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Does CSR practice pay off in East Asian firms? A meta-analytic investigation

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Abstract Academics and practitioners have long wondered whether corporate social responsibility (CSR) practice is beneficial for Asian firms. To better understand the relationships between CSR and business performance, we use meta-analytical techniques based on 31,773 East Asian firms reported in 28 empirical studies to provide cumulative evidence for the value of CSR. Meta-analytic results indicate a general positive association between CSR and business performance. We find that environmental CSR has a stronger impact than social CSR on business performance, and that CSR practice has a stronger positive effect on operational performance than on financial performance. Further meta-analytic evidence indicates that several moderating issues explain significant variances in the effect size across studies, including economic development stage (developed vs. developing), firm size (SMEs vs. non-SMEs), organizational form (public vs. private), and measurement methods (archival data vs. self-report). Moreover, we find that CSR importance in East Asia has not varied over the past 15 years. We conclude with theoretical contributions and practical implications.

Keywords East Asia · Business performance · Corporate social responsibility · Meta-analysis · Signaling theory · Institutional theory

In the corporate social responsibility (CSR) research field, most studies have focused on firms in the Western world; that is in the United States and Europe (Chapple & Moon, 2005). Over the past decade, however, focus has turned increasingly to

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understanding CSR in Asia (i.e., Scholtens & Kang, 2012) but has found controversial results regarding CSR effects on performance. CSR in Asia has been positively (Cheung, Tan, Ahn, & Zhang, 2010; Choi, Kwak, & Choe, 2010; Cole, Elliott, & Shimamoto, 2006; Oh, Chang, & Martynow, 2011), negatively (Li, & Zhang, 2010), and non-significantly (Cao, 2011) related to performance. CSR performance impacts also have been found to depend on contingent factors (Aguinis & Glavas, 2012) or performance indicators (Allouche & Laroche, 2005). The inconclusive results may stem from the failure to consider contingencies, inadequate measurement issues, and insufficient data (Lee, 2008).

The purpose of this study is to extend CSR research in contexts outside of the Western world and to ascertain the relationship between CSR and business performance of East Asian firms.[1] We aim to clarify the issue by conducting an updated meta-analysis of the relationship to answer three salient questions. First, debates are ongoing as to whether it is worthwhile to pay attention to societal demands, so we question CSR effectiveness in the East Asian context by asking: How does CSR relate to business performance in East Asian firms? Second, to answer demands for investigating additional contingencies in the CSR–performance link (Barnett & Salomon, 2012), we ask: Is the relationship between CSR and business performance in East Asia moderated by economic development (developed vs. developing), and company attributes (industry type, size, and form)? Third, we recognize that academics are unsure about how CSR should be measured (Dahlsrud, 2008). Consistent with Dixon-Fowler, Slater, Johnson, Ellstrand, and Romi (2012), we classify CSR measurement modes into two categories: archival and self-report. We ask: Does the mode for measuring CSR in Asian research matter to our focal relationship?

We undertook this study for several critical reasons. First, both Western and local businessmen are concerned about differences between Asian and Western CSR practices and their impacts (Baughn, Bodie, & Mclntosh, 2007; Noronha, Tou, Cynthia, & Guan, 2013). Thus we study whether CSR is profitable in East Asia by combining signaling theory and the institutional theory. Second, we respond to calls for understanding institutional and other contingent factors of the CSR–performance link (Barnett & Salomon, 2012; Margolis & Walsh, 2003; McWilliams & Siegel, 2001) by investigating various moderators: economic development, industry level, firm size, firm form, and measurement issues. Third, the growing number of empirical studies regarding CSR in East Asia motivates us to extend beyond traditional narrative reviews and conduct a comprehensive meta-analysis (Hendges & Olkin, 1985; Lipsey & Wilson, 2001). Based on meta-analytical techniques, we found 28 primary studies published between 2001 and 2015[2] that focus on Asian CSR practices and report CSR–performance relation statistics. We believe the time scope is appropriate to focus, review, and explore the focal relations in this unique East Asian setting.

Our research contributes to CSR literature in several ways. First, previous research was limited to CSR samples mostly in Western countries. In contrast, we explore CSR in East Asia by considering both categories of CSR and the measurement of performance. The meta-analysis results have helped us cross validate insights from different studies and reconcile inconsistent findings on the relationship between CSR and business

[1] For the purpose of this study, East Asia includes China (PRC), North Korea, South Korea, Japan, Hong Kong (PRC), Macau (PRC), and Taiwan.

[2] The first empirical research included appears in 2001.

performance. Second, strategy is always bound by the contingent context, so we investigate the different levels of moderators and the evolution of CSR in East Asia. The findings have thus extended our understanding on the boundary conditions of the relationship between CSR and business performance in East Asia. Third, to answer questions about CSR measurement modes, we explore measure as a moderator. Thus we aim to uncover cumulative evidence of East Asian CSR as it relates to business performance.

The remainder of our paper is organized as follows. In the next section, we review the concepts and invoke the signaling theory and institutional theory to propose the research framework, including various moderators. Next we provide detailed methodology of meta-analysis and research findings. Finally, we discuss limitations, future research directions, and conclusions.

Theory and hypotheses

The concept and theory of CSR in East Asia

CSR in East Asia

CSR is generally viewed as "context-specific organizational actions and policies that take into account stakeholders' expectations and the triple bottom line of economic, social, and environmental performance" (Aguinis & Glavas, 2012: 137). Western researchers began to use the term commonly in the late 1960s and early 1970s after many multinational corporations formed the concept of *stakeholders*; that is, internal, external, and environmental constituents who can influence or are influenced by firms' activities (Freeman, 1984). CSR henceforth became a hotspot in business ethics research (Luo & Bhattacharya, 2006). Most global academic CSR studies focus on America and Europe (Wood, 2010). However, CSR is receiving growing attention in Asian contexts where characteristics might diverge from American or European contexts (Baughn et al., 2007). In this study, we focus CSR in East Asia, which has been used to refer to a wide geographical area covering People's Republic of China, Japan, South Korea, and Taiwan. East Asia has received particular interests in the respect of CSR as it is characterized by a unique understanding and practice of CSR (Scholtens & Kang, 2012). For example, a cross-country comparison showed that philanthropy, a type of CSR, is most prevalent in North America, significantly lower in Europe, and even lower in Asia; Asians tend to focus on CSR's economic rationale, but ignore issues such as human rights for employees; Asian firms ask employees to work longer hours (Welford, 2005). Business students in the United States and Hong Kong surveyed about CSR showed that Westerners are more likely to cite noneconomic, ethical, and legal rationales for CSR, while Easterners prefer economic rationales (Burton, Farh, & Hegarty, 2000). Similarly, the China-developed CSC9000T (China Social Compliance 9000 for Textile and Apparel industry) differs sharply from normal CSR activities in Western countries. Moreover, Asians may view CSR value uniquely because they are influenced by both Western ideas and Eastern values. It is worth noting that though lots of CEOs in East Asian firms do not understand the content and meaning of CSR, environmental protection and charitable activity are widely known and adopted in this region. In practice, the concept of CSR is not really a fresh one in East Asia, and CSR practices may be known by philanthropy and other names (Baughn et al., 2007).

Signaling theory and institutional theory

Diverse theories, such as agency theory, stakeholder theory, stewardship theory, institutional theory, and classical economic theory, have been used to explain the CSR–performance link, and each theory offers insights for explaining the linkage. For instance, agency theory suggests that some managers adopt CSR to advance their careers or for self-aggrandizement, using firm resources that would be better returned to firm shareholders or spent on urgent projects (Friedman, 1970). Stewardship theory, by contrast, implies that firm managers are morally compelled to conduct CSR activities without considering the actual value to business performance (Donaldson & Davis, 1991). In this study, we emphasize that signaling theory and the institutional theory can jointly contribute to the CSR literature.

Signaling theory

Signaling theory took root in the idea of asymmetries information between two parties where the causes of asymmetric information (a deviation from perfect information) are primarily derived from quality information or intent information (Connelly, Certo, Ireland, & Reutzel, 2011). One party credibly conveys information of quality and shows the unobservable attributes of itself to another party with the purpose of gaining a premium (Spence, 1973). While intent information can help parties reduce the possible moral hazards that result from the behavior of the individuals or organizations during the transaction (Su, Peng, Tan, & Chueng, 2014). Spence's (1973) job market signaling model illustrates that the potential employees can send an observable signal (e.g., college diploma and qualification certificate) to firms to show their unobservable characteristics (working ability). Based on these perceptions, CSR scholars have adopted signaling theory to examine the potential value of CSR practices in management research (Montiel, Husted, & Christmann, 2012; Ramchander, Schwebach, & Staking, 2012; Su et al., 2014; Turban & Greening, 1996). For instance, Su et al. (2014) argued that the process of signal transmission can avoid asymmetric information between firms and investors. Therefore, firms adopting CSR practices can send unobservable characteristics (attitude towards social and environmental issues) to investors in capital markets. King, Lenox, and Terlaak (2005) argued that Environmental Management Standard ISO 14000 transfer a green signal conveying organization's attitude towards environment and other unobservable information to the outside individuals and organizations. Particularly, the phenomenon of information asymmetries will decrease when organizations sending green signals or other private management certification (King et al., 2005). As an unobservable attribute of organization, CSR practices can play the roles of green and good signals that provide important information to stakeholders, especially in the Asian context (Su et al., 2014). Although CSR practices may cause financial costs and other implicit costs (e.g., management costs), the costs will ultimately pay off when organizations have "stakeholder influence capacity" (Barnett, 2007). The ability is difficult for low-capability competitors to imitate because this ability is built over time through heavily investments (Barnett & Salomon, 2012; McWilliams & Siegel, 2001). CSR practices can help firms improve the relationships with stakeholders and obtain this capacity.

