

Business - local Government Interdependence and Corporate Social Responsibility Intention in China

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ABSTRACT

This research examines how business-local government interdependence influences firm corporate social responsibility (CSR) intention. Specifically, based on resource dependence theory, we propose that when firms are more dependent on political resources possessed by local government, firms would be more intent to use CSR as a political instrument to restructure their interdependence with local government; when local government is more dependent on firm economic resources, firms may shirk CSR opportunistically. Moreover, we suggest that the above relationship be contingent on firm pollution visibility, political connections, and the claim urgency of the local government. We use a nation-wide survey of 1,268 firms to test these hypotheses and obtain supports from the statistical analysis.

Key words: business-local government interdependence; corporate social responsibility intention; resource dependence; pollution visibility; political connections

INTRODUCTION

Government is one of the most influential stakeholders [1] that brings firms with environmental uncertainty and resource dependency [2]. It exerts influence on various firm activities, such as competition [3], political actions [4], top management team background [5], FDI and foreign subsidiaries [6-8], R&D [9] and business-government cooperation [10]. Recently, its impact on corporate social responsibility has drawn more research attention. For example, governments have been empirically found to substantially influence firms' corporate philanthropy [11, 12], environment protection [13, 14], CSR reporting [15, 16] and community initiatives [17].

However, the majority of CSR literature often concerns the dependence of firms on government, implying that government influences all the firms equally or that government is so powerful that it rarely depends on firms [13]. This one-sided view of dependence impedes our insights into the *interdependent* nature of business-government relationships and leads to incomplete conclusions as to its effects on CSR [18].

There are a few CSR studies, though, have taken interdependence into account. For example, early work by Salancik [18] tests how firm dependence and government dependence, in terms of economic transactions, jointly influence firms' responsiveness to affirmative action demands by government. Tang and Tang [19] investigate how the power imbalance between government and firm leads to firm's comprehensive environmental performance. However, further studies are required to better understand the full picture of business-government interdependence.

In this study, we argue that firms may depend on local government for political resources, while the local government depends on firms for economic resources. Such interdependence formulates the relative power status between the two groups. When firms are more dependent on local government to support their business activities, they are in a more disadvantaged power position and may be more inclined to use CSR as a political strategy to restructure coordination and power position with the local authority. However, when local government is more dependent on a firm for economic resources, which implies a more advantaged power status of the firm, the firm might tend to shirk CSR opportunistically to release the extra burdens and costs. Moreover, following the rationale of stakeholder multiplicity [20, 21], we maintain that high pollution visibility may increase the importance of environment-related stakeholder alliance to firms, and thus distract firms' attention and resources from using CSR to manage the interdependence with local government. We also propose that building political connection is another crucial method to manage interdependence with local government. While using CSR to manage business-local government interdependence follows the logic of coordination restructuring [2] that focuses on adjust the power status of the two groups, political connections of firms serve as constraint absorption instrument [22] that internalizes the actors fully or partially controlling political resource of government. Therefore, political connections may substitute the role of CSR in managing business-government interdependence and buffer between the two groups, and thus weaken the effects of firm dependence but strengthen that of local government dependence.

To test these ideas, we use a nation-wide survey of 1,268 firms in China. China provides a suitable context to study the effects of business-government interdependence on CSR. On one hand, the underdeveloped institutions, the great interference and the high discretion of the use of political resources by Chinese government feature the business environment in China [23]. This suggests that managing firm-government relationships is typically crucial for Chinese firms [24] and that regulatory institutions are not necessarily rigid non-choice compliance but a manageable dependence [20]. On the other hand, with the previous fast pace of economic development, various social problems emerge, such as the serious air pollution in Beijing and other big cities. How firms could be more responsible for the society and environment has become a crucial and urgent topic. The results support our hypotheses, but show inconsistencies between firms' CSR intention on environmental and economic issues. We then discuss the possible explanations of these findings and call for future research on how claim urgency of local government influences the effects of business-local government interdependence on firms' CSR intention/behavior.

By doing so, we hope to make several contributions to the literature. First, this research investigates the relationships between business-government interdependence and CSR in a finer-grained way. We bring government dependence on firms back to the discussion and emphasize dyadic/interactive interdependence, rather than one-sided dependence, between firms and local government. We also reveal the heterogeneous, rather than homogeneous nature of such interdependence, which indicates that firms and local government depend on each other for different resources and are subject to different contingencies. Second, we focus

on firm CSR and interdependence with government in the local communities, rather than the broad and general approach used in previous literature. Third, we further enrich the literature on the contingencies or boundary conditions of the relationships between business-government interdependence and CSR.

In the following sections, we will first develop our theory and hypotheses, then describe our methods and results. In the end we will discuss the possible explanations of our results and future research directions.

THEORY AND BACKGROUND

Resource dependence, business-government interdependence and CSR

Resource dependence theory [2] provides an insightful perspective to investigate interorganizational relations [25]. The fundamental argument is that resource dependence exists when critical resources necessary to achieve one's goal are not fully possessed by that actor but by external players. Control over vital resources generates power, which characterizes the interorganizational linkage, as well as uncertainty, which is typically troublesome to organizations [2, 26-29]. One critical property of resource dependence is its dyadic nature, or interdependence [22, 30]. When dependence is asymmetric between two organizations, one is granted power over the counterpart [2, 30]. Frooman [31] follows and proposes that firm dependence on stakeholder and stakeholder dependence on the firm jointly determine how the stakeholder could influence the firms' actions. Casciaro and Piskorski [22] further identify two distinct theoretical dimensions of interdependence, namely power imbalance, or the power/dependence differential between two organizations, and mutual dependence, or the sum of the dependencies between the dyadic parties.

Typically, Interdependence between business organizations or organizational populations could be viewed or operationalized as transactions and interactions in business activities, such as concentration of order, supply and partnerships [22, 29, 32-39], joint program [40, 41], capability/resource complementarity [42, 43], resource availability [44], form of transaction [41, 45, 46], and perceived dependence related to context [19, 34, 41].

Government is one of the key external stakeholders for firms [1] with its power, legitimacy and urgency of its claims [47, 48] and its control over concentrative political resources crucial for firms [2, 3, 5]. Therefore, literature has also tried to investigate the form of business-government interdependence. Such interdependence has been portrayed as business-government economic transaction concentration [3, 18], support and regulation [5, 6, 49-51], government's control over resources [52], firm's various economic contributions [7], state ownership [8, 12], and cooperation [9, 10, 53].

Researchers have discussed the role of government in firm's CSR, explicitly or implicitly applying resource dependence theory. For example, firm dependence on government leads to corporate philanthropy [11], and firms more dependent on government are more likely to benefit [12], firms are subject to power, pressure and regulation from government in their environmental protection [13, 14, 54], firm dependence on government stimulates CSR reporting and CSR reporting standard [15, 16], firms seeking legitimacy and stable regulation environment from local government intent to take community initiatives for business-government relationships building [17]

However, the majority of CSR literature emphasizes only one-sided dependence of firm on government. Firm dependence on government is often identified in the form of governmental regulation, pressure and support, while government dependence on firm is underemphasized.

Therefore, it is of no surprise when some researchers state that “[i]t is unlikely that firm will vary significantly” [13: 163] to respond to government’s power and its environmental requirement. However, Salancik has pointed out early that one-sided dependence might overlook the interactive nature of influence and compliance, which results in biased and/or incomplete conclusions [18].

Business-government interdependence in China

Policies and their implementation by local government exert major external uncertainties for firms [55], especially in China where reforms undergone fluctuations [23]. Hence, managing firm-government relationships is typically crucial for Chinese firms [24]. China political system is perceived as a decentralized structure with laws and regulations drafted by central level government while implemented by local government [56, 57]. Firms’ interdependence with local government is more practical, more specific and more relevant than that with the central one. In this research, we focus on business-local government relationships.

