THREE ESSAY ON CORPORATE SOCIAL RESPONSIBILITY IN MERGER AND ACQUSITION

by

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ABSTRACT OF THE DISSERTATION

THREE ESSAY ON CORPORATE SOCIAL RESPONSIBILITY

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My dissertation consists of three essays that explore under which conditions corporate social responsibility (CSR) contributes to the creation of shareholder value in mergers and acquisitions (M&As). Essay 1 and Essay 2 focus on firm-level CSR and shareholder value in domestic M&As, while Essay 3 focuses on country-level CSR and shareholder value in international M&As. In Essay 1, entitled "Do CSR Ratings Affect Value Creation from M&As?" I examine how differences between target and acquirer CSR ratings affect the value acquisitions create for acquirers' shareholders. I propose that for each CSR dimension the target–acquirer CSR rating gap results in expectations of post-acquisition changes in the level of target CSR. These changes can be expected to elicit either supportive or unsupportive post acquisition behavior of the target stakeholder groups affected by each CSR dimension, which affects the stock market's assessment of the acquisition. Results of an event study support my hypotheses. In Essay 2, entitled "Effect of Target CSR on Acquisition Premium," I examine how a target firm's corporate social responsibility (CSR) and social irresponsibility (CSiR) ratings affect the premium that acquirers pay for the target. I argue that information on a target's CSR (CSiR) ratings

can send a positive (negative) signal about not just its CSR (CSiR) performance but also about its overall quality. I propose that CSiR reduces the premium that acquirers are offering, while CSR increases the premium. Results suggests that in situations of high information asymmetry acquirers tend to rely more on signals associated with the target's CSiR rating, leading them to offer a lower premium. In Essay 3, entitled "Environmental Regulations: Market Reactions to Cross-Border M&As," I examine how the difference in the stringency of environmental regulations between the home- and the host country affects investors' responses to cross-border M&A (CBA) announcements. I argue that investors negatively respond to CBA announcements that involve an acquirer entering a host country with lower environmental regulations than those of the home country because of the potential added reputational risk and/or added environmental protection costs associated with such acquisitions. Results provide support for my theoretical arguments.

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Chapter 1. Overall Introduction

1.1 Research Backgrounds and Research Frames of Three Essays

After more than forty years of research the debate about the effect of corporate social responsibility (CSR) on firm performance or value rages on (for reviews see Margolis, Elfenbein, and Walsh, 2007; Orlitzky, Siegel, & Waldman, 2011). Some argue that CSR increases financial performance or shareholder value (e.g., Berman et al., 1999; Hillman & Keim, 2001; Orlitzky, Schmidt, & Rynes, 2003; Waddock & Graves, 1997). Others suggest that CSR is costly and shareholders pay the price. Empirical results are equally mixed. Researchers have argued that whether CSR creates value for firms largely depends on the context (e.g., time, industry, shareholder's perceptions of CSR, a country-level CSR orientation). In my dissertation, I select one specific context - mergers and acquisitions (M&As), to test the CSR- firm performance/firm value relationships.

A couple of researchers have studied CSR issues in the M&A context. For example, focusing on acquiring firm's CSR level, Deng et al. (2013) examine whether CSR create benefits for shareholders of acquirers and report that high CSR leads to better financial M&A performance. Hawn (2013) reports that high CSR leads to faster deal completion. In my dissertation, to build the literature on the CSR-firm performance/firm value in the context of M&As, I explore how both firm-level CSR (considering both acquiring firm's CSR and target firm's CSR) and country-level CSR (considering both acquiring firm's country CSR and target firm's country CSR) are related to the value creation/destruction from the M&As, utilizing different types of theories (i.e., stakeholder management theory, signaling theory, and pollution haven hypothesis)

In Essay 1, I draw on stakeholder theory (Freeman, 1984) to build on and extend the literature that identifies factors contributing to the inconclusive relationship between

CSR and firm performance. While stakeholder group differences and the multidimensional nature of the CSR construct have been acknowledged in the literature, studies have not yet matched specific stakeholder groups with specific types of CSR. By examining the effects of expected changes in specific types of CSR on shareholder value, and considering the moderating effect of the power of different stakeholders, I am able to establish a causal link between CSR changes, stakeholder response, and firm performance. My theory explicitly considers that stakeholder groups like employees or customers are not homogeneous groups, but that heterogeneity within these stakeholder's groups exists that results in differences in the ability of stakeholders included in this group to affect firm performance. In the context of M&As, target firm CSR can be expected to change during the acquisition integration process when the acquiring firm aims to standardize practices of the combined firms. I theorize that changes in specific types of CSR affect acquisition performance via either supportive or counterproductive behavior of the stakeholders that are affected by the specific types of CSR and that the effect of changes in the specific types of CSR on firm performance will be larger if the affected stakeholder group has a large impact on firm performance.

In Essay 2, I examine the signaling role of CSR to build on and extend the literature that identifies factors contributing to the inconclusive relationship between CSR and firm performance. Studies in different disciplines have proposed a signaling function of a firm's CSiR/CSR ratings and performance that can provide information about other unobservable firm characteristics. The strategic management literature, for example, has reported that high CSR firms can increase transparency about their social and environmental performance as well as their governance structure, which reduces

information asymmetries between firms and their stakeholders (Hubbard, 1988; Loannous & Serafeim, 2011). Accounting studies have reported that firms' CSR performances reflect their managers' ethical concerns. Thus, high CSR firms are more likely to report transparent and reliable financial information and less likely to engage in accruals or real earnings management, both of which reduce information asymmetry between firms and investors (including creditors) (Diamond & Verrecchia, 1991; Lambert, Leuz, & Verrecchia, 2007). I explore such signaling effects of firms' CSiR/CSR ratings in an M&A setting. I examine whether an acquirer is likely to utilize signals associated with a target's CSiR/CSR ratings in deciding the discount or premium for the target firm. I examine which of these practices (CSiR or CSR) is more important to reducing information asymmetry between the target and acquirer and which practice is more significantly associated with an acquisition premium. Also, I examine how the extent of information asymmetries in a given acquisition influence the acquirer's response to signals associated with the target's CSiR/CSR.

In Essay 3, I focus on one specific dimension of CSR- Environmental CSR. And rather than studying a firm-level environmental CSR, I study a country-level environmental CSR to build on and extend the literature that identifies factors contributing to the inconclusive relationship between CSR and firm performance or firm value. I examine how environmental distance, i.e. the difference in the stringency of environmental regulations, between the home- and the host country affects investors' responses to cross-border M&A (CBA) announcements. I examine how investors respond to CBA announcements that involve an acquirer entering a host country with lower (higher) environmental regulations than those of the home country. I also test whether the

industry relatedness between acquirer and target moderates the relationship between environmental distance and market reaction considering the potential of transferring environmental resources/capabilities from the acquiring firm to the target firm.

The results of all three essays indicate that both firm-level CSR and country-level CSR are important factors that affect shareholders' value in the context of mergers and acquisitions. In Essay 1, I find that acquiring firm shareholders gain value when their firm's CSR is higher than the target firm's CSR. In Essay 2, I find that target firm shareholders gain value from the M&A if their firm invested in CSR. In essay 3, I find that acquiring firms can create (destroy) value, if they acquire a firm in a country with high (low) environmental regulation. These empirical results can contribute to the literature on the CSR -firm performance/value relationship.

Chapter 2. Essay One.

**Stakeholder Responses to Expected Changes in CSR:
Do CSR Ratings Effect Value Creation from Merger and Acquisitions?**

2.1 Abstract

After more than forty years of research, theoretical predictions and empirical evidence regarding the relationship between corporate social responsibility (CSR) and firm performance remains mixed. This study contributes to the literature that explores explanations for these conflicting findings in three ways: first, I explore effects of specific CSR dimensions on firm performance rather than aggregate CSR effects, second, I establish causality in the CSR – firm performance relationship by examining effects of expected changes in CSR on firm performance rather than using levels of CSR, and third, I explore causal pathways between CSR and firm performance by considering stakeholder responses to anticipated changes in specific types of CSR and the influence that different stakeholder groups have on firm performance. My research setting – firm acquisitions – allows me to observe expected changes in target firm CSR because CSR practices of the combined firms will likely be similar to the acquirer's. I first hypothesize that expected changes in two specific types of CSR of the target firm – workforce CSR and environmental CSR – affect acquisition performance via either supportive or counterproductive behavior of particular stakeholder groups – employees or customers. I also hypothesize that the effect of changes in workforce CSR on acquisition performance will be larger if employees have a large impact on acquisition performance and that the effect of changes in environmental CSR will be larger when the target firm spends more on advertising due to differential stakeholder bargaining power. My findings based on an event study of 346 merger announcements in the United States between 1995 and 2013 support my hypotheses.

2.2 Introduction

After more than forty years of research the debate about the effect of corporate social responsibility (CSR) on firm performance rages on (for reviews see Margolis, Elfenbein, and Walsh, 2007; Orlitzky, Siegel, & Waldman, 2011). Some argue that CSR increases firm performance, while others suggest that CSR is costly and does not create commensurate benefits. Empirical results are equally mixed. To resolve this debate, researchers have started to explore theoretical and methodological explanations for the conflicting evidence regarding the effect of CSR on firm performance. Many theoretical explanations focus on the role of stakeholders (Freeman, 1984) and their behavior as a causal pathway through which CSR affects firm performance (Madsen & Rodgers, 2015) as well as on the fact that CSR is a multidimensional theoretical construct that comprises different activities conducted by firms (Hillman & Keim, 2001), which may differ in their effects on firm performance. Methodological explanations include the measurement of CSR (Griffin, 2000; Rowley & Berman, 2000), a failure of studies to establish causality (Margolis, Elfenbein, and Walsh, 2007), and a mismatch between the time it takes for CSR to affect firm performance and the performance measures used.

This study builds on and extends this stream of research by drawing on stakeholder theory (Freeman, 1984) to examine the effects of expected changes in specific types of CSR on firm performance, conceptualized as announcement returns, in the context of mergers and acquisitions. Mergers and acquisitions are a unique research setting because target firm CSR can be expected to change during the acquisition integration process when the acquiring firm aims to standardize practices of the combined firms. I theorize that changes in specific types of CSR affect acquisition performance via

either supportive or counterproductive behavior of the stakeholders that are affected by the specific types of CSR and that the effect of changes in the specific types of CSR on firm performance will be larger if the affected stakeholder group has a large impact on firm performance.

My study goes beyond the existing literature in three important ways. First, in contrast to many previous studies on the role of stakeholders in the relationship between CSR and firm performance that examined stakeholders in general, I focus on specific CSR dimensions and stakeholder groups and their differential importance for firm performance. I suggest that different types of CSR activities affect behavior of different stakeholder group. I draw on the literature on stakeholder salience (Mitchell, Agle & Wood, 1997) and stakeholder bargaining power (Coff, 1999) to propose that the relationship between change in a specific type of CSR and firm performance is moderated by the perceived stakeholder bargaining power of particular stakeholder groups. Second, while many existing studies examine the effects of levels of CSR on stakeholder behavior and firm performance, my theory focuses on stakeholder responses to (expected) changes in a specific type of CSR and its effect on firm performance, which allows me to establish a closer causal link between CSR, stakeholder behavior, and firm performance. Third, using an event study method and examining the effect of (expected) changes in CSR on announcement returns to acquiring firm shareholders allows me to establish causality between changes in CSR and firm performance and addresses issues related to the mismatch in timing between the actual and measured effects of CSR on firm performance because announcement returns capture investors' expectation of future firm performance.

I assume that acquiring firms tend to be dominant in the acquisition integration process and therefore transfer their practices including CSR practices to target firms (Capron & Hulland, 1999). Therefore, stakeholders expect the target firm's CSR level to change and move towards the acquirer's CSR level after the acquisition as the combined firm's CSR level is likely similar to the acquiring firm's pre-merger level of CSR.

I hypothesize that target stakeholders of an inferior CSR firm that is acquired by a superior CSR firm will expect post-merger target CSR to increase relatively to pre-merger target CSR. Therefore, stakeholders, who benefit from high CSR levels, can be expected to respond positively and exhibit supportive behavior in the acquisition integration process. This supportive behavior will increase the performance of the combined firm and thus create value for acquiring firm's shareholders. Similarly, the reverse is true if a superior CSR target is acquired by an inferior CSR acquirer. Target stakeholders of superior CSR firms will expect a reduction of target CSR after the acquisition and are thus likely to show unsupportive behavior. Consequently, the expected performance of the combined firm will decrease and value for the acquirer's shareholders will be destroyed. The size of the increased or decreased shareholder value depends on the magnitude of the acquirer – target CSR difference. I propose these effects for two CSR dimensions that are of interest to two primary stakeholder groups, whose behavior directly affects firm performance and who are likely respond to changes in these CSR dimensions: (i) workforce CSR that may directly affect target employees' supportive/unproductive behavior and (ii) environmental CSR that may direct affect target customers' supportive/unproductive behavior.

Based on theories of stakeholder bargaining power (Coff, 1999), which suggest that stakeholders will be in a position to appropriate rent I further hypothesize that the effect of expected changes in target CSR on acquisition performance will the larger if the affected stakeholder group has an important impact on target firm performance. I propose that the effect of expected changes in workforce CSR on acquisition performance will be larger for target firms in human skill intensive industries, because supportive/unproductive behaviors of highly skilled employees, e.g. increasing or reducing work effort, staying at or leaving the firm, likely have a larger effect on firm performance than such behavior of less skilled employees. I also propose that the effect of expected changes in environmental CSR on acquisition performance will be larger when customer acquisition and retention is critical for target firm performance. Studies have shown that customers increasingly consider environmental issues in making their purchasing decisions. When firms have made significant investments in customer acquisition and retention they stand more to lose or gain when customers alter their purchasing behavior in response to changes in environmental CSR.

Using an announcement effect event study of 346 mergers in the United States that were announced between 1995 and 2013, my findings mostly support my hypotheses. My findings contribute to CSR literature, the M&A literature, and the strategic management literature. For the CSR literature, I develop a theory about how and under what conditions changes in specific types of CSR affects firm performance. For the M&A literature, I provide evidence that expected changes in target CSR affect shareholder value. For the strategic management literature, I illustrate that stakeholder

response to firms' CSR actions in the M&A context can affect the performance outcomes of these actions.

Stakeholders as a Causal Link between CSR and Firm Performance

In recent decades, many scholars have paid attention to the effects of stakeholders on firm performance. Instrumental stakeholder theory (Clarkson 1995; Donaldson & Preston, 1995; Jones, 1995), suggests that a firm that meets the needs of its stakeholders can enhance stakeholder support, which in turn improves financial performance and value for shareholders. Stakeholder responses to firms' CSR activities can positively affect firm performance. For example, CSR can increase employee motivation and retention (Edmans, 2011), customer satisfaction and loyalty (Brown & Dacin 1997; Luo & Bhattacharya 2006), or improve government relationships (Wang & Qian, 2011) all of which can increase firm performance in either the short or the long run. In contrast, if a firm fails to satisfy stakeholders' CSR expectations these stakeholders likely take action to protect their interests and/or to punish the firm such as employees lowering their efforts or leaving the firm, customers switching brands or boycotting firms, activists protesting and informing the public about the firm's poor CSR activities. Such actions negatively affect firm performance by disrupting operations, lowering sales, and reducing reputation (Mitchell et al., 1997; Rowley & Moldoveanu, 2003: 2006).

Firms face demands and expectations from diverse stakeholder groups that differ in their interests and in their ability of affect firm performance (Mitchell, Agle, & Wood, 1997; Rowley & Moldoveanu, 2003). These stakeholders include among others local communities, activist groups with specific agendas such as environmental protection or human rights, employees, customers, governments, regulators, and shareholders.

Different stakeholder groups are interested in and affected by different CSR-related activities of firms and are more likely to respond to firms' CSR activities that directly affect them (Savage et al., 1991). For example, employee behavior is likely more affected by CSR activities that directly affect employee well-being such as employee involvement, offering profit sharing, offering retirement benefits and promoting health and safety, than by other CSR activities that do not directly affect them. Similarly, due the rise of green consumerism, consumer behavior will likely be affected by environmental CSR activities such as pollution prevention, clean energy usage and waste reduction.

The literature on stakeholder salience suggests that stakeholders differ in their ability to take actions that impact firm performance by affecting for example a firm's reputation, its operations, or its sales (e.g., Barnett & Salomon, 2012; Mitchell, Agle, & Wood, 1997). Mitchell et al. (1997) state that stakeholder salience is determined by three attributes: power, legitimacy and urgency. Stakeholder power exists to the extent that stakeholder has or can gain access to coercive, utilitarian, or normative means, to impose its will in the relationship. Parallel to this discussion, Coff (1999) stated that not all stakeholders have the same bargaining power which depends of four determinants: capable of unified action, access to information, replacement cost to the firm if a stakeholder exits and cost of exiting to the stakeholder. I state that these differences in stakeholder bargaining power and its ability to affect firm performance not only exist between stakeholder groups but also within a particular stakeholder group. For example, different types of employees vary in their ability to affect firm performance. Highly skilled employees are more important for value creation and can have a larger impact on

firm performance than low-skilled employees. Similarly, some companies rely largely in a particular group of customers who are difficult to replace and those may enjoy high bargaining power, while other companies have easily replaceable customers.

My study also addresses the concerns about causality between a firm's level of CSR and its financial performance. Considering (expected) changes in CSR allows us to infer (anticipated) stakeholder responses that can be directly attributed to the CSR change, and which in turn should affect firm performance. Changes in a firm's CSR are events that likely elicit reactions and changes in behavior by stakeholders, especially those stakeholders whose well-being is directly affected by a particular type of CSR. My research setting – the announcement of mergers of publically traded firms – allows us to examine the effect of expected change in CSR in the target firm on shareholder value.

CSR in Acquisitions

Acquisition integration can be described as a process of making "changes in the functional activities arrangements, organizational structures/systems, and cultures of combining organizations to facilitate their consolidation into a functional whole" (Pablo, 1994:906). The combination and transfer of resources and knowledge between acquirer and target, and the consolidation of redundant units creates synergies that can create value by, for example, increasing sales or reducing costs (Cording, Christmann, & King, 2008). In the acquisition integration process, acquiring firms likely create unified practices for the combined firms that are based more on acquirer's existing practices than target's practices (e.g., Capron & Hulland, 1999; Fong & Lee, 2012). This is especially likely for practices that relate to CSR, because a firm's CSR activities stem from its values and norms, which are especially likely to be imposed by acquirers on target firms

(e.g., Hambrick & Canella, 1993; Pablo, 1994). Thus, acquiring firms likely create unified CSR practices for the combined firms that are based more on the acquirer's existing CSR practices than on the targets' CSR practices. Therefore, target's CSR practices can be expected to change after the acquisition. The expected magnitude of this change is related to the degree of difference in CSR between the acquirer and the target.

The integration process is critical for creating value for the acquisition not only because synergies are created and realized, but also because much of the potential synergies and value of the acquisition can get destroyed in the integration process. For example, disruptions in task environment and the social context combined with the ambiguity and uncertainty about the future can lead to unsupportive behaviors by various stakeholders that negatively affect the value of acquisitions (Haspeslagh & Jemison, 1991; King, Dalton, Daily, & Covin, 2004; Hitt, Harrison, & Ireland, 2001; Ahuja & Katila 2001). The literature shows that differences in corporate culture (Cartwright & Schoenberg, 2006; Nguyen & Kleiner, 2003; Frorian & Kurt, 2013) and in management style (Datta, 1991) between the acquirer and the target can elicit unsupportive stakeholder behaviors that reduce the realization of synergies. In this study, I propose that CSR is another area in which differences between the target and the acquirer can elicit either supportive or unsupportive reactions from target firm stakeholders. Acquiring firms' CSR will likely not change after the acquisition and thus their stakeholders are unlikely to engage in supportive or unsupportive behavior caused by CSR differences because the combined firms' practices are likely based on the acquirer's existing CSR practices.

In recent decades, researchers from multiple disciplines have started to pay attention to CSR issues in the context acquisitions and examined diverse research

questions. Strategic management scholars have analyzed effects of CSR on acquisition decisions, speed of M&A deal completion as well as post-acquisition changes in CSR of the merged firm. Studies find that CSR characteristics of acquiring and target firms such as their environmental capabilities or the relatedness of toxic chemicals emitted affect acquisition decisions (Berchicci, Dowell, & King, 2012; Diestre & Rajagopalan, 2011). It has also been found acquiring firm's CSR increases the likelihood and speed of M&A deal completion in foreign markets (Hawn, 2013). Furthermore, research finds that CSR concerns increase in the merged firm relative to pre-merger target firm CSR, which suggests that target CSR is frequently reduced after acquisitions and that target stakeholders are worse off after acquisitions (Waddock & Graves, 2006).

A few studies in the finance literature have explored the relationship between CSR of acquiring and target firms and acquisition performance. Target firms' CSR ratings have been found to positive affect acquiring firms' shareholder value and the combined firms' post-merger CSR rating, which is consistent with the explanation that the market values acquirers' potential learning from the superior CSR practices of the target (Aktas, Bodt, & Cousin, 2011). Acquiring firms' CSR ratings have also been found to positively affect shareholder value (Deng, Kang & Low, 2013), which is consistent with the argument that high CSR firms are focused on stakeholder interests, which increases stakeholders' willingness to support the firm's operations (Harrison & Freeman, 1999; Freeman, Wicks, & Parmar, 2004), and thus results in increases in firm performance (Margolis & Walsh, 2003; Waddock & Graves, 1997). These findings indicate that shareholders pay attention to acquiring firms' and target firms' CSR in acquisitions. However, by treating target and acquiring firm CSR separately and conceptualizing CSR as an aggregate

construct these studies do not develop and test theories that explain the causal links between CSR changes, stakeholder responses and acquisition performance. To my best knowledge, my study is the first to examine how expected changes in target CSR after the acquisition affect acquisition performance.