Institutional theory

CSR has become a popular topic in the management literature, but has neglected the importance of institutional environments to a great extent (Brammer, Jackson, & Matten, 2012). Institutional theory mainly focuses on the external system environment, such as social, political, and economic systems, that surround organizations and grant them legitimacy status (North, 1990). Firm's reactions to external institutional pressures may range from active conformity to passive resistance, depending on the specific circumstance and nature of the pressures (Oliver, 1991). In the mid-2000s, several studies used institutional theory as a core conceptual lens to explain CSR-related problems (Aguilera, Rupp, Williams, & Ganapathi, 2007; Campbell, 2011; Matten & Moon, 2008). Institutional theory allows scholars to get a better understanding of CSR in two ways: the heterogeneity of CSR and the dynamics of CSR. On the issue of heterogeneity, several scholars attempted to explore the cross-national differences of CSR from the lens of institutional theory (Blasco & Zolner, 2010; Gjolberg, 2009; Jackson, 2010). They found the value of CSR practices in different countries and regions is contingent on the different institutional environments (Deakin & Whittaker, 2007; Doh & Guay, 2006). Institutional environments here not only includes the formal institutions (e.g., laws, rules, and regulations), but also the informal institutions (e.g., religion, *guanxi*, and custom). On another issue of dynamics, business ethics scholars attempt to explore the changes of concepts, values, and mechanism of CSR (Brammer et al., 2012). For instance, the core content of CSR has changed through adaptation and emulation by organizations outside the Western institutional system. Institutional theory plays an important role for explaining the dynamics of CSR. In this study, we employ signaling theory and institutional theory combined as our overarching theoretical viewpoints to explain the CSR–performance link and related contingent influences.

CSR and business performance in East Asia

"After more than thirty years of research, we cannot clearly conclude whether a one dollar investment in social initiatives returns more or less than one dollar in benefit to the shareholder" (Barnett, 2007: 794).

One question in the lasting debate about business ethics is whether it is worthwhile for firms to engage in CSR practice, especially from the financial perspective. Business scholars generally find a positive relationship between CSR and firm performance, while economic scholars sometimes find a negative or non-significant effect (Su et al., 2014). According to signaling theory, CSR practices can send positive signal to customers, suppliers, government, and other stakeholders. This CSR signal contains several unobservable characteristics (e.g., attitude towards the society) that make firms capable of reducing risks, filling institutional deficiency, and improving stakeholders' relationships (Miller, Lee, Chang, & Le Breton-Miller, 2009; Porter & Kramer, 2006; Rivoli & Waddock, 2011). After receiving the signal, relevant stakeholders may provide premiums to organizations if these stakeholders value the above unobservable characteristics (Ramchander et al., 2012; Spence, 1973). The CSR signal can gain support to meet stakeholder demands, prevent costly conflicts, improve stakeholder relationships, and enhance business performance. In other words, better CSR could be the difference that would improve employee satisfaction, corporate reputation, and customer loyalty, all ultimately beneficial to firm outcomes (Hart & Ahuja, 1996). In addition, environmental pollution is becoming a critical problem in East Asia, so governments have established related policies to encourage environmentally friendly activities. Thus firms engaging in environmental CSR to reduce pollution, recycle, and reduce energy consumption can receive grants and incentives (Branco & Rodrigues, 2006; Hull & Rothenberg, 2008). Besides, investors and financial analysts also attach great importance to organization's CSR practices (Doh, Howton, Howton, & Siegel, 2010; Luo, Wang, Raithel, & Zheng, 2015).

Previous empirical studies have obtained promising evidence that types of CSR signals are beneficial in East Asia. For example, citizenship and employee commitment were found to be positively related in China (Chun, 2009). Philanthropic disaster relief was found to positively impact firm profitability in China (Gao, 2011). CSR (both equal-weighted and stakeholder-weighted CSR indexes) was found to be positively related with business performance in Korea (Choi et al., 2010). CSR scores were found to be positively related with ROA indicators in Asian samples (Scholtens & Kang, 2012). Those studies prompt us to argue for a positive relationship between CSR and business performance in the East Asian context. Therefore, we propose the following:

Hypothesis 1 In East Asia, corporate social responsibility is positively related to business performance.

Environmental CSR vs. social CSR

In the current CSR–performance literature, CSR has been identified as environmental performance, corporate philanthropy, and ethical behavior, all referring to different scopes and contents of CSR practice. We investigate how the categories of CSR affect the CSR–performance relationship. According to the types of CSR signals, we divide CSR practice into two categories: environmental and social CSR (Baughn et al., 2007). Environmental CSR captures natural environmental protection and green production. Social CSR is related to social and community issues such as ethical behavior and corporate philanthropy (Marín, Rubio, & Maya, 2012). Environmental CSR can transfer "green signals" to stakeholders, while social CSR mainly send "good signals." Both CSR types can send signals and satisfy stakeholders' demands and yield competitive advantage. However, environmental CSR and social CSR have different influences in the aspect of signaling.

Although in the past, the natural environment took a back seat to boosting the economic development in East Asia, the public and government value more about environmental issues (Baughn et al., 2007). We argue that the natural environment is closely tied to human health; everyone has a stake in environmental CSR practices. Under great pressure from the public, communities, and the media, the Chinese government has pledged $275 billion over the next five years to clean the air. Since January 2014, 15,000 factories, including large state-owned enterprises, have been required to publicly report real-time figures on their air emissions and water discharges. The government promises to improve environmental quality, and asks firms to enhance their environmental CSR practices to assist in the cleanup. These environmental CSR activities help firms build close relationship with governments, obtain political legitimacy, and get access to key regulatory resources (Sheng, Zhou, & Li, 2011), which in turn may bring beneficial privileges. Other studies also demonstrated a more important role of environmental CSR in East Asian regions. In Tanimoto and Suzuki's (2005) research, they found that Japanese firms prefer to disclose CSR information about environmental conservation policies and relative activities rather than social issues. Welford's (2005) research found that 50 % of Korean enterprises and 62 % of Japanese enterprises had detailed policies on environmental protection reporting. In South Korea, there was a greater emphasis on green production processes (environmental CSR) and less emphasis on employee relations (social CSR) (Chapple & Moon, 2005). Drawing from over 8700 surveys of firms in 104 countries, Baughn et al. (2007) found that both Japanese and Taiwanese regions demonstrate substantially higher commitment to environmental than social CSR. They also found the level of environmental CSR was higher than social CSR in South Korea (Baughn et al., 2007). Welford (2005) also conducted surveys to compare CSR in different regions and found social CSR (philanthropy) was most prevalent in North America, significantly lower in Europe and even lower in Asia. We argue that East Asian firm's stakeholders are expressing more concern about firm's natural environmental signals. That is, the "green signals" are more attractive than "good signals" to stakeholders in East Asian contexts. In contrast, Western countries are focused more on social CSR, which emphasizes social and community issues, ethical behavior, and corporate philanthropy. Thus, we expect:

Hypothesis 2 In East Asia, environmental CSR has a stronger positive effect on business performance than social CSR.

Operational performance vs. financial performance

Most practicing managers and branches of organization and management research are interested in business performance as a recurrent theme (Richarc, Devinney, Yip, & Johnson, 2009). In the CSR research area, CSR and business performance have mixed relationships partly because of diverse performance measures (Lev, Petrovits, & Ranhakrishnan, 2010; Luo & Bhattacharya, 2006). CSR studies have adopted various business performance measures for ascertaining CSR benefits, including return on assets (ROA), return on equity (ROE), market share, and employee commitment. To better understand our focal linkage, we must recognize and classify the core content of business performance.

Among previous classifications of business performance indicators adopted in CSR studies, financial and operational performance are most commonly used (Aguinis & Glavas, 2012). In this meta-analytic review, in accordance with Venkatraman and Ramanujam (1986), we measure both financial performance and operational performance because both indicate firms' wealth (Luo, Huang, & Wang, 2012). Financial performance is indicated by financial and market indicators reflecting achievements of the firm's economic targets. Operational performance is indicated by outcomes related to the firm's social relationships and competitive advantages leading to operational efficiency (Luo et al., 2012). Table 1 provides details of business performance measures included in this meta-analysis.

