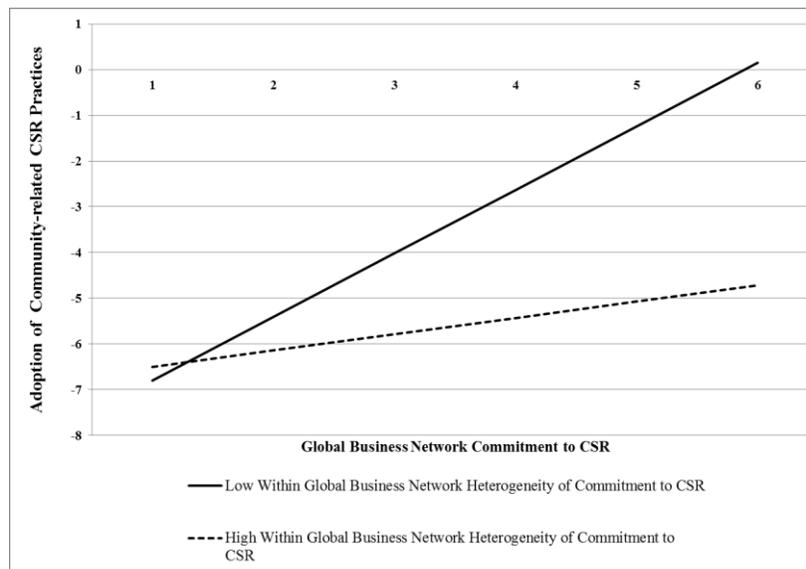
**Table F.3—Cont'd**

	Model 4		Model 5		Model 6		Model 7		Model 8		Model 9		Model 10	
	GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR (+1 $\delta$ ) Coeff. St. E.		GBN Commitment to CSR (-1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR Coeff. St. E.		GBN Commitment to CSR (-1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR (-1 $\delta$ ) Coeff. St. E.		GBN Commitment to CSR (-1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR (+1 $\delta$ ) Coeff. St. E.		GBN Commitment to CSR (+1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR Coeff. St. E.		GBN Commitment to CSR (+1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR (-1 $\delta$ ) Coeff. St. E.		GBN Commitment to CSR (+1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR (+1 $\delta$ ) Coeff. St. E.	
Size	0.22 ***	0.03	0.22 ***	0.03	0.22 ***	0.03	0.22 ***	0.03	0.22 ***	0.03	0.22 ***	0.03	0.22 ***	0.03
ROA	0.29	0.35	0.29	0.35	0.29	0.35	0.29	0.35	0.29	0.35	0.29	0.35	0.29	0.35
R&D Intensity	0.47 ***	0.16	0.47 ***	0.16	0.47 ***	0.16	0.47 ***	0.16	0.47 ***	0.16	0.47 ***	0.16	0.47 ***	0.16
Capital Intensity	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.01
Leverage	0.04	0.07	0.04	0.07	0.04	0.07	0.04	0.07	0.04	0.07	0.04	0.07	0.04	0.07
<i>Industry Controls</i>														
Consumer Goods	0.52 ***	0.17	0.52 ***	0.17	0.52 ***	0.17	0.52 ***	0.17	0.52 ***	0.17	0.52 ***	0.17	0.52 ***	0.17
Energy & Extractive	-0.02	0.20	-0.02	0.20	-0.02	0.20	-0.02	0.20	-0.02	0.20	-0.02	0.20	-0.02	0.20
Food & Agriculture	0.48 **	0.20	0.48 **	0.20	0.48 **	0.20	0.48 **	0.20	0.48 **	0.20	0.48 **	0.20	0.48 **	0.20
Professional and Information Services	0.10	0.15	0.10	0.15	0.10	0.15	0.10	0.15	0.10	0.15	0.10	0.15	0.10	0.15
Manufacturing	-0.05	0.11	-0.05	0.11	-0.05	0.11	-0.05	0.11	-0.05	0.11	-0.05	0.11	-0.05	0.11
GBN Commitment to CSR	0.07 *	0.04	0.17 ***	0.06	0.28 ***	0.08	0.07 *	0.04	0.17 ***	0.06	0.28 ***	0.08	0.07 *	0.04
Within GBN Heterogeneity of Commitment to CSR	0.40 ***	0.14	0.68 ***	0.21	0.68 ***	0.21	0.68 ***	0.21	0.11	0.10	0.11	0.10	0.11	0.10
GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR	-0.29 ***	0.09	-0.29 ***	0.09	-0.29 ***	0.09	-0.29 ***	0.09	-0.29 ***	0.09	-0.29 ***	0.09	-0.29 ***	0.09
Ties to More Stringent CSR Requirements	0.09	0.07	0.09	0.07	0.09	0.07	0.09	0.07	0.09	0.07	0.09	0.07	0.09	0.07
Intercept	-6.52 ***	1.66	-6.83 ***	1.67	-7.07 ***	1.68	-6.59 ***	1.66	-6.49 ***	1.66	-6.53 ***	1.67	-6.45 ***	1.66
Observations	710		710		710		710		710		710		710	
Number of Firms	710		710		710		710		710		710		710	
R <sup>2</sup>	19.80%		19.80%		19.80%		19.80%		19.80%		19.80%		19.80%	
F	(14, 695) 8.69***		(14, 695) 8.69***		(14, 695) 8.69***		(14, 695) 8.69***		(14, 695) 8.69***		(14, 695) 8.69***		(14, 695) 8.69***	
Root MSE	0.94		0.94		0.94		0.94		0.94		0.94		0.94	

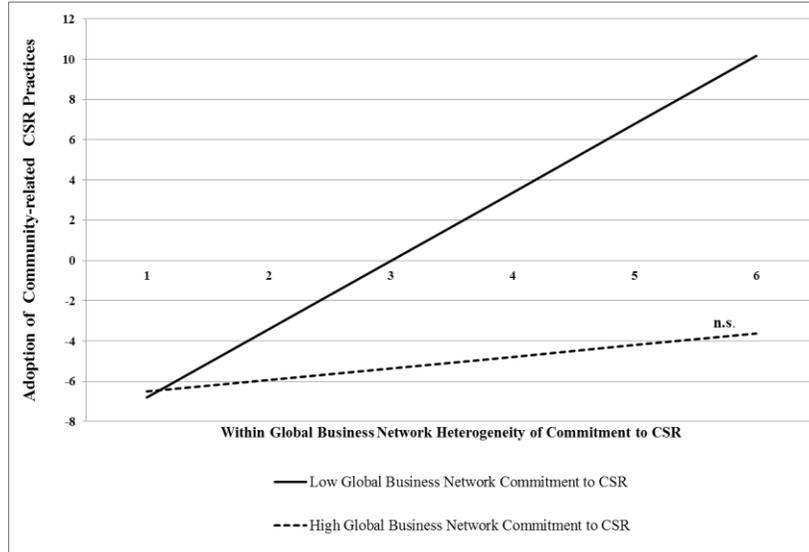
**Table F.4: Summary of results from Models 2-9 using OLS regression with Huber-White estimators and Adoption of Community-related CSR practices as the dependent variable (Hypotheses 2a and b)**

Commitment -1 $\delta$ ; Heterogeneity -1 $\delta$			Commitment -1 $\delta$ ; Heterogeneity			Commitment -1 $\delta$ ; Heterogeneity +1 $\delta$		
	Coef.	Sig.		Coef.	Sig.		Coef.	Sig.
Commit. -1 $\delta$	0.278	***	Commit. -1 $\delta$	0.17	***	Commit. -1 $\delta$	0.07	*
Heter. -1 $\delta$	0.678	***	Heter.	0.68	***	Heter. +1 $\delta$	0.68	***
Commitment; Heterogeneity - 1 $\delta$			Commitment; Heterogeneity			Commitment; Heterogeneity +1 $\delta$		
	Coef.	Sig.		Coef.	Sig.		Coef.	Sig.
Commit.	0.28	***	Commit.	0.17	***	Commit.	0.07	*
Heter. -1 $\delta$	0.40	***	Heter.	0.40	***	Heter. +1 $\delta$	0.40	***
Commitment +1 $\delta$ ; Heterogeneity -1 $\delta$			Commitment +1 $\delta$ ; Heterogeneity			Commitment +1 $\delta$ ; Heterogeneity +1 $\delta$		
	Coef.	Sig.		Coef.	Sig.		Coef.	Sig.
Commit. +1 $\delta$	0.278	***	Commit. +1 $\delta$	0.17	***	Commit. +1 $\delta$	0.071	*
Heter. -1 $\delta$	0.115		Heter.	0.11		Heter. +1 $\delta$	0.115	

Figures F.3 and F.4 provide a visual illustration of the results for Hypotheses 2a and b.