In China context, firms depend on local government for political resource. First, political resource concentrates on local government. Specifically, such political resource presents as subsidy, tax benefit, easier project and license approval, better cooperation with state-owned enterprise providing other critical resources, higher legitimacy, recognition and status, and other practical convenience [11, 12, 19, 58-60]. Such political resource cannot be substituted by others or cannot obtain from actors other than local government. Second, local government in China has the discretion to dispose the political resources with one-party system, officers nominated from above, underdeveloped institutions constraining the boundary of power, and the difficulty of supervision of local implementation from superior government [57]. Such discretion implies that local government in China has leeway to make decisions according to its preference and benefits.

Specifically, four aspects of daily interactions between the two parties indicate the dependence of firms on local government. (1) Dispute resolution. Besides serious litigation process, China institution provides “smoother” way to resolve dispute, such as mediation and arbitration in the charge of local government (Ge, 1996; Ren, 1987). Local government could impose implicit influence on those processes and use informal *guanxi* (Park & Luo, 2001; Xin & Pearce, 1996) to settle firms’ problems. (2) Market entry and approval. Local government may limit the level of local and interregional competition to protect certain industries (e.g. Bai et al., 2004). (3) Support. Local government could offer critical physical support, such as infrastructure and financial aids. It could also provide firms with relational support, such as assistance in business connection building, coordination in various stakeholders in firms’ communities, and information sharing. (4) Supervision, inspection, rewarding and penalty. Firms’ daily activities are constrained by government’s regulative influence (Scott, 1995) and coercive isomorphism (DiMaggio & Powell, 1983). Local government directly implements policies and regulations (Blackman, 2000; Holtbrügge & Berg, 2004), such as environmental protection.

At the same time, local government in China depends on firms for economic resource. The stream of political strategy research [61] has provided insights for how firms address the political needs in western political system [4, 62] to establish interdependence with legislators and authority and exchange firm resources for political resources [3]. However, as political system in China limits firm’s engagement in politics, government dependence mainly concentrates on economic dimension.

Chinese government has been emphasizing the importance of domestic economic development since the policy of reform and opening up in 1978. Development goals, such as maintaining

high level of GDP growth rates, developing rural area, providing job opportunities, increasing consumption, and stabilize society with development, are often highlighted in government plan [19, 53]. These goals are then passed on from superior to subordinate government and are used to evaluate the performance of local government officers for promotion, termination and turnover [63, 64]. Besides, since fiscal decentralization was introduced in 1978, tax revenue that local government could retain has been tightly associated with the local development [65, 66]. As tax revenue can be invested in infrastructures and policies that further stimulate development and stability to achieve goals from above on one hand, and can be spent on personal benefits such as better working condition for officers on the other hand, local government does have incentive to improve local economy. Nevertheless, local economic development mainly relies on firm's activities such as production, purchase/sales, employment and tax payment. Therefore, local government's power is constrained by its dependence on firms for economic resources [19].

To sum up, unlike the tradition perspective of market economy in which private firms and government are independent [53] and that governmental power, regulation and its implementation are rigid compliance for firms [13], Chinese firms and local government depend on each other for different resources. Therefore, business-local government relationships in China are not necessarily rigid non-choice compliance but a manageable dependence [20]. Since CSR can be used as an instrument to manage and restructure such interdependence [60], the status quo of business-local government interdependence could influence firms' CSR intention.

HYPOTHESES

Firm dependence and local CSR as an instrument of coordination restructuring

Various actions can be taken for organizations to manage their dependence on external stakeholders [e.g., see 26, 67]. One typical form of actions for managing interdependence can be summarized as coordination restructuring [2]. To restructure coordination, organizations may increase "the mutual control over each others' activities" [2: 43] so that power imbalance is reduced but mutual dependence is enhanced between parties [22] and symbiotic relationships are established [2]; or organizations may reduce the demand for focal resource they rely on or cultivate alternatives [22, 67]; or they minimize the cost of demand by external actors [67].

CSR is increasingly recognized and used as an instrument of coordination restructuring to manage business-government interdependence [60]. On one hand, CSR taken by firms may directly and substantially ease the burden of government in social assistance and development, especially when local government does not have enough economic resources to improve public welfare [11, 12, 17, 59]. For example, corporate philanthropy directly supports the needy in the society [11, 12], local priority of firm's economic activities stimulates development local economy and creates more job opportunities for the local residents, and firms' environmental protection investment reduce local government's expenditure in environmental monitoring and recovering. Thus, firms' CSR activities assist local officers in achieving goals of development, stability and harmony, the central topics in CCP's domestic political agenda. On the other hand, CSR is an investment in public relations in order to establish favorable attitudes toward the organization and to reduce corresponding costs by local government [67]. Engaging in CSR convey the signal to the government that firms act as corporate citizen [73], and thus obviate the need for imposition of costly regulations [74]. Besides, Local CSR helps build up good relationships between firms and communities, which decreases the risks of conflicts and costs of conflict resolution. For example, if a firm induces serious pollution and/or inconvenience in the community, residents may be dissatisfied and even protest against the

focal firm and local government. It then takes additional costs and efforts for local government to arrange negotiation and resolution among the stakeholders. If the negative impacts expand and draw attentions from the superior, local officers could have a setback in their political career.

To summarize, firms' local CSR can be taken as political tool [17, 75] that help improve legitimacy [17] and create reciprocity [76] in business-local government relationships. Local CSR is beneficial to local government and thus increase local government's dependence on firms, which in turn decreases power imbalance and increase joint dependence between the two focal parties [22]. Joint dependence, then, enhances the embeddedness and quality of interaction between the partners [37].

Firms more dependent on local government might suffer more disadvantages from the inferior status in their interdependent relationships. Local government's use of political power is then less likely to be constrained. This will leads to greater discretion of local government in treatment against the firms and greater uncertainty of firms' external environment [2, 26-29]. Therefore, Firms more dependent on local government are more intent to perform local CSR that address local government's interests [18]. Formally,

H1: Firm dependence on local government is positively associated with firm's CSR intention in local community, other things being equal.

Local government dependence and local CSR as additional costs

As we have discussed earlier, firms have economic power against their local government [77]. Local government in China depend on firms for their economic contributions to achieve goals of development, stability and harmony from the superior [19], to ensure personal promotion [63, 64], and to expand local tax revenue [65, 66].

Other things being equal, firms have greater power relative to government when the latter is more dependent on the former [77]. With such power, firms could ask government for additional resource in exchange. For example, major financial firms are "too big to fail" as they are critical to economic development and social stability. Just like US government spent dozens of billions of dollars to save General Motors in the recent financial crisis, local governments in different regions in China take various measures to retain and attract headquarters of large firms. Furthermore, firms with greater power may be more likely to act opportunistically. As Provan and Skinner [34] earlier propose, dealers less dependent on their primary supplier may have higher relative power, and may be more likely to take opportunistic behavior, the self-interested seeking with guile [78]. Example of opportunistic behavior may include taking shortcut, being dishonest, masking inadequate quality and so on [34, 78].

CSR is often treated with instrumental perspective [79] in China. Because of underdeveloped CSR institutions and awareness, Chinese firms often pursue profit as the dominant goal and use CSR as an instrument to manage interdependence with external stakeholders, obtain political legitimacy and access critical resources [e.g. 12, 15, 19, 80, 81]. Hence, firms incline to conduct CSR to maximize their profit [79, 82, 83]. However, while the return of CSR is ambiguous, its cost is often explicitly apparent. For example, expensive facilities for environmental protection and corporate philanthropy directly cost firms' financial resource that could have been invested in more profit-generated projects; local priority in procurement and employment may restrict firms in limited choices. In most situations, CSR is not free, and sometimes could be very costly. Unsurprisingly, researchers have not reached consensus on the relationships between CSR and financial performance and their contingencies [see, e.g., 84, 85-87].