2.3 Theoretical Development and Hypotheses

My study focuses on those CSR dimensions that are of concern to stakeholder groups who can directly affect firm performance. Hitt, Ireland and Hoskisson (2005) identified three primary stakeholder groups that are directly impacted by the firm performance: capital market stakeholders (investors and major suppliers of capital such as banks), product market stakeholders (primary customers, suppliers, unions and host communities with whom organizations conduct business) and organizational stakeholders (employees and managers). Of these three groups I have to pay attention to those stakeholder groups how are likely to be affected and react to expected changes in the target CSR after the merger. I do not expect that target investors (capital market stakeholders) to respond to expected changes in target CSR after the merger. Target investors may respond if they are bought out by an undesirable acquirer but will likely not react to expected changes in the target side. However, different behavior can be expected from employees and customers. Both employees (as the main organizational stakeholder) and customers (as the main product market stakeholder) are considered as salient stakeholders in firm performance due to a relatively high degree of interdependence with firms (e.g., de Madariaga and Valor, 2007; Snider et al.2003; Neville et al. 2004) and also likely to react to expected changes in target's CSR during the acquisition process. As primary market stakeholders, their supportive/unproductive

behavior in the integration process can significantly affect acquisition performance (from employees, Cannella & Hambrick, 1993; Coff, 1999, 2002; from customers, Basu, 2006; Ettenson & Knowles, 2006; Edwards et al., 2002; Fitzsimons & Lehmann, 2004).

Clearly target employees will be concerned about workforce CSR. Expected changes in workforce CSR will directly affect target employees' supportive/unproductive behavior after the acquisition. In the case of target customers, I posit that they will be paying close attention to changes environmental CSR due to the high increase on environmentally conscious consumers and the green consumerism movement. Thus, expected changes in environmental CSR may affect target customer behavior after the acquisition. I first present hypotheses testing effects of the expected change in workforce and environmental CSR, separately. Secondly, I develop hypotheses predicting moderations of these effects based on differences in stakeholder bargaining power (Coff, 1999).

Effect of the Expected Changes in Workforce CSR

Workforce CSR activities provide direct benefits to employees and thus, likely increase employee satisfaction. Human relations theory suggests that employee satisfaction is directly associated with employee retention as well as motivation and effort, which increase the financial performance of the firm (Maslow, 1943; Hertzberg, 1959 and McGregor, 1960). Stakeholder theory suggests that employees are generally salient stakeholders because their actions can directly affect firm performance (e.g., de Madariaga % Valor, 2007; Snider et al.2003; Neville et al. 2004). Thus investors will likely pay attention to firm activities that affect employee satisfaction. The fact that the "100 best companies to work for in America" exhibit significantly higher long-term stock

returns and positive abnormal returns when the list is announced (Edmans, 2008) supports the notion that employee satisfaction increases shareholder value.

The literature on the post-acquisition integration pays special attention to employees (Birkinshaw, et al. 2000; Schweiger & Weber, 1992; Zollo & Singh, 2004) because their supportive or unsupportive behavior in the integration process can significantly affect the value of a merger (Cannella & Hambrick, 1993; Coff, 1999, 2002). Target employee departure or reduction in their effort can jeopardize the realization of the expected value of a merger (Jemison & Sitkin, 1986). Research shows that target employees consider CSR in forming their attitudes about their intent to leave the firm and their discretionary effort after an acquisition (Edwards & Edwards, 2013).

I suggest that if target employees expect workforce CSR to be reduced after the acquisition, they can be expected exhibit unsupportive behavior such as reduce their commitment and discretionary effort or leave the company. I also suggest that such unsupportive employee behaviors become more significant as the gap widens in workforce CSR between target and acquirer, resulting in eliminating some of the target core assets. If acquirer has superior workforce CSR than target, the above effect will be reversed. Thus, I hypothesize:

Hypothesis 1: *The more positive the expected change in the target firm's workforce CSR after the acquisition, the more value will the acquisition create for acquiring firm's shareholders.*

Effect of the Expected Changes in Environmental CSR

Environmental CSR provides direct benefits to customers and thus, is likely to increase customer satisfaction, especially for environmentally conscious customers who

pay attention on preserving the environment and value companies than do likewise. The market segment of this type of customers has been growing since 1990s (Market Research Report, 2007). Their purchase decision is largely influenced by corporate reputation regarding environmentally responsible practices as evidently (Johan & Ulf. 2007; Melissa & Eric, 2014; Lee, 2011). They likely purchase products that can minimize hazardous/operational waste through the entire value chain (Haanpää, 2007). The meaning of product quality has extended from just producing durable goods into producing environmentally responsible products. The reduction of environmental CSR would bring customer dissatisfaction. A recent poll by the website Treehugger.com (now owned by the Discovery Channel) indicates that 35 percent of customers are willing to switch product/service brands when their favorite brands are acquired by larger and less CSR responsive firms.

Similar to the workforce CSR argument presented above, I propose that if the acquirer has inferior environmental CSR compared to the target firm, customers (especially environmentally conscious customers) of the target firm will negative respond to the merger because of the potential reduction of the target environmental CSR practices in the post-acquisition integration process and thus will show unsupportive behavior (i.e., a negative word of mouth, discontinuing the relationship and switching brands). This will become more significant as the gap widens in environmental CSR between target and acquirer. And the reverse effect will be true if the acquirer has superior environmental CSR since customers of the target may expect to gain benefit from the combined firm's environmental CSR. The next hypothesis is:

Hypothesis 2: *The more positive the expected change in the target firm's environmental CSR after the acquisition, the more value will the acquisition create for acquiring firm's shareholders.*

The Moderating Effect of Stakeholder Bargaining Power

While above hypotheses suggest the effect of change in a specific type of target CSR on acquirer shareholder value via the expected supportive or unsupportive behavior of affected stakeholders as well as the different magnitude of the effect of change in two different types of CSR on acquirer shareholder value, I are unable to observe expected stakeholder behavior directly. To provide an indirect test of the role of stakeholder behavior, I examine whether particular stakeholder characteristics within same stakeholder group can moderate the relationship between the expected change in a specific type of CSR that most directly affects a specific type of stakeholder and the acquisition performance. If the effect of the expected change in a specific type of CSR on the acquisition performance is larger when particular stakeholders that are affected by the specific type of CSR has a large influence on the acquisition performance, I can infer that affected stakeholder responses are a causal link between the expected change in the specific type of CSR and shareholder value created by the merger.

The literature on stakeholder salience and bargaining power highlights that stakeholders differ in their ability to influence firm performance. Stakeholders that are tied to the firm in a transactional way are important for firm value creation if they possess specific unique resources or capabilities that create value for the firm and if they are difficult to replace if their transactions with the firm were to cease.

Employee Bargaining Power and Expected Change in Workforce CSR

Coff (1999) described four determinants of stakeholder bargaining power: capable of unified action, access to information, replacement cost to the firm if a stakeholder exits and cost of exiting to the stakeholder. I expect that these determinants will impact the merger performance. For target employees' characteristics, employees will have higher bargaining power in firms that rely on skilled employees, than in firms that use unskilled employees because high skilled employees are costlier to replace than low skilled ones. In addition, skilled employees likely possess more valuable tacit knowledge and unique capabilities and are more difficult to replace (Bontis, Crossan, & Hulland, 2002; Royal & O'Donnell, 2008). Thus, the discretionary effort that employees expend on their jobs likely has a larger effect on firm performance for firms that rely on skilled employees than for firm that rely on unskilled employees. Likewise, employee departure likely has larger negative effects on performance for firms using skilled employees than of those using unskilled employees because it is more difficult to replace skilled employees. According to Sagie et al. (2002), employee turnover in firms using skilled employees imposes significant costs on firms: withdrawal behaviors in high technology firms lead to a loss of 16.5 percent of a company's before-tax income, 27% of which is associated with turnover alone.

Employee motivation and retention especially retention of skilled employees affects the performance of acquisitions. Workforce CSR contributes to employee motivation, effort, and retention. The positive effect of workforce CSR on firm performance, is thus likely larger in target firms that rely on highly skilled employees than in other firms. Thus, I hypothesize:

Hypothesis 3*: The effect of the expected change in target workforce CSR on acquiring firms' shareholder value will be larger for human skill intensive target firms.*

Customer Bargaining Power and Expected Change in Environmental CSR

Following the same arguments than the ones presented above, I also expect that not all customers will have the same bargaining power with regards to their reactions to expected changes in environmental CSR and this will impact the merger performance. Customers that are easily replaceable have lower bargaining power than those that are hard to replace. Companies are aware of these differences and those that largely rely on each individual customer's frequent usage and its brand recognition for firm performance spend more money on advertising to retain them. Those companies will devote funds into marketing targeted to reach, attract and community with the diverse customers about their product offering, quality as well as their CSR practices. Many companies currently advertise their eco-friendly products or environmentally responsible practices to attract environmentally conscious customers (e.g., Wal-Mart's responsible suppliers' selection program, IBM Corp's "Big Green Innovations", IKEA's purchasing from responsibly managed forests and solar-energy usages, Macy's recyclable shopping bags, Nike's recycling athletic shoes, Tiffany & Co's solar-power systems) (Mengly, 2009). Therefore, I propose that if such companies attract or lose customers in response to (expected) changes in environmental CSR those customers are likely to have a larger impact on acquisition performance. In addition, target customers who are frequently exposed to their company's advertising may be well informed about their company's CSR practices (including environmental CSR) as well as product/service offering, compared to companies with lower advertising budgets. Fisman, Heal, and Nair (2008)

found evidence that industries with high advertising capitals have more opportunity to signal their quality and thus CSR activities can enhance the value of the firm in industries with high advertising intensity. Servaes and Tamayo (2013) also found evidence that a firm spending more in advertising can create value through its CSR if it has high CSR ratings by increasing customer awareness and positive responses toward its CSR.

Thus, when target customers who are relatively well informed about their company's environmental CSR get to know about their firm's acquisition decision by inferior (superior) environmental CSR firm, I expect that they may be more negatively (positively) responding to the acquisition and will show unproductive(supportive) behaviors, which are critical for acquisition performance. Therefore, I next hypothesis is:

Hypothesis 4: *The effect of the expected change in environmental CSR on value for*

acquiring firm shareholders will be larger for target firms with high advertising

capitals.

2.4 Data and Methodology

I test my hypotheses using an announcement effect event study for a sample of 346 completed mergers[1] (100% shares owned after transaction) announced between 1995 and 2013 in the United States. Several authors have argued that event-study returns may substantially underestimate any relationship involving intangibles due to the market's lack of information about the value of intangible assets that exist for example in firms with high levels of R&D (Lev & Sougiannis, 1996), advertising (Chan,

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[1] As I focus target stakeholders' reaction, I exclude acquisition events (e.g., purchases of assets such as plants, divisions, or subsidiaries from the target) that may not significantly affect target stakeholders following Deng et al.'s (2013) study.

Lakonishok, & Sougiannis, 2001), and patent citations (Deng, Lev, & Narin, 1999). I suggest that in the case of CSR such concerns so not hold because for many firms CSR information is widely available to the market through either firms' CSR reports[2] or via CSR ratings and rankings (e.g., FTSE for Good, KLD, Dow Jones Sustainability Index, Best Companies to Work For, Newsweek Greenest Companies, or Forbes World's Most Ethical Companies). Therefore, investors can incorporate both acquirers and targets' CSR information in evaluating each deal. The acquiring and target firms included in my sample are all included in the Kinder, Lydenburg, and Domini (KLD) database, and thus their CSR information is readily available in the market (Dhaliwal et al. 2009).

Empirical studies have confirmed that investors consider firm CSR in their evaluation of firms. Several authors show investors' reaction to disclosure of firms' CSR information, confirming that investors do consider CSR, while not all CSR dimensions are equally relevant to them (Pattern, 1990; Derwall & Verwijmeren, 2010; Manescu, 2011).

Data Sources

To identify CSR ratings for both targets and acquirers, I use the Kinder, Lydenburg, and Domini (KLD) database, which reports seven different CSR dimensions for thousands of firms.

CSR is a multifaceted construct that can be manifested in a broad range of distinct practices. For example, the KLD CSR rating, a widely used rating, categorizes a broad range of distinct practices into seven dimensions including corporate governance, community service, diversity, employee relations, environment, product, and human

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[2] 80% of the 2200 largest corporations worldwide either published a CSR report or integrated CSR information into their annual reports, KPMG, 2008)

rights. Each of these dimensions of CSR provides benefits for different types of stakeholder groups. For example, diversity and employee relations dimensions most directly benefit employees while the environment dimension more directly benefits environmentally conscious customers. The KLD database is most appropriate for my empirical study because it covers a large number of firms over a large time period (McWilliams, Siegel, & Wright, 2006; Waddock & Graves, 1997; Hillman & Keim, 2001), which allows us to include a large enough sample of acquisitions in my study. The KLD database has been widely used in many academic fields, and has been referred to as "the de facto research standard at the moment" for CSR performance research (Waddock, 2003, p. 369). To identify information on US merger transactions, I use the Thomson Reuters Securities Data Corporation (SDC) Platinum database. I obtain data on acquirers' cumulative abnormal returns from the Eventus database and financial control variables from the Compustat database.

Sample

To construct my sample, I first identify all 1854 acquisition announcements between 1995-2013 that meet the following four criteria from SDC Platinum database: (1) the deal value disclosed in SDC is greater than $1million, (2) the acquirer holds less than 50% of the target's shares before the announcement and holds 100% of shares after transaction, (3) the acquirer and the target are publicly traded, (4) the acquirer is in the KLD database. Of these acquisitions, 1192 deals have stock returns and financial data available from Eventus and Compustat. Only 677 of these 1192 acquisitions have KLD CSR ratings for the target firm, because target firms tend to be smaller and are not included in the KLD database. I was unable to include 212 of these 677 cases in my analysis

because the target's financial information was unavailable at the Compustat database. Consistent with prior event studies, I exclude the 89 acquisitions made by acquirers in financial or utilities industries (i.e., firms with primary Standard Industrial Classification [SIC] codes between 6000 and 6999 or between 4900 and 4999), resulting in 346 acquisitions (made by 247 firms). Most of the acquirers are in manufacturing (62.8%; SIC code 20-39), service (21.2%; SIC code 70-89), and transportation and communication (8.73%; SIC code 40-48). My final sample of 346 acquisitions, in terms of acquirer and deal characteristics, didn't differ statistically significantly from the sample of 1192 cases for which I had acquirer information available.

Dependent Variable

I obtain the cumulative abnormal returns (CAR) for acquirer firms' shareholders for 3 days, 5 days, and 7 day windows centered around the announcement date from the Cross-Sectional Daily analysis in the Eventus database. The means of the CARs for all event windows are negative (-1.1%, -1.2%, and - 1.3%, respectively), which is consistent with prior literature suggesting that acquirers' CARs around the announcement date equal at best zero or are slightly negative (e.g., Jarrell & Poulsen, 1989, Agrawal, Jaffe, & Mandelker, 1992, Andrade et al., 2001, Moeller et al., 2005). I present in the paper my results for CARs (-1, 1) as information about the firms involved in domestic mergers is readily available, so that the stock market should incorporate this information quickly and to reduce the likelihood of possible effects of confounding events (McWilliams and Siegel, 1997).

Independent variables

The expected change in CSR is operationalized as a difference in CSR ratings between acquirer and target, which is a key independent variable in my study. I measure this variable for the year that preceded the acquisition announcement because KLD ratings are only available on an annual basis. Each of the seven CSR categories in the KLD ratings contains several separate binary item measures of firm engagement in both positive activities (strengths) and negative activities (concerns). If a firm engages in the selected activity, it is marked as one, otherwise zero.

I use two KLD CSR dimensions to measure workforce CSR, employee relations and diversity. The employee relations dimension includes indicators for strength or weakness of quality of union relations, layoff-policy, cash profit sharing, employee involvement, retirement benefits, and health and safety. The diversity dimension includes indicators for strength or weakness of women or other minority positions at the CEO and board level, promotion of women and minorities, family benefits, such as childcare, eldercare and flextime, employment of the disabled and progressive gay/lesbian policies. Indicators in both dimensions directly affect employee welfare as identified in criteria used to measure "The 100 Best Work Companies to Work For" (i.e., pay & benefit programs, healthcare program, hiring practices, training, recognition programs, and diversity efforts). Workforce CSR ratings for each acquirer and target are calculated by combining these two dimensions of CSR scores, using adjusted CSR score measurement instead of a simple summation approach (i.e., use the raw KLD CSR scores). The adjusted CSR score for each dimension [adopted from Manescu (2009) and Deng et al.'s (2013) study] are calculated as follows: (i) I divide the sum of the strength and concern scores for each category in the year

preceding the announcement by the total number of strength and concern indicators included in KLD that year for that category to derive adjusted strength and concern scores for that category, (ii) take the difference between the adjusted strength score and the adjusted concern score for each category to create the adjusted CSR score for each category, (iii) sum up the adjusted CSR score for each of two CSR categories: employee relations and diversity, and (iv) calculate the difference in the workforce CSR ratings between acquirer and target is measured by subtracting the target's workforce CSR ratings from the acquirer's workforce CSR (to test Hypothesis1).

To measure environmental CSR, I use KLD's environment dimension. This dimension includes waste management, environmental management systems, biodiversity & land use, raw material sourcing, regulatory compliance, toxic spills & releases, and supply chain management. I calculate both the target and acquirer's environmental CSR (using the adjusted CSR score measurement). The difference in this rating is also measured by subtracting target environmental CSR rating from acquirer environmental CSR rating (to test Hypothesis 2).

Moderating Variable

I consider the moderating role of target stakeholder bargaining power, both – target employees and customer bargaining power. To test Hypothesis 3, regarding the moderating role of target employees' bargaining power, I consider target employees' human skill intensity. It is measured by the target industry's annual wage rate. Wage rates are an appropriate proxy for employee skills and work-related knowledge because it has been found that 80 percent of the variation in the wage rate among employees is explained by human capital (i.e., education, job related knowledge & skills, and experiences), while only

20 percent is explained by industry characteristics, firm-specific factors, and other unobservable factors (Abowd, Lengermann, and McKinney, 2003). I obtained the annual earnings (wage) data reported at the 4-digit SIC level derived from the US Bureau of Labor Statistics – current employment statistics (www.bls.gov/ces/data/htm), which reports, for each industry, the mean, median, and total wage rates. Since 2004, the report also makes available wage data for percentiles of wage earners in each industry. For this study, I select two different scales as a proxy for a human skill intensity of targets – (1) annual median industry wage, and (2) top 25% annual industry wage. High-tech industries have the highest wage rates in my sample (SIC codes: 7371, 7372, 7373, & 7375; e.g., electronic games, CD- rom driver programming services, telecommunication/network software, data processing, and software applications), while retail industries have the lowest (SIC codes: 5411, 5311; e.g., supermarkets, department stores).

To test hypothesis 4 regarding the moderating role of target consumer bargaining power, I compute advertising intensity as a firm-level advertising expenses scaled by total asset, resulting in an available 140 cases out of 346. While I can increase the number of available cases (up to 270) using either the industry level advertising intensity (SIC 4digit) or replacing missing values for a firm level advertising intensity as industry level advertising intensity, I take a firm-level advertising intensity since I mainly focus on target customers' power, which is tied to a specific target firm's environmental CSR. Thus, I consider only cases for which advertising expenditures are available.

Control Variables

I control for characteristics of targets and acquirers that have been found to affect the market value of acquisitions based (e.g. Masulis, Wang, & Xie, 2007; Deng et al.2013).

These include the target's and acquirer's firm size (log of book value of total assets) , their

free cash flow (operating income before depreciation – interest expenses- income taxes-

capital expenditures, scaled by book value of total assets), their Tobin's Q (ratio of the

market value of assets to the book value of assets) to control for the effect of intangibles

(Villalonga, 2004), and their leverage (book value of debts divided by market value of

assets) (e.g., Vermeulen & Barkema, 2002). All of these are measured at the fiscal year

end prior to an acquisition announcement. I also control for the acquirer's acquisition

experience (measured using a cumulative count of all prior acquisitions completed from

1980 onward, e.g., Haleblian & Finkelstein, 1999; Hayward, 2002) that could affect target

selection, deal negotiation, as well as post-acquisition integration process (e.g., Haspeslagh

& Jemison, 1991; Hitt et al., 2001), the acquirer's previous ownership (Toehold dummy;

one if the acquirer holds at least 5% of the target shares prior to the acquisition and zero

otherwise), and the announcement year (Moeller, Schlingemann, & Stulz, 2004). In

addition, I control for relative deal size (the ratio of the deal value to the acquirer's market

value; Bradley, Desai, & Kim, 1988), high-tech dummy (whether a deal is between two

firms from high-tech industries defined by Loughran & Ritter, 2004), hostile dummy

(attitude of bidding firm – hostile or friendly; Schwert, 2000), number of competing

bidders (e.g., Hayward & Hambrick, 1997), industry relatedness dummy (based on a

match between 3-digit SIC codes of acquirer and target), all-cash and all stock deal

dummies. I also control for industry effects (one-digit SIC code dummy) and year effects.

Data Analysis

Following previous studies, I first perform the Heckman (1979) two-stage

procedure (Li & Prabhala, 2007; Aktas et al., 2011). Since I select deals for which both

acquirer and target have CSR ratings available in the KLD database and disregard others for which CSR ratings were available only for the acquirer, my final sample is not a random subsample of all acquisitions undertaken by my final sample of acquirers. To account for potential sample selection biases, I use a probit model in the first stage, to model the probability that a firm with available CSR ratings buys a target with available CSR ratings (with the sample of 1192 completed deals for which acquirers have available CSR ratings). In the model, I conjecture that a firm's acquisition choice (whether to buy a firm with available CSR ratings or without them) may be influenced by the acquirer's CSR ratings. The estimated coefficient of the acquirer's overall CSR rating (coeff = 0.19, $p<0.05$) suggests that the size of the acquirer's overall CSR rating lowered the predicted probability of acquiring a firm with available CSR ratings. To control for such a tendency, in the second stage I computed Heckman's lambda using the estimates derived from the first stage probit model and then include that in my estimation of the acquirer's announcement returns.

Table 1 presents descriptive statistics and correlations for my main variables. In the correlation matrix, none of the associations between the main variables and CARs was significant at the 5 % level. Among control variables, the directions of correlations in cash payment (corr = 0.253, $p < 0.01$) and relative deal size (corr = -0.133, $p <0.05$) are consistent with previous studies (e.g., Betton et al., 2008; e.g., Moeller et al., 2005).

[Insert Table 1 here]

I check for outliers in my regression analyses using Cook's D values over 4/N, where N is the number of observations for the regression model (Bollen & Jackman, 1990). I identify two outliers. I test models with and without outliers to find that no outlier had a

significant impact on the results (did not affect the estimated coefficients). Hence, I kept the outliers in my sample.

2.5 Empirical Findings

Tables 2 and 3 present the results of my hypotheses tests using the acquirers' three-day cumulative abnormal return centered on the acquisition announcement, CAR (-1,1), as the dependent variable. For each regression model, I include all control variables with Heckman's Lambda obtained from the two-stage Heckman (1979) procedures. Table 2 tests my predictions regarding workforce CSR while Table 3 corresponds to the environmental CSR predictions.