Specifically we argue that CSR would have a stronger positive association for operational performance than for financial performance, mainly because of the cost factor related to CSR activities. That is, in order to satisfy different stakeholders, CSR activities incur some cost and may consume the profit, especially in the initial stage of CSR (Lev et al., 2010). Firms must devote considerable resources to CSR activities that then affect the firm's net outcome. In comparison, CSR directly and positively

Table 1 Measures of business performance

Classification	Specific indicators	Some related East Asian CSR studies	Similar measures on Western CSR studies
Financial performance			
Financial-indicators	Return on assets, return on equity, return on investment, profit growth, return of equity, cash flow, sales growth	Choi et al., 2010; Oh et al. 2011; Shen, & Chang, 2009	Doh et al., 2010; Brammer, Pavelin, & Porter, 2009
Market-indicators	Tobin's Q, market share, market to book, stock market returns, market share growth, export growth	Choi et al., 2010; Li, & Zhang, 2010; Wang, Qiu, & Kong, 2011	Jo & Harjoto, 2011; Luo & Bhattacharya, 2006
Operational performance			
Competitive-indicators	Venture management, technology development, product design, quality control, labor productivity, marketing, distribution, customer service, cost control, organizational reputation	Cao, 2011; Chang, 2009; Choi et al., 2010; Cole et al., 2006; Zhu & Sarkis, 2004	Arora & Henderson, 2007; Sen & Bhattacharya, 2001
Social-indicators	Customer satisfaction, customer loyalty, employment and income locally	Chun, 2009; Xie & Peng, 2011	Maignan, Ferrell, & Hult, 1999

influences operational indicators (Surroca, Tribo, & Waddock, 2010), such as corporate culture (Marcoulides & Heck, 1993), organizational reputation (Roberts & Dowling, 2002), and innovative technology (Cho & Pucik, 2005). A recent study showed that in Japan environmental CSR directly influenced technological innovation (Cole et al., 2006). Similarly, corporate citizenship has been shown to enhance employee commitment (Chun, 2009). Thus CSR strongly and directly drives operational performance. After cost-related issues are calculated, financial performance profits would be indirect outcomes. Consequently, we argue that CSR is positively related to operational performance and has varied effects on financial performance. More precisely, we hypothesize:

Hypothesis 3 In East Asia, corporate social responsibility has a stronger positive effect on operational performance than on financial performance.

CSR–performance contingencies

We have argued that CSR practice has a focal relationship with business performance in East Asian firms. Because the nature, connotation, and value of CSR practices may vary in different regions, industries and firms, we now address the contextual factors that may determine CSR profitability. Answering the call to compare CSR roles in various contexts (Aguinis & Glavas, 2012), we incorporated several contextual variables at the macro-level (economic development), meso-level (industry setting), and micro-level (firm size and organizational form) to examine the contingencies in the CSR–business performance relationship.

We had several reasons for choosing the contextual factors we examine. First, at the macro-level, institutional context plays important roles in determining appropriate CSR initiatives (Arya & Zhang, 2009). For example, domestic Kenyan organizations' CSR approach is different from foreign organizations due to the different institutional environments of global and domestic markets (Muthuri & Gilbert, 2011). Therefore, we consider the contingent roles of economic development (developed vs. developing) to set conditions on the value of CSR practice. Second, at the meso-level, industry setting is important because not all CSR activities are equally beneficial to all industries (Scott, 1995). For instance, manufacturing industries have a stronger negative effect on the environment, so they may attract more attention from stakeholders than firms from service industries (Reverte, 2009). Firms that sell products to customers directly are more likely to engage in corporate philanthropy as a strategy, while firms targeting customers consider the ethics of CSR (Tang & Li, 2009). In a sample of US companies, firms in heavy industries (e.g., mining, raw materials, and chemicals) were more likely to focus on the natural environment and employee conditions, while firms in light industries (e.g., retail) tended to focus on corporate philanthropy (O'Connor & Shumate, 2010). As a result, manufacturing and service industries have heterogeneous values regarding CSR. Third, at the micro-level, we consider firm size because it can influence CSR actions (Lepoutre & Heene, 2006) and moderate the relationship between CSR and competitiveness (Marín et al., 2012). For example, SMEs and non-SMEs may differ in CSR visibility and decision making preferences (Brammer & Millington, 2005). Recent studies also found that firm size can influence CSR actions (Lepoutre & Heene, 2006) and moderate the relationship between CSR and competitiveness (Marín et al., 2012). Fourth, organizational form may influence the CSR–performance relationship. Specifically, public firms, whose shares are traded on a stock exchange, often receive higher levels of media and public attention forcing them to engage in CSR activities. In contrast, private firms receiving less press and public attention are more flexible and may derive different benefits from CSR.

Economic development: Developed and developing countries

East Asian countries are at various economic development stages. Their cultural backgrounds, institutional settings, and CSR activities vary because of distinct institutional environments and different coercive or cognitive pressures to engage in CSR (Baughn et al., 2007; Maignan & Ralston, 2002). We follow Reed's (2002) classification and divide Asian national economic development into *developing* and *developed* categories. Developed East Asian economies, such as Japan, South Korea, Taiwan, and Hong Kong, are characterized by stable demand, intense competition, short channels, and sophisticated buyers (Ellis, 2006). Their various stakeholders, such as the state, professions, publics, and interest groups, exert pressures and expect CSR (Baughn et al., 2007). While, developing regions, such as People's Republic of China, are characterized by weak legal system, poor law enforcement, pervasive corruption, and other institution deficiency phenomenon (La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 1998).

As outlined above, CSR practices can transfer green and good signals to customers, suppliers, government, and other relevant stakeholders for the estimation of organization's attitude towards environmental and social issues. If a firm is known to have better CSR than their competitors, key stakeholders will perceive the CSR activity as a signal of good reputation (Su & He, 2010) differentiating the firm from competitors. We argue that the strength of these signals may vary in different East Asian regions with different institutional backgrounds (King et al., 2005; Montiel et al., 2012). That is, in developing regions, CSR practices signals play a more important role in improving business performance.

In Japan, South Korea, and other East Asian developed regions, it is much easier for stakeholders to get relevant CSR information about the firm (e.g., CSR disclosure report, corporate philanthropy). Those firms with poor corporate social performance will always be punished by government, customers, and industry associations (Godfrey, Merrill, & Hansen, 2009). Stakeholders in advanced economies also have the capacity to access large amounts of non-CSR information to judge firm's CSR practices (Andrade & Chhaochharia, 2010). Furthermore, media exposure, disclosure reports, and other forms of information transformation facilitate the investment decisions more quickly by investors. In general, according to the information, stakeholders can evaluate firm's CSR practices more conveniently and accurately. Therefore, the signaling role of CSR practices as a tool for solving information asymmetry becomes diluted in a situational environment with large amounts of information. Conversely, developing East Asian economies, such as China, are pursuing rapid economic development but have weak social institutions and high uncertainty (Reed, 2002) and often lag behind in many CSR aspects (Welford, 2004). Because firms in China and other East Asian emerging economics are not used to disclosing CSR related information, stakeholders are difficult to access the valuable information concerning firms' CSR attitude. Thus, the signaling role of CSR in these regions is more valuable for stakeholders in assessing the organization's potential value (Montiel et al., 2012). In addition, in emerging economies, the institutional environment often changes dramatically when local governments introduce various new laws and regulations (Chung & Beamish, 2005; Dileleman & Sachs, 2008). By building strong connections with governmental stakeholders, firms in transitional environments can use CSR to compensate for their shortcomings.

Generally, in East Asian developing regions where CSR is less predominant, the signaling role of CSR practices may turn into a powerful instrument for improving firms' business performance. By comparison, stakeholders do not have to depend on signals sent from CSR to evaluate the organization, because there is a lot of information from different signals other than CSR in developed regions. Thus we posit:

Hypothesis 4 In East Asia, the impact of CSR on business performance is stronger in developing regions than in developed regions.

Industry setting: Manufacturing and service

Because diverse stakeholders will subject firms in different sectors to different pressures, industry effect is a crucial contextual factor in the relationship between CSR and business performance (Beurden & Gossling, 2008; Brammer & Pavelin, 2006; McWilliams & Siegel, 2001). Pressures arise because economic activities and social externalities are closely associated (Berman, Wicks, Kotha, & Jones, 1999; Rowley & Berman, 2000). Satisfying constituencies' demands for improved social responsiveness is also in the interests of companies because they depend on their stakeholders for the resources they need for continuing survival and success (Hillman & Keim, 2001; Mitchell, Agle, & Wood, 1997).

We classified industry settings as either manufacturing or service industries. Service industries, such as education, banking, insurance, transportation, and retail, supply services to organizations and consumers. Manufacturing industries are involved "in the manufacturing and processing of items and indulge in either creation of new commodities or in value addition of materials" (Emmanuel and Oladiran, 2015: 137) and generate more pollution during production processes. Therefore, manufacturing firms are directly and closely related to environmental issues. That is, the CSR signals which are transferred by manufacturing firms tend to be green signals (Williamson, Lynch-Wood, & Ramsay, 2006). As we discussed above, stakeholders in East Asian regions attach more importance to environmental issues. So CSR signals sent by manufacturing firms can satisfy East Asian stakeholders more accurately and appropriately.

In contrast, service firms, being more environmentally friendly and less polluting, can send signals related more to social issues. While it is difficult for these social signals to attract stakeholders' attention in East Asian regions. Consequently, service companies must be more socially and environmentally responsive to counter the externality problems they create, but generally find it more difficult to meet stakeholders' requirements through formal legitimate CSR strategies (Williamson et al., 2006). Thus, we propose:

Hypothesis 5 In East Asia, the impact of CSR on business performance is stronger in manufacturing firms than in service firms.