Furthermore, the context of underdeveloped institution in China makes it possible for firms to shirk even compulsory CSR. As local government has discretion in implementation of policy, the regulations do not have to be non-choice compliance [20]. Local government thus can act according to its preference and interests and even pretermite favorable firms' irresponsibility for the sake of firm economic contributions it relies on. Influential firms, under this circumstance, can negotiate for a more lenient enforcement of regulations [19].

Therefore, when local government is more dependent on the firm, with firm dependence being equal, the firm is less likely to exercise CSR as coordination restructuring instrument to manage its disadvantaged power position against local government, because such local government dependence countervails more firm dependence and discounts the value of CSR in enhancing joint dependence. In this situation, the firm may even opportunistically shirk compulsory CSR, such as basic environment protection by regulations, not to mention voluntary CSR, such as corporate philanthropy.

Formally, we hypothesize that,

H2: Local government dependence on firm is negatively associated with firm's CSR intention in local community, other things being equal.

Pollution visibility: the logic of stakeholder multiplicity

Stakeholders are not independent but interactive with each other [88]. Besides local government, firms interact with its whole stakeholder network on each specific issue [89, 90]. Stakeholder multiplicity, defined as "the degree of multiple, conflicting, constituent expectations exerted on an organization" [20: 162], influences the focal firm's behavior. Therefore, with the increase of priority and salience of other stakeholders [47, 91], and with the increase of importance of resource controlled by those stakeholder [2], the priority of interdependence with those stakeholders increases relative to that with the focal stakeholder. As Jawahar and McLaughlin [21] propose, "given that organizations have finite resources in terms of time and money, organizations are unlikely to proactively address issues and concerns of all stakeholders all the time" (402), and "the strategy an organization uses to deal with each stakeholder will depend on the importance of that stakeholder to the organization relative to other stakeholders" (397). Specifically, in this research, we suggest that interdependence with other stakeholders in the community should have the potential to influence the effects of business-local government interdependence.

Among all the firms' operational aspects, firm's pollution visibility is the one directly related to the whole population in the community. Unlike internal problems such as safety and health care, or problems related to only part of stakeholders such as product quality, the environmental problems are suffered by everyone in the community. Thus, higher level of pollution visibility is associated with higher level of social pressure [18] from the public in the community. The salience of activist groups and local community increases during environmental crisis [92]. When pollution is highly visible, media, local residents, interest groups and other pollution-related stakeholders will recognize such issue and align as an interest alliance [31, 93] and take complementary and cooperative actions [88]. Such alliance gets together the weak power of dispersed stakeholders, and finally exerts powerful pressure to the firm and local government to resolve the pollution urgently [94]. For example, recent serious air pollution in cities such as Beijing has aroused nation-wide critique of government on its disability in environment protection by the public. Such pressure may even develop into social movements when the issue is not properly settled. Recent protests of residents and disclosure from media forced Chinese local governments to reconsider immature para-xylene factory projects (e.g. Kunming in 2013, Ningbo in 2012 and Dalian in 2011). Even without the

occurrence of any environmental crisis, the public remains to be the dominant stakeholder [47] that has the potential to exert influence when the environmental problems become urgent. The public keeps their eyes on the local government as well as the firms in industries with highly pollution visibility, and the focal firm may be aware of such vigilance. Besides, even central government may also join such environmental-related interest group. Recognizing the serious impact by highly polluting industries on the stability of the society, central government may strengthen the regulations and the supervision of regulation implementation by local government in pollution industries. For example, firms in highly polluting industries are subject to environmental protection inspection and information exposure when they try to get listed in the stock market. This implies that the discretion of local government is restricted not only by local environmental stakeholder alliance, but also by its superior in the domain of highly polluting industries.

Therefore, when operating in pollution industry, a firm's critical resources such as legitimacy, firm's reputation, and cooperative relationships in the local community are controlled by the united stakeholder alliance concerning environmental issues. At the same time, the discretion of local government that enables them to protect and preterm favorable but highly polluting firms is also restricted by such alliance. Then, the firm's interdependence with such stakeholder alliance may become more crucial relative to that with local government, and the use and abandon of CSR as a coordination-restructuring instrument is then less related to the business-local government interdependence.

In short, the association between firms' local CSR intention and its interdependence with local government is weaker in highly polluting industries.

H3a: The positive association between firm local CSR intention and its dependence on the local government is weakened for firms in polluting industries, other things being equal.

H3b: The negative association between firm CSR intention and local government's dependence on the firm is weakened for firms in polluting industries, other things being equal.

Political connection: the logic of substitution and buffer

Aside from restructuring coordination, firms can also manage interdependence with constraint absorption method [22]. Constraint absorption actions are about internalization of external actors for full or partial control over the resource that organizations require [2, 22]. Typical tactics include merger and acquisition [22, 32, 36], Joint venture [95, 96], alliance [42], selection and succession of executives or directorates with crucial resources [2, 33, 35, 44, 97-99]. Among various constraint absorption actions, positioning politician on board and/or political ties [e.g., 5, 68, 100] are especially relevant with managing business-government interdependence in China context.

By internalizing officers in key position of a firm, or by getting positions in government or other legitimate organizations for firms' key managers, political connections provide firms with various resources, including physical resources such as easier bank loan and project approval, direct resource transfers, government contracts and tax benefits, and intangible resource such as unique information about the policy, a channel of communication or access to existing politicians and other agents in the political systems, direct influence on political decisions and the enforcement, enhanced legitimacy, market entry and control of competitors' entry [for reviews, see, e.g., 5, 100]. With these benefits, political connections substantially release the firms' dependence on government, and thus ensure firms' survival and performance [100].

Therefore, both CSR and political connections can be used as instruments that manage business-local government interdependence, despite of the fact that they follow different rationales of coordination restructuring and constraint absorption respectively. However, one should notice that both CSR and political connections cost substantial resources of the firms and the managers in terms of money and time. Therefore, if a firm has taken one of the two measures to release firm's dependence on local government, it may be less likely to take the other measure for the same purpose. Similarly, Wang and Qian [12] find that political connections reduce the need and benefit of corporate philanthropy on obtaining political recourses, and thus reduce corporate philanthropy's positive effect on firm performance. Thus,

H4a: The positive association between firm CSR intention and its dependence on the local government is weakened for firms with political connection, other things being equal.

At the same time, as political connections provide political information [55], influence on political decision and enforcement [68, 101, 102] and communication channel to other local officers [5], firms with such connections better understand the regulation implementation process, how to avoid regulations constraints and build up buffer for punishment with their legitimacy and guanxi with other local officers. Therefore, they can better use their power advantage induced by local government dependence to opportunistically shirk even legal responsibilities, a low level of responsibility requirement, for cost savings, not to mention a higher level of ethical and philanthropic responsibilities [103].

H4b: The negative association between firm CSR intention and its dependence on the local government is strengthened for firms with political connection, other things being equal.