**Figure F.3: Interaction plot for the moderating effect of within global business network heterogeneity of commitment to CSR on the relationship between global business network commitment to CSR and firm's adoption of Community-related CSR practices, using OLS regression with Huber-White estimators (Hypothesis 2a)**



**Figure F.4: Interaction plot for the moderating effect of global business network commitment to CSR on the relation between within global business network heterogeneity of commitment to CSR and firm’s adoption of Community-related CSR practices, using OLS regression with Huber-White estimators (Hypothesis 2b)**

#### A.F.1.3 Adoption of Diversity-related CSR practices

I then consider the adoption of Diversity-related CSR practices. Table F.5 provides partial support for Hypothesis 1, because the coefficient of global business network commitment to CSR is positive and significant in Model 2 ( $\beta = 0.10$ ;  $p < .05$ ), but insignificant in Model 1 ( $\beta = 0.05$ ; n.s.). Results do not support Hypothesis 3, as the coefficient of ties to business partners in countries with more stringent CSR institutional requirements is insignificant in Models 1 and 2 ( $\beta = 0.07$ ; n.s.;  $\beta = 0.08$ ; n.s.). Models 4 ( $\beta = 0.03$ ; n.s.), 2 ( $\beta = 0.10$ ;  $p < .05$ ) and 3 ( $\beta = 0.17$ ;  $p < .01$ ) provide support for Hypothesis 2a and confirm that as within global business network heterogeneity of commitment to CSR decreases, the relationship between global business network commitment to CSR and firm’s adoption of Diversity-related CSR practices becomes more positive. Furthermore, Models 8 ( $\beta = 0.02$ ; n.s.), 2 ( $\beta = 0.21$ ;  $p < .10$ ), and 5 ( $\beta = 0.40$ ;  $p <$

.05) provide support for Hypothesis 2b and show that as global business network commitment to CSR decreases, the relationships between within global business network heterogeneity of commitment to CSR and firm's adoption of Diversity-related CSR practices becomes more positive. Table F.6 further summarizes the results for Hypotheses 2a and 2b.

**Table F.5: OLS regression with Huber-White estimators and alternative specification of the dependent variable (Adoption of Diversity-related CSR practices; Hypotheses 1, 2a-b, and 3)**

	Model 1		Model 2 GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR		Model 3 GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR (-1 $\delta$ )	
	Coeff.	St. E.	Coeff.	St. E.	Coeff.	St. E.
Size	0.38 ***	0.02	0.38 ***	0.02	0.38 ***	0.02
ROA	0.32	0.31	0.36	0.31	0.36	0.31
R&D Intensity	0.44 ***	0.14	0.45 ***	0.14	0.45 ***	0.14
Capital Intensity	0.04 ***	0.01	0.04 ***	0.01	0.04 ***	0.01
Leverage	0.10 *	0.06	0.11 *	0.06	0.11 *	0.06
<i>Industry Controls</i>						
Consumer Goods	0.33 ***	0.12	0.36 ***	0.12	0.36 ***	0.12
Energy & Extractive	-0.18	0.13	-0.18	0.13	-0.18	0.13
Food & Agriculture	0.41 ***	0.16	0.43 ***	0.16	0.43 ***	0.16
Professional and Information Services	-0.06	0.12	-0.07	0.12	-0.07	0.12
Manufacturing	-0.08	0.09	-0.07	0.09	-0.07	0.09
GBN Commitment to CSR	0.05	0.03	0.10 **	0.04	0.17 ***	0.06
Within GBN Heterogeneity of Commitment to CSR	-0.02	0.09	0.21 *	0.11	0.21 *	0.11
GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR			-0.19 ***	0.07	-0.19 ***	0.07
Ties to More Stringent CSR Requirements	0.07	0.07	0.08	0.07	0.08	0.07
Intercept	-7.44 ***	1.41	-7.58 ***	1.40	-7.65 ***	1.41
<i>Observations</i>	710		710		710	
<i>Number of Firms</i>	710		710		710	
$R^2$	44.06%		44.49%		44.49%	
$F$	(13, 696) 32.54***		(14, 695) 30.41***		(14, 695) 30.41***	
<i>Root MSE</i>	0.77		0.76		0.76	