Model 1 in Table 2 includes control variables only. Models 2 and 3 shows tests of hypothesis1, which predicts that expected positive changes in target workforce CSR with have a positive effect on acquiring firm shareholder value (Model 2: Coeff= 0.018*, p<0.05; Model 3: Coeff= 0.021, p<0.05). This corresponds to an abnormal change of $1.8 (Model2) or $2.1 (Model 3) million in market value for an acquirer having a size of $100 million in equity. I test hypothesis 1 both using the full sample (N=346) and the sample for which the percentile data for the industry wage rate was available, i.e. acquisitions after 2004 (N=305). For both models the effect of the acquirer – target CSR difference on CAR is positive and significant (p<0.05) supporting hypothesis1.

Model 9 in Table 3 shows the estimated coefficient for differences in environmental CSR ratings between acquirer and target, (coeff= 0.0004), which is statistically insignificant. Similarly, in Model 10 I test hypothesis 2 using the sub-sample of companies for whom I have their advertising capital and found no statistically significance. Hypothesis

2 is then not supported, suggesting that the (un)supportive reaction by target customers might be context-specific.

Models 6, 7 and 8 in Table 2 test hypothesis 3 which suggests that the effect of expected changes in workforce CSR on acquiring firms' shareholder value is larger for firms that operate in human skill intensive industries. To mitigate multicollinearity problem, the variables used to create the interaction terms are mean-centered (Aiken & West, 1991). Interaction terms between the workforce CSR difference and target human skill intensity are positive and significant ($p<0.05$) in Models 6 and 7, which uses the target industry median wage rate, and model 8, which uses the target industry wage for the 25 percent highest paid employees. These results confirm my hypothesis 3. For comparison purposes I also show the results for the interaction term between workforce CSR distance and the median wage rate for the same samples that was used for the top 25 percent wage interaction in Model 8. It is also interesting to note that the main effect of human skill intensity on CAR is negative and significant.

In Model 12 in Table 3, the interaction term coefficient between target advertising intensity (measured by advertising expenses scaled by total asset) and environmental CSR (coeff=0.004) is significant at a 5% level. I also include in Model 11 both environmental CSR and advertising capital without the interaction term. Results in Model 12 indicate that customers tied with a firm with high advertising intensity are likely to show supportive (unproductive) behavior when their firm is acquired by superior(inferior) environmental CSR firm, resulting in a creation (loss) of value for the acquirer's shareholders. Hypothesis 4 is accordingly supported.

[Insert Tables 2 and 3 here]

Robustness Tests and Additional Analyses

My CSR measures aggregate both CSR strengths and weaknesses by subtracting weaknesses from strength. While several researchers aggregate CSR strengths and weaknesses in a composite measure of CSR (Hillman & Keim, 2001; McWilliams & Siegel, 2000; Waddock & Graves, 1997), it is reported that using such a composite measure can mask an underlying relationship between variables if strengths and weaknesses fail to exhibit convergent validity (Griffin & Mahon, 1997; Mattingly & Berman, 2006; Charitij et al., 2007). For each of the seven KLD CSR categories, I separately perform a principal factor analyses with factor rotation that includes strengths and concern scores for acquirers and targets. I fail to detect convergent validity between strength and weaknesses for all seven CSR categories for my sample firms. Then, I estimate the effect of the acquirer – target difference in strengths scores and of the acquirer – target difference in concerns scores on CAR, for all KLD CSR categories. I fail to find any significant effect, except for acquirer target difference in diversity strength (CAR increases with the difference in diversity strength between target and acquirer). This suggests that the market does not evaluate CSR strengths and concerns on each CSR category separately, but rather aggregates strengths and concern differences between target and acquirer, which makes intuitive sense because it is the combination of expected changes in strengths and concerns that determines stakeholder responses.

I also estimate the effects for acquirer workforce CSR and target workforce CSR on CAR separately (without including CSR differences). Consistent with prior studies (Deng et al, 2013) I find that acquirer workforce CSR has a positive effect on CAR that is significant at the 10 percent level. However, while I find a negative effect for target

workforce CSR it is not significant. This indicates that investors pay more attention to the acquirer-target difference in CSR than to the individual CSR of acquirers and targets.

As a robustness check of my findings, I include acquisition premium (measured by the percentage difference between the actual price paid per target share by the acquirer and the target's share price on the week prior to the announcement of the acquisition) that can also affect CAR (Schijven & Hitt, 2012) as a control variable. I find that my results do not change. I also explore whether the number of target employees influences the effect of differences in workforce CSR on CAR and do not find any significant effects. I also explore whether target firm's advertising and marketing quality concern variable influences the effect of differences in environmental CSR on CAR and do not find any significant effects.

2.6 Discussions and Conclusion

The purpose of my study was to contribute to the literature on the relationship between CSR and firm performance by providing a fine-grained analysis of expected changes in specific types of CSR – workforce and environmental CSR– on acquisition performance and by analyzing the how importance of the stakeholder groups that are directly affected by the specific types of CSR – target firm employees and target firm customers– moderates this relationship. My findings show that expected positive changes in the target firm's workforce CSR create value for acquiring firm shareholders and that this effect is larger if target employees have a high level of human-skill intensity. My findings also show that while expected positive changes in the target firm's environmental CSR do not create/destroy value for acquiring firm shareholders, it creates value for them if target firm have high advertising capital.

Stakeholder interest dispersion

One plausible explanation for the differences found on how expected changes of workforce versus environmental CSR impact merger performance can be explained by potential differences on the stakeholder interest dispersion perceived by investors. Customers' interests may be more dispersed than employees' interests. In fact, previous research has pointed out that consumers are generally unorganized, and thus powerless compared to employees (Ferrell, 2004). In the case of target employees, when there is the expected change in workforce CSR after the acquisition, target employees who have been exposed to the same degree of workforce CSR before the merger may have a similar interests or concerns with respect to the expected change in workforce CSR. And while there may be a variation in terms of intent to quit (soon/or later) or work hard (more /or less) among them, they may react in a similar way. Compared to that, for target customers, when there is an expected change in environmental CSR after the acquisition, target customers who initially differ in terms of a frequency of product usage (the degree of a loyal to the target firm) and the appreciation for environmental CSR practices may show a divergent interest/concern for the expected change in environmental CSR. Accordingly, although there are a growing number of environmentally conscious customers, investors may expect that customers' engagement on supportive/unproductive behaviors toward the change in environmental CSR will be dispersed and would depend on their previous experiences with the firm and their CSR orientation. For instance, Papavasileiou, Swain, and Bhattacharya (2008) investigate how customers react to the different types of acquisitions (e.g., acquiring CSR focused firm by high CSR or low CSR firms) using experimental settings. They find a significant heterogeneity in

customers' reactions, suggesting that customers' reactions vary with customers' social value orientations. These differences in interest dispersion between target employees and target customers may explain why changes in workforce CSR are more impactful for the acquisition performance than expected changes in environmental CSR.

My findings contribute to the CSR literature, stakeholder management theory, the M&A literature, and strategic management literature. By examining the effect of changes in CSR on firm performance, I am able to address the causality problems in prior studies that test the relationship between levels of CSR and firm performance. I am also able to indirectly test a causal mechanism though which workforce CSR (environmental CSR) affects firm performance, employees (customers)' supportive or unproductive behavior by including human skill intensity (advertising intensity) as a moderator. Both of these contribute to getting into the back box between CSR and firm performance by theorizing about and testing specific causal mechanisms through which CSR affects frim performance.

My findings suggest that stakeholder responses to CSR changes affect firm performance, which is consistent with Barnett and Salomon (2012)'s argument that an ability to enhance support from stakeholder through CSR is a key driver of financial performance and with the notion of instrumental stakeholder theory in general - the better a firm manages its relationship with various stakeholders, the better will be its financial value (Donaldson and Preston, 1995; Freeman, 1984). My results are also consistent with the literature on stakeholder salience (e.g., Mitchell, Agle, and Wood) and stakeholder bargaining power (Coff, 1999) and indicate that financial markets (investors) pay attention to stakeholder salience in their assessment for firms' CSR.

My study also provides evidence that investors consider different types of CSR and expected stakeholder responses in their assessment of firms. This is consistent with Sharfman and Fernando (2008)'s argument that investors care about firms' relations with their stakeholders and use any cues of the potential supportive/unproductive stakeholder behaviors to evaluate firms. My result suggests that information on the CSR gap between the acquirer and the target sends signals about expected target stakeholder supportive or unsupportive behavior after the acquisition and that investors utilizes information about CSR gap to access the value of the acquisition.

The M&A literature has not paid much attention to the effect of CSR on acquisition performance. I show that changes in CSR after the acquisition can have an important effect on the value created by the acquisition. This is even more important because the stakeholder responses to expected changes in CSR likely occur in the acquisition integration phase, which is critical for value realization of the acquisition, and also a period of high uncertainty and concern for stakeholders.

Managerial Implications

My findings have implications for practicing managers. It is reported that managers of acquirers may overlook target's CSR during the due diligence process because in many cases, target's CSR is unobservable (Ernest, Lynn, & Philip, 2003). But, as my findings indicate the CSR gap between the acquirer and the target is a source of target stakeholders' supportive or unsupportive behaviors that directly affect the acquisition performance. Thus, managers of acquirers need to pay special attention to the CSR gap if target has superior CSR. They should try to mitigate the risk of potential target stakeholder's unproductive behaviors by assuring target stakeholders early (starting on the announcement

date) that they do not intend to lower target CSR. Especially, managers need to pay special attention to workforce CSR gap if the target firm's employees are human skill intensive. They also need to pay special attention to environmental CSR if the target firm has high advertising capital.

Limitations and suggestions for future research

My study has several limitations that may also present fruitful avenues for future research. First, I do not identify how target's salient stakeholders actually feel about CSR gap. To indirectly test stakeholder's supportive or unproductive behavior to CSR changes, I rely on a Mitchell et al.'s (1997) theory of stakeholder identification and salience and use moderators. Also, I do not consider whether acquirers make an announcement about their plans for CSR integration in their acquisition announcements. Clearly, such announcements would provide additional information to investors and other stakeholders, which likely affect announcement return. Future research should augment CSR ratings with a content analysis of announcements.

Second, my study is limited in the U.S. context, where CSR becomes more important for all different types of investors (as well as potential acquirers) (Cohen et al., 2011; Cruise, 2011). Thus, external validity (generalizability) of my findings could be limited to contexts that are similar to the U.S in terms of CSR concern.   Third, for different acquisition motives, the market's consideration of CSR in evaluating the merger may differ. If the motive is diversification and only limited integration is planned, CSR differences may be less important as target CSR can be expected to change less. Future studies should analyze the moderating effect of acquisition motives. Fourth, the dataset I used (KLD) covered a large size of firms in terms of market capitalization and thus my

sample does not include relatively small acquirers and targets. This sample bias could limit my ability to generalize this results of the study.

Despite these limitations, I believe that my study makes important contributions to my understanding of the effects of CSR on firm performance. I hope that my study generates more interest in studying CSR in the context of acquisitions where was can observe CSR differences and expected changes in CSR.

List of Table (Essay1)

Table.1 Descriptive statistics and correlation table

		Mean	S. D	1	2	3	4	5	6
1	Acquirer's CAR (-1,1)	-0.011	0.066	1					
2	Workforce CSR difference	0.233	0.395	0.036	1				
3	Environmental CSR difference	0.034	0.205	-0.033	0.405	1			
4	Target Industry Medium Wage Rate	0.045	0.016	-0.119	0.315	0.178	1		
5	Target Industry top 25 percentile wage rate	0.069	0.023	-0.204	0.295	0.170	0.964	1	
6	Target advertising capital	-0.015	0.174	0.000	0.215	0.855	0.074	0.045	1
7	Acquirer Firm size	8.881	1.758	-0.037	0.387	0.060	0.137	0.134	-0.038
8	Acquirer Leverage	0.162	0.159	0.135	-0.133	-0.087	-0.149	-0.205	-0.080
9	Acquirer Free Cash Flow	0.114	0.080	0.079	0.088	-0.001	-0.089	-0.096	-0.028
10	Acquirer Tobin's q	2.158	1.409	-0.107	0.101	0.107	0.006	0.086	0.087
11	Acquirer's acquisition experience	1.885	1.778	-0.003	0.411	0.245	0.390	0.343	0.118
12	Relative deal size	-1.768	1.691	-0.133	-0.421	-0.103	-0.285	-0.246	-0.024
13	Industry Relatedness (dummy)	0.516	0.500	-0.018	-0.054	0.011	-0.020	-0.034	0.084
14	All cash deal (dummy)	0.572	0.495	0.253	0.251	0.061	0.165	0.084	0.031
15	All stock deal (dummy)	0.117	0.322	-0.134	-0.101	0.009	-0.061	0.062	0.020

		7	8	9	10	11	12	13	14
7	Acquirer Firm size	1							
8	Acquirer Leverage	0.150	1						
9	Acquirer Free Cash Flow	0.079	-0.296	1					
10	Acquirer Tobin's q	-0.077	-0.448	0.457	1				
11	Acquirer's acquisition experience	0.533	-0.033	0.074	-0.035	1			
12	Relative deal size	-0.677	-0.064	0.048	0.175	-0.504	1		
13	Industry Relatedness (dummy)	-0.156	-0.075	0.041	0.080	-0.004	0.191	1	
14	All cash deal (dummy)	0.255	-0.103	0.070	-0.042	0.270	-0.500	-0.129	1
15	All stock deal (dummy)	-0.141	-0.020	-0.049	0.140	-0.127	0.216	0.028	-0.421

Absolute value 0.09 is significant 0.05 level

Table 2. Regression Results (Hypotheses 1 & 3)

Dependent Variable CAR (-1, +1)	Controls	Hypothesis 1		Hypothesis 3				
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Workforce CSR difference (Acquirer-Target)		0.018*	0.021*	0.022*	0.026**	0.016	0.017	0.019+
		(0.009)	(0.009)	(0.009)	(0.010)	(0.010)	(0.011)	(0.010)
Target Industry Medium Wage Rate				-0.608*		-0.792*	-0.859*	
				(0.330)		(0.358)	(0.365)	
Target Industry top 25 percentile wage rate					-0.544*			-0.645*
					(0.256)			(0.264)
Workforce CSR difference* Target Industry Medium Wage Rate						1.023*	1.093*	
						(0.480)	(0.510)	
Workforce CSR difference* Target Industry top 25 percentile wage rate								0.816*
								(0.382)
Control Variables								
Target Firm size	-0.000	0.000	0.001	0.001	0.002	0.002	0.003	0.003
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Target Leverage	-0.016	-0.020	-0.011	-0.023	-0.015	-0.022	-0.013	-0.012
	(0.024)	(0.025)	(0.026)	(0.025)	(0.026)	(0.024)	(0.025)	(0.026)
Target Free Cash flow	0.006	0.008	0.004	0.010	0.006	0.006	0.003	0.002
	(0.020)	(0.020)	(0.020)	(0.020)	(0.020)	(0.020)	(0.020)	(0.020)
Target Tobin's q	-0.001	-0.001	-0.001	-0.001	-0.001*	-0.001	-0.001+	-0.001+
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Acquirer Firm size	-0.000	-0.001	-0.004	-0.003	-0.006	-0.004	-0.007	-0.007
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.004)	(0.005)	(0.005)
Acquirer Leverage	0.089*	0.092*	0.098*	0.087*	0.087*	0.080*	0.084*	0.079*
	(0.037)	(0.037)	(0.039)	(0.036)	(0.039)	(0.036)	(0.039)	(0.039)
Acquirer Free Cash Flow	0.216**	0.213**	0.268**	0.203**	0.252**	0.209**	0.262**	0.257**
	(0.063)	(0.063)	(0.055)	(0.064)	(0.057)	(0.065)	(0.057)	(0.058)
Acquirer Tobin's q	-0.005	-0.005	-0.009*	-0.005	-0.009*	-0.005	-0.009*	-0.009*
	(0.004)	(0.004)	(0.005)	(0.004)	(0.005)	(0.004)	(0.005)	(0.005)
Acquirer acquisition experience	-0.003	-0.003*	-0.003*	-0.002	-0.002	-0.004*	-0.003+	-0.003*
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Relative deal size	-0.007	-0.006	-0.006	-0.008+	-0.007+	-0.009*	-0.009*	-0.009*
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Number of bidders	-0.009	-0.008	-0.022+	-0.010	-0.027*	-0.012	-0.029*	-0.028*
	(0.012)	(0.012)	(0.012)	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)
Deal Attitude (dummy)	-0.021	-0.020	-0.028	-0.021	-0.026	-0.024	-0.029	-0.030
	(0.023)	(0.022)	(0.040)	(0.021)	(0.036)	(0.022)	(0.038)	(0.038)
Toehold (dummy)	0.011	0.009	0.015	0.012	0.018	0.011	0.016	0.015
	(0.012)	(0.013)	(0.017)	(0.013)	(0.017)	(0.012)	(0.015)	(0.015)
High tech (dummy)	0.021*	0.022*	0.022*	0.015	0.011	0.012	0.011	0.008
	(0.010)	(0.010)	(0.011)	(0.011)	(0.012)	(0.010)	(0.012)	(0.012)
Industry relatedness (dummy)	-0.017**	-0.018**	-0.018+	-0.016+	-0.016+	-0.016+	-0.015+	-0.015+
	(0.009)	(0.008)	(0.009)	(0.008)	(0.009)	(0.008)	(0.009)	(0.009)
All cash deal (dummy)	-0.008	-0.008	-0.011	-0.006	-0.009	-0.005	-0.009	-0.009
	(0.011)	(0.011)	(0.011)	(0.010)	(0.011)	(0.010)	(0.011)	(0.011)
All stock deal (dummy)	0.019	0.018	0.021	0.019	0.020	0.018	0.020	0.018
	(0.019)	(0.019)	(0.024)	(0.020)	(0.024)	(0.019)	(0.025)	(0.024)
Heckman's Lambda	0.042+	0.044+	0.039	0.040+	0.034	0.041+	0.034	0.034
	(0.022)	(0.022)	(0.026)	(0.022)	(0.025)	(0.022)	(0.025)	(0.025)

Constant	0.004	0.010	-0.070	0.021	-0.002	0.030	-0.029	-0.023
	(0.053)	(0.052)	(0.079)	(0.056)	(0.085)	(0.050)	(0.080)	(0.079)
Industry dummy and year dummy	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	N=346	N=346	N=305	N=346	N=305	N=346	N=305	N=305
R-Squared	0.265	0.271	0.291	0.281	0.306	0.290	0.313	0.316
Adjusted R-squared	0.166	0.170	0.196	0.179	0.210	0.186	0.215	0.219

All regressions control for announcement year effects and for industry effects. Standard errors in parentheses. $+ P < 0.1$; $*p < 0.05$; $** p < 0.001$

Table 3. Regression results (Hypotheses 2 & 4)

Dependent Variable CAR (-1, +1)	Hypothesis 2		Hypothesis 4	
	Model 9	Model 10	Model	Model 12
Environmental CSR Difference (Acquirer-	0.0004	-0.015	-0.014	-0.031
	(0.016)	(0.040)	(0.040)	(0.041)
Target Advertising capital			0.0001	0.0001
			(0.001)	(0.001)
Environmental CSR Difference * Target advertising capital				0.004**
				(0.002)
Control Variables				
Target Firm size	-0.000	0.000	0.000	0.000
	(0.004)	(0.006)	(0.006)	(0.006)
Target Leverage	-0.016	0.007	0.009	0.010
	(0.024)	(0.045)	(0.048)	(0.048)
Target Free Cash flow	0.006	0.034	0.034	0.024
	(0.020)	(0.047)	(0.047)	(0.047)
Target Tobin's q	-0.001	-0.001	-0.001	-0.001
	(0.000)	(0.001)	(0.001)	(0.001)
Acquirer Firm size	-0.000	0.017*	0.017*	0.019*
	(0.005)	(0.010)	(0.010)	(0.010)
Acquirer Leverage	0.089**	0.097*	0.097*	0.084
	(0.037)	(0.054)	(0.054)	(0.055)
Acquirer Free Cash Flow	0.216***	0.126	0.125	0.148
	(0.063)	(0.096)	(0.097)	(0.100)
Acquirer Tobin's q	-0.005	0.003	0.003	0.002
	(0.004)	(0.006)	(0.006)	(0.006)
Acquirer acquisition experience	-0.003	-0.006**	-0.006*	-0.005
	(0.002)	(0.003)	(0.003)	(0.003)
Relative deal size	-0.007*	-0.002	-0.002	0.001
	(0.004)	(0.010)	(0.010)	(0.010)
Number of bidders	-0.009	-0.024	-0.025	-0.036
	(0.012)	(0.023)	(0.024)	(0.027)
Deal Attitude (dummy)	-0.021	-0.001	0.003	0.070
	(0.023)	(0.037)	(0.043)	(0.059)
Toehold (dummy)	0.011	0.008	-0.008	0.018
	(0.013)	(0.034)	(0.034)	(0.036)
High tech (dummy)	0.021**	0.052**	0.052**	0.049**
	(0.010)	(0.023)	(0.023)	(0.023)
Industry relatedness (dummy)	-0.017**	-0.010	-0.009	-0.010
	(0.009)	(0.014)	(0.015)	(0.015)
All cash deal (dummy)	-0.008	0.001	0.001	0.004
	(0.011)	(0.024)	(0.025)	(0.025)
All stock deal (dummy)	0.019	0.071	0.072	0.073*
	(0.019)	(0.044)	(0.044)	(0.042)
Heckman's Lambda	0.042*	0.075**	0.075**	0.079**
	(0.022)	(0.036)	(0.037)	(0.036)
constant	0.004	-0.664***	-	-0.708***
	(0.053)	(0.161)	(0.160)	(0.154)
Industry dummy and year dummy	Yes	Yes	Yes	Yes
Observations	346	140	140	140
R-Squared	0.265	0.519	0.519	0.529
Adjusted R-squared	0.163	0.318	0.311	0.319

All regressions control for announcement year effects and for industry effects. Standard errors in parentheses. + P <0.1; *p<0.05; ** p<0.001

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Chapter 3. Essay 2.

Target's CSR as a Signal in Acquisitions: Its Effect on Acquisition Premium

3.1 Abstract

I examine how a target firm's corporate social responsibility (CSR) and social irresponsibility (CSiR) ratings affect the premium that the acquirer pays for the target. Relying on signaling theory for acquisition premiums, I argue that information on a target's CSR (CSiR) ratings can send a positive (negative) signal about not just its CSR (CSiR) performance but also about its overall quality. I propose that the acquirer is likely to pay a discount for the target's CSiR and a premium for its CSR. I also propose that this tendency is likely to be more pronounced for an acquirer working in a highly asymmetric information context. My empirical analyses based on a sample of 215 cash-only acquisitions announced by U.S. public firms between 1995 and 2013 suggest that acquirers dealing in a highly asymmetric information context tend to rely more on signals associated with the target's CSiR rating, leading them to pay a corresponding discount.