Economic vs. environmental CSR: different level of claim urgency

The theory of stakeholder salience [47] attempts to answer a primary question, "who really matters", for stakeholder theory [1, 104]. Mitchell, Agle [47] that power (the degree one can influence the counterparts while the counterparts cannot influence the focal actor), legitimacy (perception or assumption that one's actions are desirable and proper) and urgency (the degree to which stakeholders require immediate attention) determine the level of salience of stakeholders. Higher salience of stakeholders perceived by managers leads to higher level of corporate social performance to address claims by those stakeholders [91]. Eesley and Lenox [48] further clarified that it is the urgency of claims by stakeholders, rather than the urgency of the stakeholder characteristics, directly influence firm's decision, because urgent stakeholders do not necessarily take action to urgently request firm's response. Therefore, one stakeholder may play different roles in different issues.

Local economic responsibility is perceived as an urgent claim by local governments. Importance of economic aspect of CSR has been identified early by scholars [105]. Since Reform and Opening Up in 1979, Chinese government has put economic development as the priority. The attempt to keep annual GDP growth above 8% in the past decade is the evidence of emphasis on economy. The development priority then significantly guides the evaluation of officials. For example, Li and Zhou [63] found that the likelihood of promotion (termination) of provincial leaders increases (decreases) with their economic performance. Wu, Deng [106] found that investment in transportation infrastructure that stimulates local economic development is positively correlated with likelihood of promotion of city leaders.

By contrast, environmental protection is perceived as less urgent claim by local government. Since economic performance is often the key criterion for officials' promotion, local government less emphasizes environmental protection. Developing economy at the cost of

pollution has been frequently reported in China. Even though environmental protection was highlighted as one of the central policy guidelines by central government during service of President Hu Jintao, the reality and implementation of such guidelines has not yet met the expectation. For example, Wu, Deng [106] found that while economy-related investment is positively correlated with odds of promotion of city leaders, environmental investment, which is less related with next year's GDP growth, is significantly and negatively related with likelihood of promotion of city's top leaders.

Rather than proposing hypothesis, we try to make an exploratory comparison between the two issues and leave the effects of urgency of claims by local government as an open question for empirical test and discussion part.

Figure 1 summarizes our hypotheses.

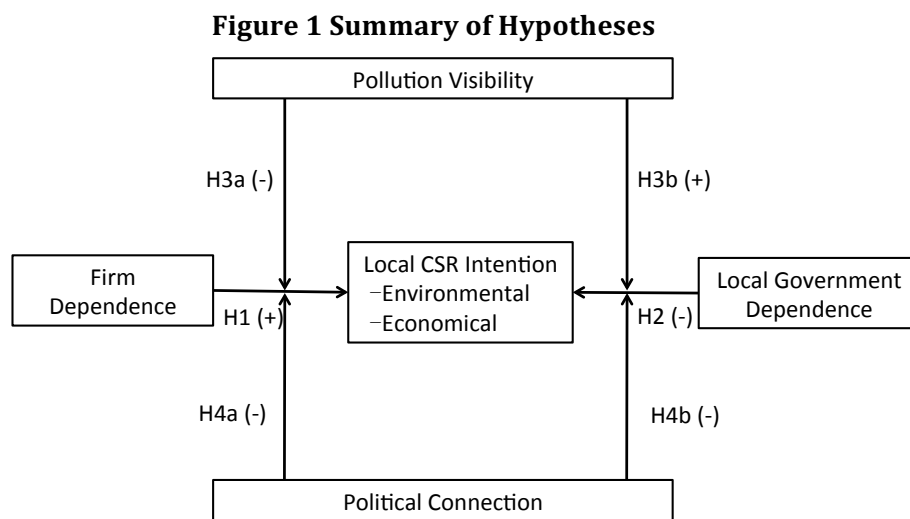
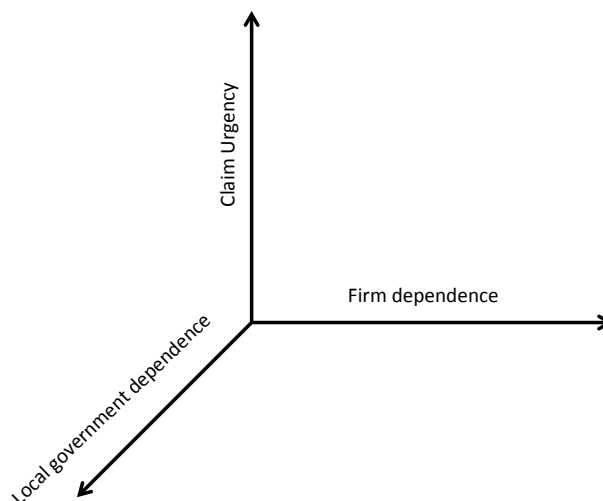


Figure 2 Three Dimensions of CSR Determinants



METHODS

Data and sample

The dataset was from an in-depth nation-wide survey focusing on CSR behavior in China conducted in the spring of 2006. China National Statistical Bureau (NSB) carried out this survey. The survey sampled 1,268 firms in 12 representative cities in China (see profiles of

sampled cities in the appendix). About 100 firms were sampled in each city, with stratified sampling strategy that considered the proportion of ownership type and size category defined by State Economic and Trade Commission. Hence, the sample was consistent with the structure of China economy. The survey did not include construction, transportation and service sectors. Besides, only firms with an annual sales volume larger than 5 million RMB were sampled because firms of too small size might be less relevant with social responsibility investments [e.g. 107, 108, 109] and, practically, only these firms could be recorded into the China Industrial Enterprise Database by NSB.

Survey organizers from the statistical bureaus of the 12 cities were trained at Peking University in China. Then survey organizers gathered and trained survey interviewers in his/her city and were responsible for the quality of survey. Survey interviewers then interviewed firms and filled out the survey. Questionnaire was divided into nine sections such as labor, environment, market, quality, etc. General managers or department managers in charge of related functions reported each section, respectively.

Firm-level information was supplemented from China Industrial Enterprise Database by NSB and annual report (only for few public firms). City-level information was gathered from statistical yearbooks of related provinces and cities. We took city as the geographically defined community because Chinese firms frequently interact with city-level government, and practically, data of more specific administrative unit was not available. As survey conducted in 2006 reflects firms' behavior in 2005 and early 2006, we lagged firm- and city-level information to 2004 if available.

Of the 1,266 cases (i in the raw data, firm-level information in 2004 was only available for 1,093 firms, and additional 128 firms entered the China Industrial Enterprise Database in 2005. As the business environment were not significantly different between year 2004 and 2005, and firm-level status in 2005 may also influence the situation in early 2006, we only deleted the rest of 45 cases that did not enter the database until 2006 or were not available to retain valuable information as much as possible. This reduced our sample size to 1,221 observations.

With the effort in data collection, response rates of items related to this research were relatively high, ranging from 80% (952 out of 1,221) to 98% (1,198 out of 1,221). Number of observations without any missing values was 761 (62%). Further two-group mean-comparison test showed that firms with lower ROA, smaller size and younger age and firms without foreign investment were more likely to make nonresponse. This might result from the research-context fact that those firms were less related to CSR activities. Therefore, the missing data might not be regarded as missing (completely) at random, implying that statistical techniques could not be used to impute the missing values. Therefore, we need to treat the results carefully.

Nevertheless, we contain that this survey is valuable because it was one of the most comprehensive surveys on firms' CSR behavior in recent years in China, and it shifted the lens from public firms [e.g. 12] to non-public firms that were more common in China economy, which provides valuable insights of CSR behavior of Chinese firms.

Measurements

Dependent Variables

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influence the counterparts while the counterparts cannot influence the focal actor), legitimacy (perception or assumption that one's actions are desirable and proper) and urgency (the degree to which stakeholders require immediate attention) determine the level of salience of stakeholders. Higher salience of stakeholders perceived by managers leads to higher level of corporate social performance to address claims by those stakeholders [91]. Eesley and Lenox [48] further clarified that it is the urgency of claims by stakeholders, rather than the urgency of the stakeholder characteristics, directly influence firm's decision, because urgent stakeholders do not necessarily take action to urgently request firm's response. Therefore, one stakeholder may play different roles in different issues.