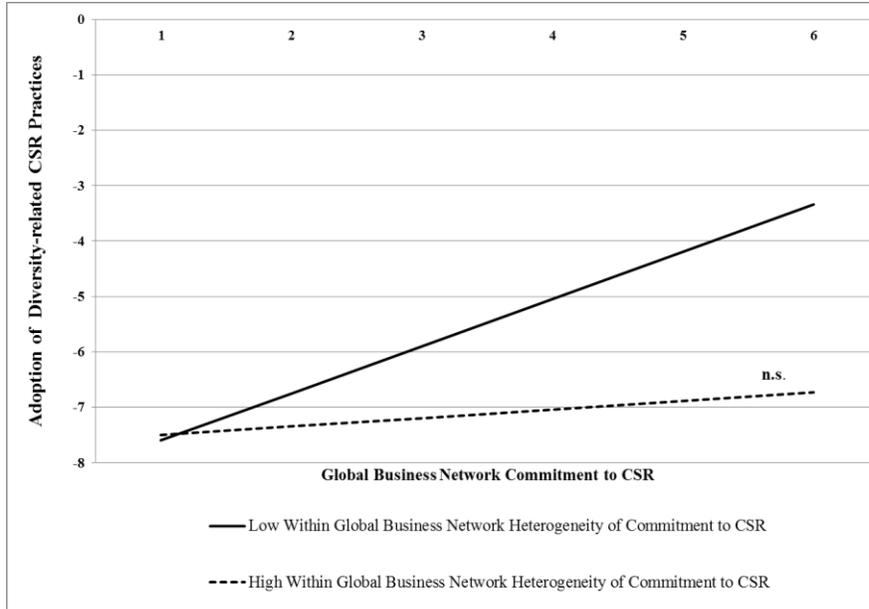
**Table F.5—Cont'd**

	Model 4		Model 5		Model 6		Model 7		Model 8		Model 9		Model 10	
	GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR (+1 $\delta$ ) Coeff. St. E.		GBN Commitment to CSR (-1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR Coeff. St. E.		GBN Commitment to CSR (-1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR (-1 $\delta$ ) Coeff. St. E.		GBN Commitment to CSR (-1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR (+1 $\delta$ ) Coeff. St. E.		GBN Commitment to CSR (+1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR Coeff. St. E.		GBN Commitment to CSR (+1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR (-1 $\delta$ ) Coeff. St. E.		GBN Commitment to CSR (+1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR (+1 $\delta$ ) Coeff. St. E.	
Size	0.38 ***	0.02	0.38 ***	0.02	0.38 ***	0.02	0.38 ***	0.02	0.38 ***	0.02	0.38 ***	0.02	0.38 ***	0.02
ROA	0.36	0.31	0.36	0.31	0.36	0.31	0.36	0.31	0.36	0.31	0.36	0.31	0.36	0.31
R&D Intensity	0.45 ***	0.14	0.45 ***	0.14	0.45 ***	0.14	0.45 ***	0.14	0.45 ***	0.14	0.45 ***	0.14	0.45 ***	0.14
Capital Intensity	0.04 ***	0.01	0.04 ***	0.01	0.04 ***	0.01	0.04 ***	0.01	0.04 ***	0.01	0.04 ***	0.01	0.04 ***	0.01
Leverage	0.11 *	0.06	0.11 *	0.06	0.11 *	0.06	0.11 *	0.06	0.11 *	0.06	0.11 *	0.06	0.11 *	0.06
<i>Industry Controls</i>														
Consumer Goods	0.36 ***	0.12	0.36 ***	0.12	0.36 ***	0.12	0.36 ***	0.12	0.36 ***	0.12	0.36 ***	0.12	0.36 ***	0.12
Energy & Extractive	-0.18	0.13	-0.18	0.13	-0.18	0.13	-0.18	0.13	-0.18	0.13	-0.18	0.13	-0.18	0.13
Food & Agriculture	0.43 ***	0.16	0.43 ***	0.16	0.43 ***	0.16	0.43 ***	0.16	0.43 ***	0.16	0.43 ***	0.16	0.43 ***	0.16
Professional and Information Services	-0.07	0.12	-0.07	0.12	-0.07	0.12	-0.07	0.12	-0.07	0.12	-0.07	0.12	-0.07	0.12
Manufacturing	-0.07	0.09	-0.07	0.09	-0.07	0.09	-0.07	0.09	-0.07	0.09	-0.07	0.09	-0.07	0.09
GBN Commitment to CSR	0.03	0.03	0.10 **	0.04	0.17 ***	0.06	0.03	0.03	0.10 **	0.04	0.17 ***	0.06	0.03	0.03
Within GBN Heterogeneity of Commitment to CSR	0.21 *	0.11	0.40 **	0.17	0.40 **	0.17	0.40 **	0.17	0.02	0.08	0.02	0.08	0.02	0.08
GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR	-0.19 ***	0.07	-0.19 ***	0.07	-0.19 ***	0.07	-0.19 ***	0.07	-0.19 ***	0.07	-0.19 ***	0.07	-0.19 ***	0.07
Ties to More Stringent CSR Requirements	0.08	0.07	0.08	0.07	0.08	0.07	0.08	0.07	0.08	0.07	0.08	0.07	0.08	0.07
Intercept	-7.51 ***	1.40	-7.68 ***	1.41	-7.82 ***	1.41	-7.54 ***	1.40	-7.48 ***	1.40	-7.49 ***	1.41	-7.48 ***	1.40
Observations	710		710		710		710		710		710		710	
Number of Firms	710		710		710		710		710		710		710	
R <sup>2</sup>	44.49%		44.49%		44.49%		44.49%		44.49%		44.49%		44.49%	
F	(14, 695) 30.41***		(14, 695) 30.41***		(14, 695) 30.41***		(14, 695) 30.41***		(14, 695) 30.41***		(14, 695) 30.41***		(14, 695) 30.41***	
Root MSE	0.76		0.76		0.76		0.76		0.76		0.76		0.76	

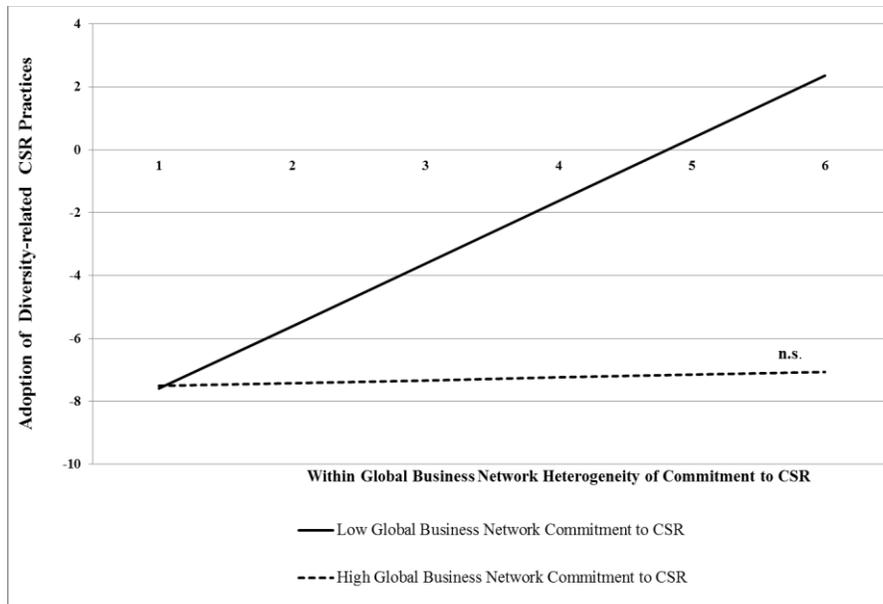
**Table F.6: Summary of results from Models 2-9 using OLS regression with Huber-White estimators and Adoption of Diversity-related CSR practices as the dependent variable (Hypotheses 2a and b)**

<b>Commitment -1<math>\delta</math>; Heterogeneity -1<math>\delta</math></b>			<b>Commitment -1<math>\delta</math>; Heterogeneity</b>			<b>Commitment -1<math>\delta</math>; Heterogeneity +1<math>\delta</math></b>		
	Coef.	Sig.		Coef.	Sig.		Coef.	Sig.
Commit. -1 $\delta$	0.17	***	Commit. -1 $\delta$	0.10	**	Commit. -1 $\delta$	0.03	
Heter. -1 $\delta$	0.40	**	Heter.	0.40	**	Heter. +1 $\delta$	0.40	**
<b>Commitment; Heterogeneity -1<math>\delta</math></b>			<b>Commitment; Heterogeneity</b>			<b>Commitment; Heterogeneity +1<math>\delta</math></b>		
	Coef.	Sig.		Coef.	Sig.		Coef.	Sig.
Commit.	0.17	***	Commit.	0.10	**	Commit.	0.03	
Heter. -1 $\delta$	0.21	**	Heter.	0.21	*	Heter. +1 $\delta$	0.21	*
<b>Commitment +1<math>\delta</math>; Heterogeneity -1<math>\delta</math></b>			<b>Commitment +1<math>\delta</math>; Heterogeneity</b>			<b>Commitment +1<math>\delta</math>; Heterogeneity +1<math>\delta</math></b>		
	Coef.	Sig.		Coef.	Sig.		Coef.	Sig.
Commit. +1 $\delta$	0.17	***	Commit. +1 $\delta$	0.10	**	Commit. +1 $\delta$	0.03	
Heter. -1 $\delta$	0.02		Heter.	0.02		Heter. +1 $\delta$	0.02	

Figures F.5 and F.6 provide a visual illustration of the results for Hypotheses 2a and b.



