

## **Domestic isomorphic pressures and legitimacy-seeking motivation: Implications for outward foreign direct investment of Chinese firms**

**Abstract** Drawing on institutional theory, we argue that the likelihood of a Chinese firm adopting an isomorphic strategy in outward foreign direct investment (OFDI) depends on the influence of external isomorphic pressures (domestic regional isomorphic pressure and domestic industrial isomorphic pressure) and its internal legitimacy-seeking motivation. The analyses of 107 Chinese listed firms with 535 observations during 2008-2012 offer supportive evidence for our arguments. Our study serves to provide comprehensive insights into the motives behind the OFDI of Chinese firms and make contributions to a better understanding of regional diversity and industrial diversity in China.

**Keywords:** domestic isomorphic pressures; state ownership; firm size; outward foreign direct investment

### **Introduction**

Isomorphism denotes a constraining process whereby a focal organization models itself on other organizations in its environment (Meyer and Rowan, 1977). The institutional perspective posits that organizations choose to adopt an isomorphic strategy primarily to gain legitimacy when they experience external isomorphic pressure (DiMaggio and Powell, 1983). Based on this institutional rationale, several studies examine the role of external isomorphic pressure in the strategic choices of

firms in foreign direct investment (FDI) (Davis *et al*, 2000; Yiu and Makino, 2002; Yang, 2009; Li and Parboteeah, 2015). Although these studies find that firms tend to conform to external isomorphic pressure by adopting similar FDI strategies, they have not fully accounted for the fact that the isomorphic behaviors of firms within a given institutional context are also heterogeneous and vary with firm-specific characteristics such as ownership features and firm size (Huang and Chi, 2014; Young and Makhija, 2014). Indeed, these firm attributes can also lead to differences in legitimacy-seeking motivation, subsequently causing variations in the influence of isomorphic pressures on the internationalization strategy or behavior of these firms. Based on this premise, we argue that the likelihood of a firm adopting an isomorphic strategy is the outcome of the interplay between external isomorphic pressure and its internal legitimacy-seeking motivation.

We examine our argument through analyzing the OFDI activities adopted by Chinese firms. For these firms, OFDI activities can be regarded as an isomorphic behavior to obtain legitimacy from legitimating actors who bestow endorsement by supplying resources to legitimated firms (Yamakawa *et al*, 2008; Yang, 2009). Because of the decentralization and market liberalization involved in the economic reform of China, regional governments and market stakeholders act as important legitimating actors (Park *et al*, 2006). Chinese firms must compete for legitimacy of these legitimating actors with their peers within the same region and/or the same industry (Abrahamson and Rosenkopf, 1993; Basdeo *et al*, 2006). Therefore, Chinese

firms need to cope with both domestic regional isomorphic pressure and domestic industrial pressure in OFDI decision making. In our research context, regional isomorphic pressure occurs when an increasing number of peers within the same region adopt OFDI activities, whereas industrial isomorphic pressure occurs when an increasing number of peers in the same industry adopt OFDI activities.

Furthermore, we devote special consideration to the legitimacy-seeking motivation of Chinese firms, assessed through state ownership and firm size. State ownership signals the level of resource and legitimacy dependence on governments (Pan *et al*, 2014), whereas firm size reflects the level of the expectations of market stakeholders for the strategic actions of the firm (Young and Makhija, 2014). Firms with substantial state ownership are expected to be more concerned with seeking legitimacy from the regional government. By the same token, large Chinese firms are expected to engage in more competitive actions, such as OFDI (Morck *et al*, 2008), because they are thought to possess more resources and have more access to resources (Buckley *et al*, 2007). Moreover, if large firms fail to fulfill the expectations of market stakeholders, they are subject to more commercially adverse reactions from the market, including loss of reputation (Brammer and Pavelin, 2004). Therefore, large firms are expected to be more fearful of losing legitimacy from market stakeholders than small firms (Young and Makhija, 2014).

We endeavor to make two main contributions in our study. First, it advances institutional logics in international business (IB) research by highlighting the role of

legitimacy-seeking motivations in shaping the isomorphic behavior of OFDI. Accordingly, our study addresses the heterogeneity of the response of firms to legitimacy competition in OFDI activities. Second, it also makes contributions to an understanding of the impact of inter-regional and inter-industrial differences on the OFDI activities of Chinese firms. In China, as regional diversity and industrial diversity are much larger than in most advanced economies or small emerging economies, we need to consider this significant regional and industrial diversity. Previous international studies have devoted only limited attention to the impact of regional or industrial-level diversity on isomorphic pressures. Our study intentionally fills in this gap by distinguishing the impact of domestic regional isomorphic pressures and the impact of domestic industrial isomorphic pressures on the OFDI activities of Chinese firms.