3.2 Introduction

In M&A transactions, acquirers typically have incomplete information about the target. Targets often inflate their output and hide negative information from acquirers in order to justify a higher purchase price (Balakrishnan & Koza, 1993; Gilson & Schwartz, 2005). In some cases, the target firm's managers themselves may not be cognizant of all the details owing to their firm's sheer size and complexity (e.g., complicated organization structures or dispersed operations in many different geographic areas). Thus, even when acquirers perform their due diligence concerning the target, it is difficult to obtain accurate and complete information about the target. This happens especially when evaluating the target's intangible characteristics which cannot be easily observed (Knecht & Calenbuhr, 2007). To mitigate these problems, acquirers must use any cue or signal available that can provide information about the target (Connelly, Certo, Ireland, & Reutzel, 2011), and make inferences about the target's quality and the deal's potential value creation. At the same time, in order to maximize its purchase price, the target is likely to send signals that are intended (Akerlof, 1970; Reuer, Tong, & Wu et al., 2012).

Given the importance of signals, many studies on acquisition premiums have used signaling theory (Spence, 1973; Reuer, Tong, & Wu et al., 2012, Laamanen, 2007; Schijven & Hitt, 2012). In my study, I extend this literature by examining whether the information asymmetry problem can be mitigated through signals conveyed by a target's corporate social responsibility (CSR) and corporate social irresponsibility (CSiR) performance (Knecht & Calenbuhr, 2007; Konstantpoulos, Sakas, & Triantafyllopoulos, 2009).

CSiR/CSR ratings and rankings have gained increasing prominence in recent years. My study aims to determine whether and how these ratings affect acquirers'

premium decisions. Studies in different disciplines have proposed a signaling function of a firm's CSiR/CSR ratings and performance that can reduce information asymmetry. The strategic management literature, for example, has reported that high CSR firms can increase transparency about their social and environmental performance as well as their governance structure, which reduces information asymmetries between firms and their stakeholders (Hubbard, 1988; Loannous & Serafeim, 2011). Accounting studies have reported that firms' CSR performances reflect their managers' ethical concerns. Thus, high CSR firms are more likely to present transparent and reliable financial reporting and less likely to engage in accruals or real earnings management, both of which reduces information asymmetry between firms and investors (including creditors) (Diamond & Verrecchia, 1991; Lambert, Leuz, & Verrecchia, 2007).

To the best of my knowledge, such signaling effects of firms' CSiR/CSR ratings have yet to be explored in an M&A setting. To address this gap, I examine whether an acquirer is likely to utilize signals associated with a target's CSiR/CSR ratings in deciding the discount or premium for the target firm. Most firms tend to engage in both CSiR and CSR practices. Several scholars argue for examining CSiR and CSR ratings separately because combining these ratings can obscure rather than reveal, information about the firm (Godfrey, Hach, and Hansen, 2015). Considering this, I develop the following research questions:

- Which of these practices (CSiR or CSR) is more important to reducing information asymmetry between the target and acquirer and which practice is more significantly associated with an acquisition premium?

- How does the extent of information asymmetries in a given acquisition influence the acquirer's response to signals associated with the target's CSiR/CSR? To do this, I examine three contextual factors that can increase/decrease the information asymmetry between target and acquirer: (1) geographic distance between the target and acquirer, (2) institutional environment distance between them (in-state acquisition vs. out-of-state acquisition), and (3) industry relatedness between them (related industry vs. unrelated industry).

Using a sample of 215 cash-only acquisitions announced by U.S. firms between 1995 and 2013, I find evidence that signals associated with both the CSiR and CSR of the target play significant roles in mitigating information asymmetry and affect, therefore, the acquisition premium. What seems to be more important for the acquirer, however, are signals associated with the target's CSiR. I also find evidence that the acquirer likely utilizes signals associated with the target's CSiR to reduce information asymmetries especially driven by a different institutional environment. However, acquirers seem not to exploit such signaling advantage to reduce information asymmetries driven by geographic distance and industry relatedness. Interestingly, I also find evidence that the target's CSR can function not just as a mechanism to reduce information asymmetries for an acquirer from a different industry, but also as a reputational asset. Overall, I find support for my theory that the target's CSiR/CSR play a signaling role: they reduce information asymmetry for the acquirer and have a subsequent impact on acquisition premium—namely, the target's CSiR is traded at a discount and its CSR is traded at a premium.

My study not only contributes to bridging different disciplines, but actually contributes to the development of each. First, in the CSR literature aligned with stakeholder management theory, I extend the literature on the signaling role of CSiR/CSR to the M&A contexts. I also provide support to the stakeholder management theory by finding evidence that a firm investing in CSR for its stakeholders can eventually create value for its shareholders, while a firm engaging in CSiR can eventually destroy value. Second, in the M&A literature on acquisition valuation, several scholars have examined the effects of geographic proximity and industry relatedness on acquisition valuation by applying information asymmetry economics (Kang & Kim, 2008; Uysal, Kedia, & Panchapagesan, 2008). What has largely been left unexplored is the signaling effect of the target's characteristics. In the strategic management literature on acquisition premiums, a plethora of studies have focused on the acquirer's characteristics (Beckman & Haunschild, 2002; Hayward & Hambrick, 1997; Shelton, 2000). Relatively few studies, however, have focused on a target's characteristics as a determinant of acquisition premium (e.g., the target's corporate governance structure, leverage ratio, size, and ownership structure; Kang & Kim, 2008; the target's R&D capital, Laamanen, 2007; the target's relationship with other entities, Reuer et al., 2012). I fill this research gap by revealing the importance of a target's CSiR/CSR ratings in terms of their reducing information asymmetry and being a determinant of premium.

3.3 Theoretical Development and Hypotheses

In M&A transactions/negotiations, acquirers (buyers) typically face information asymmetries. To mitigate this condition, the acquirer may have a strong incentive to utilize signals about the target. In turn, the target will likely send a signal to reduce its offer price discount (Akerlof, 1970; Reuer et al., 2012). In the literature on acquisition

premium, researchers discuss signaling theory (Spence, 1973) in studying how to reduce target information asymmetries (Laamanen, 2007; Reuer et al., 2012). For example, Laamanen (2004) find that the technology-based acquiring firms could detect signals about a target's future prospects through the target's R&D capital and R&D growth rate; such a target could thus obtain a higher acquisition premium. Reuer et al. (2012) argue that an Initial Public Offering (IPO) firm's inter-organizational relationships with prominent underwriters, venture capitalists, and alliance partners often send a positive signal to the M&A market. They find that acquiring firms of IPO targets likely utilize the signal and pay more for an IPO target affiliated with these entities.

In recent decades, there has been a growing concern about a target's CSiR/CSR issues (especially for CSiR) in the context of M&As. Focusing on the valuation of a target, several scholars emphasize a target's environmental and social due diligence (Knecht, Primdal, & Soerensen, 2005; Knecht & Calenbuhr, 2007). Failure to identify a risk associated with a target's CSiR could result in substantial financial liability or litigation in addition to damaging the acquirer's reputation and brand value (El Ghoul, Guedhami, Kwok, & Mishra, 2011; Goss & Roberts, 2011). For example, the British construction giant Beazer East, 25 years following its acquisition of Koppers (Pittsburgh-based wood company), is confronting environmental liability issues stemming from Koppers's previous environmentally irresponsible practices (Danielle, 2011). In the case of this happening, an acquirer has to install costly new systems (e.g., pollution-control technologies) to fix the target's CSiR problem (El Ghoul et al. 2011).

It is also reported that even after completing environmental due diligence, acquirers can miss something and later encounter a regulatory risk (Ghosal & Sokol,

2013). For example, 42% of acquirers (KPMG-UK surveyed) who have completed environmental due diligence end up contending with financial liabilities (*source: Transaction Services Impact—A Survey on Environmental Due Diligence in 2004*; Paddy, 2004). Given this information, I argue that, as a target's CSiR practices increase the uncertainty of the value-creation potential of a deal, the target's CSiR rating will send a negative signal to the M&A market. Thus, if a target has a high CSiR rating, an acquirer is likely to discount its value. Accordingly, my first hypothesis is as follows:

H1a: *A target's CSiR rating will negatively affect the acquisition premium.*

I also expect the reverse to be true if the target has a high CSR rating. The signaling role of CSR as a mechanism to reduce information asymmetry has been discussed in the literature of several different fields. For example, the management literature reports that high CSR firms can increase transparency with regard to the social and environmental impact of those firms and their governance structure. This, in turn, helps reduce information asymmetry between firms and diverse stakeholder groups (Hubbard, 1988; Loannous & Serafeim, 2011). Consequently, a high CSR firm can lower capital constraints in addition to attracting customers, employees, and investors (Loannous & Serafeim, 2011). Waddock and Graves (1997) also argue that high CSR can signal a firm's slack resources, which also reduces information asymmetry between a firm and the market.

The accounting literature reports that CSR performance reflects managers' ethical concerns. Thus a high CSR firm likely reports transparent and reliable financial information, while being less likely to engage in accruals or real earnings management (Diamond & Verrecchia, 1991; Lambert et al., 2007). Such a firm will receive more

attention from a diverse stakeholder group; in turn, it will be more likely to produce high-quality financial reports and behave more ethically (Dhaliwal, Li, Tsang, & Yang, 2011; Hong & Kacperczyk, 2009). These all help mitigate information asymmetry problems (Diamond & Verrecchia, 1991; Lambert et al., 2007) as well as adverse selection problems (Riley, 2001; Stiglitz, 2002). A high CSR firm that is subject to low information asymmetry results in better equity pricing (Dhaliwal et al., 2011; El Ghoul et al., 2011; Menz, 2010), better access to financial capital with low cost (Cheng, Ioannou, & Serafeim, 2014; El Ghoul et al., 2011; Goss & Roberts, 2011 Sharfman & Fernando, 2008), and high credit ratings (Attig, Ghoul, Guedhami, & Suh, 2013).

The CSR literature reports that a firm that actively complies with environmental regulations signals its concern for the natural environment (Al-Tuwaijri, Christensen, & Hughes, 2004; Brammer & Pavelin, 2004; Clarkson, Li, Richardson, & Vasvari, 2008). In turn, environmentally conscious stakeholders who pick up the signal are able to reduce the information asymmetry concerning the firm's environmental practices and will thus be likely support it. Connelly et al. (2011) find that a target's ISO 14000 certification or green technology investments can signal to the M&A market its commitment to CSR, which can help reduce the information asymmetry between a target and an acquirer. Grant, Dutton, and Rosso (2008) and Turban and Greening (1997) report that a high CSR firm can attract job seekers by signaling its concern for employees' welfare with its good employee practices. Job seekers who receive the signal can make inferences about the firm's working conditions, which, in turn, help reduce the information asymmetry between the firm and job seekers. Porter and van der Linde (1995) also report that firms with responsible products can signal their concern for consumers, who in turn are

sensitive to the firms' CSR and likely support them. In sum, a high CSR firm can signal its overall quality in addition to its CSR orientation and thus help reduce information asymmetry between firms and stakeholders (including investors). Accordingly, I hypothesize that the acquirer is likely to pay a high premium for the target's CSR. My next hypothesis is as follows:

H1b: *A target's CSR rating will positively affect the acquisition premium.*

While I do not set formal testing hypothesis, I expect that signaling associated with the target's CSiR rating, compared to signaling associated with the target's CSR rating, is more impactful in reducing information asymmetry. Thus, the effect of a target's CSiR rating on premium will be more powerful than that of its CSR rating. This is due to two reasons. As with a market that is more sensitive to bad news (Skinner, 1994; Kothari et al., 2009), an acquirer may be more likely to respond to signals associated with a target's CSiR rating. More importantly, acquiring a high CSiR firm may have litigation costs and the risk of additional investment in CSR.

The Moderating Role of Information Asymmetry Contexts

Next, I consider three different kinds of information asymmetry contexts that can alleviate or magnify the signaling effects of a target's CSiR/CSR on acquisition premium. The information asymmetry context refers to a specific environment that can increase/decrease the acquirer's information asymmetry problems concerning the target. The first information asymmetry contextual factor I consider is geographic distance between the target and the acquirer. In the M&A literature, geographic distance has been considered a source of information asymmetry and a risk of adverse selection (Chakrabarti & Mitchell, 2008; Ragozzino, 2009; Ragozzino & Reuer, 2011; Schildt &

Laamanen, 2006). The second factor is cross-state (whether the acquirer and the target are in the same state or different states). The M&A literature also documents that another source of information asymmetry is cross-state because cross-state acquisitions are subject to ineffective information flows (Ambec & Barla, 2002; Kim & Kang, 2008). The third factor is the relatedness of the acquirer and the target. Prior M&A literature also documents that a key determinant of asymmetric information is the relatedness of the acquirer and the target (Balakrishnan & Koza, 1993; Chari & Chang, 2009; Reuer & Koza, 2000; Villalonga & McGahan, 2005). Accordingly, I expect that when the acquirer is located far from the target (i.e., as geographic distance increases), in a different state, or a different industry from the target, it may be more likely to rely on the target's CSiR/CSR rating to reduce the information asymmetry problem. Thus, the CSiR/CSR rating effect on the premium could be more significant. Next, I present the literature and my hypotheses concerning each of the asymmetric information contextual factors and the moderating roles they play in the relationship between the target's CSiR/CSR rating and the premium.

Geographic Distance

A geographically proximate acquirer can enjoy information advantages regarding the target, compared to a geographically remote acquirer. For example, it can more easily gain access to the target and obtain valuable private information about the target through informal talks with CEOs, employees, and customers (Coval & Moskowitz, 1999, 2001; Grote & Umber, 2006; Grote & Rucker, 2007). It can also directly observe the targets' operations, which can help assess the true value of the target (Kim & Kang, 2007; Ragozzino, 2009; Ragozzino & Reuer, 2011). Grote and Rucker (2007) find that

geographic proximate acquirers earn greater returns because of information advantages. Thus, signals associated with the target would be more valuable to geographically remote acquirers (Ragozzino & Reuer, 2011). Likewise, I argue that a geographically remote acquirer would be more likely to utilize signals associated with a target's CSiR/CSR ratings. If the target has CSiR issues, a remote acquirer may be more likely to discount for them. Indeed, it would be more difficult for a remote acquirer to spot unexpected litigation/regulatory problems caused by the target's CSiR. The acquirer may not be able to actively pursue the post-acquisition integration process, and therefore it may have difficulty managing the target's operation problems driven by the target's CSiR.

In contrast, the geographically proximate acquirer may not seriously consider a target's CSiR issue to be an obstacle as it can easily access information on the target's internal operations. It may be able to actively pursue the post-acquisition integration process, and may have a relatively easier time managing any operation problems driven by the target's CSiR. Accordingly, I hypothesize that the signaling effect of a target's CSiR is more pronounced for a remote acquirer than for a proximate acquirer. Thus the effect of a target's CSiR on premium takes on greater significance with increased geographic distance. My next hypothesis is as follows.

> **H2a:** *As the geographic distance between the target and the acquirer increases,*
> *so will the significantly negative effect of a target's CSiR on the*
> *acquisition premium.*

I also hypothesize that the magnitude and significance of the interaction effect between geographic distance and a target's CSiR on premium would be much greater than that of a target's CSR. For even if a remote acquirer, in seeking to reduce

uncertainty, is likely to utilize signals associated with the target's CSR, it may not completely rule out the information disadvantage of geographic distance. Moreover, the acquirer may be uncertain about the profit-generating potential of the target's CSR. Thus, while the remote acquirer may have a good impression of a high CSR target, it may not want to pay a higher premium for the target's CSR (i.e., the effect of high CSR would be marginal). However, the remote acquirer will pay relatively more for a target with high CSR, compared to a geographically proximate acquirer. Thus my next hypothesis is as follows:

> *H2b: As the geographic distance between the target and the acquirer*
>
> *increases, so will the positive effect of a target's CSR on premium.*

Different Institutional Environment (out-of-state vs. in-state acquirer)

A geographically remote/proximate acquirer may or may not be located in a different state than that of the target. In addition, the geographic distance for an out-of-state acquirer could be less than that for an in-state acquirer. In the case of an out-of-state acquisition, there may be ineffective information flow (Ambec & Barla, 2002) and the out-of-state acquirer may not easily access relevant information about the target from statewide information sources (Kim & Kang, 2008). In addition, different regulations and policies can exacerbate the information asymmetry problem. Even if the out-of-state acquirer can access information about the target state's regulations and policies, it may not fully understand that information which can directly impact its corporate policy and performance (e.g., environmental compliance, or a state-level government and legal systems). Or it may not quickly respond to any new legislation, due to cross-state

information flow constraints. In contrast, an in-state acquirer may easily access such information and may quickly adopt a state-level enforcement mechanism.

I then argue that signals associated with a target's CSiR/CSR would be more valuable to out-of-state acquirers who may be unfamiliar with the target state's local policies and regulations. Thus, out-of-state acquirers (compared to in-state acquirers) would be more likely to utilize such signals. Accordingly, I hypothesize that the negative effect of a target's CSiR on premium would be more prominent for out-of-state acquirers than for in-state ones. If an out-of-state acquirer is confronted by a regulatory/compliance problem driven by the target's CSiR, it may not manage it effectively. In other words, an out-of-state acquirer's perceived risk of buying a high CSiR firm will be much greater than that of an in-state acquirer, which could lead to significant discounting for the target with high CSiR. My next hypothesis is as follows:

> **H3a**: *The negative effect of a target's CSiR on the acquisition premium will be more pronounced for out-of-state acquisitions than for in-state acquisitions.*

I also expect that the positive effect of the target's CSR on the premium could be more significant for an out-of-state acquirer than for an in-state acquirer because an out-of-state acquirer can reduce the regulation risk to a certain degree if the target has high CSR. However, I also expect that, an out-of-state acquirer may rely more on signals associated with a target's CSiR than those associated with target's CSR, to minimize the institutional environmental risk. Thus, I argue that, while the out-of-state acquirer may have a good impression of a high CSR target, it may not want to pay a higher premium

for that CSR (i.e., the effect of high CSR would be marginal) but it can pay relatively

more compared to the in-state acquirer. My next hypothesis is as follows:

H3b: *The positive effect of a target's CSR on premium will be more pronounced*

for out-of-state acquisitions than for in-state acquisitions.

Industry Relatedness

When the target and the acquirer share a related industry, the acquirer is likely to

possess knowledge of and operating expertise in the target's industry. Thus the acquirer is

familiar with the target's resources and the buyers' and suppliers' relationships

(Montgomery & Hariharan, 1991). The acquirer may not need to invest additional effort

to learn about the target industry (Chari & Chang, 2009; Reuer & Koza, 2000). Given the

acquirer's existing industry knowledge or expertise, the acquirer may also easily identify

the strengths or weaknesses of the target's operation, which can reduce the information

asymmetry concerning the target. On the other hand, when the acquirer and the target

occupy unrelated industries, the acquirer—even if the target supplies information about

the industry—may not quickly understand it or apply it to its valuation of the target

(Balakrishnan & Koza, 1993; Coff, 1999). For example, the target might present its

records about pollution controls and results of state/federal inspections, yet since the

acquirer is in a different industry it may not fully understand because each industry has

different types of regulations and enforcements. Thus, I expect that signals associated

with a target's CSiR/CSR will be more valuable for the acquirer in a different industry

and such an acquirer may have a greater incentive to utilize those signals to make

inferences about the target's overall quality. Accordingly, I hypothesize that the signaling

effects of a target's CSiR may be stronger for the acquirer from an unrelated industry

because the target's high CSiR can increase the acquirer' operating and ligation risk. My
next hypothesis is as follows:

*H4a: The negative effect of a target's CSiR on premium will be more
pronounced for M&A cases involving unrelated industries than for those
involving related ones.*

I also expect that, even if an acquirer from a different industry than the target buys
a target with high CSR and reduces its litigation risk or penalty, it may not rule out the
information the disadvantage of industry unrelatedness. So I argue that even if the
acquirer in a different industry from the target (in contrast to an acquirer in the same
industry) is more likely to utilize signals associated with a target's CSR, it may not want
to pay a higher premium for that CSR (i.e., the effect of high CSR would be marginal)
but it can pay relatively more compared with an acquirer in the same industry. My next
hypothesis is as follows:

*H4b: The positive effect of a target's CSR on the premium will be more
pronounced for unrelated industry acquisitions than related industry
acquisitions.*

3.4 Data and Methodology

Data

From the Securities Data Corporation (SDC) database of the M&As announced
by both U.S.-listed firms during the period of 1995-2013, I selected the deals that meet
the following criteria: (1) deal value of at least $10 million (total consideration paid by
the acquirer to target), (2) completed acquisitions of publicly traded targets, (3) acquirer
purchased 100% of the target's shares, (4) COMPUSTAT data for the year before of the
acquisition is available for both the target and the acquirer, (5) acquisition premium data

is available; (6) targets are listed in KLD data. These selection criteria result in 615

transactions of public acquirers purchasing public targets. Then I dropped those deals

where the acquirer was in either a financial or utility industry (i.e., firms with primary

Standard Industrial Classification [SIC] codes between 6000-6999 or between 4900 and

4999). The application of such criteria resulted in 426 transactions. Then following

Gondhalekar, Sant, and Ferris's (2004) argument that "premium paid by equity, debt, or

other securities acquirers can introduce contaminating financial structure considerations"

(p. 735), I selected deals involving cash-only payments, producing 215 transactions. This

implies that if I consider deals with all different types of payments, I may not get the true

effect of the target's CSiR/CSR on premium. Accordingly, my final sample includes 215

cases. My sample average of acquisition premiums is 40.53%, which is quite similar to

the past 20 years' average (about 40%; Laamanen, 2007). Over 70% of the deals are

from manufacturing industries and around 20% of the deals are from service industries.