Firm size: SMEs vs. non-SMEs

Firm size shapes organizational behaviors and decisions, including CSR actions (Allouche & Laroche, 2005). Following Fang, Randolph, Memili, and Chrisman's (2015) definition of SMEs, we classify firms as SMEs (small and medium enterprises with less than 500 employees) and non-SMEs (businesses with more than 500 employees). The diversity between sizes raises questions as to whether SMEs and non-SMEs benefit equally from CSR strategies (Godfrey et al., 2009; Sharma, 2000). We argue that SMEs will enjoy higher CSR value than will non-SMEs in East Asia.

First, CSR signal is a better tool for SMEs to resolve information asymmetry. Most large companies now disclose information covering dimensions of CSR such as social and environmental performance, health and safety issues, and ethics. Large companies usually disclose more information than small companies (Jenkins & Yakovleva, 2006). In contrast, several East Asian SMEs, even without a website, do not have an appropriate way to deliver information to relevant stakeholders. The CSR signal is more valuable for SMEs because relevant stakeholders have limited information about SMEs and are difficult to evaluate firms' CSR attitude. Second, SMEs suffer the liability of smallness; they need more external resources and legitimacy support than non-SMEs, and therefore they may gain significant advantages from CSR as long as their stakeholders perceive their CSR activities positively (Mackey, Mackey, & Barney, 2007; Siegel & Vitaliano, 2007). Third, SMEs can organize their CSR activities more flexibly because their internal decision-making processes are simpler and quicker (Hannan & Freeman, 1989). In contrast, non-SMEs may be less inclined to CSR activities because they have less need for external legitimacy, and their decision-making related to CSR strategy may be quite complex and relatively slow. Moreover, their large scale may cloud the relationship between CSR and business performance (Luo, 2006). As such, we posit:

Hypothesis 6 In East Asia, the impact of CSR on business performance is stronger in SMEs than in non-SMEs.

Organizational form: Private and public

Organizational form is another contingency that might impact the value of CSR to business performance (e.g., Dixon-Fowler et al., 2012). We classify organizations as either private or public.

Under the supervision of the public, public companies always disclose large amounts of information with respect to environmental and social issues in order to justify their existence, document their performance, and satisfy shareholders (Jenkins & Yakovleva, 2006). For instance, public firms that receive greater media coverage are used to disclose more CSR information (Frost, 2000). Information asymmetry is relatively mild between stakeholders and public firms because relevant stakeholders can access information to evaluate firms through public disclose report and other non-CSR information. Therefore, the signaling role of CSR practices becomes diluted for public firms. Besides, public firms that offer securities to the general public through a stock exchange are under stakeholder scrutiny (McWilliams & Siegel, 2001), so that they must undertake CSR to compete in the current competitive environment. However, "if an entire sector is collaborating on CSR, the reward of competitive advantage for each company involved is diluted" (Draper, 2006: 410). Therefore, public firms may find it difficult to differentiate themselves from their competitors through normal CSR practices.

In contrast, the phenomenon of information asymmetry is more serious to privates. Although more private companies began to realize the value of CSR practices in East Asia, only a few private companies provide relatively little detailed CSR information in the annual reports, and it is often qualitative and not quantitative (Jenkins & Yakovleva, 2006). Frost's (2000) study found several private firms even are not disclosing any information on their CSR impacts. In this case, stakeholders hardly evaluate private firm's CSR attitude because of lacking adequate information. The signaling role of CSR practices is more valuable for private firms than public firms. In addition, private firms, run by private individuals or groups, receive less press and public attention, so they are more likely to have relatively flexible CSR practices. If outside stakeholders are aware that private firms actively participate in CSR, their activities can be good differentiators for leveraging and acquiring more intangible resources, including organizational reputation and highly skilled human resources. Hence, we propose:

Hypothesis 7 In East Asia, the impact of CSR on business performance is stronger in private firms than in public firms.

Exploratory methodological moderators and CSR's evolution

Measurement issue

Meta-analytic reviews have the advantage of dealing with measures, methods, and moderators from prior research (Hunter & Schmidt, 1990). Previous studies on the CSR–performance relationship have confounded CSR measurement through a variety of data sources and measures (Allouche & Laroche, 2005; Griffin & Mahon, 1997). We devote extra attention to investigating CSR measurement as a potential cause of mixed findings regarding the CSR–business performance link.

Consistent with Dixon-Fowler et al. (2012), we consider two CSR measures: archival (indirect) and self-report (direct) data. Archival data come from third parties such as Credit Lyonnais Securities Asia (Cheung et al., 2010), Asian Sustainability Rating (Scholtens & Kang, 2012), Shanghai National Accounting Institute (Li, & Zhang, 2010), and Korea Economic Justice Institute (Choi et al., 2010; Oh et al., 2011). Self-report data come from surveys of managers through questionnaires. The different CSR measures are controversial: self-report data have potential inherent bias because they cannot measure CSR objectively (Schwarz, 1999), while archival data fail to depict the versatility of CSR activities. Therefore, we review the Asian CSR literature methodically to examine whether using archival data generates distinctive outcomes compared with self-report measures. Addressing this methodological moderator with the help of meta-analysis will reveal whether different types of measures cause the business performance variances previously reported.

CSR evolution

In addition, meta-analytic technology will help solve the debate surrounding whether CSR may decrease, stabilize, or increase in East Asian contexts. In recent years, CEOs have been attracted to CSR rationalizations and the possible positive links between CSR and business performance (Vogel, 2005). Two decades ago, most managers perceived CSR practice as irrelevant for performance improvement (Klepper & Mackler, 1986), but the US Chamber of Commerce and Corporate Citizenship Center reported that 82 % of firms now believe that CSR adds value to practice (Lee, 2008), indicating that perceptions about CSR have changed considerably in the United States. Due to the difficulty of collecting longitudinal data, current literature scarcely explore the evolution of CSR. From the perspective of institutional theory, East Asian transition economy, such as China, has the characteristics of weak institutional framework, underdeveloped legal system, and incomplete market information (Luo, 2003). At the initial stage of transitional development, CSR practices can play an important role in sending green and good signals to stakeholders and cover the shortage of information asymmetry. However, as the acceleration of institutional transition increases, an increasing number of organizations realize the importance of CSR information disclosure. The phenomenon of information asymmetry will be alleviated and the value of CSR signals will be decreased. To determine whether East Asian businesses similarly value CSR all the time, we used our meta-analytical tools to explore CSR's evolutionary path in the East Asian context. Figure 1 summarizes the overall conceptual model of our meta-analysis.

Methods

Sample and coding

To test our hypotheses, we performed a meta-analysis of extant studies concerning the relationship between CSR and business performance in East Asia. To identify qualified

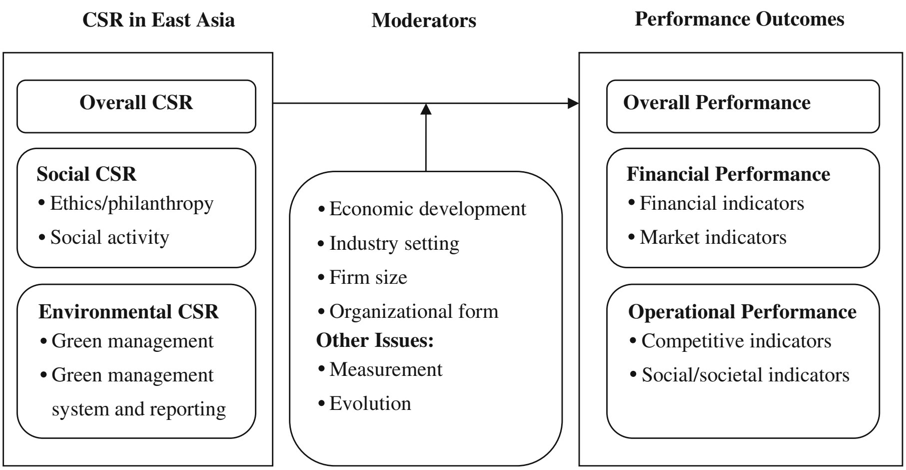

Fig. 1 The meta-analytic framework of CSR and its impact on business performance in East Asia

empirical studies, we used the following combinatory "snowballing" search techniques (Heugens, Van Essen, & Van Oosterhout, 2009), through which we collected published and unpublished papers. First, we systematically scanned several popular electronic databases: (1) ABI/INFORM Complete, (2) EBSCOhost, (3) Emerald, (4) Google Scholar, (5) ISI Web of Knowledge, (6) JSTOR, (7) SpringerLink, and (8) Wiley InterScience, using search keywords: *corporate social responsibility*, *CSR*, *corporate social performance*, *corporate social responsiveness*, *corporate citizenship*, *corporate conscience*, *sustainable responsible business*, *East Asia*, and *performance*. Second, to supplement the electronic search, we manually searched the most relevant management and business ethics journals, including *Journal of Business Ethics (JBE)*, *Academy of Management Journal (AMJ)*, *Journal of International Business Studies (JIBS)*, *Journal of Operations Management (JOM)*, *Strategic Management Journal (SMJ)*, *Corporate Social Responsibility and Environmental Management (CSREM)*, *Business and Society (BS)*, and other mainstream journals considered most highly cited in business research related to CSR topics (Gomez-Mejia & Balkin, 1992). Third, we consulted several review articles (e.g., Aguinis & Glavas, 2012; Beurden & Gossling, 2008; Wood, 2010) and one meta-analysis (Orlitzky, Schmidt, & Rynes, 2003) focusing on CSR, checked the reference lists from all pertinent literature, and traced all sources citing them using the ISI Web of Knowledge and Google Scholar to identify any studies we might have overlooked. Finally, to gather unpublished articles and obtain meta-analysis information as completely as possible, we emailed 22 authors of relevant papers and asked for electronic drafts, correlation matrixes, and detailed information about the samples. After emailing corresponding authors, we received 12 responses in total. One author replied with the information about industry, three authors provided the information about firm size, and four authors introduced the organizational form.