Local economic responsibility is perceived as an urgent claim by local governments. Importance of economic aspect of CSR has been identified early by scholars [105]. Since Reform and Opening Up in 1979, Chinese government has put economic development as the priority. The attempt to keep annual GDP growth above 8% in the past decade is the evidence of emphasis on economy. The development priority then significantly guides the evaluation of officials. For example, Li and Zhou [63] found that the likelihood of promotion (termination) of provincial leaders increases (decreases) with their economic performance. Wu, Deng [106] found that investment in transportation infrastructure that stimulates local economic development is positively correlated with likelihood of promotion of city leaders.

By contrast, environmental protection is perceived as less urgent claim by local government. Since economic performance is often the key criterion for officials' promotion, local government less emphasizes environmental protection. Developing economy at the cost of pollution has been frequently reported in China. Even though environmental protection was highlighted as one of the central policy guidelines by central government during service of President Hu Jintao, the reality and implementation of such guidelines has not yet met the expectation. For example, Wu, Deng [106] found that while economy-related investment is positively correlated with odds of promotion of city leaders, environmental investment, which is less related with next year's GDP growth, is significantly and negatively related with likelihood of promotion of city's top leaders.

We try to make a comparison between the two typical aspects of CSR issues in the business-local government interdependence for extensive exploration of the further boundary conditions of our hypotheses. We leave the effects of urgency of claims by local government as an open question for empirical test and discussion part.

For the economic CSR intention, we regarded firm's inclination of prioritizing local procuring recruiting and/or local residents as its economic CSR intention. Local procuring and recruiting released the pressure of local unemployment and stimulated flows and growth of local economy, and thus were highly valued by local government and residents. The dependent variable, *Economic CSR Intention*, responded by general managers/owners, was coded 1 if the firm had formal or informal policies/plans regarding local priority of procuring and/or recruitment, 0 otherwise.

For environmental aspect, we use Clean Production (CP) knowledge as proxy of firms' environmental CSR intention. CP is "the continuous application of an integrated preventative environmental strategy to processes, products and services to increase efficiency and reduce risks to humans and the environment", according to United Nations Industrial Development Organization¹. Thus, CP requires firms to have comprehensive, long-term oriented and systematic environmental protection. Early in 2003, National People's Congress had released China CP Promotion Law¹, which addressed the responsibility of local government and firms in

cleaner production. Therefore, CP was highly legitimized and acknowledged as crucially important instrument to achieve sustainable development by the central government. For example, local governments were required to include cleaner production development into its economic and social development plan, and plan for environmental protection, resource utilization, industry development, regional exploitation and other domains (e.g. Article 4). All firms were required to implement CP in their production (e.g. Article 19). Governmental departments or firms should be punished if disobeying the law (e.g. Article 35-39). Under this context, firms were expected to either implement or at least prepare to implement CP. Lacking CP knowledge indicates a firms' reluctance or lack of awareness of comprehensive and long-term oriented environmental protection, because CP knowledge of the upper echelons reflects the choice of the firm [110]. Thus, the other dependent variable, *Environmental CSR Intention*, is measured by the firm's production/environment managers' response to the question "Is CP well-understood". The answer Yes was coded 1, and 0 otherwise. For firms announced to be knowledgeable in CP, managers were asked to explain main concept of CP to confirm their understanding.

Firm Dependence

As we discuss earlier, firm dependence lies in four major aspects of firm's daily interactions with local government, namely, dispute resolution, market entry and approval, support, and supervision, inspection, rewarding and penalty. Five items are used as proxies of those activities: (1) "Do you usually turn to local government for the settlement of labor-related dispute?" (2) "Do you usually turn to local government for the settlement of business-related dispute?" (3) "Whether the firm has had conversation and discussion with local government and community on problems related to firm operations (such as pollution, security and traffic)?" (4) "Does the government regulate market entries in your industry to protect local businesses?" and (5) "Do you think government inspections are too frequent?" Of all the questions, (1) was reported by the firm's HR manager, (2) and (4) by the sales/procurement manager, and (3) and (5) by the general manager or the owner in charge.

Consistent with the approach taken by Kuskova, Podsakoff [112], Mitchell, Holtom [113] and Zollo and Singh [114], we created the firm dependence measure by computing the sum of the dummy indicators above. Therefore, *Firm Dependence* ranged from 0 to 5.

Local Government Dependence

To achieve the goals of development, stability and harmony, local government typically concern firms' following contributions to the local community (Bai, Li, Tao, & Wang, 2000; Bai et al., 2004; Jie et al., 2003): firms improve local economic growth by their various business activities; firms provide jobs to the local community; and firms make contributions to local fiscal revenue by taxation. Thus, we calculated the proportion of firm's revenue to GDP of local city, firm's number of employee to local workforce and firm's local tax contribution¹ to total tax revenue of local government.

Principal component analysis (PCA) of the three proportions indicated that the first component was the only one with eigenvalue larger than 1 and explained 57% of variance, thus we took the PCA scores of the first component as the independent variable *Local Government Dependence*. Correlation coefficients between local government dependence and the three indicators were 0.84, 0.77 and 0.63, respectively.

Moderating variables

China government had issued *Industry Category List for Environmental Inspection for Public Firms* that indicated which industry belonged to highly polluting one. Therefore, the variable

Pollution visibility was measured as 1 if the industry code of the firm appeared in the list, and 0 otherwise. The survey asked the general manager/owner in charge “whether owner or CEO of the firm is the deputy of the people’s congress, member of the committee of the political consultative conference and/or consultant for government at all levels”. *Political connection* was coded 1 if “yes” and 0 if “no”, similar with the treatment of studies on political connections using public firm samples [e.g., 12, 115]. The moderating variables were also included as the control variables.

Control variables

Previous studies suggested other forces that might be related with the CSR decision. Kassinis and Vafeas [14] suggested that community wealthy level and density reflected the power of community and influenced firm’s decision on environmental performance, so we controlled for the natural log of *GDP per capita* and *population* on city level. The data was also able to connect to factors concerned by Wang and Qian [12] that might influence the interdependency, such as firm’s performance and ownerships. For financial performance, we used *ROA* (Return on Asset) instead of market-to-book ratio because the latter one was unavailable for most of the firms in the sample. We divided sampled firms into three major types of ownerships in China. Dummy variables, *SOE* and *Foreign*, were used to indicate whether the firm was owned by the state and whether the firm consisted of foreign investment respectively, and the reference group was the private firms that belonged to neither of the two. Competition could be related to CSR activities [116]. So we also included *Perceived competition*, measured with 3-point scale by sales/procure managers’ subjective evaluation in the survey, with 1 indicating least competition and 3 indicating high level of competition.

We also controlled for firm size, firm age, public firm, industry and location. *Firm size* was measured as the natural log of total number of employees. Using the natural log of total sales to measure firm size did not lead to different pattern of results. *Firm age* was measured as the number of years since the registration of the firm. *Public* was coded 1 if a firm had been listed and 0 otherwise. Industry and location were controlled with dummies.