**Figure F.5: Interaction plot for the moderating effect of within global business network heterogeneity of commitment to CSR on the relationship between global business network commitment to CSR and firm’s adoption of Diversity-related CSR practices, using OLS regression with Huber-White estimators (Hypothesis 2a)**



**Figure F.6: Interaction plot for the moderating effect of global business network commitment to CSR on the relation between within global business network heterogeneity of commitment to CSR and firm’s adoption of Diversity-related CSR practices, using OLS regression with Huber-White estimators (Hypothesis 2b)**

#### A.F.1.4 *Adoption of Employee-related CSR practices*

I then consider the adoption of Employee-related CSR practices. Table F.7 provides partial support for Hypothesis 1, because the coefficient of global business network commitment to CSR is positive and significant in Model 2 ( $\beta = 0.28$ ;  $p < .05$ ), but this coefficient is insignificant in Model 1. Results do not support Hypothesis 3, as the coefficient ties to business partners in countries with more stringent CSR requirements is insignificant in Models 1 and 2 ( $\beta = 0.02$ ; n.s.;  $\beta = 0.03$ ; n.s.). In addition, Models 4 ( $\beta = -0.02$ ; n.s.), 2 ( $\beta = 0.04$ ; n.s.) and 3 ( $\beta = 0.10$ ; n.s.) do not support Hypothesis 2a as the coefficient of global business network commitment to CSR is insignificant. However, Models 8 ( $\beta = 0.12$ ; n.s.), 2 ( $\beta = 0.28$ ;  $p < .10$ ), and 5 ( $\beta = 0.44$ ;  $p < .10$ ) support Hypothesis 2b and show that as global business network commitment to CSR decreases, the relationships between within global business network heterogeneity of commitment to CSR and firm's adoption of Employee-related CSR practices becomes more positive. Table F.8 further summarizes the results for Hypotheses 2a and 2b.

**Table F.7: OLS regression with Huber-White estimators and alternative specification of the dependent variable (Adoption of Employee-related CSR practices; Hypotheses 1, 2a-b, and 3)**

	Model 1		Model 2 GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR		Model 3 GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR (-1 $\delta$ )	
	Coeff.	St. E.	Coeff.	St. E.	Coeff.	St. E.
Size	-0.01	0.03	-0.01	0.03	-0.01	0.03
ROA	0.56	0.39	0.59	0.39	0.59	0.39
R&D Intensity	0.30	0.20	0.31	0.20	0.31	0.20
Capital Intensity	0.01	0.01	0.02	0.01	0.02	0.01
Leverage	-0.03	0.06	-0.02	0.07	-0.02	0.07
<i>Industry Controls</i>						
Consumer Goods	0.06	0.16	0.09	0.16	0.09	0.16
Energy & Extractive	-0.23	0.16	-0.23	0.16	-0.23	0.16
Food & Agriculture	0.02	0.24	0.04	0.24	0.04	0.24
Professional and Information Services	-0.05	0.17	-0.06	0.17	-0.06	0.17
Manufacturing	-0.18	0.11	-0.18	0.11	-0.18	0.11
GBN Commitment to CSR	0.00	0.04	0.04	0.06	0.10	0.08
Within GBN Heterogeneity of Commitment to CSR	0.09	0.14	0.28 *	0.16	0.28 *	0.16
GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR			-0.16 *	0.09	-0.16 *	0.09
Ties to More Stringent CSR Requirements	0.02	0.09	0.03	0.09	0.03	0.09
Intercept	-2.92	2.09	-3.04	2.07	-3.14	2.08
<i>Observations</i>	710		710		710	
<i>Number of Firms</i>	710		710		710	
$R^2$	44.06%		1.95%		1.95%	
$F$	(13, 696) 32.54***		(14, 695) 1.4		(14, 695) 1.4	
<i>Root MSE</i>	0.77		1.03		1.03	

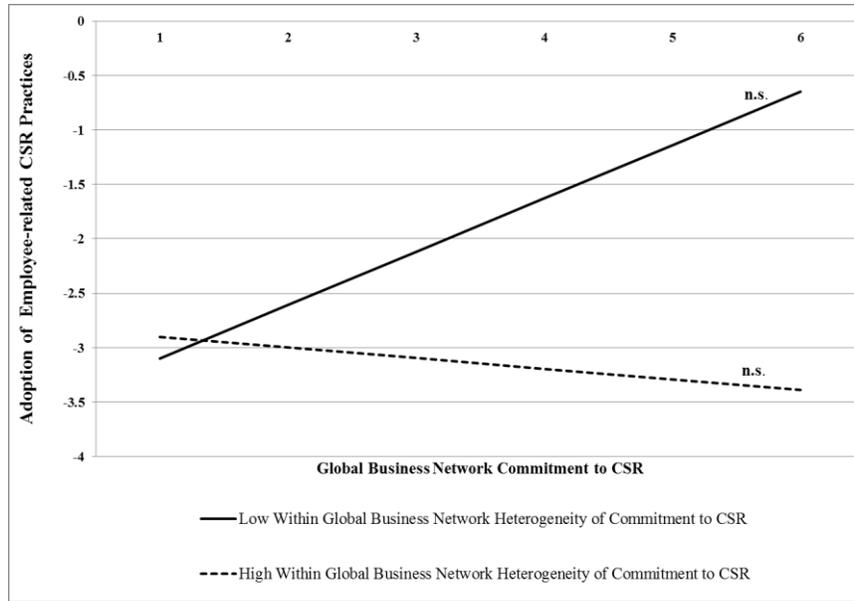
**Table F.7—Cont'd**

	Model 4		Model 5		Model 6		Model 7		Model 8		Model 9		Model 10	
	GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR (+1 $\delta$ ) Coeff. St. E.		GBN Commitment to CSR (-1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR Coeff. St. E.		GBN Commitment to CSR (-1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR (-1 $\delta$ ) Coeff. St. E.		GBN Commitment to CSR (-1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR (+1 $\delta$ ) Coeff. St. E.		GBN Commitment to CSR (+1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR Coeff. St. E.		GBN Commitment to CSR (+1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR (-1 $\delta$ ) Coeff. St. E.		GBN Commitment to CSR (+1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR (+1 $\delta$ ) Coeff. St. E.	
Size	-0.01	0.03	-0.01	0.03	-0.01	0.03	-0.01	0.03	-0.01	0.03	-0.01	0.03	-0.01	0.03
ROA	0.59	0.39	0.59	0.39	0.59	0.39	0.59	0.39	0.59	0.39	0.59	0.39	0.59	0.39
R&D Intensity	0.31	0.20	0.31	0.20	0.31	0.20	0.31	0.20	0.31	0.20	0.31	0.20	0.31	0.20
Capital Intensity	0.02	0.01	0.02	0.01	0.02	0.01	0.02	0.01	0.02	0.01	0.02	0.01	0.02	0.01
Leverage	-0.02	0.07	-0.02	0.07	-0.02	0.07	-0.02	0.07	-0.02	0.07	-0.02	0.07	-0.02	0.07
<i>Industry Controls</i>														
Consumer Goods	0.09	0.16	0.09	0.16	0.09	0.16	0.09	0.16	0.09	0.16	0.09	0.16	0.09	0.16
Energy & Extractive	-0.23	0.16	-0.23	0.16	-0.23	0.16	-0.23	0.16	-0.23	0.16	-0.23	0.16	-0.23	0.16
Food & Agriculture	0.04	0.24	0.04	0.24	0.04	0.24	0.04	0.24	0.04	0.24	0.04	0.24	0.04	0.24
Professional and Information Services	-0.06	0.17	-0.06	0.17	-0.06	0.17	-0.06	0.17	-0.06	0.17	-0.06	0.17	-0.06	0.17
Manufacturing	-0.18	0.11	-0.18	0.11	-0.18	0.11	-0.18	0.11	-0.18	0.11	-0.18	0.11	-0.18	0.11
GBN Commitment to CSR	-0.02	0.04	0.04	0.06	0.10	0.08	-0.02	0.04	0.04	0.06	0.10	0.08	-0.02	0.04
Within GBN Heterogeneity of Commitment to CSR	0.28 *	0.16	0.44 *	0.23	0.44 *	0.23	0.44 *	0.23	0.12	0.12	0.12	0.12	0.12	0.12
GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR	-0.16 *	0.09	-0.16 *	0.09	-0.16 *	0.09	-0.16 *	0.09	-0.16 *	0.09	-0.16 *	0.09	-0.16 *	0.09
Ties to More Stringent CSR Requirements	0.03	0.09	0.03	0.09	0.03	0.09	0.03	0.09	0.03	0.09	0.03	0.09	0.03	0.09
Intercept	-2.94	2.07	-3.08	2.07	-3.24	2.08	-2.92	2.06	-3.00	2.08	-3.05	2.08	-2.96	2.07
Observations	710		710		710		710		710		710		710	
Number of Firms	710		710		710		710		710		710		710	
R <sup>2</sup>	1.95%		1.95%		1.95%		1.95%		1.95%		1.95%		1.95%	
F	(14, 695) 1.4		(14, 695) 1.4		(14, 695) 1.4		(14, 695) 1.4		(14, 695) 1.4		(14, 695) 1.4		(14, 695) 1.4	
Root MSE	1.03		1.03		1.03		1.03		1.03		1.03		1.03	