### **Theoretical Background**

According to institutional theory (Meyer and Rowan, 1977; DiMaggio and Powell, 1983), organizations are constrained by institutions that are defined as the “rules of the game” (North, 1990). Within a given set of institutions, organizational actions are guided by legitimating actors who have the standing to confer legitimacy and determine the degree to which an organization’s behaviors are appropriate and socially desirable (Deephouse, 1996; Kostova *et al*, 2008). The literature generally suggests that legitimating actors influence organizational actions through two dominant mechanisms. The first mechanism is that legitimating actors set

expectations for particular organizational decisions and practices (Deephouse, 1996). The second mechanism is that legitimating actors provide organizations with resources that increase the dependence of organizations on the legitimating actors (Oliver, 1991). The legitimated organizations can acquire social acceptance and resources provided by the legitimating actors to sustain their operations in challenging environments (Suchman, 1995). Otherwise, organizations may suffer negative consequences if their behavior is inconsistent with the expectations of legitimating actors (Cui and Jiang, 2012).

When applying the legitimacy rationale to study the environment-strategy interaction in the international operations of Chinese firms, one key step is to identify relevant legitimating actors. China has pursued a dual-track way to its economic transition with a hybrid of government control and market systems (Sheng *et al*, 2011). Thus, both the government and the market forces shape the conduct and operations of firms (Park *et al*, 2006). Because governmental regulators and market stakeholders have different motives and objectives (Sachs *et al*, 2002; Wang *et al*, 2012), these legitimating actors impose their own sets of normative expectations on the practices that firms must adopt to gain legitimacy. Governments expect firms to facilitate the achievement of politically driven government objectives (Cui and Jiang, 2012). For example, Wang *et al* (2012) note that the expectations of governmental regulators can greatly influence Chinese SOE managers' willingness to internationalize. Because Chinese SOE managers can obtain rewards and may even be promoted if they fulfill

the governmental goals such as integrating China into the world economy or seeking natural resources to sustain China's economic development, they are motivated to take political objectives into consideration when making internationalization decisions. The expectations of market stakeholders are somewhat different from those of governmental regulators. Market stakeholders expect firms to show the ability to create value for them (Sachs *et al*, 2002). However, they cannot directly observe the capabilities of the firm, and instead must rely on some observable attributes to infer the presence of certain capabilities (Basdeo *et al*, 2006). Accordingly, firm size can serve as an effective signal to shape the impressions and opinions of the market stakeholders regarding the ability of firms to adopt strategic actions.

In addition, the capacity of a firm to stabilize resource supply and generate sustainable wealth is determined by its dependence on influential stakeholders (Sachs *et al*, 2002). In China, the interdependence between firms and market stakeholders and the interdependence between firms and government are vital to Chinese firms' sustainable development because both forms of interdependencies provide firms with critical resources (Sheng *et al*, 2011). Firm-market stakeholders interdependence offers market resources such as information about trustworthy partners, product information, pertinent events and changes in the market (Sachs *et al*, 2002; Sheng *et al*, 2011). Firm-government interdependence helps firms obtain key regulatory resources (He *et al*, 2016). It provides firms with scarce resources (Wang *et al*, 2012), including bank loans, subsidiaries, and tax breaks (Luo *et al*, 2010). In addition,

firm-government interdependence provides firms with privileged access to critical industrial information or preferential policy information (Xia *et al*, 2014). Despite the potential benefits enforced by the government, there are substantial differences among Chinese firms in terms of their resource dependence on the government (Pan *et al*, 2014). Since the central government initiated its reforms of state-owned firms in the 1980s, ownership of Chinese firms has become increasingly diverse. Compared with firms that have either minority or no state ownership, firms with majority state ownership depend more on government-furnished regulatory resources (Lee *et al*, 2014).

Recent studies have obtained a better understanding of the OFDI activities of Chinese firms by devoting attention to institutional theory. These studies indicate that Chinese firms are driven by isomorphic pressures to make an isomorphic internationalization decision (Yang, 2009). Most of the existing studies primarily focus on host-country isomorphic pressures. For example, Meyer *et al* (2014) argue that state-owned firms face greater institutional pressures of host countries with high levels of institutional or technological development, especially when these countries provide minority shareholders with strong protection. Similarly, Cui and Jiang (2012) find that the impact of host-country isomorphic pressures is strengthened by state ownership which can create negative political images of a firm. It is noteworthy that firms are constrained by institutions in both their host and their home countries. Therefore, firms are also subject to home-country isomorphic pressures, which is less

explored by existing studies. One notable exception is the study by Cui and Jiang (2012), which suggests that home-country regulatory restrictions on OFDI can influence the FDI ownership decision of a Chinese firm. However, there remains a major gap in more refined research on the specific components of the isomorphic pressures from the home country. Given that there exist tremendous regional diversity and industrial diversity in China, and legitimating actors within different regions or industries have different legitimating requirements, it is critical to specify the domestic regional and industrial isomorphic pressures to open the black box of home-country isomorphic pressures.