Estimation Method

As both of our two dependent variables were dummy variables, we applied bivariate probit Model [117] to analyze the data.. That is, for

$$\text{Equation 1: } Y_1 = \mathbf{x}'\beta_1 + \varepsilon_1, \text{ Environmental CSR Intention} = 1 \text{ if } Y_1 > 0$$

$$\text{Equation 2: } Y_2 = \mathbf{x}'\beta_2 + \varepsilon_2, \text{ Economic CSR Intention} = 1 \text{ if } Y_2 > 0$$

where \mathbf{x}' is the vector of independent variables identical across the two equations, we maximize the likelihood of the two equation simultaneously. Compared with separated probit/logit, the bivariate probit model simultaneously estimated the effects of independent variables on dependent variables and assumed the correlation between the two regressions with different dependent variables. This suited our research, for intention on economic and environmental CSR might be influenced by each other and be simultaneously considered by firms.

In this study, we also try to explore the contingencies of business-local government interdependence. However, typical method of using interaction terms in the models is inappropriate in non-linear models such logit and probit. Following previous studies, we firstly split the sub-samples according to the contingencies, namely political connection and pollution visibility. Then we calculated the marginal effects and their standard errors of our focal

independent variable, firm dependence and local government dependence, after we estimated the sub-samples with normal logit models. Finally, we used t-test to compare whether marginal effects of focal independent variables significantly change in different contingencies [for detailed discussion, see, e.g., 118, 119].

RESULTS

Common method bias

Despite of the use of survey, it was reasonable to assume that this research was not seriously confounded by the common method bias, or the CMB [120].

For the research design part, the dependent and independent variables were from different sources. While the environmental and economic CSR intention, the dependent variables, were reported by general managers/owners in charge and production/environment manager respectively, firm dependence and local government dependence, the focal independent variables, were measured by the integrated indicator reported by general managers/owners in charge, sales/procure managers and HR managers, and by objective archival dataset respectively. Similarly, pollution visibility, one of the moderating variables, was coded by the government regulation. Although political connection, the other moderating variable, were from the same source, but it was argued that complicated specifications of model, such as interaction effects reduced the likelihood of CMB [121].

For the survey design part, several measure limited the problem of CMB. Firstly, the survey was separated into nine sections responded by corresponding managers in charge rather than by one single respondent. Secondly, most of the questions in the survey asked the respondents to report and provide with facts rather than report their attitude. Thirdly, the survey covered various aspects about the firms with long list of questions, which made it less likely for the respondents to make illusory correlations among the variables, especially when items we use were dispersed across the questionnaire. And fourthly, the interviewer asked the respondent the questions, which made it less likely for the respondents to go back and revise their answers for consistency motif.

Further, we applied Harman's single-factor test by load all the variables into and exploratory factor analysis, but found no one factor could account for the majority of the covariance among the measures. Therefore, the absence of CMB was further supported by statistical instrument.

Statistical results

Table 1 provides an overview of our sample by presenting mean value, standard deviation of all variable as well as the pairwise Pearson correlations among them. All the correlations are no larger than 0.45 (between firm age and SOE). The variance inflation factor (VIF) test value of the variables is 1.19, which is much smaller than 10, the threshold indicating the risk of multicollinearity. So it is reasonable to assume that the correlations among the variables might not confound the following statistical tests.

Table 1
Descriptive Statistics and Correlations^a

Variables	Me an	s.d.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Economic CSR Intention	0.72	0.45														
2. Environmental CSR Intention	0.40	0.40	-													
3. Firm Dependence	0.78	0.77	0.02*	0.11*												
4. Local Government Dependence	0.00	1.31	-	0.09*	0.06											
5. Pollution Visibility	0.35	0.48	0.03	-	0.11*	-										
6. Political Connection	0.39	0.49	-	0.14*	0.14*	0.07*	-									
7. Perceived Competition	2.75	0.47	0.06*	0.06*	0.08*	0.05*	0.03	0.00								
8. Log GDP p.c.	9.90	0.59	-	0.06*	-	0.02	-	-	0.07*							
9. Log Population	6.16	0.92	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-
10. ROA	0.07	0.20	0.03	-	0.05	-	-	-	-	0.00	0.07*					
11. SOE	0.16	0.37	-	0.07*	0.00	0.04	-	0.09*	-	-	0.08*	-				
12. Foreign	0.20	0.40	-	0.11*	0.01	0.12*	-	-	0.07*	0.30*	-	-	-	-	-	-
13. Firm Size	5.27	1.28	-	0.30*	0.08*	0.40*	-	0.26*	0.04	0.02	-	-	0.26*	0.12*		
14. Firm Age	13.07	14.47	-	0.12*	0.05	0.15*	-	0.21*	-	-	0.10*	-	0.45*	-	0.4	3*
15. Public	0.04	0.20	-	0.09*	0.00	0.11*	-	0.04	0.02	0.03	-	-	0.06*	0.03	0.2	0.0

^a n=768

* $p < .05$

Because we use the bivariate probit as estimation method, two equations with economic and environmental CSR intention respectively are estimated at the same time. For example, Model 1a and 1b are estimated simultaneously, and so on. All the models with “a” in the label are estimated with environmental CSR intention as dependent variable, and “b” with economic CSR intention. Table 2A, 2B and 2C presents the results of the models with the full sample, sub-sample divided by pollution visibility and sub-sample divided by political connections, respectively.

Hypothesis 1 proposes that firm dependence on local government is positively associated with its CSR intention in community. In Table 2A, the results show that the coefficient of firm dependence is 0.137 ($p < 0.05$) on environmental CSR intention (model 2a) and 0.246 ($p < 0.01$) on economic CSR intention. Hypothesis 1 is supported in both environmental and economic CSR intention models.

Hypothesis 2 predicts that local government dependence on focal firm is negatively associated with the firm’s CSR behavior in community. As the results show in Table 2A, coefficient of government dependence is negative in both Model 2a and 2b. However, the coefficient is only significant in Model 2a (-0.0785, $p < 0.05$), the environmental CSR intention model, but insignificant in Model 2b (-0.00754, $p > 0.1$), the economic CSR intention. The results indicate

that Hypothesis 2 is supported in environmental CSR intention, but not supported in economic CSR intention.

Hypothesis 3a and 3b predict that both the positive effect of firm dependence and the negative effect of local government are weakened for firms in polluting industries. In Table 2B, Model 3a and 4a are estimated with sub-sample in non-polluting industries (pollution visibility=0) while Model 3b and 4b are estimated with sub-sample in polluting industries (pollution visibility=1). Firstly, we consider the contingencies in environmental CSR intention. Using t-tests, we find that marginal effect of firm dependence is significantly larger in Model 3a than in Model 3b ($t=9.34$), implying that the positive effect of firm dependence on environmental CSR intention is reduced for firms in polluting industries. Marginal effect of local government dependence is larger in 3b than in 3a ($t=9.61$), indicating that the negative effect in Model 3a is weakened in Model 3b. Then we consider the situation for economic CSR intention. Similarly, we find Marginal effect of local government dependence is significantly larger in 4b than in 4a ($t=7.74$). However, t-test shows that marginal effect of firm dependence is stronger for firms in highly polluting industries, contrary to our hypothesis. To summarize, Hypothesis 3a is supported only in environmental CSR intention models, while Hypothesis 3b is supported for both CSR intentions.

Hypothesis 4a proposes that the positive effect of firm dependence is weakened by political connection. Table 2C displays the results of sub-sample divided by whether the firm has political connections. T-test shows that marginal effect of firm dependence is significantly larger in Model 5a than Model 5b ($t=8.44$), and larger in Model 6a than in Model 6b ($t=30.78$), implying that the positive effect of firm dependence is weaker for firms with political connections. Thus, Hypothesis 4a is supported in both CSR intention models.

Hypothesis 4b predicts that the negative effect of local government is stronger for firms with political connection. T-test shows that marginal effect of local government dependence is larger in Model 5a than Model 5b ($t=33.11$). However, its marginal effect is larger in Model 6b than Model 6a ($t=24.31$). Thus, Hypothesis 4b is only supported in environmental CSR intention models.