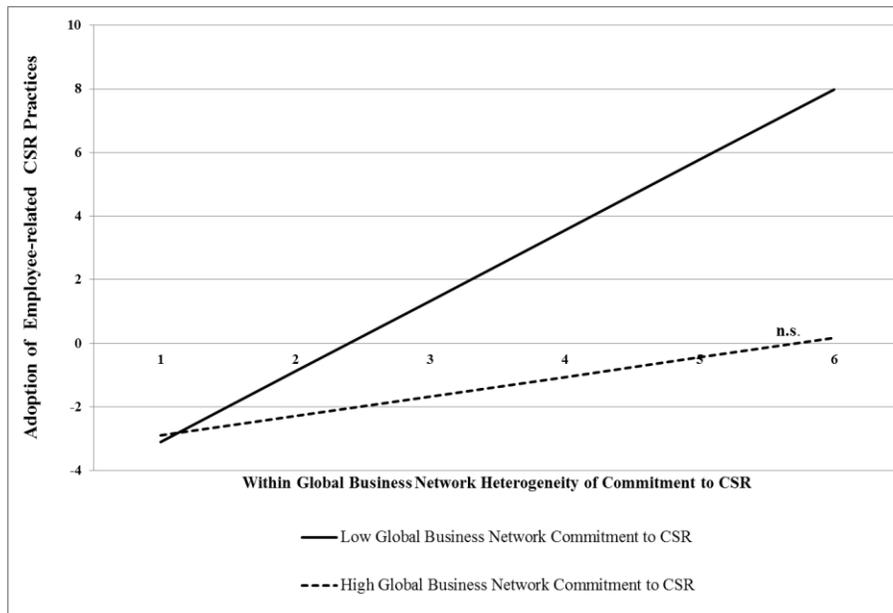
**Table F.8: Summary of results from Models 2-9 using OLS regression with Huber-White estimators and Adoption of Employee-related CSR practices as the dependent variable (Hypotheses 2a-b)**

<b>Commitment -1<math>\delta</math>; Heterogeneity -1<math>\delta</math></b>			<b>Commitment -1<math>\delta</math>; Heterogeneity</b>			<b>Commitment -1<math>\delta</math>; Heterogeneity +1<math>\delta</math></b>		
	Coef.	Sig.		Coef.	Sig.		Coef.	Sig.
Commit. -1 $\delta$	0.10		Commit. -1 $\delta$	0.04		Commit. -1 $\delta$	-0.02	
Heter. -1 $\delta$	0.44 *		Heter.	0.44 *		Heter. +1 $\delta$	0.44 *	
<b>Commitment; Heterogeneity - 1<math>\delta</math></b>			<b>Commitment; Heterogeneity</b>			<b>Commitment; Heterogeneity +1<math>\delta</math></b>		
	Coef.	Sig.		Coef.	Sig.		Coef.	Sig.
Commit.	0.10		Commit.	0.04		Commit.	-0.02	
Heter. -1 $\delta$	0.28 *		Heter.	0.28 *		Heter. +1 $\delta$	0.28 *	
<b>Commitment +1<math>\delta</math>; Heterogeneity -1<math>\delta</math></b>			<b>Commitment +1<math>\delta</math>; Heterogeneity</b>			<b>Commitment +1<math>\delta</math>; Heterogeneity +1<math>\delta</math></b>		
	Coef.	Sig.		Coef.	Sig.		Coef.	Sig.
Commit. +1 $\delta$	0.10		Commit. +1 $\delta$	0.04		Commit. +1 $\delta$	-0.02	
Heter. -1 $\delta$	0.12		Heter.	0.12		Heter. +1 $\delta$	0.12	

Figures F.7 and F.8 provide a visual illustration of the results for Hypotheses 2a and b discussed above.



**Figure F.7: Interaction plot for the moderating effect of within global business network heterogeneity of commitment to CSR on the relationship between global business network commitment to CSR and firm's adoption of Employee-related CSR practices, using OLS regression with Huber-White estimators (Hypothesis 2a)**



**Figure F.8: Interaction plot for the moderating effect of global business network commitment to CSR on the relation between within global business network heterogeneity of commitment to CSR and firm's adoption of Employee-related CSR practices, using OLS regression with Huber-White estimators (Hypothesis 2b)**

#### A.F.1.5 *Adoption of Environment-related CSR practices*

Next I look at the adoption of Environment-related CSR practices. Results in Table F.9 do not support Hypothesis 1, because the coefficient of global business network commitment to CSR is insignificant both in Models 1 and 2. However, results support Hypothesis 3, as the coefficient of ties to business partners in countries with more stringent CSR requirements is significant both in Model 1 and 2 ( $\beta = 0.27$ ;  $p < .01$ ;  $\beta = 0.28$ ;  $p < .28$ ). Finally, results do not support Hypotheses 2a and b, as the main interaction term between global business network commitment to CSR and within global business network heterogeneity of commitment to CSR is insignificant.

**Table F.9: OLS regression with Huber-White estimators and alternative specification of the dependent variable (Adoption of Environment-related CSR practices; Hypotheses 1, 2a-b, and 3)**

	<b>Model 1</b>		Model 2 GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR	
	Coeff.	St. E.	Coeff.	St. E.
Size	0.27 ***	0.03	0.27 ***	0.03
ROA	1.01 ***	0.35	1.03 ***	0.35
R&D Intensity	0.64 ***	0.16	0.64 ***	0.16
Capital Intensity	0.01	0.01	0.01	0.01
Leverage	0.23 ***	0.08	0.24 ***	0.08
<i>Industry Controls</i>				
Consumer Goods	-0.01	0.12	0.01	0.12
Energy & Extractive	-0.56 ***	0.17	-0.56 ***	0.18
Food & Agriculture	0.14	0.22	0.15	0.22
Professional and Information Services	0.08	0.12	0.08	0.12
Manufacturing	0.06	0.10	0.06	0.10
GBN Commitment to CSR	0.02	0.04	0.05	0.05
Within GBN Heterogeneity of Commitment to CSR	0.11	0.08	0.23	0.14
GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR			-0.10	0.09
Ties to More Stringent CSR Requirements	0.27 ***	0.07	0.28 ***	0.07
Intercept	-8.78 ***	1.66	-8.86 ***	1.65
<i>Observations</i>	710		710	
<i>Number of Firms</i>	710		710	
$R^2$	24.20%		1.95%	
$F$	(13, 696) 15.9***		(14, 695) 1.4	
<i>Root MSE</i>	0.92		1.03	

#### A.F.1.6 Adoption of Human Rights-related CSR practices

I then consider the adoption of Human Rights-related CSR practices. Table F.10 provides partial support for Hypothesis 1, because the coefficient of global business network commitment

to CSR is positive and significant in Model 2 ( $\beta = 0.12$ ;  $p < .10$ ), but insignificant in Model 1. Results do not support Hypothesis 3, as the coefficient of ties to business partners in countries with more stringent CSR requirements is insignificant in Models 1 and 2. Results in Models 4 ( $\beta = 0.07$ ; n.s.), 2 ( $\beta = 0.12$ ;  $p < .10$ .) and 3 ( $\beta = 0.18$ ;  $p < .10$ ) provide support for Hypothesis 2a and confirm that as within global business network heterogeneity of commitment to CSR decreases, the relationship between global business network commitment to CSR and firm's adoption of Human Rights-related CSR practices becomes more positive. However, Models 8 ( $\beta = 0.12$ ; n.s.), 2 ( $\beta = 0.23$ ; n.s.), and 5 ( $\beta = 0.39$ ; n.s.) do not support Hypothesis 2b as the coefficient of within global business network heterogeneity of commitment to CSR is insignificant. Table F.11 further summarizes the results for Hypotheses 2a and 2b.