Measurement

For signals associated with a target's CSiR/CSR (*independent variables*), I used

CSR ratings from KLD STAT,[3] which have been used in CSR literatures (Chand, 2006;

Sharfman, 1996; Waddock & Graves, 1997). I decomposed the CSR rating indices into

positive (i.e., strengths) and negative (i.e., concerns) indicators and then adjusted for year

effects.[4] The signal associated with the target's CSR was operationalized as the target's

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[3] KLD ratings are based on the seven dimensions of CSR (employee relations, diversity, environment, product quality, human rights, and community, corporate governance). Each of the seven CSR dimensions contains separate binary item measures of firm engagement in both positive activities (strengths) and negative activities (concerns). If a firm engages in the selected activity, it is marked as one, otherwise zero
[4] Since the number of strength and concern indicators in each dimension varied considerably each year, I rescaled each of the seven dimension scores as follows: (1) dividing the strength and concern scores at time t (the year preceding the announcement) for each dimension by the respective total number of strength and concern indicators in order to derive adjusted strength and concern scores for that dimension, then (2) summing up the adjusted strengths and concern score for each of the seven dimensions, separately.

CSR strengths and measured by the adjusted strength score (CSR), and the signal

associated with the target's CSiR was operationalized as the target's CSR concerns and

measured by the adjusted concerns score (CSiR). I used one year lagged CSR ratings

(from the acquisition announcement year).

For information asymmetry contextual factors, (1) geographical proximity

(*physical distance)* was the measured distance between the headquarters of the acquirers

and the targets. I first obtained the location of the acquirers and targets from the SDC

database and then matched the location data with data from the U.S. Census Bureau's

Gazettes and Zip Code Database to find the latitudes and longitudes of the acquirers and

targets. Then I calculated the distance between each acquirer and the target (dij), using

the following standard formula (adopted from studies of Kang & Kim, 2008 and

Ragozzino & Reuer, 2011):

$$d{i, j} = \text{arc } \cos\{\cos(\text{lat}i)\ \cos(\text{lon}i)\ \cos(\text{lat}j)\ \cos(\text{lon}j) + \cos(\text{lat}i)\ \sin(\text{lon}i)\ \cos(\text{lat}j)$$

$$\sin(\text{lon}j) + \sin(\text{lat}i)\ \sin(\text{lay}j)\}2\pi r/360$$

where lat and lon are the latitudes and longitudes of the acquirer and the target

locations, respectively, and r denotes the radius of the earth (approximately 6,378

kilometers).

For another information asymmetry contextual factor— (2) out-of-state vs. in-

state acquisition—in-state acquisition is identified with a dummy variable that takes the

value of one if the acquirer and target are located in the same state and takes the value of

zero if it is out-of-state. For another information asymmetry contextual factor— (3)

industry relatedness—I assigned it a value of one if the first three digits of the SIC code

for the main business of acquirer and target were the same, and zero otherwise (Campa & Hernando, 2004).

For acquisition premium (a dependent variable), I measured the percentage difference between a purchase price and a target's value one week prior to the date of the announcement of the acquisition reported in the SDC database. Some scholars use the four-week time lag to rule out the potential confounding effect of the takeover announcement and information leakage before the announcement (Beckman & Haunschild, 2002; Kisgen, Qian, & Song, 2009; Nathan & O'Keefe, 1989). Laamanen (2007) used the announcement-day premium to reduce the effect of distracting events without excluding the stock market's pre-announcement anticipation. In robustness analyses, I tested both four weeks prior to the date of the announcement return and the announcement-day premium. My results remained unchanged.

For control variables, I considered the following.

Control for target and acquirer characteristics.

Target's total assets (the natural log of total assets in millions of dollars, measured at the end of the year prior to the deal): The literature has reported that the target's size can negatively affect acquisition premiums because the potential gain from the target's assets could decrease as the target's size increases (Beckman & Haunschild, 2002; Comment & Schwert, 1995). In addition, target size can affect the acquirer's perception of information asymmetry. Large firms have typically smaller information asymmetry than do smaller firms (Coval & Moskowitz, 1999). Considering all this, I controlled for the target's size as well as **the relative deal size** (measured by the deal value reported in SDC over the market value of the acquirer). As the relative size of the

target becomes larger, the acquirer can reduce the information asymmetry; but it can also lose its negotiating power (Asquith, Bruner, & Mullin, 1983). To mitigate such an effect, I controlled for the relative size of the target.

Target's leverage (total debt over total assets at the end of the year prior to the deal, Martynova & Renneboog, 2011; Slusky & Caves, 1991): If the target has a high leverage, it is possible that even a target with high CSR may accept a low premium. I also controlled for ***Target's Free Cash Flow*** (earnings before interests, taxes, depreciations and amortizations divided by firm's total assets at the end of the year before the deal, Moeller et al., 2004) and the target's ***Market-to-Book Ratio*** (divide the firm's market capitalization value plus total debt by its total assets at the end of the year before the deal, Moeller et al., 2004) that can also affect the premium (Laamanen, 2007). To capture the target's growth opportunities, the acquirer may pay a higher premium for the target with the higher market-to-book ratio. I also controlled for the target's R&D capital (R&D expense to total asset) and advertising capital (advertising expenses to total asset) because both can affect the acquisition premium.[5] I also controlled for whether the target was close to a financial center, which can affect the target's debt capacity and acquisition premium.[6]

Control for Deal Characteristics.

Toehold (the percentage of ownership held by the acquiring firm in the target firm prior to the deal): The acquirer that has prior stakes in a target may have less information asymmetric by accumulating better quality information about target over holding periods

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[5] For missing value for each R&D capital and advertising capital, I replace as zero value and add dummy for each in my testing models.
[6] My results do not vary with/without this variable

(Mantecon, 2009). To control for toeholds, I used an indicator variable that took a value of one, if the acquirer had any prior ownership in the target and zero, if not. Acquirer's prior experience can also affect information asymmetry. A more experienced acquirer may pick a better one and can better negotiate the acquisition premium. To control, I counted the number of acquisitions that each acquirer had made during the three years preceding the focal transaction. I also incorporated a dummy variable indicating whether or not the acquisition was a tender offer (a public solicitation for target shareholders' stock). Target management often initially resists tender offers, resulting in higher premiums (Comment & Schwert, 1995). I included a control for competing bidders (number of bidders) because a target's bargaining power can increase in the presence of competing bidders (Bradley, Desai, & Kim, 1988; Giliberto & Varaiya, 1989), which can affect the acquisition premium. Competing bidders are represented by a dummy variable equal to one if another deal for the same target was announced during the 12 months prior to the announcement date of a focal deal and zero, otherwise.

Investment bankers: The target hiring the most reputable investment banks can obtain a higher acquisition premium by differentiating itself from others (Reuer et al., 2012). And also the number of investment bankers in the target and fee paid to them can also affect the premium. To rule out such effects, I controlled for the target's number of investment bankers, the investment bankers' reputation (using the ranking index developed by Carter & Manaster, 1990), and the amount of fee (computed as actual fee divided by the deal value). I also controlled for the acquirer's investment advisors (dummy; Haunschild, 1993). An acquirer that uses investment advisors may reduce the

information asymmetry (Laamanen, 2007).[7] I also controlled for mergers of equals (I do not include such cases), deal attitudes (hostile dummy), and potential industry effects (industry dummy by two digit SIC code) and year effect (dummy), all of which could influence the broader macroeconomic environments. Also, using high-tech industries classification report (http://www.aeanet.org), I controlled for whether either the target or acquirer is in a high-technology industry (dummy). I also controlled for industry relatedness (also used for one of my moderating variables) considering previous literature reporting that targets received lower premiums when selling to an acquirer from a different industry (Balajrishnan & Koza, 1993; Montgomery & Hariharan, 1991).

3.5 Empirical Findings

Table 1 provides descriptive statistics and correlations. Overall, the correlations suggest that multicolinearity should not pose any problems. I also checked through Variance Inflation Factors of my main explanatory variables (all below 10).

<p style="text-align:center">**[Insert Table.1 here]**</p>

Table 2 presents the result of testing the H1-H2 set using ordinary least square (OLS) regression, robust standard errors to adjust for heteroskedasticity (White, 1980) and industry clustering (by the acquirer's 2-digit SIC code).[8] Table 3 reports the regression analysis results of testing the H3-4 set. All models are statistically significant (p < 0.001). In Table 2, Model 1 includes only control variables. Directions of coefficients for variables (e.g., target asset, market-to-book value, R&D capital, advisor fee to deal value, acquirer's advisor, number of bidders, deal attitude, and high tech) were

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[7] I only control for whether acquirer hire investment banker or not in this study. While I attempt to control for the acquirer's number of investment bankers with their reputations like target's side, if I do, I lose too many cases from my sample since my sample included both private acquirers and public acquirers.
[8] Rather than industry clustering, I also adjust the errors by acquirer clustering. My results generally do not change.

consistent with previous literature, aside from the target's leverage. It significantly and positively affected the premium. This finding may call for further investigation. In Table 1, Models 2-4 testing the H1 set, serving as a baseline for my main argument, I found that the target's CSiR is significantly and negatively associated with the premium [Model 2] and the target's CSR is significantly and positively associated with the premium [Model 3]. In Model 4, inserting both target's CSiR and CSR in one regression, I found that the target's CSiR effect is much larger than its CSR effect on the premium. While a statistical significance is higher for both the target's CSiR and CSR, the target's CSiR has a greater explanatory power for the premium (i.e., change of adj. R-square before/after adding the variable) than the target's CSR. Hence, the H1 set is supported.

In Table 2, Models 5-7 testing the H2 set—the moderating role of geographic distance—I found no interaction effect between geographic distance and the target's CSiR in Model 5 or between geographic distance and the target's CSR in Model 6, while the main effects for both the target's CSiR and CSR remained the same. Thus the H2 set was not supported. This implies two things. (1) Geographic distance may not be an important factor affecting the acquirer's perception of target information asymmetries, at least for my sample (U.S. public acquirers buying the U.S. public firms operating in the U.S.). Or (2) Regardless of geographic distance, the acquirer relies on signaling associated with the target's CSiR/CSR to reduce information asymmetries concerning the target.

[Insert table.2 here]

In Table 3, Models 1-3 testing the H3 set—the moderating role of institutional environment (out-of-state acquisition = 0 vs. in-state acquisition = 1)—I found (in Model

8) a significant interaction effect between a target's CSiR and States, while no interaction effect (in Model 9) between a target's CSR and the state dummy variable. The significant interaction effect between a target's CSiR and the state dummy variable stayed the same after inserting the interaction term between a target's CSR and the state dummy variable (in Model 10). The positive coefficient of the interaction term between the target's CSiR and the state dummy variable (58.22 in Model 8 and 58.37 in Model 10) indicates that the negative effect of a target's CSiR is attenuated for an in-state acquirer, but magnified for an out-of-state acquirer. This indicates that an out-of-state acquirer further discounts a target with CSiR, while an in-state acquirer discounts less for a target with CSiR. As I predicted, it seems that out-of-state acquirers who are \unfamiliar with a target's state institutional environment are more speculative about the target's CSiR. If there are regulatory problems derived from the target's CSiR, out-of-state acquirers may not effectively manage them, compared to in-state acquirers. Accordingly, H3a is supported. That no interaction effect is found between a target's CSR and the state dummy variable in Model 9 suggests that regardless of different institutional environments, both out-of-state and in-state acquirers are likely to pay a premium for a target's CSR. H3b is not supported.

In Table 3, Models 4-6 testing the H4 set–the industry relatedness contingent factor (0 = unrelated, 1 = related), I found no interaction effect between a target's CSiR and industry relatedness in Model 1, while I found an interaction effect between a target's CSR and industry relatedness (Model 2: coeff: -34.945, $p < 0.1$). This finding suggests two things. (1) Regardless of industry relatedness, an acquirer relies on signals associated with the target's CSiR and likely discounts for it. Or (2) Signals associated with a target's

CSiR are ineffective at reducing information asymmetries driven by industry relatedness. Accordingly, H4a is not supported. In contrast, an interaction effect between a target's CSR and industry relatedness indicates that an acquirer in an industry unrelated to that of the target, with the attendant information disadvantages, seems to rely largely on signals associated with the target's CSR to mitigate those information asymmetries. The reverse is true for the acquirer in the industry related to that of the target. In other words, the value of signals associated with a target's CSR is attenuated (magnified) for the acquirer in the industry related (unrelated) with the target. Accordingly, H4B is supported. I found same interaction effect for the target's CSR, whereas there was no interaction effect for the target's CSiR. This was a different result from the institutional environment contingent effect.

In sum, my findings suggest that signals associated with both a target's CSiR and CSR play a significant role in mitigating information asymmetry, thereby affecting premium. But it seems that signals associated with a target's CSiR are more impactful for the acquirer, as evidenced by a relatively larger magnitude and consistent significance of the target's CSR effect on the premium across different model specifications. My findings also suggest that the acquirer is more likely to utilize signals associated with a target's CSiR, specifically when the information asymmetry problem is larger because of different institutional environment contexts. My findings for reducing (increasing) the positive effect of a target's CSR on premium in the industry-related acquisition cases (in industry-unrelated acquisition cases) also suggest that a target's CSR is a reputational asset, in addition to a mechanism that reduces information asymmetries. The acquirer entering an unrelated industry seems to pay more attention to the target's CSR/reputation

because it directly represents the target's relationships with stakeholders, which could affect the financial performance of the combined firm. As it takes longer to build good relationships with stakeholders, the acquirer in an unrelated industry is likely to pay a higher premium for the target's CSR. In contrast, the acquirer in an industry related to that of the target who may already know about stakeholders in the industry and about how to manage the relationships with them, seems not to highly value the target's CSR.

[Insert Table 3 here]

Robustness Check and Additional Tests:

First, I controlled for acquirer's size with other acquirer characteristics (e.g., leverage, free cash flow, and market-to-book value) considering managerial opportunism and hubris arguments – an acquirer's size can positively influence the acquisition premium (Demsetz & Lehn, 1985; Hayward & Hambrick, 1997). My results were stable with/without those variables. While it is great to insert those in my testing models, this leads to losing some sample and thus I leave it out in my final model.

Second, I controlled for the potential synergy gains considering arguments that they could positively affect acquisition premiums unless the synergies are equally available to many potential bidders (Sirower, 1997; Slusky & Caves, 1991). My results also remained the same after controlling for potential synergy gains (reported in SDC).

Third, my results were also stable after controlling for additional target characteristics: sales growth rate, operating profit margin, and working capital investment and also after controlling for the target's returns prior to the M&A announcement (abnormal returns of target prior to the announcement, in the interval [-60, -2], Martynova & Renneboog, 2011).

Fourth, I controlled for the effects of the acquirer's CEO characteristics (age, gender, tenure, CEO duality, ownership percentage) that could affect the acquisition premium. My results also remained stable. I also tested for a moderating role of each CEO characteristic variable and found some interesting results. If the acquirer's CEO was female, the acquirer responded more sensitively to signals associated with the target's CSiR/CSR. The magnitude and significance of both the negative effect of the target's CSiR and the positive effect of the target's CSR increased in the case of a female CEO acquirer. When the acquirer's CEO was older, the acquirer likely paid more for the target's CSR. But, other CEO characteristics such as CEO tenure, CEO duality, and CEO ownership percentage had no such effect.

Fifth, I also controlled for whether the acquirer was located in a "blue state" or a "red state," considering previous findings that a firm from a blue state tended to pay more attention to CSR, as its stakeholders (including investors) did so (Deng et al., 2013; Giuli & Kostovestsky, 2014). I expected that acquirers from blue states would be would be willing to discount more for the target's CSiR and would be willing to pay a higher premium for higher target CSR. However, I did not find an interaction effect. My results remained the same for both with and without the "blue" and "red" state dummy variable.

Sixth, I also tested the moderating effect of target's intangibles (a ratio of total intangible asset to total assets). However, I found no interaction effect. Intangibles encompass a broad accounting category (e.g., goodwill, the value of employment contracts, customer agreements, advertising rights, network affiliation, and deferred pension assets). This may be because for the acquirer, each component of an intangible may have a different degree of uncertainty.

Seventh, for the geographic proximity measure, I used the distance of a dummy of 250 miles (within 250 miles vs. beyond 250 miles) between the acquirer and the target, following Ivkovic and Weisbenner's (2005) argument—the distance of 250 miles is a plausible upper bound on the span of "local information," that is, information attainable with a daily round trip by car. I also used a dummy of 100 kilometers. Consistent with my findings (using a continuous measure of distance), I found no interaction effect.

Eighth, I tested my hypotheses using a sample including both private and public acquirers and obtained a similar result for the main effects–the negative effect of a target's CSiR and the positive effect of a target's CSR. The interaction effects with the different kinds of asymmetry information context were not strong. This may be attributed to the fact that public acquirers may care more about their reputation and would thus pay more attention to signals associated with the target's CSiR/CSR.

Ninth, I also tested my hypotheses using a sample including both stock payment and cash payment by controlling for the method of payment. The main effects remained the same, but the interaction effects with different kinds of asymmetric information contexts were not consistent. Previous studies have reported that a choice of payment method may represent an acquirer's perception of information asymmetries (Coff, 1999; Dierickx & Koza, 1991) and stock payment can help mitigate information asymmetry (Officer, Poulsen, & Stegemoller, 2009). Thus, if the acquirer uses a stock payment, the information asymmetry contexts (I admitted in my study) may be ineffective at testing my hypotheses. One might assume that a cash-paying acquirer, who unlike the stock-paying acquirer cannot mitigate the payment risk, is responding more sensitively to

different kinds of asymmetry information contexts and relying more on signals associated with the target's CSiR/CSR.

Tenth, I also tested specific dimensions of CSiR/CSR effect on premium. I found nothing, aside from diversity, of any significance. I also tested for different classes of CSR (CSR related to more ethical and discretionary responsibilities vs. CSR related to socially required part by legal and regulatory compliance). This too yielded no significant findings. A future study might investigate the specific dimensions of CSiR/CSR in more detail.

3.6 Discussions and Conclusion
Contributions and Implications

My study produced two main results: (1) Signals associated with the target's CSiR/CSR can reduce information asymmetry by delivering messages about the overall quality of a target, which, in turn, influences the premium. (2) With increased information asymmetries driven by a difference in institutional environment between the target and the acquirer, the acquirer is likely to rely more on signals associated with a target's CSiR to reduce uncertainty. Thus the negative effect of a target's CSiR on premium becomes more prominent. The acquirer is also likely to utilize signals associated with the target's CSR to reduce uncertainty and enjoy a benefit from the target's reputation in an unrelated industry.

Overall, my study contributes to several different streams of research. First, for the CSR literature, previous studies (on whether CSR-created value for shareholders) suggested two competing views. The first view, consistent with a stakeholder management theory, argues that a firm investing in CSR can build good relationships with its stakeholders and stakeholders who benefit from the CSR are likely to support the

firm. In turn, this positively affects both financial and non-financial outcomes (Legnick-Hall 1996; Waddock & Graves, 1997). The competing view, in relation to agency cost theory, argues that corporate insiders may pursue CSR to enhance personal benefits like philanthropic reputation at the expense of shareholders (Aupperle, Carroll, & Hatfield, 1985; Benabou & Tirole 2010; Goss & Roberts 2011). Empirical results testing a link between CSR and shareholder value were mixed (for reviews of the literature, see Orlitzky, Schmidt, & Rynes, 2003; Margolis & Walsh, 2003; Margolis, Elfenbein , Walsh, 2009). My study finds evidence to support stakeholder management theory: CSR creates value in specific contexts. Even if a firm's CSR cannot positively influence the value of its shareholder in the short term, it can create value for its shareholders when selling it. This finding also reflects the acquirer's growing concern for a target's CSiR/CSR as a source of mitigating information asymmetry or as a source of reputational assets. Thus, the target engaging in CSiR may not realize such gains and rather destroy the value for its shareholders.

Second, my study extends the literature on the signaling role of CSR in reducing information asymmetries (Ramchabderm, Schwebach, & Kim, 2011; Riley, 2001; Siegel & Vitaliano, 2007) in the M&A context. I highlight that the acquirer relies on signals associated with a target's CSiR/CSR to reduce information asymmetries but the acquirer seems to put more weight on signaling associated with the target's CSiR. This effect varies by different kinds of asymmetry information contexts.

Third, the strategic management literature on information asymmetry effects in the M&A market (Hennart & Reddy, 2000; Nayyar, 1993) pays less attention to the target's characteristics that can increase/decrease the information asymmetry problem

and more attention to those that have an effect on an acquirer's actions. Previous acquisition premium research (Graebner & Eisenhardt, 2004; Haleblian, Devers, McNamara, Carpenter, & Davisonm 2009; Shimizu & Hitt, 2005) has largely focused on the acquirer's side. For example, Hyward and Hambrick (1997) studied how managerial hubris or overconfidence shape higher premiums. Beckman and Haunschild (2002) and Haunschild (1994) examined the effect of an acquirer's network ties with other organizations (through interlocking directorates and acquisition advisors). Haleblian et al. (2009) examined the effect of an acquirer's prior acquisition experience. Relatively few studies have considered the target's characteristics. My study contributes to fill such a gap by revealing the importance of a target's CSiR/CSR in reducing information asymmetry and as a determinant of premium.

Implications for Practitioners

My study has several implications for both managers of firms that are willing to sell (potential target) and managers of firms that are willing to buy another (potential acquirers) or just for managers since potential target could be potential acquirer, or vice versa.

For managers of firms who are willing to sell, taking care of CSiR issues (e.g., any violation or compliance problems related to CSR) should be carried out first, before pursuing additional CSR activity. And, any action taken for CSR should be announced to the public through private and/or public channels to send a positive signal to the potential acquirer who likely considers it in making a premium decision. It is also important to continue investing in CSR, since it will lead to a better bargaining position and thus a higher acquisition premium.

For managers of firms that are willing to acquire another firm, investors' concern regarding CSiR/CSR will be stronger with their better monitoring capability. Thus, besides utilizing signals of a target's CSiR/CSR in the valuation of a target, the acquirer may have a strategic plan for how to exploit (repair) target's CSR (CSiR) after the M&A. Paying a higher premium for a target's CSR could destroy the value of the acquirer's shareholders unless the acquirer can extract rents from the acquisition of such a target. Also, even if the acquirer bought a high CSiR firm at a significantly discounted price, it could destroy the value of its shareholders if there is an unexpected litigation/penalty following the M&A. To avoid such a risk, the potential acquirer may develop its own strategic guidelines/disciplines as part of its CSR program, in addition to putting more effort into the due diligence process.