Table 3 summarizes the hypothesis test. In short, various hypotheses are supported in environmental CSR intention models, but are only partially supported in economic CSR intention models. We will discuss these findings in the next section.

TABLE 2A Results of Bivariate Probit Models for Full Sample

Model	1a	1b	2a	2b
Sample	Full Sample		Full Sample	
Dependent Variable	Environmental CSR intention	Economic CSR intention	Environmental CSR intention	Economic CSR intention
Firm Dependence			0.137** (0.0687)	0.246*** (0.0761)
Local Government Dependence			-0.0785** (0.0362)	-0.00754 (0.0366)
Pollution Visibility	-0.174 (0.210)	0.300 (0.208)	-0.194 (0.210)	0.249 (0.210)
Political Connection	0.336*** (0.111)	-0.164 (0.115)	0.312*** (0.112)	-0.205* (0.117)
Perceived Competition	0.177 (0.124)	0.0183 (0.122)	0.177 (0.125)	-0.00250 (0.124)
Log GDP p.c.	-0.614** (0.297)	0.0104 (0.286)	-0.628** (0.299)	-0.0655 (0.291)
Log Population	0.511** (0.219)	-0.174 (0.201)	0.530** (0.222)	-0.122 (0.203)
ROA	0.164 (0.243)	0.139 (0.298)	0.160 (0.244)	0.0843 (0.291)
SOE	0.175 (0.162)	-0.325** (0.161)	0.157 (0.163)	-0.326** (0.162)
Foreign	0.229* (0.139)	-0.124 (0.138)	0.242* (0.140)	-0.142 (0.138)
Firm Size	0.307*** (0.0528)	-0.116** (0.0495)	0.339*** (0.0565)	-0.129** (0.0534)
Firm Age	-0.00327 (0.00415)	0.00830* (0.00443)	-0.00310 (0.00417)	0.00786* (0.00447)
Public	-0.224 (0.246)	-0.138 (0.245)	-0.180 (0.249)	-0.134 (0.248)
Constant	-4.685 (293.6)	1.177 (2.802)	-4.897 (290.4)	1.561 (2.814)
City Effect	YES	YES	YES	YES
Industry Effect	YES	YES	YES	YES
Observations	768		768	
Log Likelihood	-829.2		-820.1	
Chi Square	250.5***		262.2***	

Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

TABLE 2B Results of Logit Models for Sub-sample Divided by Pollution Visibility

Model	3a	3b	4a	4b
Dependent Variable	Environmental CSR intention		Economic CSR intention	
Sample	Pollution Visibility =0	Pollution Visibility =1	Pollution Visibility =0	Pollution Visibility =1
Firm Dependence ^a (Marginal effect)	0.076** (0.0367)	0.0413 (0.0490)	0.0847*** (0.0325)	0.0998** (0.0435)
Local Government ^a Dependence (Marginal effect)	-0.0362** (0.0164)	0.195 (0.375)	-0.00265 (0.0120)	0.0983 (0.195)
Pollution Visibility	0.489** (0.236)	0.735* (0.389)	-0.503** (0.246)	-0.0207 (0.399)
Perceived Competition	0.0610 (0.249)	0.894** (0.456)	-0.0543 (0.251)	0.257 (0.426)
Log GDP p.c.	-0.835 (0.608)	-0.756 (1.158)	0.222 (0.582)	-0.0546 (1.038)
Log Population	0.746 (0.465)	0.944 (0.838)	-0.508 (0.427)	0.407 (0.743)
ROA	0.346 (0.449)	-0.725 (1.283)	0.0103 (0.565)	0.211 (1.105)
SOE	0.321 (0.338)	-0.00179 (0.611)	-0.473 (0.332)	-1.042 (0.642)
Foreign	0.561** (0.286)	0.574 (0.504)	-0.258 (0.283)	-0.370 (0.492)
Firm Size	0.644*** (0.120)	0.573* (0.295)	-0.173 (0.111)	-0.591** (0.258)
Firm Age	-0.0113 (0.00876)	0.00251 (0.0148)	0.00603 (0.00907)	0.0435** (0.0204)
Public	-0.443 (0.490)	0.575 (0.997)	-0.321 (0.477)	0.957 (0.994)
Constant	-2.909 (5.464)	-4.878 (10.90)	1.185 (5.129)	0.254 (9.934)
City Effect	YES	YES	YES	YES
Industry Effect	YES	YES	YES	YES
Observations	520	242	518	224
Log Likelihood	-280.9	-114.5	-271.0	-109.2
Chi Square	145.5***	96.96***	83.21***	54.93**

Standard errors in parentheses; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

^a Values for the focal independent variables, Firm Dependence and Local Government, are their marginal effect values and the standard errors of their marginal values (in parentheses), instead of coefficients values and standard errors of coefficients.

^b The sum of observations of divided samples is inconsistent with the observations number in full sample ($n=768$), because perfect predictor variables and their associated perfectly predicted observations are dropped to avoid instability in estimation. Thus, the results remain robust even though their slight inconsistency in observations.

TABLE 2C Results of Logit Models for Sub-sample Divided by Political Connection

Model	5a	5b	6a	6b
Dependent Variable	Environmental CSR intention		Economic CSR intention	
Sample	Political Connection=0	Political Connection=1	Political Connection=0	Political Connection=1
Firm Dependence ^a (Marginal effect)	0.0737** (0.03338)	0.0455 (0.0510)	0.130*** (0.0367)	0.0376 (0.041)
Local Government ^a Dependence (Marginal effect) Pollution Visibility	-0.0136 (0.0175)	-0.0736*** (0.0279)	-0.0174 (0.0184)	0.0298 (0.0296)
Perceived Competition	-0.0151 (0.485)	-0.852 (0.739)	0.0126 (0.453)	1.077 (0.792)
Log GDP p.c.	0.0288 (0.278)	0.416 (0.366)	-0.122 (0.272)	0.151 (0.375)
Log Population	-1.835** (0.716)	-0.306 (0.938)	0.0779 (0.655)	-0.542 (0.927)
ROA	1.696*** (0.590)	0.513 (0.662)	-0.0751 (0.444)	-0.645 (0.657)
SOE	0.386 (0.461)	-1.461 (1.385)	0.0201 (0.670)	-0.637 (1.236)
Foreign	0.235 (0.415)	0.310 (0.419)	-0.0976 (0.424)	-0.860** (0.419)
Firm Size	0.327 (0.314)	0.856* (0.437)	-0.144 (0.299)	-0.342 (0.426)
Firm Age	0.317** (0.127)	0.936*** (0.178)	-0.256** (0.128)	-0.401** (0.170)
Public	0.00366 (0.0114)	-0.0145 (0.0103)	0.00512 (0.0123)	0.0282** (0.0118)
Constant	-0.368 (0.573)	0.478 (0.823)	-0.406 (0.595)	-0.603 (0.703)
City Effect	5.861 (5.891)	-7.525 (9.791)	-0.134 (5.727)	12.04 (9.620)
Industry Effect	YES	YES	YES	YES
Observations ^b	458	297	414	298
Log Likelihood	-233.4	-162.7	-226.3	-152.4
Chi Square	128.4***	86.21***	59.38**	58.53*

Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

^a Values for the focal independent variables, Firm Dependence and Local Government, are their marginal effect values and the standard errors of their marginal values (in parentheses), instead of coefficients values and standard errors of coefficients.

^b The sum of observations of divided samples is inconsistent with the observations number in full sample (n=768), because perfect predictor variables and their associated perfectly predicted observations are dropped to avoid instability in estimation. Thus, the results remain robust even though their slight inconsistency in observations.