**Table F.10: OLS regression with Huber-White estimators and alternative specification of the dependent variable (Adoption of Human Rights-related CSR practices; Hypotheses 1, 2a-b, and 3)**

	Model 1		Model 2 GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR		Model 3 GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR (-1 $\delta$ )	
	Coeff.	St. E.	Coeff.	St. E.	Coeff.	St. E.
Size	0.01	0.04	0.01	0.04	0.01	0.04
ROA	0.11	0.25	0.15	0.25	0.15	0.25
R&D Intensity	0.08	0.10	0.08	0.10	0.08	0.10
Capital Intensity	0.02	0.02	0.02	0.02	0.02	0.02
Leverage	0.03	0.10	0.04	0.10	0.04	0.10
<i>Industry Controls</i>						
Consumer Goods	0.24	0.18	0.27	0.18	0.27	0.18
Energy & Extractive	-0.15	0.20	-0.15	0.20	-0.15	0.20
Food & Agriculture	0.08	0.23	0.09	0.23	0.09	0.23
Professional and Information Services	0.07	0.18	0.07	0.18	0.07	0.18
Manufacturing	-0.07	0.13	-0.06	0.13	-0.06	0.13
GBN Commitment to CSR	0.08	0.05	0.12 *	0.06	0.18 *	0.09
Within GBN Heterogeneity of Commitment to CSR	0.04	0.09	0.23	0.16	0.23	0.16
GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR			-0.16 *	0.09	-0.16 *	0.09
Ties to More Stringent CSR Requirements	0.05	0.08	0.06	0.07	0.06	0.07
Intercept	-0.98	1.18	-1.10	1.18	-1.18	1.19
<i>Observations</i>	710		710		710	
<i>Number of Firms</i>	710		710		710	
$R^2$	1.82%		1.95%		1.95%	
$F$	(13, 696) 1.13		(14, 695) 1.08		(14, 695) 1.08	
<i>Root MSE</i>	1.05		1.05		1.05	

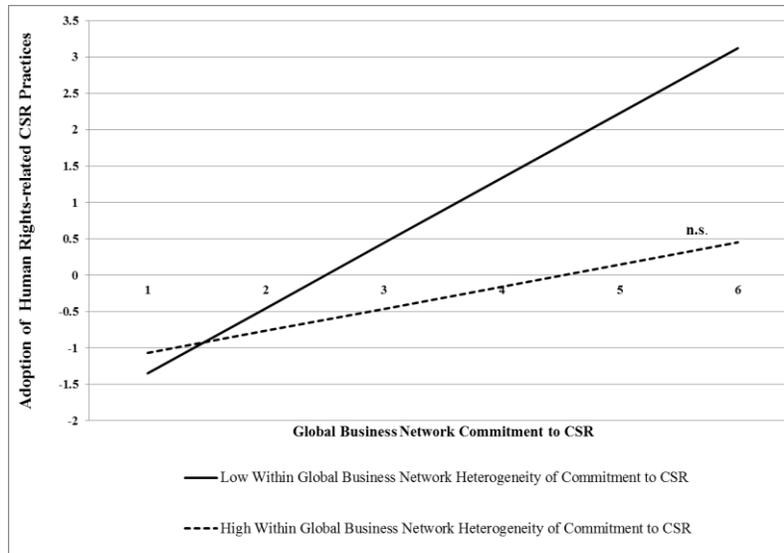
**Table F.10—Cont'd**

	Model 4		Model 5		Model 6		Model 7		Model 8		Model 9		Model 10	
	GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR (+1 $\delta$ )  Coeff. St. E.		GBN Commitment to CSR (-1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR  Coeff. St. E.		GBN Commitment to CSR (-1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR (-1 $\delta$ )  Coeff. St. E.		GBN Commitment to CSR (-1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR (+1 $\delta$ )  Coeff. St. E.		GBN Commitment to CSR (+1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR  Coeff. St. E.		GBN Commitment to CSR (+1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR (-1 $\delta$ )  Coeff. St. E.		GBN Commitment to CSR (+1 $\delta$ ) * Within GBN Heterogeneity of Commitment to CSR (+1 $\delta$ )  Coeff. St. E.	
Size	0.01	0.04	0.01	0.04	0.01	0.04	0.01	0.04	0.01	0.04	0.01	0.04	0.01	0.04
ROA	0.15	0.25	0.15	0.25	0.15	0.25	0.15	0.25	0.15	0.25	0.15	0.25	0.15	0.25
R&D Intensity	0.08	0.10	0.08	0.10	0.08	0.10	0.08	0.10	0.08	0.10	0.08	0.10	0.08	0.10
Capital Intensity	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Leverage	0.04	0.10	0.04	0.10	0.04	0.10	0.04	0.10	0.04	0.10	0.04	0.10	0.04	0.10
<i>Industry Controls</i>														
Consumer Goods	0.27	0.18	0.27	0.18	0.27	0.18	0.27	0.18	0.27	0.18	0.27	0.18	0.27	0.18
Energy & Extractive	-0.15	0.20	-0.15	0.20	-0.15	0.20	-0.15	0.20	-0.15	0.20	-0.15	0.20	-0.15	0.20
Food & Agriculture	0.09	0.23	0.09	0.23	0.09	0.23	0.09	0.23	0.09	0.23	0.09	0.23	0.09	0.23
Professional and Information Services	0.07	0.18	0.07	0.18	0.07	0.18	0.07	0.18	0.07	0.18	0.07	0.18	0.07	0.18
Manufacturing	-0.06	0.13	-0.06	0.13	-0.06	0.13	-0.06	0.13	-0.06	0.13	-0.06	0.13	-0.06	0.13
GBN Commitment to CSR	0.06	0.04	0.12 *	0.06	0.18 *	0.09	0.06	0.04	0.12 *	0.06	0.18 *	0.09	0.06	0.04
Within GBN Heterogeneity of Commitment to CSR	0.23	0.16	0.39	0.25	0.39	0.25	0.39	0.25	0.07	0.09	0.07	0.09	0.07	0.09
GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR	-0.16 *	0.09	-0.16 *	0.09	-0.16 *	0.09	-0.16 *	0.09	-0.16 *	0.09	-0.16 *	0.09	-0.16 *	0.09
Ties to More Stringent CSR Requirements	0.06	0.07	0.06	0.07	0.06	0.07	0.06	0.07	0.06	0.07	0.06	0.07	0.06	0.07
Intercept	-1.02	1.18	-1.22	1.19	-1.36	1.21	-1.08	1.18	-0.98	1.18	-1.01	1.18	-0.96	1.18
Observations	710		710		710		710		710		710		710	
Number of Firms	710		710		710		710		710		710		710	
R <sup>2</sup>	1.95%		1.95%		1.95%		1.95%		1.95%		1.95%		1.95%	
F	(14, 695) 1.08		(14, 695) 1.08		(14, 695) 1.08		(14, 695) 1.08		(14, 695) 1.08		(14, 695) 1.08		(14, 695) 1.08	
Root MSE	1.05		1.05		1.05		1.05		1.05		1.05		1.05	