Limitations and Future Study

My study has several limitations. First, as I use secondary datasets without incorporating survey data, I cannot identify any firm-specific factors that influence target selection and premium. Future studies might supplement them with survey data to reveal any firm-specific factors. Second, my study is limited to the U.S. context, where CSR is important to stakeholders (including potential acquirers). Thus, the external validity (generalizability) of my findings could be limited to contexts that are similar to the U.S in terms of CSR orientation. Third, I tried, but failed to, incorporate the acquirer's acquisition motive due to the difficulty of categorizing it. Different acquisition motives may influence differently the acquirer' incentive to utilize signals associated with a target's CSiR/CSR and its subsequent impact on premium. For example, if an acquisition motive is to quickly learn specific skills/capabilities, the target's CSiR/CSR will not be

an issue for the acquirer. Future studies might test the moderating role of acquisition motive in this setting. Fourth, the dataset I used (KLD) covered large-sized firms in terms of market capitalization and thus my sample does not include small and private targets. This sample bias could also have limited my ability to generalize my results.

List of Tables (Essay 2)

Table.1 Descriptive statistics and correlation table

	Variables	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Acquisition premium	40.53	36.1	1													
2	Target's CSiR	0.31	0.25	-0.08	1												
3	Target's CSR	0.13	0.23	0.08	-0.03	1											
4	States	0.21	0.41	-0.04	-0.06	0	1										
5	Target's CSiR*States	0.06	0.15	0	0.21	0.02	0.77	1									
6	Target's CSR*States	0.03	0.11	-0.02	0	0.36	0.48	0.41	1								
7	Physical distance	144.7	1362.44	0.02	0.09	-0.01	0.51	0.4	0.25	1							
8	Target's CSiR*Physical distance	24.57	290.94	0.02	-0.05	-0.07	0.08	-0.19	-0.02	0.09	1						
9	Target's CSR*Physical distance	-8.64	300.79	-0.01	-0.08	0.19	0.09	0.06	-0.31	-0.17	-0.07	1					
10	Industry relatedness	0.48	0.5	-0.03	0.01	-0.03	-0.05	0	-0.03	0.01	0.11	0.06	1				
11	Target's CSiR*Industry relatedness	0.15	0.24	-0.11	0.54	0.03	-0.03	0.1	-0.02	0.01	0.19	0.02	0.67	1			
12	Target's CSR*Industry relatedness	0.06	0.16	0.01	0.07	0.57	-0.01	0	0.15	0.03	-0.08	0.05	0.39	0.33	1		
13	Target's R&D capital	0.03	0.14	0.36	-0.08	0	0.07	0.06	0.07	0.05	0.11	-0.05	0.15	0.01	0	1	
14	Target's CSiR*Target's R&D	-0.004	0.03	-0.32	0.11	-0.04	0.02	0.05	0.03	0.12	0.04	-0.05	-0.11	0.03	-0.05	-0.4	1
15	Target's CSR*Target's R&D	-0.001	0.03	-0.23	-0.03	0.3	0.04	0.06	0.25	-0.07	0.06	-0.26	-0.14	0.08	0.04	0.52	0.2
16	Target Total asset(log)	5.9	1.32	-0.02	0.24	0.14	0.02	0.11	0.11	-0.06	-0.18	0.07	-0.06	0.08	0.13	-0.37	0.05
17	Target's leverage	0.44	0.36	0.36	0.03	0.01	0.03	0.01	0.01	-0.06	-0.03	-0.04	-0.12	0.08	0.06	0.21	-0.1
18	Target's free cash flow	0.01	0.22	-0.19	0.11	0.03	-0.08	-0.03	-0.01	0	0.12	-0.01	0.19	0.01	0	0.55	0.24
19	Target's Market to book value	2.67	7.87	-0.1	-0.01	0.06	0.02	-0.06	-0.03	0.04	0.03	-0.1	0.09	0.06	0.09	0.01	0.04
20	Target's Advertising capital	0.01	0.03	0	0.03	0.05	-0.01	0	-0.01	0.07	0.05	0.02	0.01	0	0.01	0.02	0.1
21	Closed to financial centers	0.47	0.5	0.14	-0.11	0.07	0.25	0.13	0.19	0.11	0.05	-0.06	-0.12	0.16	0.06	0.25	-0.05
22	Relative size	0.31	0.52	-0.13	0.12	0.04	-0.06	-0.01	-0.04	0.01	0.06	0.06	0.06	0.11	0.13	-0.16	0.01
23	Target's Number of advisor	1.23	0.5	-0.01	0.16	0.16	-0.06	-0.04	-0.04	0.05	-0.22	0.1	-0.03	0.17	0.07	-0.11	-0.02
24	Target's advisor tier	2.35	0.9	-0.05	0.04	0.02	0.07	-0.05	-0.1	0.04	-0.19	-0.03	-0.09	0.01	0.08	-0.08	0.02
25	Target's advisor fee to deal value	0.01	0.01	0.19	-0.1	-0.13	0.02	-0.06	-0.1	0.18	0.1	-0.05	-0.08	-0.09	-0.03	0.29	-0.15
26	Acquirer's experience	2.15	2.02	0.12	0.02	0.05	0.06	0.06	0.18	0.04	0.04	-0.09	-0.0	0.05	0.01	0.19	-0.12
27	Acquirer's advisor dummy	0.82	0.39	0.01	0.09	0.03	-0.04	0	-0.02	0.04	0.04	-0.09	-0.06	0.05	-0.02	-0.14	0.07
28	Number of bidder	1.05	0.27	0.13	0.07	-0.07	-0.05	-0.04	-0.03	0.11	-0.06	-0.05	-0.09	0.07	0.03	-0.03	0.02
29	Tender offer	0.35	0.48	0.23	-0.1	-0.03	-0.03	-0.02	-0.04	0.06	-0.03	-0.04	0.01	-0.07	0.01	0.19	-0.08

30	High tech dummy	0.67	0.47	0.05	-0.15	-0.05	0.14	0.02	0.1	0.09	0.18	-0.05	0.05	-0.09	-0.12	0.38	-0.03

		15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
15	Target's CSR* Target's R&D	1															
16	Target Total asset(log)	0.25	1														
17	Target's leverage	-0.14	0.17	1													
18	Target's free cash flow	0.34	0.45	-0.21	1												
19	Target's Market to book value	-0.1	-0.08	-0.15	0.02	1											
20	Target's Advertising capital	0.01	-0.01	0.11	0.04	-0.02	1										
21	Closed to financial centers	-0.05	-0.06	-0.01	-0.05	0.01	-0.01	1									
22	Relative size	0.03	0.19	-0.05	0.15	-0.03	0.07	-0.14	1								
23	Target's Number of advisor	0.11	0.33	0.2	0.1	-0.02	0.04	-0.04	0.06	1							
24	Target's advisor tier	-0.04	0.29	0.03	0.02	-0.02	-0.06	0.05	0.06	0.13	1						
25	Target's advisor fee to deal value	-0.17	-0.47	0.14	-0.26	0.02	0	0.15	-0.14	-0.11	-0.13	1					
26	Acquirer's experience	-0.03	-0.01	0.08	-0.15	0.04	-0.06	0.27	-0.27	0.08	0.1	0.12	1				
27	Acquirer's advisor dummy	0.03	0.28	0.03	0.16	-0.02	0.04	-0.04	0.12	0.11	0.17	-0.31	-0.24	1			
28	Number of bidder	-0.01	0.12	0.01	0.05	0.02	-0.02	0.05	0.13	0.12	-0.01	-0.04	-0.02	0.1	1		
29	Tender offer	-0.17	-0.1	0.03	-0.12	0.07	0.06	0.11	-0.12	0.02	0.03	0.1	0.01	0.12	0.08	1	
30	High tech dummy	-0.11	-0.29	-0.07	-0.25	0	-0.2	0.34	-0.23	-0.16	-0.06	0.21	0.31	-0.13	-0.04	0.02	1

N=215, Absolute value of Correlation coefficient, 0.11 is significant at p-value=0.05

Table.2 OLS result for testing H1set to H2set

DV= Acquisition premium	Control only	H1a	H1b		H2a	H2b	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Target's Corporate Social **Irr**esponsibility (**CSiR**)		-34.815**		-33.87**	-35.67***		-36.23***
		(12.77)		(12.71)	(11.62)		(12.38)
Target's Corporate Social Responsibility(**CSR**)			18.501***	16.745**		21.77***	22.132***
			(5.89)	(6.40)		(6.10)	(4.45)
Physical distance (Km)					-0.002	-0.003	-0.002
					(0.00)	(0.00)	(0.00)
Target's **CSiR*** Physical distance (Km)					0.005		0.003
					(0.01)		(0.01)
Target's CSR* Physical distance (Km)						-0.004	-0.008
						(0.01)	(0.01)
Target asset (log)	2.608	3.154	1.224	1.887	3.293	1.300	2.097
	(3.83)	(3.50)	(3.79)	(3.67)	(3.86)	(4.20)	(3.98)
Target leverage ratio	43.91***	42.28***	45.81***	44.04***	40.63**	43.79***	42.44***
	(14.32)	(14.20)	(13.98)	(14.00)	(15.17)	(15.01)	(15.07)
Target free cash flow	-16.857	-15.811	-14.207	-13.440	-14.430	-14.041	-13.769
	(16.96)	(20.69)	(19.29)	(23.10)	(21.07)	(19.17)	(22.83)
Target Market to book value	-0.160	-0.091	-0.097	-0.036	-0.131	-0.148	-0.083
	(0.36)	(0.35)	(0.35)	(0.33)	(0.32)	(0.31)	(0.30)
Target R&D to total asset	-42.556	-36.353	-44.171	-37.981	-41.385	-49.298	-46.018
	(36.45)	(38.02)	(37.07)	(38.92)	(35.48)	(35.24)	(35.66)
Target Advertising to total asset	-79.722	-78.534	-96.639	-93.877	-37.198	-51.989	-42.637
	(155.36)	(155.66)	(145.60)	(147.30)	(146.58)	(129.69)	(137.37)
Target closed to financial strict (dummy)	-4.863	-2.743	-4.464	-2.438	-1.370	-3.017	-1.003
	(6.00)	(6.50)	(6.09)	(6.50)	(6.72)	(6.58)	(6.75)
Relative size	-5.971	-6.160	-6.241	-6.399	-5.652	-5.410	-5.823
	(4.18)	(4.38)	(4.39)	(4.57)	(4.08)	(4.06)	(3.99)
Target number of advisor	-4.683	-5.643	-7.723	-8.369	-3.435	-5.819	-5.924
	(6.54)	(6.50)	(6.89)	(7.29)	(6.82)	(7.55)	(7.16)
Target advisor tier	-4.366	-4.325	-3.926	-3.928	-3.750	-3.493	-3.397
	(2.63)	(2.81)	(2.60)	(2.82)	(2.64)	(2.21)	(2.42)
Target advisor fee to deal value	566.058	511.697	524.666	475.697	701.800	756.822	698.233
	(565.57)	(547.11)	(568.61)	(540.14)	(620.96)	(705.89)	(627.63)
Acquirer's acquisition experience	1.273	1.382	0.953	1.089	2.056*	1.694	1.708
	(0.87)	(0.96)	(0.97)	(1.05)	(1.17)	(1.14)	(1.21)
Acquirer's advisor (dummy)	1.280	-1.934	1.781	-1.394	-3.231	-0.497	-3.914
	(9.50)	(10.00)	(9.97)	(10.45)	(9.75)	(10.31)	(10.60)
Number of Bidders	-0.947	2.405	1.083	4.152	2.081	0.871	3.571
	(18.67)	(18.97)	(20.09)	(20.40)	(21.17)	(22.76)	(23.07)
Deal Attitude	-16.508	-9.218	-23.113	-15.392	7.308	-8.128	2.605
	(43.51)	(45.10)	(45.90)	(47.24)	(45.30)	(44.19)	(46.65)
Tender offer (dummy)	-5.024	-4.058	-5.778	-4.767	-4.848	-6.237	-5.207
	(4.99)	(4.08)	(4.73)	(3.78)	(4.24)	(4.50)	(3.92)
Industry relatedness (dummy)	-3.713	-3.378	-4.138	-3.771	-2.928	-4.344	-3.593
	(4.60)	(4.66)	(4.54)	(4.56)	(4.48)	(4.40)	(4.37)
State (out-of-state =0, in-state=1)	7.688	6.883	7.547	6.777			
	(7.75)	(7.01)	(7.98)	(7.23)			
High tech (dummy)	-8.789	-8.210	-12.204	-11.316	-9.052	-14.182	-13.206
	(11.58)	(10.54)	(11.72)	(10.77)	(10.50)	(11.80)	(10.46)
Target's R&D expenses (dummy)	-7.674	-6.204	-6.378	-5.071	-5.469	-4.992	-4.287
	(7.73)	(7.75)	(8.24)	(8.17)	(6.82)	(7.36)	(7.17)
Target's advertising expense(dummy)	2.643	2.995	2.338	2.709	5.552	4.621	4.782
	(5.45)	(5.13)	(6.15)	(5.75)	(5.71)	(7.00)	(6.57)
constant	48.234*	58.932	57.761**	73.688	24.905	61.627	38.108
	(27.26)	(47.58)	(26.80)	(48.11)	(45.84)	(39.25)	(44.79)
Industry and year effect control	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	215	215	215	215	215	215	215
R-Squared	0.507	0.537	0.516	0.545	0.540	0.519	0.550

| Adjusted R-Squared | 0.262 | 0.302 | 0.270 | 0.308 | 0.301 | 0.270 | 0.308 |

Note: *, **and *** represent statistical significance at the 10%, 5%, and 1% levels respectively.

Table.3 OLS result for testing H3set to H4set

DV= Acquisition premium	H3a	H3b		H4a	H4b	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Target's Corporate Social **Irr**esponsibility (**CSiR**)	-40.87***		-39.70***	-37.953**		-33.822**
	(13.47)		(13.42)	(16.29)		(15.66)
Target's Corporate Social Responsibility(**CSR**)		19.79***	17.50***		33.123***	27.236***
		(5.20)	(5.67)		(9.13)	(7.40)
Target's CSiR *State (dummy)	58.220**		58.374**			
	(23.03)		(21.50)			
Target's CSR *State (dummy)		-15.297	-10.603			
		(30.43)	(32.70)			
Target's **CSiR*** Industry relatedness				6.864		5.578
				(11.64)		(11.21)
Target's **CSR*** Industry relatedness					-34.945*	-25.343*
					(18.00)	(14.19)
Target asset (log)	3.065	1.143	1.748	3.196	1.770	2.284
	(3.61)	(3.90)	(3.90)	(3.51)	(3.91)	(3.82)
Target leverage ratio	43.93***	45.95***	45.79***	42.198***	45.521***	43.878***
	(13.81)	(13.97)	(13.66)	(14.17)	(14.24)	(14.22)
Target free cash flow	-20.163	-13.258	-17.173	-15.783	-14.990	-14.080
	(20.24)	(19.94)	(22.67)	(20.64)	(21.28)	(24.31)
Target Market to book value	-0.085	-0.094	-0.029	-0.087	-0.109	-0.048
	(0.36)	(0.35)	(0.34)	(0.35)	(0.32)	(0.31)
Target R&D to total asset	-44.579	-43.155	-45.558	-35.776	-48.983	-41.457
	(38.35)	(38.14)	(40.38)	(38.55)	(39.26)	(41.33)
Target Advertising to total asset	-88.353	-98.424	-104.847	-85.187	-111.327	-109.922
	(139.19)	(149.31)	(135.66)	(162.77)	(137.31)	(149.06)
Target closed to financial strict (dummy)	-3.451	-4.424	-3.139	-2.696	-4.282	-2.430
	(6.25)	(6.06)	(6.23)	(6.55)	(6.13)	(6.60)
Relative size	-5.242	-6.164	-5.423	-6.203	-5.653	-5.992
	(4.39)	(4.45)	(4.63)	(4.47)	(3.75)	(4.19)
Target number of advisor	-5.819	-7.887	-8.630	-5.968	-9.334	-9.711
	(6.38)	(6.96)	(7.20)	(6.22)	(6.96)	(7.21)
Target advisor tier	-3.909	-3.806	-3.431	-4.400	-3.317	-3.553
	(2.67)	(2.58)	(2.61)	(2.80)	(2.80)	(2.94)
Target advisor fee to deal value	527.117	503.277	477.014	531.958	640.187	580.263
	(518.64)	(597.51)	(540.51)	(557.74)	(584.10)	(561.66)
Acquirer's acquisition experience	1.362	1.023	1.120	1.372	0.963	1.082
	(1.00)	(0.99)	(1.15)	(0.97)	(1.01)	(1.09)
Acquirer's advisor (dummy)	-2.433	2.059	-1.682	-1.706	1.836	-0.931
	(10.35)	(10.12)	(10.92)	(9.96)	(9.68)	(10.23)
Number of Bidders	2.905	1.020	4.572	2.846	2.376	5.186
	(18.19)	(19.92)	(19.42)	(18.63)	(19.66)	(19.90)
Deal Attitude	-13.679	-23.524	-20.154	-10.304	-15.027	-10.916
	(42.76)	(45.66)	(44.25)	(45.69)	(43.02)	(45.70)
Tender offer (dummy)	-2.726	-5.869	-3.496	-4.094	-5.630	-4.756
	(3.88)	(4.65)	(3.52)	(4.08)	(4.70)	(3.80)
Industry relatedness (dummy)	-4.324	-4.019	-4.637	-5.527	1.256	-1.628
	(4.66)	(4.51)	(4.54)	(6.54)	(6.84)	(8.45)
State (out-of-state =0, in-state=1)	-23.305*	-5.505	-21.834	6.975	6.290	6.001
	(13.12)	(10.64)	(15.95)	(7.04)	(7.48)	(6.99)
High tech (dummy)	-8.502	-12.489	-11.786	-8.523	-10.512	-10.366
	(10.79)	(11.59)	(10.86)	(10.69)	(11.38)	(10.84)
Target's R&D expenses (dummy)	-7.709	-6.311	-6.553	-6.204	-7.454	-5.969
	(8.00)	(8.41)	(8.47)	(7.91)	(8.63)	(8.60)
Target's advertising expense(dummy)	1.585	2.330	1.290	3.056	2.878	3.126
	(4.67)	(6.13)	(5.25)	(5.12)	(6.85)	(6.23)
constant	75.633	65.455**	90.629*	60.750	64.872	63.898
	(46.88)	(24.20)	(47.63)	(48.35)	(38.32)	(44.84)
Industry and year effect control	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	215	215	215	215	215	215
R-Squared	0.547	0.517	0.555	0.537	0.526	0.550
Adjusted R-Squared	0.313	0.266	0.315	0.298	0.281	0.307

Note: *, **and *** represent statistical significance at the 10%, 5%, and 1% levels respectively

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Chapter 4. Essay Three.

Difference in Environmental Regulation Stringency and

Market Reaction to Cross-Border Mergers and Acquisitions

4.1 Abstract

I examine how environmental distance, i.e. The difference in the stringency of environmental regulations, between the home- and the host country affects investors' responses to cross-border M&A (CBA) announcements. I argue that investors negatively respond to CBA announcements that involve an acquirer entering a host country with lower environmental regulations than those of the home country because of the potential added reputational risk and/or added environmental protection costs associated with such acquisitions. In contrast, when firms acquire targets in countries with more stringent environmental regulations, the negative market reaction disappears because there is little reputational risk and/or added cost because the target already complies with the more stringent environmental regulations. I also argue that the industry relatedness between acquirer and target moderates the relationship between environmental distance and market reaction because of the potential of transferring environmental resources/capabilities from the acquiring firm to the target firm when entering a host country with a lower environmental regulation than that of the home country. Empirical results based on a sample of 890 completed CBAs conducted by U.S. public firms in environmentally sensitive manufacturing industries between 1995 and 2011 provide robust support for my theoretical arguments.

4.2 Introduction

In recent years, there has been heightened public concern regarding environmental protection. Environmentalists and other stakeholders are increasingly demanding improved corporate environmental performance (Eesley & Lenox, 2006; Rugman & Verbeke, 1998). This issue is particularly important for multinational corporations (MNCs) which often face the criticism of exploiting the host market environments for economic gains (Christmann, 2004; Husted & Allen, 2006; Delmas & Toffel, 2010). There is little research on how different stakeholder groups respond to MNCs' location decisions with reference to environmental concerns. I examine this issue by looking at the response of an important stakeholder group – the investors in the home markets – as MNCs engage in cross-border acquisitions (CBAs) in countries with varying environmental standards.

I develop my arguments based on the pollution haven hypothesis (PHH), which argues that a stricter environmental regulatory regime increases production costs and encourages polluting firms to shift their operations to locations with less stringent environmental regulations (Pethig, 1976; McGuire, 1982; Rauscher, 2005). The theoretical foundation of the PHH is in the Heckscher Ohlin model (1933) with pollution as a factor of production (McGuire, 1982). While there is no clear concensus on the empirical validity of the PHH (Eskeland & Harrison, 2003; Smarzynska & Wei. 2005, Kellenberg, 2009, Rezza, 2015), there is anecdotal evidence to suggest that MNCs search pollution haven locations. I examine whether this perception is also held by the investors by looking at investors' responses to MNCs' location choice with less- or more stringent environmental regulations relative to those of the home countries.

When an acquiring firm enters a country with lower environmental regulations, that firm may have an option to choose its environmental policy based on the host-market standard or global standards. If the acquirer follows lower local standards, its future environmental performance would likely be reduced; at the same time, it would allow the MNC to save on production costs, as the PHH suggests. Such a path, however, could increase environmental and social risk. On the other hand, if the acquirer chooses to implement a globally standardized environmental policy, its future environmental performance would not be reduced. However, due to the potential difficulty of doing so, especially when the local market lacks specific environmental capabilities, investors may still question the acquirer's future environmental performance in the host country. Also, even if the acquirer successfully implements its standardized environmental policy, the implementation costs could be very high, raising investment costs, which can make investors feel unsure about a positive outcome from acquisition. Given the two options of environmental policies described above that the acquirer may choose to pursue, investors are likely to respond negatively to acquisitions in countries with lower environmental regulations, regardless of which environmental policy the MNC pursues. In contrast, when MNCs enter countries with more stringent environmental regulations than those of the home country, they are obligated to follow the more stringent local standards. This action minimizes the concerns about reduction in environmental performance as well as the concern about environmental and social risk. In addition, the acquired company in the host country may already have the capabilities to meet local environmental regulations, so that the implementation cost concerns regarding entering countries with higher

environmental regulations are lower. As a result, investors are likely not to respond negatively to such CBA announcements.

I further examine how the relationship between environmental regulation distance (difference in environmental regulation stringency between the home- and host countries) and the market reaction to CBA announcements is contingent on industry relatedness between the acquiring- and target firms. When MNCs acquire a firm within the same industry, the negative market response to entering a country with lower environmental regulations likely becomes weaker because of the potential of transferring environmental resources/capabilities from the acquiring firm to the target firm. Industry relatedness, however, may not be important when moving to a country with more stringent environmental regulations, since in this case, rather than transferring their environmental practices to the local firm, MNCs will maintain the local firm's practices, which are likely more advance to comply with local regulations.