Table 3 Conclusions of Hypothesis Test

Hypothesis	Environmental CSR intention	Economic CSR intention
H1: Firm dependence on local government is positively associated with firm's CSR intention in local community, other things being equal.	Supported	Supported
H2: Local government dependence on firm is negatively associated with firm's CSR intention in local community, other things being equal.	Supported	Not Supported
H3a: The positive association between firm local CSR intention and its dependence on the local government is weakened for firms in polluting industries, other things being equal.	Supported	Not Supported
H3b: The negative association between firm CSR intention and local government's dependence on the firm is weakened for firms in polluting industries, other things being equal.	Supported	Supported
H4a: The positive association between firm CSR intention and its dependence on the local government is weakened for firms with political connection, other things being equal.	Supported	Supported
H4b: The negative association between firm CSR intention and its dependence on the local government is strengthened for firms with political connection, other things being equal.	Supported	Not Supported

Robustness check

To ensure the robustness of the results, we also tested alternative models and measurements. For estimation method, we also used separated logit model and hierarchical generalized linear model that controlled the multilevel effects of location and industry [14, 122]. For measurements, we also created the variable of *Firm Dependence* by using principal component analysis with polychoric correlations, which is especially suitable for discrete variables [123], as an alternative of the sum of the indicators. The unreported results suggested that the pattern and significance were robust. Besides, for sample selection, the models with subsamples in the results also help us understand the boundary conditions of business-local government interdependence to take effects on firm's CSR intention.

DISCUSSION AND CONCLUSION

Based on the dyadic and heterogeneous nature of business-local government interdependence in China, we propose that, as CSR could be an instrument to restructuring coordination on one hand, and an additional burden for firms on the other, firm dependence increases the intention of local CSR while local government dependence decreases it. Thus, the countervailing forces of the two-sided dependence jointly influence firms' local CSR intention. Meanwhile, the effects of the business-local government interdependence are influence by firms' pollution visibility as it attracts the intervention of related stakeholder alliance and the superior government, and by firms' political connection as it works as substitute instrument for local CSR and buffers between firms and local government. Statistical analysis results lent some supports to our hypotheses (Table 3).

However, in the exploratory comparison between environmental and economic aspects of local CSR, we found inconsistent results (see Table 3). Hypotheses are fully supported in environmental CSR intention, but are only partially supported in the economic CSR intention. The results show that local government dependence will not decrease firms' intention in economic CSR, which is highly valued by local government. One possible explanation is that firms keep their local CSR of economic development even when local government depends on them to ensure the joint dependence and alliance for long-term cooperation [53]. As there

could be uncertainty and crisis that require local government support in the future, it is better to strengthen the relationships by assisting local development to show good will, instead of taking such power advantage to release the additional burden of CSR. The second possible explanation is that local government could become extremely powerful in its urgent issue by utilizing more political resources to ensure its expected goal. Another possible explanation could be that local development is a compatible goal for both firms and local government [53]. For example, local development might result in better external conditions for business, such as better transportation and infrastructure, which in turn increase firms' competitiveness compared their competitors in other communities. Moreover, if properly integrating with firms' activities, local priority may also become strategic CSR that generates values for both firms and the local community [124]. Therefore, local economic CSR might be more of investment than of extra burden.

We also found that the positive effect of firm dependence was not weakened by its pollution visibility. Our original hypothesis predicts that firms in polluting industries have to handle the claim of the influential stakeholder alliance related to environment protection rather than that of the local government. However, one possible explanation for the actual results is that polluting firms still need to respond to its dependence on local government by doing good deeds valued but the latter to improve joint dependence and forge alliance that has the countervailing power against the stakeholder alliance in environment issues.

The results also show that political connections would not strengthen the negative effect of local government dependence on firm's economic CSR intention. Even though political connection might substitute firms' economic CSR to manage interdependence for it can directly provide firms with political resources as a constraint absorption instrument, political connections cannot replace firms' CSR in domain valued by local government to forge the alliance for long-term reduction of uncertainty.

Overall, we found evidence showing that firms' CSR intention is jointly influenced by business-local government interdependence and urgency of the claim of local government. Based on the two-by-two matrix about firm-stakeholder interdependence shown by Frooman [31] and Sharma and Henriques [13], future research may develop a finer-grained conceptual and empirical model about the urgency-interdependence three-dimension framework (Figure 2). This preliminary evidence and research direction also respond to the call for development of stakeholder salience framework [47] by investigating the interaction between the three attributes of salience [125], because the interaction between urgency and interdependence equals interaction between urgency and power. Our preliminary evidence may further link to the various types of interorganizational relationships proposed by Oliver [76]. Specifically, the results show that for in the urgent domain valued by local government, firms' CSR is prompted by business-local government relationships of reciprocity and stability; in the less urgent domain, firms' CSR is influence by the relationships of asymmetry [76].

Indeed, our research is subject to several limitations. First, the dependent variables we use in this research only capture firm's CSR intention instead of actual activities and expenditure. Despite of the fact that actual behavior could be subject to confounding effects and might conceal firms' awareness and internal intention of CSR, as we discuss earlier, and that our dependent variables might complement extant literature, future research with available data may try to explore how business-local government interdependence has differentiated effects on firms' internal intention/awareness and external performance, and thus investigate the potential of decoupling effects [111] of business-local government interdependence in CSR research. Second, this research only explores local economic and local environment

dimensions of CSR. We do find some interesting and differentiated effects of business-local government interdependence on the two CSR dimensions, as the two dimensions are not equally urgent to local government. However, future research might find more contrasting and more complete impact of such interdependence on other dimensions of CSR. Third, we only use the comparison between environmental and economic issues as the proxy of difference of claim urgency by government and third-party stakeholder (alliance). This measurement is relatively rough, although it does correspond to the reality in China. Thus, our findings about differentiated effects of business-local government interdependence on issues with different level of claim urgency by local government and by the public are quite preliminary. Future research focusing on how stakeholder's claim urgency influences the effects of firms' interdependence with focal stakeholders might develop a finer-grained measurement of claim urgency.

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APPENDIX

Profile of the Sample City

City	GDP ^a	Population ^b	Income Level	Location
Changchun	153.50	7,240.90	Middle	Central
Dandong	27.31	2,410.00	Low	Central
Beijing	606.03	14,927.00	High	Coastal
Shijiazhuang	163.35	9,175.50	Middle	Central
Xi'an	110.24	7,250.08	Middle	Western
Zibo	114.71	4,149.88	Middle	Central
Chongqing	269.28	27,933.20	Low	Western
Shiyan	29.29	3,245.07	Low	Western
Wujiang	34.00	777.50	High	Coastal
Hangzhou	251.50	6,516.80	High	Coastal
Shunde	69.64	1,905.70	High	Coastal
Wulanchabu	18.32	2,193.10	Low	Western

Data source: 2004 statistical yearbooks of related provinces and cities

^a in billion Yuan

^b in thousand persons

ⁱ Of the 1,268 sampled firms, one firm from Beijing and the other from Wulanchabu were missed in raw data, which might result from data-entry mistakes. We have to assume that the two cases were randomly missed.

ⁱⁱ www.unido.org/what-we-do/environment/resource-efficient-and-low-carbon-industrial-production/cp/cleaner-production.html

ⁱⁱⁱ For the full text, see <http://www.chinalaw.gov.cn/article/fgkd/xfq/fl/201203/20120300360887.shtml>

^{iv} We add further explanation that tax contributions of firm was calculated as [operation tax + additional tax + income tax + 25% of value added tax (VAT)], because those taxes flowed into the account of local fiscal incomes while the rest into the account of central government, according to taxation laws and regulations in China