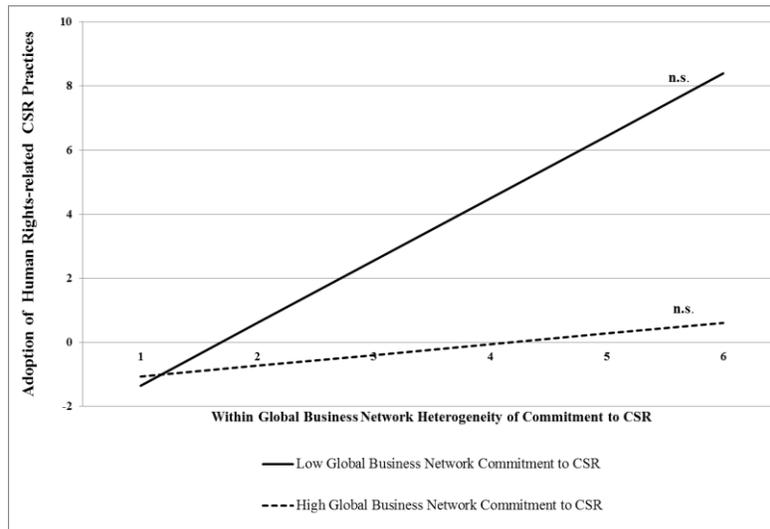
**Table F.11: Summary of results from Models 2-9 using OLS regression with Huber-White estimators and Adoption of Human Rights-related CSR practices as the dependent variable (Hypothesis 2a and b)**

<b>Commitment -1<math>\delta</math>; Heterogeneity -1<math>\delta</math></b>			<b>Commitment -1<math>\delta</math>; Heterogeneity</b>			<b>Commitment -1<math>\delta</math>; Heterogeneity +1<math>\delta</math></b>		
	Coef.	Sig.		Coef.	Sig.		Coef.	Sig.
Commit. -1 $\delta$	0.179 *		Commit. -1 $\delta$	0.1199 *		Commit. -1 $\delta$	0.061	
Heter. -1 $\delta$	0.389		Heter.	0.3895		Heter. +1 $\delta$	0.389	
<b>Commitment; Heterogeneity -1<math>\delta</math></b>			<b>Commitment; Heterogeneity</b>			<b>Commitment; Heterogeneity +1<math>\delta</math></b>		
	Coef.	Sig.		Coef.	Sig.		Coef.	Sig.
Commit.	0.179 *		Commit.	0.1199 *		Commit.	0.061	
Heter. -1 $\delta$	0.228		Heter.	0.2283		Heter. +1 $\delta$	0.228	
<b>Commitment +1<math>\delta</math>; Heterogeneity -1<math>\delta</math></b>			<b>Commitment +1<math>\delta</math>; Heterogeneity</b>			<b>Commitment +1<math>\delta</math>; Heterogeneity +1<math>\delta</math></b>		
	Coef.	Sig.		Coef.	Sig.		Coef.	Sig.
Commit. +1 $\delta$	0.179 *		Commit. +1 $\delta$	0.1199 *		Commit. +1 $\delta$	0.061	
Heter. -1 $\delta$	0.067		Heter.	0.0672		Heter. +1 $\delta$	0.067	

Figures F.9 and F.10 provide a visual illustration of the results for Hypotheses 2a and b discussed above.



**Figure F.9: Interaction plot for the moderating effect of within global business network heterogeneity of commitment to CSR on the relationship between global business network commitment to CSR and firm's adoption of Human Rights-related CSR practices, using OLS regression with Huber-White estimators (Hypothesis 2a)**



**Figure F.10: Interaction plot for the moderating effect of global business network commitment to CSR on the relation between within global business network heterogeneity of commitment to CSR and firm's adoption of Human Rights-related CSR practices, using OLS regression with Huber-White estimators (Hypothesis 2b)**

#### A.F.1.7 *Adoption of Product Quality-related CSR practices*

Next I look at the adoption of Product Quality-related CSR practices. Results in Table F.12 partially support Hypothesis 1, because the coefficient of global business network commitment to CSR is insignificant in Model 1, but significant in Model 2 ( $\beta = 0.11$ ;  $p < .10$ ). Results also do not support Hypothesis 3, as the coefficient of ties to business partners in countries with more stringent CSR requirements is insignificant both in Models 1 and 2. Finally, results do not support Hypotheses 2a and b, as the main interaction of term between global business network commitment to CSR and within global business network heterogeneity of commitment to CSR is insignificant.

**Table F.12: OLS regression with Huber-White estimators and alternative specification of the dependent variable (Adoption of Product Quality-related CSR practices; Hypotheses 1, 2a-b, and 3)**

	Model 1		Model 2 GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR	
	Coeff.	St. E.	Coeff.	St. E.
Size	-0.08 **	0.03	-0.08 **	0.03
ROA	0.02	0.44	0.06	0.44
R&D Intensity	-0.07	0.12	-0.06	0.12
Capital Intensity	-0.01	0.02	0.00	0.02
Leverage	-0.14	0.11	-0.13	0.12
<i>Industry Controls</i>				
Consumer Goods	0.02	0.17	0.05	0.17
Energy & Extractive	-0.02	0.17	-0.02	0.17
Food & Agriculture	-0.08	0.21	-0.06	0.21
Professional and Information Services	-0.19	0.16	-0.20	0.16
Manufacturing	-0.02	0.10	-0.02	0.10
GBN Commitment to CSR	0.06	0.06	0.11 *	0.06
Within GBN Heterogeneity of Commitment to CSR	0.00	0.09	0.24	0.20
GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR		0.09	-0.20	0.17
Ties to More Stringent CSR Requirements	0.04	1.30	0.05	0.10
Intercept	1.36		1.21	1.31
<i>Observations</i>	710		710	
<i>Number of Firms</i>	710		710	
$R^2$	3.04%		3.48%	
$F$	(13, 696) 0.83		(14, 695) 1	
<i>Root MSE</i>	1.04		1.03	

Table F.13 below summarizes robustness tests with the alternative dependent variable specification that considers each individual components of the main dependent

variable, i.e., community relations, diversity, corporate governance, employee relations, environment, human rights, and product quality and safety. I further elaborate on their relevance in the discussion section of the dissertation.

**Table F.13: Summary of robustness tests results using individual components of the main dependent variable of interest**

<b><i>Adoption of Corporate Governance-Related CSR Practices</i></b>	
Support for H1?	Yes
Support for H2a?	Yes
Support for H2b?	Yes
Support for H3?	Yes
<b><i>Adoption of Community-Related CSR Practices</i></b>	
Support for H1?	Yes
Support for H2a?	Yes
Support for H2b?	Yes
Support for H3?	No
<b><i>Adoption of Diversity-Related CSR Practices</i></b>	
Support for H1?	Yes
Support for H2a?	Yes
Support for H2b?	Yes
Support for H3?	No
<b><i>Adoption of Employee-Related CSR Practices</i></b>	
Support for H1?	Yes
Support for H2a?	No
Support for H2b?	Yes
Support for H3?	No
<b><i>Adoption of Environment-Related CSR Practices</i></b>	
Support for H1?	No
Support for H2a?	No
Support for H2b?	No
Support for H3?	Yes
<b><i>Adoption of Human Rights-Related CSR Practices</i></b>	
Support for H1?	Yes
Support for H2a?	Yes
Support for H2b?	No
Support for H3?	No
<b><i>Adoption of Product-Related CSR Practices</i></b>	
Support for H1?	Yes
Support for H2a?	No
Support for H2b?	No
Support for H3?	No

### **A.F.2 Discussion of robustness tests results**

This additional set of robustness tests also provides general support for the proposed model, as well as some unexpected results, which I illustrate in the next few paragraphs. Specifically, results for the models explaining adoption of corporate governance-related CSR practices provided full support for all the hypotheses in the model. Results concerning the adoption of community-related CSR practices and diversity-related CSR practices supported all the presented hypotheses, with the exception of Hypothesis 3. This indicates that for these practices, the focal firm is more likely to learn from the network level forces to which it is exposed, rather than from specific relationships with business partners located in countries with more favorable CSR institutional environments. This could depend on the more controversial nature of some the practices associated with these areas (e.g., broad philanthropic giving, whether the firm has progressive policies towards its women, minority, gay and lesbian employees), which would explain the firm's inclination to adopt such practices only if exposed to strong pressures to do so or extensive learning opportunities in this area from its entire network.