I test my hypotheses using a sample of 890 completed CBAs conducted between 1995 and 2011 by publicly listed US firms in environmentally sensitive industries, i.e., industries characterized by high levels of pollution such as petrochemicals, paper steel, basic metals and chemicals. As firms in these industries are highly affected by environmental regulations and are subject to greater public scrutiny and concerns, I expect that investors will pay attention to the location choice of firms in these industries in CBAs, especially when a firm enters a country with relatively lower environmental regulations. My findings suggest that when environmental distance (The difference in the stringency of environmental regulations, between the home- and the host country) increases, this negatively affects the valuation of CBAs. Furthermore, industry

relatedness between the acquirer and the target reduces this negative effect due to the possibility of the acquiring firm transferring some of its environmental capabilities to the target and maintaining a similar level of environmental standards in the acquired entity.

My study contributes to the literature on the impact of MNCs location choices on firm performance. Specifically, I identify an important institutional difference – inter-country difference in environmental regulation stringency – that has implications for firm performance. Prior studies on PHH have mainly looked at MNCs' location choice decision, but not at the performance implications of the location choice (Antweiler, Copeland, & Taylor, 2001; Javorcik & Wei, 2004; Cole & Elliott, 2005). By examining the market reaction to location choice, I show that locating in pollution havens accrues a potential cost to the investor.

4.3 Theoretical Development and Hypotheses

Investors and Corporate Environmental Responsibility

Over the last two decades, corporate environmental responsibility has been brought to the forefront of executives' agendas due to increased awareness about protecting the natural environment and the resulting pressure from different stakeholder groups (Cho, Guidry, Hageman, & Patten, 2012; Hart & Ahuja, 1996). Environmental and other corporate social responsibility (CSR) activities have become a key driver for enhancing firm reputation and financial performance (Barnett & Salomon, 2012). Derwall et al. (2005) and Lyon and Maxwell (2013) provide empirical support for the importance of environmental reputation. Derwall et al. (2005) found that a portfolio of firms with high environmental scores outperformed another one with low scores by 6% per annum. Likewise, Lyon and Maxwell (2013) found that investors positively (negatively) respond to additions (deletions) from the Dow Jones Sustainability Index.

Scholars argue that being more environmental responsible reduces risks related to potential litigation and the resulting loss of reputation (Baron & Diermeier, 2007; Doh & Guay, 2006; Eesley & Lenox, 2006). This risk reduction is rewarded by the financial market (Cohen et al., 1995, Hart & Ahuja, 1996, Russo & Fouts, 1997). There is also evidence for the negative effect of environmental concerns on a firm's value (e.g., Barbera & McConnell, 1990; Dowell, Hart, & Yeung, 2000; Heinkel, Kraus, & Zechner, 2001; King & Lenox, 2001). A good example of this is British Petroleum's (BP) Gulf oil spill incident in April 2010, which led to BP's stock price dropping from $59.50 to $28.90 in a short period.

With increasing global integration, investors and other stakeholders are not only concerned about firms' environmental conduct in their home country, but also globally. These concerns have led many MNCs to extend their environmental and other CSR activities to their foreign subsidiaries (e.g., Doh & Guay 2006; Hooker & Madsen 2004; Logsdon & Wood 2002; London & Hart 2004; Teegen, Doh, & Vachani, 2004). MNCs have been facing increasing scrutiny from NGOs and other stakeholders to standardize their environmental practices globally and implement their home-country environmental standards in host countries, particularly if the home country standards are more stringent. Thus MNCs that do not implement a single global environmental policy may risk loss of reputation and support from different types of stakeholder groups, which may result in financial penalties (Rondinelli & Vastag, 1996). This risk exists because MNCs' environmental performance in one country has implications for stakeholders in other countries. For example, air pollution, which is driven by MNCs' poor environmental practices in one country, can negatively affect the air quality and the population in

neighboring countries. This will negatively affect the MNC's reputation, which raises the MNC's home country stakeholder concerns.

In contrast, MNCs that do implement a single global environmental standard, even if it is costly and not required by the host country, may result in a higher reputation and long-term profit performance (Sharfman, Shaft, & Tihanyi, 2004). Dowell et al. (2000) showed that U.S. firms that have a firm-specific global standard that exceeds all national standards is associated with market valuations more positive than those of firms that follow local standards or apply U.S. standards. However, some scholars cast doubt on the real benefit of implementing a standardized environmental policy abroad. For example, Tsai and Child (1997) argued that implementing a single environmental standard in all subsidiaries may result in losing some valuable environment-specific knowledge of subsidiaries. In some case, MNCs' standardized environmental policy may not fit the actual role of the subsidiary or the local conditions and industry. Hart (1995) also argued that the process of implementing a standardized environmental policy may require external knowledge. If subsidiaries are not being equipped to manage such external knowledge, the MNCs will have to solve this matter first (Enright & Subramanian, 2007). This may be overly costly.

Scholars argue that MNCs' environmental strategies in the host country depend on the degree of development in environmental regulations (Hutchinson,1996) and the industrial sector in which the firms operate and the local context (e.g., perception of local communities) (Peng, Sun, Pinkham, & Chen, 2009). According to UNCTAD's (2002) study of 153 firms, environmental performance of foreign-owned affiliates is determined by headquarters' policies, procedures, and standards (42%), host country regulatory

pressure (34%), local management leadership (12%), and pressure from consumers, international organizations, and NGOs/media (10%) (adopted from Cole, Elliott, & Strobl's 2008 study). These numbers suggest that in a country with relatively lax environmental regulations, MNCs can reduce their environmental practices. Put together, if the target country's institutional environment cannot be supportable and there is weak enforcement of environmental regulation), MNCs may likely adopt lower environmental standards in the host country, rather than implementing a standardized environmental policy (Birdsall & Wheeler, 1993; Levinson, 2009; Mani & Wheeler, 1998; Wheeler, 2000).

To date, there is no clear record of whether and how MNCs entering a country with lax environmental regulations actually lower their environmental performance and thus achieve production cost savings and positive financial performance or lose their reputation and thus end up with negative financial performance; or whether MNCs that implement their global environmental standards create (or succeed at not destroying) their reputation and achieve better financial performance. Some studies examine the above issues, but they are limited to either case studies (e.g., DuPont, Dow, and Monsanto cases in Mexico and Brazil; Albornoz, Cole, Elliott, & Ercolani, 2009; Garcia-Johnson, 2000) or a small sample (Dowell et al, 2000). It has yet to be revealed how the inter-country difference in environmental regulation stringency is associated with firms' environmental strategies and the subsequent impact on a firm's environmental- and financial performance.

In this study, I explore this issue in CBA settings using a sample of U.S. public firms in environmentally sensitive manufacturing industries (included in SIC codes 2000

to 3999) that acquired target firms in different countries. CBAs have become an increasingly popular foreign market expansion strategy in recent years (e.g., Erel, Liao, & Weisbach, 2012; UNCTAD, 2008). In seeking sources of value creation or destruction from CBAs, scholars pay attention to institutional differences between the acquirer- and target countries (e.g., differences in investor protection law, financial market development, corporate tax rate, corruption or political stability). Although an important component of the institutional environment is the emphasis a country places on environmental protection, researchers have not considered the inter-country difference in environmental regulation stringency as a source of value creation or value destruction. I examine the effect of this difference on the acquirer's announcement returns, by assuming that the return will reflect investors' expectation on acquirer's future environmental performance as well as future financial performance in the target country. Then, I examine how transferability of the acquirer's environmental resources /capabilities moderates the above relationship.

Hypotheses Development

Inter-Country Difference in Environmental Regulation Stringency

When the acquirer enters a country with lax environmental regulations, it has an option to choose its environmental strategy (a choice ranging from merely following local standards to modifying its own environmental standards to fit with the target country but at still a lower level than its own standards to fully implementing its environmental policy). If the acquirer likely takes production cost advantage of the inter-country differences in environmental regulation stringency by reducing investment on environmental practices, it will adopt the low environmental standards of the target

country. Such behavior may be criticized by environmental activists or other stakeholder groups and thus increases the acquiring firm's environmental and social risks as well as the risk to its reputation. This could negatively affect the acquirer's value.

In contrast, if the acquiring firm implements its own (more stringent) environmental policy in the host country, it can avoid environmental penalties, fines, and other sanctions from regulatory bodies. It can also enhance environmental performance monitoring (Christmann, 2004). However, this strategy may still be costly, especially when the acquiring firm's environmental standards fit poorly with the target's characterstics (i.e., target industry, product features) and the local conditions, or when the target is not equipped to accept the acquirer's standards. In sum, it is unclear how the costs- benefits from each case (following local vs. implementing its own environmental standards) turn out. Thus, I argue that when the acquirer enters a country with lax environmental regulations, investors will question the acquirers' future environmental performance and future firm value. When they are not sure about both, they will negatively respond to the acquirer's entry decision into a country with lax environmental regulations. I also argue that such investors' concern will increase as the gap between the environmental regulation stringency in the home- and host countries widens, which may increase investors' negative response.

In contrast, when the acquirer enters a country with more stringent environmental regulations than those of the host country, the acquirer has to meet the requirements of the target country's environmental regulations and likely maintains high levels of environmental performance in the target firm. In short, there is little opportunity to slacken its environmental practices. In this way, the acquirer can avoid its environmental

and social risks. Therefore, I assume that investors can have a relatively clear picture concerning the acquirers' future environmental performance. Also, there may be little need to invest additional money in the target's environmental practices, provided the target firms, before the acquisition, were complying with local environmental regulations. So, this will not affect financial performance. Accordingly, I argue that investors may not respond negatively to the acquirer' decision to enter a country with stringent environmental standards and they may not be sensitive to the increased gap in the environmental regulation stringency between the home and host countries.

Taken together, I hypothesize that the investors will respond negatively to the acquirer's decision to enter a country with less stringent environmental regulations than those of the home country and that the investors' negative response will grow as the environmental distance widens. This is not the case when the acquiring firm enters a country with more stringent environmental regulations.

Hypothesis 1: The greater the environmental distance between the home and host

countries, i.e., the host country's environmental regulations are lower

than those of the home country, the more negative will be the market

reaction to the announcement of the acquisition.

Industry Similarity between the Acquiring- and Target Firms

Next, I suggest that the aforementioned effect will vary across acquisition types. I assume that entering an industry similar to that of the acquiring firm will weaken the proposed negative response to the announcement of entering a country with low environmental regulations due to the potential of transferring environmental resources/capabilities from the acquiring firm to the target firm. Acquirers that have

experience in the target industry are more likely to have their own industry-specific environmental polices and/or standards and they can transfer these policies to the foreign target firm. By leveraging environmental resources/capabilities, they can maintain their environmental standards at a minimal cost in the host country. I argue that this condition will reduce investors' concerning the acquiring firm's future environmental performance in the host country.

In contrast, when an acquiring firm enters a new industry, it may be unfamiliar with the industry's specific environmental regulations, standards, and practices both in the home- and host countries. It also may not be valuable to transfer its existing environmental practices or environmental technologies because they may be less relevant and applicable to the target firm in a different industry. Furthermore, the acquiring firm may not have or develop its own environmental policies/or standards that are specific to the target industry. Therefore, I argue that the acquiring firm will likely give the subsidiaries more autonomy with respect to decisions about environmental policies and practices. As a result, the target will be more likely to only complied with host country regulations and did not go beyond. Accordingly, I assume that the industry similarity between the acquirer and the target will positively moderate the relationship between environmental distance and the acquisition announcement return for the acquirer. I also assume that such a moderating role of industry similarity will not exist for the acquirer entering a country with stringent environmental regulations. This is because the acquiring firm, rather than transferring its practices to the target firm, will be obligated to follow the target firm's more advanced environmental practices. Based on this argument, I formulate my second hypothesis as follows.

Hypothesis 2: The negative market reaction to environmental distance between the home- and host countries is weaker if the acquiring- and target firms are in a similar industry.

4.4 Data and Methodology

Sample

My sample is taken from Security Data Corporation's (SDC) Mergers and Corporate Transactions database. My initial sample included all completed deals announced between 1995 and 2011 that were conducted by U.S. public firms in environmentally sensitive industries. Industries often classified as "environmentally sensitive" include mining (Standard Industrial Classification [SIC] two-digit code 10, 12), oil and gas (13, 29), paper (26), chemical (28), stone, clay, glass, and concrete products (32), metals (33), fabricated metal products, (34), machinery manufacturing (35), electrical equipment manufacturing (36), and utilities (49) (Cowen, Ferreri, & Parker, 1987; Cho, Guidry, Hageman, & Patten, 2012). From the above list of industries, I only consider the manufacturing industry (an environmentally sensitive industry included in SIC between 2000 and 3999) to be more comparable across different environmentally sensitive industries. I also utilize information from U.S. Small Business Administration (SBA), which identifies environmentally sensitive industries by the North American Industry Classification System (NAICS) three-digit code (*source*: http://www.partneresi.com/resources/naics-codes-effective-06-01-12.pdf). I select NAICS codes -311, 312, 316, 321-327, 331-337, and 339.[9]

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[9] Food manufacturing (NAICS 311), beverage & tobacco product (312), leather & allied product (316), wood product (321), paper (322), printing & related support activities (323), petroleum & coal products (324), chemicals (325), plastics & rubber products (326), nonmetallic mineral products (327), primary metals (331), fabricated metal products (332), machinery (333), computer & electronic products (334),

From my initial sample, I selected the deals that met the following criteria: (1) Target firms are non-U.S. firms. (2) I excluded leverage buyouts (LBOs), spinoffs, recapitalizations, self-tender offers, exchange offers, repurchases, partial equity stake purchases, acquisitions of remaining interest, privatizations, deals in which the target or the acquirer is a government agency, and acquisitions of U.S. firms' subsidiaries. (3) I kept only those deals enclosing transaction values greater than $1 million. (4) The acquiring firm held less than 50% of the target's shares before the announcement and owned more than 50% after the M&A. (5) I excluded deals announced by same acquirers at the same day. (6) The acquirer's stock return and financial data is available from Eventus and Compustat, respectively. These restrictions left me with 2,258 deals. After matching these deals with the environmental country score from the ESG country score index, the sample consisted of 1,802 deals. The United Kingdom is not listed in the ESG country index, which resulted in a large loss from the sample. Then after matching the above with the data from the world development report in the World Bank database for the control variables, my final sample consisted of 890 deals covering 40 countries. **Table 1** presents my sample profile—the frequency of CBAs.

<center>**[Insert Table 1 here]**</center>

Method

I tested my hypotheses using event study methodology, examining market reactions to the announcement by comparing actual and predicted returns (Brown & Warner, 1985). This methodology is commonly used in studies of acquisition performance (Cording, Christmann & Weigelt, 2010).

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electrical equipment, appliances & components (335), transportation (336), equipment furniture & related (337), miscellaneous manufacturing (339).

Variables

   Independent variable. To identify my main independent variable – the inter-country difference in environmental regulation stringency – I used the environment country score derived from the ESG (Environmental, Social, and Government) country score index (*source: Bloomberg*). The ESG country score index has been used for the measurement of a country-level CSR performance (Stellner, Klein, & Zwergel, 2015). Hence, the environment country score from the ESG index will represent the country-level environmental responsibility orientation and reflect the degree of environmental regulation stringency as well as the enforcement or effectiveness of the regulations. The environmental score includes emissions, energy, electricity, water, and biodiversity information.[10] The environmental distance between the home- and host countries is measured by the U.S. environmental score minus the host country's environmental score.

   Scholars have documented the difficulty of measuring environment regulation stringency. For example, Shadbegian and Wolverton (2010, p. 13) state: "measuring the level of environmental stringency in any meaningful way is quite difficult…regulations may exist at multiple levels (e.g., federal and local), and monitoring and enforcement are imperfect." Levinson and Taylor (2008) also argue that even though the information on environmental regulation is publicly available, it is difficult to verify whether the environmental regulations are effective. Considering this fact, as a second best measure, scholars have used proxies such as pollution abatement expenditure and government

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[10] Environment country score is based on the following: carbon intensity of growth, CO_2 per capita from fossil fuel use, coal consumption per capita or per GDP, electricity consumption per capita or per GDP, % nuclear power per total electricity, and % renewable (non-hydro) per total electricity, which are reported from the U.S. department of energy; and energy import (% of energy use) and freshwater withdrawals per capita or per GDP, which are reported by the World Bank.

spending (Lanjouw & Mody, 1996), the Executive Opinion Survey published in the

Global Competitiveness Report (Kellenberg, 2009; Manderson & Kneller, 2012;

Spatareanu, 2007; Wagner & Timmins, 2009), and environmental performance data [e.g.,

the level of urban particulates, urban CO_2 concentrations, energy usage per unit of GDP

(Esty & Porter, 2001), and the environmental performance index (EPI) developed by the

Yale Center for Environmental Law & Policy (Globerman & Shapiro, 2002)].

I selected the environmental country score (that is, a country's environmental

performance measure)[11] as a proxy because pollution abatement expenditure information

is limited to a few developed countries and executive opinion surveys have recently been

criticized for their subjectivity and loose correlation with actual regulations (OECD,

2014; Sauvage, 2014).

Moderating variable. To measure whether the acquiring firm and the target firm

are in a similar industry versus a different industry, I used the four-digit SIC code of the

target and the acquirer, following previous literature (Malhotra, Sivakumar, & Zhu, 2011;

Nalhotra & Gaur, 2014). If the acquiring- and target firms have the same four-digit SIC

code, this will mean they are in the same industry and the dummy variable will take the

value of one, otherwise, zero. To test the moderating effect suggested in Hypothesis 2, I

construct an interaction term by multiplying the industry similarity dummy with the inter-

country difference in the environmental regulation stringency variable.

Dependent variable. My dependent variable is market reactions to the CBA

announcements. Using the event-study methodology, I measure the abnormal returns of

the acquiring firm around the time of the CBA announcement. This will represent the

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[11] I also used the environmental performance index (EPI)
[http://sedac.ciesin.columbia.edu/data/collection/esi]. I found a similar result.

investors' expectations about the future gains/losses from the acquisitions. From the

Eventus database (in the Wharton Research Data Service), I selected the equally

weighted market index of stock returns for the benchmark market returns and drew

market-adjusted abnormal returns over three days (one day before, during, and one day

after the event for the dependent variable) surrounding the acquisition event, following

McWilliams and Siegel's (1997) recommendation to use no more than a three-day

window.[12] The mean cumulative abnormal return for my full sample was positive

(0.007); for subsamples, entering a country with a relatively low environmental

regulation, it was negative (-0.002) and for entering a country with a relatively stringent

environmental regulation, it was positive (0.011). For my analysis, I scaled the

cumulative abnormal return (CAR) into a percentage figure (multiplying CAR by 100).

Control variables. I controlled for the following: the characteristics of the

acquiring- and target firms, the deal, the host country, and the institutional characteristics.

For the acquiring firm's characteristics, I controlled for size (*Acquirer total asset (Log)*),

leverage (*Acquirer leverage*), and market value to book value (*Acquirer MTB*). To handle

outliers, I winsorized all financial data at 1% and 99%. I controlled for the acquiring

firm's previous acquisition experience in the host country (*Acquirer's prior experience in

target country*),[13] the acquiring firm's environmental performance-related variables – the

presence of an environment management system (EMS)/ISO 14001 (*Acquirer's EMS/ISO

14001*), the amount of environmental fine/penalty (*Acquirer's Environmental Fine*), and

acquiring firm's environmental technology patents (*Acquirer's environmental technology

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[12] I also tested five-day and seven-day windows. Only the seven-day window produced a similar result.
[13] Instead, I used the acquirer's previous target industry experience in the target country using the target industry's SIC 2-digit code. The results did not differ.

Patent), i.e., technologies that could reduce harmful effects to the natural environment through the more efficient use of raw materials and energy. I expected that the above variables could affect the acquiring firm's environmental performance in the host country and investors' expectations about its environmental- and financial performance in the host country. I also controlled for whether both the acquiring- and target firms operate in high-tech industries (*high tech industry dummy*) and the acquiring firm's industry effect (using its four-digit SIC code).

For deal characteristics, I controlled for relative deal size (*relative deal size*), payment method – [*cash only (dummy)* and *stock only (dummy)*], tender offer or not [(*tender (dummy)*)], the presence of competing bidder [*competing bidder(dummy)*)], percent of shares owned before the announcement (*toehold*). For target characteristics, I controlled for whether the target is private, public, or a subsidiary (*target status*). I also controlled for whether the acquisition is diversifying acquisition or not using the two-digit SIC code of the acquirer matching that of the target (*diversifying M&A*)

For institutional characteristics, I controlled for geographic distance (*geographic distance*) measured by the distance between the capitals of the home- and host countries, and cultural distance (*cultural distance*) applying Hofstede's indices for four dimensions of culture (Kogut & Singh, 1988). The literature reports that both cultural and geographic distances increase contracting costs (Ahern, Daminelli, & Fracassi 2012), which can negatively affect the acquirer's value. I also controlled for difference in the development stage (*difference in GDP per capita* and *difference in GDP annual growth rate*), the exchange rate difference between the home- and host countries' currencies (*exchange rate),* corporate income tax rate (*difference in corporate income tax rate*), difference in

legal protection of minority shareholders (*difference in minority shareholder protection*) and difference in accounting information disclosure quality (*difference in disclosure quality*) following prior CBA literature (Erel, liao, & weisbach, 2012). I also controlled for corruption rate difference (*difference in corruption rate*) because the acquirer may reduce environmental performance in a country with a high corruption rate, due to a lack of local environmental regulation and enforcement (Cole, 2007; Javorcik & Wei, 2004; Fredriksson et al., 2003; Tamazian & Rao, 2010).

I controlled for year effect (*year dummy*). I did not include the host country dummy in my model specifications because of the muticollinearity problem between country-level variables. All of the aforementioned control variables, except for industry and year dummy, were lagged a year to avoid any contemporaneous correlation between variables (Waldkirch & Gopinath, 2008). Detailed desciptions of each variable are presented in the Appendix.

4.5 Empirical Findings

Table 2 provides descriptive statistics and correlations. I identify some high correlations among country-level control variables. To avoid a muticollinearity problem, I carefully checked through the Variance Inflation Factors (VIF) of my main explanatory variables in each regression analysis. I found that those were below 7 (Studenmund, 2010). I also checked my regression model results with VIF for each case – without/with country level variables and by adding/deleting each target country variable. My results remained the same in all different combinations of country-level variables.