Our main purpose is to examine the relationship between CSR and business performance in East Asia, so we used the following inclusion criteria. First, articles should focus on the East Asian context, should draw their data from East Asia, and should use empirical methods to investigate the relationship between CSR and business performance. We excluded essays, case studies, simulation studies, or narrative reviews. Second, the literature had to offer correlation coefficient tables and sample sizes to support our meta-analysis. If not, studies should report measurement procedures and correlations' convertible equivalents so that we could calculate the correlation coefficient with the transformation formula (Hunter & Schmidt, 1990). Third, we excluded studies if they measured business performance of nonprofit organizations. Prior to the meta-analysis, we coded effect size, sample size, and moderator variables (economic development, industry setting, firm size, organizational form, and measures) in all selected studies. We sorted business performance into financial performance or operational performance (see Table 1). To reduce coding error, we invited two doctoral students who are familiar with CSR literature to read all papers in the final set and code every study individually with the help of a coding protocol (Lipsey & Wilson, 2001). Coding differences are often caused by ambiguities in the coding scheme. Therefore, all different viewpoints about coding were discussed and determined before the meta-analysis began. We concentrate on developing clear and detailed coding rules when piloting our scheme. The process of coding evaluation can report the reliability on the coding of moderators and provide a check on the coding and effect size calculations. To evaluate the coding process, we used Cohen's kappa for two raters. The equation for k is : $k = \frac{\Pr(a)-\Pr(e)}{1-\Pr(e)}$.[3] The inter-rater coefficient in this study is higher than 90 %, which means the reliability of our coding process is admissible. After the coding process, we found Zhang, Rezaee, and Zhu (2009) and Zhang, Zhu, Yue, and Zhu (2010) shared the same samples in their empirical studies. Therefore, we excluded Zhang et al.'s (2009) study from our database.

Based on our multipronged screening process, the ultimate data of our meta-analysis contains 31,773 firm samples from 28 primary studies published from 2001 to 2015, yielding a total of 89 effect sizes.[4] As Chapple and Moon (2005) stated, a great deal of research has been conducted on CSR in Western countries but relatively little focuses on Asia. Christmann and Taylor's (2001) research was the earliest study that we found. In addition, sample sizes ranged from 86 (Wang et al., 2011) to 10,346 (Sheng, 2013) with an average sample size of 1,134. Ten appeared in *JBE*, three in *AMJ*, two in *JIBS*, one in *JOM*, and the rest from other journals. Appendix A lists the full details of studies included in our meta-analysis. All articles included in our meta-analysis are also identified in References with an asterisk indicator.

Measures

CSR and its sister concept—corporate social performance—have been measured in surveys or social reports (i.e., company self-reports and objective data) (Luo, 2006; Scholtens & Kang, 2012; Zhang et al., 2009; Zhu & Sarkis, 2004), KLD ratings (Kinder, Lydenberg, Domini & Co.; Wang et al., 2011), and other methods (Wood, 2010). Following Baughn et al. (2007), we classified CSR as social and environmental CSR. Social CSR is closely related to corporate philanthropy, humanization, and other social practices; environmental CSR focuses on green management, environmental protection, and energy conservation (Orlitzky et al., 2003). We could not classify CSR definitions in studies that adopted multiple CSR definitions, so we excluded them from our subgroup analyses (n = 16). In general, CSR measurement in this research is theoretically driven and consistent with previous studies. We also classified business performance as financial (financial indicators and market indicators) and operational (competitive indicators and social indicators). Table 1 shows details.

Drawing on Ellis (2005), we classified economic development as developed or developing. The most common criteria for evaluating development is to look at gross domestic product (GDP), per capita income, level of industrialization, the amount of widespread infrastructure, and general standard of living. The International Monetary Fund (IMF) reports the "World Economic Outlook" and provides the classification of advanced economies and developing economies each year. According to the classification of IMF, Japan, South Korea, and Taiwan are generally regarded as developed Asian economies. In contrast, most parts of Asia, such as People's Republic of China are regarded as developing economies. After checking statistical data from 2001 to 2014, we found the classification of IMF is stable and unchanged. Therefore, it is

[3] Pr (a) is the relative observed agreement among raters; Pr (e) is the hypothetical probability of chance agreement, using the observed data to calculate the probabilities of each observer randomly saying each category.

[4] The number (31,773) refers to the total number of firms across the 28 studies.

noteworthy that given the time span, there is no countries make the transition from "developing" to "developed." Following Beurden and Gossling (2008), we classified industries as manufacturing and service industries. Studies with samples from multiple industry settings ($n = 19$) were excluded from the comparison between manufacturing and service industries. Following Fang et al.'s (2015) definition of SMEs, we coded firm size based on the number of employees in each sample: small and medium enterprises (SMEs) with fewer than 500 employees and large-scale enterprises (non-SMEs) with more than 500 employees. We contacted 22 authors of relevant papers to ask for firm size if the article failed to provide the information. We excluded studies that included samples from mixed or unknown firm size ($n = 21$) during the comparison. Drawing on previous studies, we classified organizational form as either private firms or public firms (Dixon-Fowler et al., 2012). Private firms are run by private individuals or groups, usually for profit, and are not controlled by the state. By contrast, public firms are limited liability firms that offer securities (stock/shares, bonds/loans, etc.) to the general public, typically through a stock exchange. They often receive more stakeholder attention (Caves & Christensen, 1980). We excluded studies that included samples from mixed or unknown organizational forms during the comparison ($n = 11$).

Meta-analysis procedure

We used CMA 2.0 and applied Hendges and Olkin's (1985) meta-analysis procedures, including calculating weighted mean correlations and 95 % confidence intervals (Hendges & Olkin, 1985; Lipsey & Wilson, 2001), to analyze the initial data and test proposed hypotheses.[5] Zero-order correlations between CSR and business performance were calculated from each article and then corrected for the measurement error. We adopted Pearson product-moment correlation (r) in our meta-analysis because it is a widely used effect size statistic with scale free in management studies (Hunter & Schmidt, 1990). Several studies were found to report correlations linking CSR with various performance components (e.g., both return on assets and return on equity for financial performance). Following Ellis's (2006) method, we average the correlations across them within each study to arrive at a mean performance score. Following Hedge and Olkin, we applied Fisher's Zr-transformation procedures to correct the distribution of effect sizes because of the assumption that effect sizes are normally distributed (Hendges & Olkin, 1985; Lipsey & Wilson, 2001). Correlations based on large research offer greater precision than in small studies because of smaller sampling errors (Hendges & Olkin, 1985; Hunter & Schmidt, 1990), so we weighted each effect size by adopting its inverse variance weight to obtain the accurate mean effects. Then we used the weights to calculate the standard error of the mean effect and the upper and lower bounds of 95 % confidence interval (Whitener, 1990). We also calculated the Q-statistic to test the homogeneous distribution of effect sizes and estimate the likelihood of moderators that explain the variability in correlations over studies (Hendges & Olkin, 1985; Lipsey & Wilson, 2001).

We divided extant studies into mutually exclusive groups and applied subgroup meta-analysis in each CSR domain (environmental CSR and social CSR) and business performance category (financial performance and operational performance), to compare

[5] Comprehensive meta-analysis (CMA), http://www.meta-analysis.com/.

the mean effect sizes between subgroups. The overall homogeneity statistic (*Q*) was partitioned into two components: the between-group statistic Q_B and the within-group statistic Q_W. Q_B is the weighted sum of square of each group's mean effect size, and Q_W displays homogeneity in each group (Lipsey & Wilson, 2001). A significant Q_B indicates a significant heterogeneous effect between categories and the possibility of moderators, and a non-significant Q_W indicates homogeneity within each group (Lipsey & Wilson, 2001). We adopted a Q_B statistic to test the significance of the categorical moderator model and then examined each group in the sample by testing 95 % confidence intervals for statistical significance.