Results for the adoption of employee-related CSR practices provide support Hypotheses 1 and 2b, but not 2a and 3. This indicates that while the degree of global business network commitment to CSR matters towards the firm's decision to adopt these practices (H1), within global business network heterogeneity of commitment to CSR only matters to firm's learning in this area when CSR-related commitment is low (H2b), but it does not affect the effect of commitment on the firm's decision to adopt CSR practices. Furthermore, the degree to which the firm is connected to more stringent institutional

environments for CSR is not relevant towards its decision to adopt employee-related CSR practices (H3). This suggests that strong isomorphic pressures to adopt employee-related CSR practices are the most important drivers within a firm's global business network. Learning from a multiplicity of heterogeneous institutional pressures is not as important in this area. These are reasonable findings if one considers the strong regulations that dominate this area in the United States, which make the firm more inclined to adopt new practices in this area only if it is exposed to strong pressures to do so from across its entire network of operations.

Findings for the models exploring the adoption of environment-related CSR practices provide support only for hypothesis 3 and show that embeddedness in the global business network matters for firm's adoption only to the extent to which the firm is exposed to contexts with more stringent CSR-related requirements than those found in the United States. I believe that the rationale for this finding lies in the unique characteristics of environmental issues when compared with other social issues. As suggested by Tashman and Rivera (2010), environmental protection has had a more lengthy regulatory history in the United States than other CSR areas (Hoffman, 1999). In addition, environmental regulations have been one of the fastest growing in complexity and compliance in the United States in the last decade (Tashman & Rivera, 2010; Kraft & Vig, 2006). Because of the extensive framework of regulations in this area, it is not surprising that firms would be affected by the influences emanating from their global business network only when confronted with more stringent requirements in this area.

Results for the adoption of human rights-related CSR practices provide support only for Hypotheses 1 and 2a. This suggests that strong isomorphic pressures contribute

to shaping firm's behavior in this area (H1), and that higher levels of within global business network heterogeneity might weaken this relationship (H2a). In addition, they indicate that the degree to which the firm is connected to institutional contexts with more stringent CSR-related requirements does not affect its decision to adopt these practices (H3). An explanation for these results can be found in the more challenging nature associated with the adoption of these practices, which reflect the degree to which the focal firm would be able to respect local labor and human rights through its business dealings with local business partners. While FDI-based relationships might provide a better conduit for the firm's ability to affect change locally, as responsibility for these initiatives would befall onto their local subsidiaries, similar tasks would be harder to implement in the context of import/export based transactions. This is because such transactions involve third parties over which the firm might have limited power to affect their implementation of such practices. Therefore it is understandable that the focal firm would be more likely to engage in the adoption of these practices when there are broad network level forces at play that favor this outcome.

Finally, results for the adoption of product-related CSR practices only support Hypothesis 1. This indicates that a firm's decision to adopt these practices is shaped by the pressures to do so that emanate from its global business network, rather than by the learning opportunities that are available within it. I believe that an explanation for this finding can be found in the nature of this set of practices as defined by the KLD indicators, which focus predominantly on the presence of quality standards attributes in the firm's product and service offerings. Existing research on firm's decision to adopt

existing standards emphasize the importance of isomorphic pressures for the firm to do so, which is consistent with the presented findings (e.g., Delmas & Toffel, 2008).

**APPENDIX G: RESULTS OF MODELS WITH SUM OF ALL THE KLD WEAKNESSES AS THE DEPENDENT VARIABLE**

For the purpose of completeness, Tables G.1 and G.2 report the results for the analyses with adoption of CSiR practices as the dependent variable. In both tables, Model 1 includes all controls and independent variables but no interaction terms, which are instead included in Model 2.

**Table G.1: OLS regression with Huber-White estimators and adoption of CSiR practices as the dependent variable ( = Sum of all the weaknesses components of each KLD category)**

	Model 1		Model 2 GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to	
	Coeff.	St. E.	Coeff.	St. E.
Size	0.24 ***	0.03	0.25 ***	0.03
ROA	-0.79 ***	0.39	-0.81 ***	0.39
R&D Intensity	0.18 *	0.11	0.18 *	0.11
Capital Intensity	-0.01	0.02	-0.02	0.02
Leverage	-0.05	0.11	-0.05	0.11
<i>Industry Controls</i>				
Consumer Goods	-0.36 ***	0.16	-0.38 ***	0.16
Energy & Extractive	0.46 ***	0.19	0.46 ***	0.19
Food & Agriculture	0.19	0.23	0.18	0.23
Professional and Information Services	-0.05	0.14	-0.04	0.14
Manufacturing	0.02	0.12	0.01	0.12
GBN Commitment to CSR	0.07	0.05	0.04	0.05
Within GBN Heterogeneity of Commitment to CSR	-0.02	0.08	-0.15	0.15
GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR			0.11	0.11
Ties to More Stringent CSR Requirements	-0.04	0.08	-0.05	0.08
Intercept	-3.64 ***	1.19	-3.56 ***	1.2
Observations	710		710	
Number of Firms	710		710	
R <sup>2</sup>	17.62%		53.14%	
F	(13, 696) 7.5***		(14, 695) 6.9***	
Root MSE	0.95		0.95	

**Table G.2: OLS regression with Huber-White estimators and adoption of CSiR practices as the dependent variable (= Sum of all the weaknesses components of each KLD category)**

	Model 1		Model 2 GBN Commitment to CSR * Within GBN Heterogeneity of Commitment to CSR	
	Coeff.	St. E.	Coeff.	St. E.
Size	0.25 ***	0.03	0.25 ***	0.03
ROA	-0.75 ***	0.38	-0.81 ***	0.37
R&D Intensity	0.20 *	0.11	0.19 *	0.11
Capital Intensity	-0.02	0.02	-0.01	0.02
Leverage	-0.05	0.11	-0.06	0.11
<i>Industry Controls</i>				
Consumer Goods	-0.38 **	0.15	-0.37 **	0.15
Energy & Extractive	0.42 **	0.19	0.43 **	0.19
Food & Agriculture	0.13	0.23	0.17	0.23
Professional and Information Services	-0.04	0.14	-0.05	0.14
Manufacturing	0.01	0.12	0.03	0.12
FDI-based GBN Commitment to CSR	-0.19 **	0.08	-0.28 ***	0.08
Within FDI-based GBN Heterogeneity of Commitment to CSR	0.30	0.30	-1.38 ***	0.46
FDI-based GBN Commitment to CSR *				
Within FDI-based GBN Heterogeneity of Commitment to CSR			1.36 ***	0.42
FDI Ties to More Stringent CSR Requirements	-0.04	0.09	0.01	0.10
Trade-based GBN Commitment to CSR	0.11 **	0.05	0.13 **	0.06
Within Trade-based GBN Heterogeneity of Commitment to CSR	-0.23 *	0.12	-0.12	0.17
Trade-based GBN Commitment to CSR *				
Within Trade-based GBN Heterogeneity of Commitment to CSR			-0.11	0.14
Trade Ties to More Stringent CSR Requirements	0.12	0.10	0.11	0.10
Intercept	-3.82 ***	1.19	-3.76 ***	1.18
<i>Observations</i>	710		710	
<i>Number of Firms</i>	710		710	
$R^2$	18.94%		53.34%	
$F$	(16, 693) 6.6***		(18, 691) 6.14***	
<i>Root MSE</i>	0.95		0.94	