[Insert Table.2 here]

Table 3 presents the results of testing my hypotheses using OLS regression, robust standard errors to adjust for heteroskedasticity (White, 1980), and acquiring firm

clustering. All models were statistically significant ($p < 0.001$). Model 1 in Table 3 includes only control variables. In Models 2 through 4, I tested Hypothesis 1: the greater the environmental distance between the home- and host countries (i.e., the lower the target country regulations relative to acquirer country regulations), the more negative is the stock market reaction to the announcement of the acquisition for the acquiring firm. Model 2 in Table 3, using a full sample, shows that a difference in environmental regulation stringency (the U.S. country minus the host country) negatively affects CAR (*coeff* = -0.069, $p < 10\%$). Model 3 in Table 3, using a sub-sample of an acquiring firm entering a country with a relatively low environmental regulation showed that the effect of the difference in environmental regulation stringency on CAR becomes more significant (*coeff* = -0.559, $p < 5\%$). This corresponds to an abnormal change of $0.559 million in market value for an acquirer having a size of $100 million in equity. In contrast, there was no such (negative) effect when entering a country with a relatively stringent environmental regulation as shown in Model 4. H1 was thus strongly supported.

In Models 8 through 10, I tested Hypothesis 2: the negative market reaction to environmental distance between the home- and host countries will be weaker if the acquiring firm enters a similar industry. In Model 8, using a full sample, I found no interaction effect of a difference in environmental regulation stringency and industry similarity. But Model 9, using a subsample of entering a country with a relatively low environmental regulation, shows that the negative effect of a difference in environmental regulation stringency on CAR is reduced for acquirers entering a similar industry (*coeff* = 0.718, $p < 10$), as predicted. While the interaction effect is marginal in Model 9, it still suggests the moderating role of industry similarity between the two firms. Model 10,

using a subsample of entering a country with a relatively stringent environmental regulation, does not show such an (interaction) effect. These results marginally support H2.

[Insert Table.3 here]

4.6 Discussions and Conclusion

Scholars have examined various institutional factors (political, economic, financial, and socio-cultural), at both the local- and country levels, to identify how and under what conditions CBAs create value. While environmental distance between the home- and host countries has been considered a factor affecting MNCs' location strategy, its value creation/destruction potential has received little attention in prior CBA studies. I examined this issue. I found that when the level of the host country environmental regulation stringency is lower than that of the home country, investors respond negatively to acquisition deals. This investor reaction suggests that information asymmetry about the acquirer's future environmental- and financial performance increases when the acquiring firms have the option to choose an environmental strategy in the host country. I also found that negative investor response is mitigated by industry similarity between the acquiring- and target firms, suggesting that investors value the potential of transferring the acquiring firm's environmental resources/capabilities to the target. It also suggests that the acquirer can create value by extending its industry-specific environmental resources/capacities in the international market. Prior FDI literature documents that a firm that can deploy its unique resources/capabilities can reduce the liabilities of operating across political, economic, financial, and socio-cultural boundaries (Buckley & Casson, 1976; Hennart, 1982; Rugman, 1981; Rugman & Verbeke, 2003). My findings support this notion.

Overall, my findings suggest that investors consider the environmental distance between the home- and host countries in the valuation of CBAs, as the acquirer's future environmental performance in the host country can directly affect their financial returns. This finding implies that managers, especially those who work in environmentally sensitive industries, need to consider environmental distance when making CBA decisions. They need to clearly communicate with their investors (or other stakeholders) about their environmental future strategy, especially when entering a country with lax environmental regulations.

Limitations and Future Research

My study has several limitations. First, I cannot incorporate information about the acquiring firm's environmental performance in the host country, nor about its international environmental strategy before the CBA announcements. This information is an important source for predicting the acquiring firm's environmental strategy choice in the host country with relatively weaker environmental regulations than those in the home country. To identify such information, I reviewed each acquiring firm's filings (e.g., 10-K, a proxy statement, and CBA announcement statements) and use a keyword search technique in Morningstar document research (source: *www.10kwizard.com*). However, a relatively small number of firms (mainly larger MNCs) report their environmental management practices in the international market. As an alternative, I identify whether acquirers have a global environmental management system (EMS) or implement ISO 14001 (I use both for control variables) before CBAs. I also checked whether the acquirers address any environmental management issues when entering a country with low/high environmental regulations around the time of the CBA announcement (e.g.,

environmental performance reduction concern, reputation-related issues, implementation costs of standardized environmental policy), as such information can largely affect investors' responses to CBA announcement. I found that a few firms mention environmental issues/concerns but with a focus on the legal aspects. For example, they consider whether the target- or acquiring firm would take responsibility if an environmental problem arises? Given this reality, investors will experience information asymmetry concerning the acquirer's environmental strategy and performance, especially when entering a country with weak environmental regulations, which strengthens my argument in this study. Future studies may incorporate a survey to managers, to broaden my knowledge about how the acquirer actually manages environmental issues and respond to local environmental regulations when there is environmental distance between the home- and host countries.

Another limitation of my study is that due to limited information about the target firms (a majority of them in my sample are private firms or subsidiaries), I could not measure differences in firm-level environmental performance or policy, which might also affect market reaction to the CBA announcements. Future research may explore such concerns. Lastly, the environmental country score (from the ESG index) does not allow us to identify differences in the specific environmental performances across industries. Unfortunately, data that compares industry-specific environmental regulations across countries is not available. Despite these limitations, my study suggests that environmental distance is an important institutional factor that affect value creation or destruction from CBAs. Future research should identify further conditions under which these regulatory differences affect firm value.

List of Tables (Essay 3)

Table 1: Sample Profile

Target Nation	Freq.	Percent	Target Nation	Freq.	Percent
Argentina	7	0.79	Italy	24	2.7
Australia	44	4.94	Japan	11	1.24
Austria	7	0.79	Luxembourg	1	0.11
Belgium	13	1.46	Malaysia	1	0.11
Brazil	27	3.03	Mexico	15	1.69
Canada	202	22.7	Netherlands	39	4.38
Chile	6	0.67	New Zealand	5	0.56
China	29	3.26	Norway	14	1.57
Colombia	2	0.22	Peru	1	0.11
Czech Republic	3	0.34	Philippines	4	0.45
Denmark	16	1.8	Poland	12	1.35
Finland	12	1.35	Portugal	3	0.34
France	80	8.99	Russian Fed	9	1.01
Germany	128	14.38	Singapore	6	0.67
Hong Kong	5	0.56	South Africa	6	0.67
Hungary	2	0.22	Spain	12	1.35
India	19	2.13	Sweden	36	4.04
Indonesia	1	0.11	Switzerland	34	3.82
Ireland-Rep	9	1.01	Turkey	1	0.11
Israel	41	4.61	Venezuela	3	0.34

Total N=890

Table 2: Descriptive statistics and correlations

	Variables	Mean	Std. Dev.	1	2	3	4	5	6	7	8	9	10
1	CAR	0.66	7.02	1									
2	Difference in Environmental Regulation Stringency (A)	0.43	9.80	-0.06	1.								
3	Industry similarity (B)	0.35	0.48	0.01	0.04	1							
4	Interaction A*B	0.29	5.74	-0.01	0.54	0.11	1						
5	Acquirer Total Asset(Log)	6.91	2.06	-0.03	0.02	-0.03	-0.04	1					
6	Acquirer Leverage	2.52	25.24	0.02	-0.02	-0.02	-0.04	0.46	1				
7	Acquirer MTB	2.80	18.11	-0.02	0.05	0.05	-0.04	0.67	0.29	1			
8	Acquirer prior acquisition experience	0.08	0.27	-0.04	0.09	0.03	0.09	0.11	0.08	0.10	1		
9	Acquirer EMS/ ISO 14001	0.10	0.30	0.00	0.02	0.01	0.02	0.12	0.07	0.04	0.05	1	
10	Acquirer Environmental fine	0.11	0.32	0.00	-0.01	0.02	-0.02	0.27	0.19	0.19	0.06	0.09	1
11	Acquirer environmental tech Patent	0.31	0.46	-0.04	-0.04	-0.06	-0.01	0.45	0.18	0.38	0.05	0.04	0.21
12	Relative Size of deal value	-3.16	1.89	0.08	-0.07	0.11	-0.02	-0.55	-0.28	-0.30	-0.05	-0.01	-0.15
13	Geographic distance	8.37	0.99	0.00	-0.03	0.04	0.01	0.13	0.04	0.12	-0.02	0.02	0.04
14	Cultural distance	1.25	1.11	0.03	-0.18	0.05	-0.11	0.09	0.02	0.13	-0.09	0.05	0.04
15	Difference in GDP per capita	19.99	0.63	-0.02	0.07	0.06	0.06	0.16	0.04	0.13	0.01	0.08	0.07
16	Difference in GDP growth rate	3.69	8.70	-0.02	0.28	0.04	0.22	0.04	0.00	0.10	-0.01	0.04	0.02
17	Exchange rate	22.75	14.89	0.01	-0.13	0.01	-0.06	0.11	-0.08	0.06	-0.01	0.04	0.04
18	Difference in corporate income tax rate	8.08	6.90	-0.03	0.13	0.00	0.06	0.01	-0.06	0.02	0.03	0.02	-0.04
19	Difference in corruption	1.72	16.09	-0.01	0.11	0.03	0.08	0.08	0.00	0.03	-0.01	0.01	0.06
20	Difference in minority shareholder protection	-0.26	0.72	0.01	-0.19	-0.02	-0.09	-0.02	-0.03	-0.04	0.05	0.01	0.03
21	Difference in accounting audit quality	-8.58	13.65	-0.06	0.08	0.01	0.05	0.06	0.05	0.03	0.01	0.02	0.02

		11	12	13	14	15	16	17	18	19	20	21
11	Acquirer environmental tech Patent	1										
12	Relative Size of deal value	-0.25	1									

		11	12	13	14	15	16	17	18	19	20	21
13	Geographic distance	0.09	-0.15	1								
14	Cultural distance	0.07	-0.10	0.46	1							
15	Difference in GDP per capita	0.09	-0.22	0.47	0.51	1						
16	Difference in GDP growth rate	0.03	-0.03	0.21	0.19	0.19	1					
17	Exchange rate	0.06	-0.12	0.15	0.34	0.43	-0.20	1				
18	Difference in corporate income tax rate	0.03	0.07	-0.37	-0.27	-0.35	-0.06	-0.08	1			
19	Difference in corruption	0.05	-0.09	0.03	-0.16	0.15	-0.20	0.24	-0.21	1		
20	Difference in minority shareholder protection	0.02	0.11	-0.15	-0.48	-0.40	-0.19	-0.31	0.21	0.08	1	
21	Difference in accounting audit quality	0.00	-0.15	0.15	0.30	0.59	-0.02	0.36	-0.40	0.11	-0.61	1

N=890, absolute value $> =0.05$ is significant at $p = 0.07$.

Table 3: Results for Hypotheses

Dependent variable: CAR		H1: Testing						H2: Testing		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
	Control only	Full sample	Sub-sample	Sub-sample	Full sample	Sub-sample	Sub-sample	Full sample	Sub-sample	Sub-sample
			US score> target country score	US score< target country score		US score> target country score	Us score< target country score		US score> target country score	Us score < target country score
No. of Obs.	890	890	270	620	890	270	620	890	270	620
Difference in Environmental regulation stringency (acquirer country score-target country score)		-0.069*	-0.559**	0.012	-0.072*	-0.544*	0.010	-0.10**	-0.743**	0.039
		(0.04)	(0.28)	(0.06)	(0.04)	(0.28)	(0.06)	(0.04)	(0.29)	(0.08)
Industry similarity (dummy)					-1.139	2.486	-2.200	-1.207	-5.953	-2.500
					(1.12)	(2.26)	(1.54)	(1.11)	(5.56)	(1.73)
Difference in Environmental regulation stringency * Industry similarity								0.077	0.718*	-0.077
								(0.06)	(0.42)	(0.11)
Acquirer total asset (Log)	-0.031	-0.120	-0.222	-0.061	-0.125	-0.215	-0.077	-0.116	-0.205	-0.082
	(0.25)	(0.29)	(1.14)	(0.25)	(0.30)	(1.13)	(0.25)	(0.29)	(1.11)	(0.25)
Acquirer leverage	-0.013	-0.014	-0.038	0.019	-0.014	-0.034	0.023	-0.012	-0.034	0.024
	(0.03)	(0.03)	(0.05)	(0.03)	(0.03)	(0.05)	(0.03)	(0.03)	(0.05)	(0.03)
Acquirer MTB	0.003	0.007	0.048	-0.035	0.008	0.020	-0.037	0.006	0.022	-0.038
	(0.03)	(0.03)	(0.09)	(0.04)	(0.03)	(0.09)	(0.04)	(0.03)	(0.09)	(0.04)
Acquirer prior experience in target country	-0.059	-0.321	0.902	-0.259	-0.259	0.993	-0.168	-0.223	0.928	-0.171
	(0.56)	(0.74)	(1.99)	(1.09)	(0.75)	(1.94)	(1.09)	(0.75)	(2.01)	(1.08)
Acquirer EMS/ISO 14001	0.072	0.383	2.008	0.745	0.379	1.825	0.764	0.405	2.011	0.742
	(0.72)	(0.83)	(2.02)	(1.35)	(0.83)	(2.02)	(1.34)	(0.83)	(2.07)	(1.35)
Acquirer Environmental Fine	-0.297	-0.201	-2.165	-1.161	-0.280	2.078	-1.436*	-0.327	1.941	-1.445*
	(0.58)	(0.70)	(2.73)	(0.82)	(0.71)	(2.71)	(0.85)	(0.71)	(2.67)	(0.85)
Acquirer environmental technology Patent	0.825	0.868	-0.345	0.848	0.979	-1.083	0.967	0.975	-1.487	0.920

(0.61)	(0.71)	(2.55)	(0.70)	(0.75)	(2.54)	(0.72)	(0.75)	(2.48)	(0.72)
High tech industry (dummy) -0.373	-0.489	-1.563	0.624	-0.376	-1.722	0.740	-0.396	-1.376	0.739
(0.73)	(0.96)	(5.20)	(1.17)	(0.96)	(5.16)	(1.20)	(0.97)	(5.19)	(1.20)
Relative deal size 0.269	0.031	-0.978	0.338	0.025	-0.983	0.326	0.021	-0.897	0.330
(0.19)	(0.23)	(0.94)	(0.26)	(0.23)	(0.94)	(0.25)	(0.23)	(0.95)	(0.25)
Cash only (dummy) 0.102	0.100	1.402	-0.356	0.180	1.153	-0.197	0.201	0.840	-0.220
(0.47)	(0.55)	(1.76)	(0.64)	(0.55)	(1.74)	(0.63)	(0.55)	(1.77)	(0.63)
Stock only(dummy) 0.442	0.316	-0.136	-0.803	0.219	0.044	0.958	0.180	-0.483	-0.897
(2.33)	(2.95)	(4.95)	(4.63)	(2.98)	(4.92)	(4.61)	(2.99)	(5.02)	(4.59)
Tender (dummy) 1.008	-0.096	-1.600	-2.376	0.052	2.273	-2.562	0.090	2.050	-2.487
(1.50)	(2.04)	(4.60)	(2.56)	(2.06)	(4.51)	(2.60)	(2.07)	(4.56)	(2.57)
Competing bidder(dummy) -1.399	-2.532	-5.061	-2.004	-2.398	-6.311	-1.585	-2.401	-4.389	-1.363
(1.48)	(2.39)	(4.73)	(2.53)	(2.42)	(4.80)	(2.42)	(2.41)	(5.06)	(2.41)
Toehold 1.402	2.326	1.710	-0.736	2.211	1.994	-0.249	-2.053	4.378	-0.283
(1.16)	(1.52)	(3.68)	(1.49)	(1.53)	(3.87)	(1.51)	(1.53)	(4.43)	(1.51)
Public target (dummy) -2.117*	-1.092	0.107	2.885	-1.058	0.084	2.724	-1.050	0.068	2.660
(1.12)	(1.35)	(2.37)	(2.66)	(1.34)	(2.43)	(2.61)	(1.35)	(2.53)	(2.58)
Private target (dummy) 0.174	0.440	-1.008	3.494	0.436	-0.930	3.366	0.475	-1.005	3.285
(0.57)	(0.68)	(2.41)	(2.95)	(0.68)	(2.51)	(2.91)	(0.67)	(2.62)	(2.87)
Diversifying M&A(dummy) 0.419	-0.648	-1.098	-0.780	-1.263	-0.025	-1.964	-1.311	-0.188	-1.965
(0.45)	(0.52)	(1.34)	(0.64)	(0.88)	(1.67)	(1.20)	(0.88)	(1.70)	(1.20)
Geographic distance (log) 0.242	-0.146	-2.133	0.247	-0.123	-2.341*	0.268	-0.150	-2.072	0.283
(0.30)	(0.36)	(1.36)	(0.49)	(0.36)	(1.40)	(0.49)	(0.36)	(1.39)	(0.49)
Cultural distance 0.038	0.197	2.028	0.305	0.200	2.012	0.313	0.213	1.756	0.293
(0.30)	(0.35)	(1.36)	(0.47)	(0.35)	(1.33)	(0.47)	(0.35)	(1.30)	(0.47)
Difference in GDP ppt capita(log) 0.378	0.270	-3.323*	0.511	0.329	-3.716*	0.655	0.276	-3.255	0.700
(0.54)	(0.56)	(1.96)	(0.81)	(0.55)	(2.10)	(0.80)	(0.55)	(2.07)	(0.81)
Difference in GDP annual growth rate -0.022	-0.022	-0.025	0.112	-0.018	-0.036	0.089	-0.021	-0.034	0.095
(0.02)	(0.02)	(0.06)	(0.24)	(0.02)	(0.06)	(0.23)	(0.02)	(0.05)	(0.23)
Exchange rate 0.024	-0.002	-0.074	0.002	-0.005	-0.063	-0.006	-0.005	-0.065	-0.005
(0.02)	(0.03)	(0.08)	(0.04)	(0.03)	(0.08)	(0.03)	(0.03)	(0.08)	(0.03)
Difference in corporate income tax rate -0.032	-0.051	-0.515	-0.006	-0.042	-0.563	0.006	-0.042	-0.470	0.005
(0.05)	(0.05)	(0.34)	(0.06)	(0.05)	(0.35)	(0.06)	(0.05)	(0.36)	(0.06)
Difference in corruption rate 0.001	0.005	0.018	0.043	0.008	0.011	0.048	0.007	-0.006	0.049

	(0.02)	(0.03)	(0.06)	(0.04)	(0.03)	(0.06)	(0.04)	(0.03)	(0.06)	(0.04)
Difference in minority shareholder protection	-0.521	-1.084	-2.866	-1.020	-1.031	-2.969	-1.015	-1.066	-3.136	-0.971
	(0.71)	(0.82)	(2.70)	(1.07)	(0.82)	(2.73)	(1.06)	(0.82)	(2.71)	(1.07)
Difference in audit accounting quality	-0.039	-0.046	-0.032	-0.062	-0.044	-0.024	-0.061	-0.043	-0.041	-0.062
	(0.03)	(0.04)	(0.09)	(0.05)	(0.04)	(0.09)	(0.05)	(0.04)	(0.09)	(0.05)
constant	156.986	-118.051	-130.721	-150.943	-92.395	-112.822	196.872	-117.220	-480.674	-193.140
	(141.85)	(203.96)	(986.30)	(220.97)	(207.38)	(931.25)	(223.46)	(205.40)	(1083.51)	(225.61)
Acquirer's Industry and Year effect control	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
R-Squared	0.122	0.153	0.363	0.232	0.156	0.371	0.242	0.158	0.389	0.243

Note: *, **and *** represent statistical significance at the 10%, 5%, and 1% levels respectively

Appendix: Description of Variables

Variables	Description
Acquirer total asset (Log)	Log (book value of total assets) (source: Compustat)
Acquirer leverage	Ratio of long-term debt to book value of assets (source: Compustat)
Acquirer MTB	Market value of equity over book value of equity (source: Compustat)
High tech (dummy)	One if the acquirer and the target operate in both high-tech industries defined by Loughran and Ritter (2004) and zero otherwise
Relative deal size	Deal value reported in SDC over market value of acquirer equity. (source: SDC)
cash only (dummy) stock only (dummy)	cash = 1, otherwise, zero stock-only = 1, otherwise = 0
Tender (dummy)	tender offer = 1, otherwise = 0
Competing bidder(dummy)	more than one bidder = 1, otherwise = 0
Toehold	percent of shares owned before the announcement
Public target (dummy)	One if the firm acquires a publicly held target and zero otherwise
Private target (dummy)	One if the firm acquires a privately held target and zero otherwise
Diversifying M&A (dummy)	One if the acquirer and the target have different first two-digit SIC codes and zero otherwise
Industry similarity(dummy)	One if the target firm (SIC4) overlaps with that of acquirer (SIC4)
Same Region	Dummy variable equals 1 if the acquirer (j) and target (i) firm countries of domicile are located in the same broadly defined continent (Africa, America, Asia, Europe).) World Factbook
Geographic distance	The negative of the great circle distance between the capitals of countries i and j. I obtain latitude and longitude of capital cities of each country. I then apply the standard formula: 3963.0 * arccos [sin(lat1) * sin(lat2) + cos(lat1) * cos(lat2) * cos (lon2 – lon1)], where lon and lat are the longitudes and latitudes of the acquirer country ("1" suffix) and the target country ("2" suffix) locations, respectively. http://www.mapsofworld.com/utilities/world-latitude-longitude.htm
Cultural distance	Applying Hofstede's indices for four dimensions of culture (power distance, uncertainty avoidance, masculinity, and individualism; Kogut & Singh, 1988)

Difference in GDP per capita(log)	The difference between acquirer and target countries in the logarithm of annual GDP (in U.S. dollars) divided by the population. (Source:) World Bank Development Indicators
Difference in GDP Growth	The difference between acquirer and target countries in the annual real growth rate of the GDP. (Source:) World Bank Development Indicators
Exchange rate	Exchange rate between two countries
Difference in corporate income tax rate	the Organization for Economic Co-operation and Development (OECD)
Difference in corruption rate	Corruption Perceptions Index published by Transparency International difference
Difference in minority shareholder protection	The difference between acquirer and target countries of legal protection of minority shareholders (Source: world competitive report)
Difference in audit accounting practices	The difference between the acquirer and the target countries' the quality of accounting information disclosure (source: world competitive report)

This table describes all variables used in the paper. Deal-level items are measured in the year-end prior to the deal announcement date.

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