To assess the moderating effects, we conducted the meta-regression to examine the priori hypothesis concerning categorical moderators (economic development, industry setting, firm size, organizational form, and measurement issues). We also used meta-regression to examine the moderating role of publication time. In the meta-regression model, the correlations between overall CSR and business performance were considered the dependent variables, whereas related moderators were considered independent variables. Before regression calculation, moderators were transferred to dummy variables (economic development: developed = 1; developing = 0, industry type: manufacturing = 1; service = 0, firm size: SMEs = 0; non-SMEs = 1, organizational form: public = 0; private = 1, measurement issues: archival data = 1; self-report = 0). We adopted random-effect regression model in our meta-regression because it supposed that the variability of effect size is derived from sample error and systematic between-study differences (Sterne, 2009).

In general, studies with relatively significant and perfect results are more likely to be published (hence the "bias"). We considered the issue of publication bias: not all completed studies are published, and the selection process is not random. Rosenthal (1979) suggested that rather than guess the effects of missing studies, researchers should figure the number of studies needed to nullify the effect. If the number is large enough, we can confirm that the treatment effect is not nil although possibly inflated by the exclusion of some studies. We adopted Rosenberg's (2005) calculation method of fail-safe N to examine publication bias. The basic failsafe number (3319.766) shows no problem about publication bias in this meta-analysis. The process of searching, coding and calculating of meta-analysis is illustrated in Fig. 2.

Results

Main Effects: CSR and business performance

With the help of meta-analytic techniques described above, we integrated the relationship between CSR and business performance as well as the moderating effects of contingency factors and reported the number of organizations (*n*), number of effect size (*k*), weight mean *r*, stand error, the corresponding 95 % confidence interval, and *Q*-statistic (see Table 2).

In our meta-analysis, Rosenberg's (2005) fail-safe N is 3,320. This means that we need to locate and include 3,320 "null" studies for the combined 2-tailed p-value to exceed .05. Put another way, we would need 38 missing studies for every observed study for the effect to be nullified. Accordingly, the quality of our meta-analysis results can be assured.

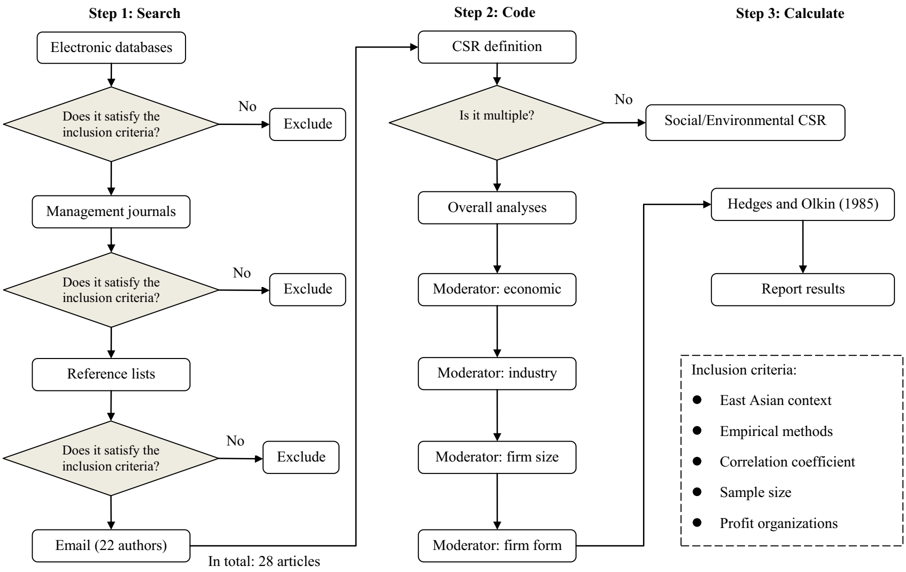

Fig. 2 The detailed process of meta-analysis

We first estimated the average effect sizes between overall CSR and business performance and obtained a positive significant result (r = .158, k =87, 95 % CI = .150–.165). The correlation is significant because the corresponding 95 % confidence intervals do not include zero. The significant heterogeneity Q-value (2,411.421) suggests the existence of moderators. This finding encourages us to conduct a further research for potential moderators. Table 2 shows subgroup meta-analysis results suggesting a weak positive relationship between CSR and financial performance (r = .098, k = 52, 95 % CI = .089–.106). We also found CSR has a significant positive association with operational performance (r = .426, k = 28, 95 % CI = .409–.441). Besides, we found the relationship between environmental CSR (r = .434, k = 16, 95 % CI = .397–.469) and business performance is stronger than the social CSR–business link (r = .039, k = 9, 95 % CI = .024–.055). Based on those results, we conclude that CSR and various indicators of business performance have positive relationships. Therefore, Hypotheses 1 and 2 are supported. The meta-analysis results also indicate that the average effect of CSR on operational performance (r = .426, k = 28, 95 % CI = .409–.441) is much greater than on financial performance (r = .098, k = 52, 95 % CI = .089–.106). This result confirms Hypothesis 3, indicating that CSR brings distinctly different benefits in terms of nature and type.

Moderating effects

Regarding the moderating role of economic development, meta-regression results show that CSR has a larger effect size for developing economies than developed economies (β = −.120, p = .028) in East Asia. Table 3 provides the detailed findings for the moderating variable of economic development. Hypothesis 4 is supported. This research finding conforms to our reasoning that economic development is an important moderator in the CSR–business link.

Table 2 Meta-analytic results of CSR– business performance links in East Asia

Relationships	Number of organizations (n)	Effect sizes (k)	Weighted mean r	Standard error	95 % Confidence interval	Q_W (p)	Q_B (p)
All CSR→All performance outcomes	31,773	87	.158*	.012	.150/.165	2431.886 (.000)	
1. Social CSR→business performance	6,758	9	.039*	.004	.024/.055	100.001 (.000)	444.719 (.000)
2. Environmental CSR→business performance	1,258	16	.434*	.041	.397/.469	161.003 (.000)	
3. All CSR→financial performance	22,827	52	.098*	.006	.089/.106	777.817 (.000)	1094.540 (.000)
4. All CSR→operational performance	5,288	28	.426*	.021	.409/.441	548.971 (.000)	

k Number of effect sizes; Q_W Residual pooled within-groups share of variance with $(k - j)$ degrees of freedom, where k and j denote the number of effect sizes and categories, respectively; Q_B Residual variance between-group with $(1 - j)$ degrees of freedom, and it is the between-group heterogeneity statistic indicating the statistical significance of the categorical moderator model. * $p < .05$

In terms of industry setting as a moderator, no differences were found significant for the CSR-business performance linkage (β = .034, n.s.). The non-significant result confirms that in Asia the industry setting is not a significant contingent factor for the linkage between CSR and business performance. Therefore, we could not conclude that CSR has a larger effect for manufacturing firms than for service firms in East Asia. Hypothesis 5 is not supported.

Firm-specific characteristics are additional potential moderating factors affecting the CSR–business performance relationship. We explored the linkage by examining the difference between subgroups of SMEs versus non-SMEs and private versus public firms. Supporting Hypothesis 6, we found that firm size moderates the CSR–business performance relationship ($\beta = -.184$, $p = .000$). Meta-regression results show that CSR has a stronger impact on business performance for SMEs than for non-SMEs. The result supports Hypothesis 6, in opposition to Allouche and Laroche (2005) who found that firm size does not influence the impact of CSR. Future studies can explore this issue further.

Testing Hypothesis 7, we found that organizational form has a significant moderating effect ($\beta = .149$, $p = .003$) and that CSR has a stronger impact on business performance for private firms than for public firms. This result supports Hypothesis 7.

As discussed previously, CSR–business performance studies have used a variety of CSR measures. Concerning the exploratory methodological moderators, Table 3 presents the relationships between the two most commonly used CSR measures and business performance, indicating that they were different in empirical studies (β =

Table 3 Meta-analytic regression analysis results

Independent variables	Dependant variable: Correlation between overall CSR and business performance				
	β	p	Standard error	Tau-squared	95 % Confidence interval
Moderators					
Economic development					
Developed vs. developing	−.120*	.028	.055	.042	−.227/−.013
Industry setting					
Manufacturing vs. service	.034	.707	.091	.071	−.144/.212
Firm size					
Non-SMEs vs. SMEs	−.184***	.000	.048	.006	−.278/−.090
Organizational form					
Private vs. public	.149**	.003	.050	.014	.051/.246
Measurement					
Archival vs. self-report	−.327***	.000	.035	.020	−.396/−.257
Overall CSR evolution	−.002	.861	.010	.040	−.021/.017
Time					

* $p < .05$ ** $p < .01$ *** $p < .001$

The above moderators were treated as independent variables (economic development: developed = 1; developing = 0, industry setting: manufacturing = 1; service = 0, firm size: Non-SMEs = 1; SMEs = 0, organizational form: private = 1; public = 0, measurement: archival = 1; self-report = 0)

−.327, $p = .000$). Direct CSR (self-report) measure has a larger effect than indirect CSR (archival) measure on business performance.

We are also interested in the evolution of CSR's influence on business performance in the past decade. In our meta-analytic regression model, we treated publication time as independent variables (from 2001 to 2015). Table 3 reports the results of meta-regression exploring the evolution of CSR over time. However, the regression coefficient is non-significant ($\beta = -.002$, n.s.). Therefore, we found no significant evolutionary tendency of CSR in East Asia.

Discussion

Orlitzky et al. (2003) conducted the first meta-analysis on the relationship between corporate social responsibility and financial performance, but they focused mainly on Western studies. Twelve years ago in East Asia, the idea of CSR was less popular than it is today, so empirical research for East Asian CSR practice is rare. Today, however, research on CSR–business performance relationships in East Asian contexts is accelerating, although studies have been inconclusive so far (Barnett & Salomon, 2012). The time is now appropriate for a meta-analysis focused on CSR in East Asia.

In studying whether CSR is profitable in East Asia, our quantitative review suggests that CSR has an overall significant, positive relationship with business performance, both financial and operational, consistent with most prior studies (Cheung et al., 2010; Choi et al., 2010; Cole et al., 2006; Oh et al., 2011) but different from Li and Zhang (2010) and Cao (2011). In addition, we find CSR exerts a stronger positive effect on operational performance than on financial performance.

Interestingly, our meta-analysis demonstrates several unique findings on East Asian CSR practices which are different from Western countries. For instance, based on 52 Western background studies and a total sample size of 33,878 observations, Orlitzky et al.'s (2003) meta-analysis found that corporate environmental performance has a smaller relationship with corporate financial performance. While, our results diverge from Orlitzky et al. (2003) in that we find environmental CSR to have a stronger positive affect than social CSR on business performance in our East Asia samples. We suggest that the West/East divergence occurs because social CSR and environmental CSR have different importance in East Asia than they have in Western countries. While Western countries focus more on social CSR, during the past decade some East Asian developing regions, such as China, have been heavy manufacturers for the world, with the accompanying environmental pollution problems. That is, green signals (environmental CSR) are more attractive to East Asian stakeholders, while good signals (social CSR) are more attractive to Western stakeholders. Therefore, East Asian firms' stakeholders are expressing more concerns about the natural environment, accounting for the focus on environmental CSR.

Moreover, previous CSR literature seldom considered the role of contingencies such as institutional systems and culture. Our findings also confirm that economic development, firm size, organizational form, and measurement mode moderated CSR effects on business performance. These findings suggest that CSR is highly valued in East Asian developing countries, especially in China. Private firms rely more on CSR to obtain resources for enhanced competitiveness. Because scholars seldom explored the evolution of CSR's value, we tried to investigate the evolutionary tendencies but failed to find significant results, which indicates that CSR practice were consistently important in East Asia over the past decade.

Intriguingly, our Asian samples suggest that CSR has a stronger positive effect on performance for small firms than it has for large firms, in contrast to Marín et al. (2012) who argued that large firms in Spain are more visible to stakeholders and more likely to consider their demands. There are two reasons to explain this West/East divergence. One plausible reason for the difference may be the different development stage of CSR. In Western countries, CSR practices have been a pervasive and frequent activity during decades of development. Western companies, even the small ones, have the tradition to disclose CSR information to stakeholders. The differences of information asymmetry are not distinct between large firms and SMEs. But CSR in some East Asian regions is still in the beginning stages. CSR signals sending from small and private firm can attract numerous stakeholders' attention. Another reason may be the different institutional environments. Institutional theory explains that institutional environments are crucial contingencies that can change the influence of institutions on firm performance. Because East Asia has an informal and weak institutional environment, East Asian SMEs would practice CSR to gain political ties with government and secure better protection. In general, we believe that firm size has a different moderating effect in the CSR–firm performance relationship in East Asian contexts than it has in Western countries.

Also, Marín et al. (2012) found that service and manufacturing industries experienced similar CSR effects. Our assumption that industry setting is a moderator was similarly rejected, overturning previous ideas that industry characteristics are potential determinants of CSR–business performance relationships (Reverte, 2009; Werther & Chandler, 2006). The reason that we failed to find the moderating role of industry setting is that both green signal and good signal are important to East Asian stakeholders. Collectively, this meta-analysis provides several valuable theoretical contributions and practical implications.

Theoretical contributions

Combining signaling theory with institutional theory, we find sufficient reasons to support an overall positive association between CSR and business performance in East Asia as our baseline hypothesis. We make several contributions to research on CSR in East Asia in particular and to the field of business ethics as a whole. First, this meta-analysis expands the application of signaling theory and institutional theory. We try to apply signaling theory into the research of East Asian CSR practices, and argue that signaling theory is another powerful theoretical foundation that can explain the value of CSR. According to signaling theory, CSR signals can transfer information about firm's unobserved attributes (e.g., CSR attitude and stakeholder influence capacity) to customers, suppliers, government, and other stakeholders. This information is crucial for stakeholders to evaluate the firm's attitude towards environmental and social issues. Especially, CSR practice signals can help firms obtain a premium from stakeholders and sometimes make up the institution deficiency in China and other East Asian emerging economies (Surroca et al., 2010). The viewpoint and results of this study are consistent with former research findings. Previous studies agree that CSR actives are a kind of organizational strategic investment to build close connection with diverse stakeholders and acquire their support. Firm with better social performance can acquire more intangible resources, including organizational culture, reputation, and human resources that give them competitive advantage (Orlitzky et al., 2003; Sharma & Vredenburg, 1998). Different from above viewpoints related to stakeholder theory and the resource-based view, our signaling perspective emphasizes the signaling role of CSR practices in dealing with information asymmetry. Specifically, by integrating empirical results across 28 empirical studies, we make conclusions about the overall value of CSR in driving business performance in East Asia. We show that CSR is, indeed, a valuable business strategy in the East Asian context. Moreover, our meta-analysis reveals that environmental CSR has a stronger positive effect on firm performance than does social CSR. Distinguishing between environmental and social aspects of CSR is important because they involve two different groups of stakeholders and have different Western/Asian relative strengths. Our unique research findings emphasize the value of environmental CSR signals in East Asia and enrich the CSR literature. Following Venkatraman and Ramanujam (1986) and Hult et al. (2008), we decompose business performance into financial (financial and market indicators) and operational (competitive and societal indicators) performance, to examine CSR's distinct influence on each type of business performance. The approach enables us to compare distinct CSR impacts on financial vs. operational performance, and gain a more comprehensive understanding of CSR's value in East Asian contexts. The results indicate that CSR exerts a relatively small influence on financial performance and that CSR endeavors can allow firms enjoy stronger operational performance. The findings are important and timely as they strengthen our understanding of CSR's effects in East Asia, where business is characterized by fast growth, fierce environmental problems, and savage competition.

Second, this paper adopts the institutional theory to explore the contingencies of CSR-performance relationship. Drawing on stakeholder theory, natural resource-based view (NRBV), and other theoretical lenses, previous studies have found the positive effects of CSR practices on business performance (McWilliams & Siegel, 2001; Orlitzky et al., 2003; Surroca et al., 2010). However, they neglected the moderating role of institutional environments. From the combined view of signaling theory and institutional theory, we argue that the positive effect of CSR practices signals may vary in different contexts. When the institutional system is deficient, CSR signals can resolve the information asymmetry more effectively. Similarly, the phenomenon of information asymmetry is more prominent in SMEs and private firms. Therefore, CSR signals are more valuable for these firms. In contrast, as the institutional environment becomes more perfect and firm's information is easily to access (e.g., developed regions and public firms), the signaling role of CSR practices will become less valuable because stakeholders can access other non-CSR information to evaluate firms. Specifically, following Barnett and Salomon's (2012) call for exploring additional contingencies in the relationship between CSP and CFP, we undertook this meta-analytic review to examine the prediction of stakeholder theory in various contexts. Different levels and types of contingencies allow us to understand the contextual and methodological moderators between CSR and business performance in East Asia more comprehensively. First, we find that economic development moderates CSR effects on business performance. This indicates that CSR is a better approach for firms in developing regions to improve business performance, consistent with the argument that CSR may depend on the economic environment along with different levels of institution and legal development (Arya & Zhang, 2009). This research finding enriches the literature of CSR and the institutional theory. We also show that firm size moderates the effect of CSR on business performance: SMEs rely more on CSR than do non-SMEs to gain necessary resource support and legitimacy from outside, a finding consistent with Dixon-Fowler et al. (2012). Additionally, we find that organizational form moderates CSR effect on business performance. Consistent with our prediction, CSR is more beneficial for private firms than for public firms, perhaps because most public firms perform CSR according to regular norms, but the few private firms that actively participate in CSR are differentiated once stakeholders and society as a whole know about their CSR endeavors.

Third, we find that using archival data has different outcomes than using self-report measures. Specifically, self-report measures have a larger effect size. As a result, our findings diverge from Dixon-Fowler et al. (2012). Future scholars are encouraged to adopt appropriate CSR measures for different research motivations. In addition, current CSR literature rarely takes longitudinal research into consideration because of the difficult of data collecting (Dixon-Fowler et al., 2012). We try to explore the evolution of CSR in East Asia regions with the help of meta-regression. However, the results failed to demonstrate a significant regressive effect.

Practical implications

This research may provide some useful guidelines regarding CSR endeavors for managers of Asian firms. CSR activities require substantial investment and can be costly (Hull & Rothenberg, 2008). Thus, understanding whether and under what conditions CSR enhances business performance is financially meaningful to East Asian managers who have been practicing or are being advised to practice CSR. This study argues that organizations adopt CSR activities to transfer good and green signals to outside stakeholders, solve the information asymmetry, and get positive responses from stakeholders. For instance, public firms and large firms are used to disclose their CSR reports every year. Several restaurants in China are pleased to show the cooking process to diners (green signals) in order to demonstrate the transparency and safety of their food. Our meta-analytic review indicates that CSR is a strategic signal East Asian firms can use to enhance business performance, especially for gaining competitive indicators such as reputation and innovation, and social indicators such as employee loyalty and customer satisfaction, indicating that CSR activities are strategically worthwhile investments. Managers in East Asia should focus on environmental CSR because it is more important than social CSR in the East Asian context. However, CSR is not a panacea for improving business performance because it is contextual relied. For instance, our research findings suggest SMEs in developing Asian countries, especially private firms, should consider CSR to acquire competitive advantage. In addition, with the development of globalization, more and more multinational companies (MNCs) prefer to enter East Asia markets. Therefore, the unique and important role of CSR in East Asia is crucial for MNCs. For instance, Carrefour, Tesco, and other Western companies need to realize the fact that environmental CSR is more important in East Asia.

Limitations and future research directions

This meta-analytic study has several limitations that must be considered. First, CSR has many definitions capturing, for example, the ethic aspect, stakeholder dimension, economic dimension, and voluntary dimension, and each type of CSR may have different impacts on business performance. For instance, firms that have better working environments and harmonious labor relations can have a more powerful and effective labor force (Hamel & Prahalad, 1994). Firms known to be environmentally protective may be more competitive (Hart & Ahuja, 1996). Therefore, we encourage future scholars to examine the value of the different dimensions of CSR in more detail. Second, the reduced effect size in moderator analysis may be a threat to our meta-analysis. Because of the limited information we coded and the nature of moderators, we have to exclude many studies during the moderator analysis. May be this is the reason why we do not find a significant moderating effect of industry setting in the CSR-business performance linkage. However, as the East Asian CSR related empirical studies accumulating, future scholars may have the opportunity to code enough information to examine more moderators. Scholars are encouraged to explore the opposite prediction of economic development, industry settings and firm attributes' moderating effects. Third, every meta-analytic review is limited by a fixed number of moderators because of the coding scope of the sample studies (Hunter & Schmidt, 1990). For example, political connection moderates the CSR–performance link, but empirical studies were too few to calculate the correlation coefficient, preventing us from examining these boundary conditions. Fourth, although CSR is developing rapidly in East Asia, our fifteen-year data source provided no evidence that CSR tends to change. Besides, the time lag between CSR practices and business performance has always been controversial. Therefore, future scholars can take the time lag into consideration in the meta-analysis. Scholars would also find it worthwhile to use longitudinal designs or more enhanced data sets to examine whether the value of CSR will decline or increase in the future. Fifth, our data analysis based on extremely unbalanced cell tends to have bias. For instance, research in developing regions has 82 %, whereas that in developed regions is only 18 %. We also found several papers use the same samples based on Chinese firms listed on either the Shenzhen or Shanghai stock exchange. This means the firm sample may be surveyed more than once (e.g., Wang & Qian, 2011; Wang et al., 2011; Ye & Zhang, 2011; etc.). As the Asian CSR research accumulating, future scholars may be able to avoid these limitations. Finally, meta-analyses sometimes require comparing apples with oranges. We admit that the aggregation across different types of financial / operational indicators may be a potential limitation in this meta-analysis.

Conclusion

In recent years, scholars have turned their attention to corporate social responsibility in East Asia and have produced a cumulating yet fragmented body of empirical studies. The time is therefore appropriate to focus, review, and explore the CSR–business performance relationship in East Asian contexts by meta-analysis. Our meta-analytic review of 28 East Asian-based empirical studies, together with extensive discussions and future research suggestions, may furnish a reference for further theory development and empirical analysis in this field. We find that CSR continues to play a prominent role in facilitating business performance, especially operational performance. Interestingly, CSR may have stronger implications for small, privately owned businesses in the developing parts of East Asia such as China. We hope our study will inspire future research on CSR in East Asia.

Appendex

Table 4 Studies Included in the Meta-analysis, 2001–2015[a]

No.	Study	Publication	Sample size	Country	Economic development: Developed vs. developing	Industry type: Manufacturing vs. services	Firm size: Large firms vs. SMEs	Public vs. private	Measurement of CSR	Category of CSR
1	Bai and Chang (2015)	Asia Pacific Journal of Management	295	China	Developing	Manufacturing	Mixed [c]	Mixed	Self-report	Multiple
2	Cao (2011)	Doctoral dissertation (unpublished)	153	China	Developing	Mixed	Mixed	Mixed	Self-report	Environmental CSR
3	Chang (2009)	Quality and Quantity	184	Taiwan	Developed	Manufacturing	–[b]	Mixed	Self-report	Multiple
4	Choi, Kwak, and Choe (2010)	Australian Journal of Management	1,222	Korea	Developed	Mixed	–	Public	Archival	Multiple
5	Chow and Chen (2012)	Journal of Business Ethics	314	China	Developing	Mixed	Mixed	Mixed	Self-report	Environmental CSR
6	Christmann and Taylor (2001)	Journal of International Business Studies	101	China	Developing	–	Mixed	Mixed	Self-report	Environmental CSR
7	Chun (2009)	Journal of Business Ethics	472	China	Developing	Manufacturing	–	–	Self-report	Multiple
8	Cole, Elliott, and Shimamoto (2006)	Ecological Economics	400	Japan	Developed	Mixed	Mixed	Mixed	Self-report	Environmental CSR
9	Gao (2011)	Journal of Business Research	254	China	Developing	Mixed	Mixed	Public	Archival	Social CSR
10	Gao, Faff, and Navissi (2012)	Pacific-Basin Finance Journal	221	China	Developing	Mixed	Mixed	Public	Archival	Social CSR
11	Li and Zhang (2010)	Journal of Business Ethics	692	China	Developing	Manufacturing	–	Public	Archival	Multiple
12	Luo (2006)	Journal of International Business Studies	126	China	Developing	Mixed	Large firms	Private	Mixed	Multiple
13	Marquis and Qian (2013)	Organization Science	5,660	China	Developing	Mixed	Mixed	Mixed	Archival	Multiple
14	Oh, Chang, and Martynow (2011)	Journal of Business Ethics	118	Korea	Developed	Mixed	Large firms	Public	Archival	Multiple
15	Qu (2009)	Asia Pacific Journal of Marketing and Logistics	143	China	Developing	Service	SMEs	–	Self-report	Multiple
16	Shen and Chang (2009)	Journal of Business Ethics	2,560	Taiwan	Developed	–	–	Public	Archival	Multiple
17	Sheng (2013)	Management Science and Engineering	10,346	China	Developing	Mixed	Mixed	Public	Archival	Multiple

Table 4 (continued)

No.	Study	Publication	Sample size	Country	Economic development: Developed vs. developing	Industry type: Manufacturing vs. services	Firm size: Large firms vs. SMEs	Public vs. private	Measurement of CSR	Category of CSR
18	Tian, Wang, and Yang (2011)	Journal of Business Ethics	1,022	China	Developing	Mixed	Mixed	Mixed	Self-report	Multiple
19	Wang and Qian (2011)	Academy of Management Journal	2,765	China	Developing	Mixed	Mixed	Public	Archival	Social CSR
20	Wang, Qiu, and Kong (2011)	Journal of Business Ethics	86	China	Developing	Mixed	Large firms	Public	Archival	Multiple
21	Xie and Peng (2011)	Journal of Strategic Marketing	239	China	Developing	–	–	–	Self-report	Multiple
22	Xun (2013)	Business Strategy and the Environment	93	China	Developing	Service	Large firms	Public	Archival	Multiple
23	Ye and Zhang (2011)	Journal of Business Ethics	2,833	China	Developing	Mixed	Mixed	Public	Archival	Social CSR
24	Zeng, Meng, Zeng, Tam, Tam, and Jin (2011)	Journal of Cleaner Production	104	China	Developing	Manufacturing	SMEs	Private	Self-report	Environmental CSR
25	Zhang, Zhu, Yue, and Zhu (2010)	Journal of Business Ethics	685	China	Developing	Mixed	Mixed	Public	Self-report	Social CSR
26	Zheng, Luo, and Wang (2014)	Journal of Business Ethics	300	China	Developing	Mixed	Large firms	Public	Self-report	Multiple
27	Zhu and Sarkis (2004)	Journal of Operations Management	186	China	Developing	Manufacturing	Mixed	Private	Self-report	Environmental CSR
28	Zhu, Sun, and Leung (2014)	Asia Pacific Journal of Management	199	China	Developing	Service	–	–	Self-report	Multiple
	Summary		31,773		Developing: 82 % Developed: 18 %	Manufacturing: 21 % Service: 11 % Others: 68 %	Large firms: 19 % SMEs: 7 % Others: 74 %	Public: 48 % Private: 11 % Others: 41 %	Archival: 42 % Self-report: 54 % Mixed: 4 %	Environmental: 21 % Social: 18 % Multiple: 61 %

[a] $N = 28$, comprising empirical studies conducting during the 2001–2015 period

[b] '–' indicates that we cannot determine the firm's attribute

[c] 'Mixed' samples were excluded in the analysis of moderating effect

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