## **Hypotheses Development**

### **Domestic regional isomorphic pressure**

The economic reform of China's reintegration into the world economy began with the "Open Door" policies implemented in the late 1970s. The Chinese central government has been concerned about globalization and the country's opening to the world economy, especially since China accessed to WTO in 2001 (Buckley *et al*, 2007; Wang *et al*, 2012). Since that time, the Chinese central government has formally implemented the "Going Abroad" policy, which provides Chinese firms that adopt OFDI with strong public endorsement. Although this national strategy is established by the central government, the approval of OFDI projects has been gradually delegated to the regional governments to facilitate investment abroad (Luo *et al*, 2010). Moreover, regional government officials have strong incentives to encourage



local firms to engage in OFDI activities. Although the Chinese central government decentralizes much of its decision-making power to regional governments, it retains control over personnel and has the authority to determine the political promotion of these regional officials (Lin, 2011; Park *et al*, 2006). In order to attain political promotions, regional government officials need to conform to the legitimating requirements of the central government (Lin, 2011; Wang *et al*, 2012). One way to show such conformity is to engage in activities (e.g., OFDI) that are encouraged by the central government. Therefore, the regional government officials are pleased to observe more OFDI adopted by the local firms in the region.

Following decentralization, the regional governments in Chinese provinces have the power to manage the local business environment where local firms are operating (Park *et al*, 2006). Regional governments offer fiscal incentives, tax incentives, tax deductions and low-interest loans especially for the OFDI activities of firms (Child and Rodrigues, 2005). More importantly, regional governments bestow legitimacy to firms that adopt OFDI because these firms engage in the activity that is congruent with the expectations of the government (Chan and Makino, 2007). In China, legitimacy from the regional government is particularly important for local firms. First, legitimacy gives legitimated firms the right of priority to obtain investment opportunities such as government contracts controlled by regional governments. Second, legitimated firms are more likely to obtain shortcuts to scarce resources such as land and bank loans, both of which are controlled by regional governments (Park *et*

*al*, 2006). Third, the top executives of the legitimated firms have the opportunity to become members of the Political Consultative Committee or People's Congress, which helps them obtain both exclusive government endorsements and favorable treatment (Lu *et al*, 2014b; Pan *et al*, 2014).

Indeed, because regional governments do not confer legitimacy to all firms, firms within the same region need to compete for legitimacy (Abrahamson and Rosenkopf, 1993; Basdeo *et al*, 2006). Competition for legitimacy can create regional isomorphic pressure among firms within the region. When an increasing number of peers in the region adopt OFDI, firms that do not adopt OFDI experience pressure. Adopting OFDI represents one isomorphic strategy to relieve that pressure. This is because if firms adopt OFDI, they may benefit. In contrast, when an increasing number of firms within a region go international, firms that do not adopt OFDI may be viewed by the regional government as less competent than those firms that do adopt OFDI (Abrahamson and Rosenkopf, 1993). As a result, firms within a region are more likely to use OFDI as an isomorphic strategy to avoid legitimacy problems. Thus, we hypothesize that:

**Hypothesis 1:** The likelihood of a firm adopting an isomorphic strategy of OFDI will increase as regional isomorphic pressure increases.

### **Domestic industrial isomorphic pressure**

China's market liberalization has induced the emergence of market forces. Market

stakeholders become another type of important legitimating actor and confer legitimacy to certain strategies that they encourage firms to adopt (Park *et al*, 2006). In China, OFDI is a strategy that is congruent with the expectations of market stakeholders. The adoption of OFDI signals credibility and high quality to market stakeholders, such as consumers, suppliers, and investors. First, through OFDI activities, domestic consumers can infer the potential of firms to create value for them. OFDI provides firms with opportunities to obtain access to new technological knowledge and managerial practices (Child and Rodrigues, 2005; Liu *et al*, 2016). Such foreign operations enable firms to develop the capabilities that are needed to produce high-quality products or services. Therefore, Chinese consumers tend to form favorable opinions about the firms adopting OFDI and thus are more willing to purchase the products or services of these firms (Yamakawa *et al*, 2008). Second, investors can use OFDI to discern “good” firms. Investors tend to assume that “good firms” provide investment opportunities. Firms adopting OFDI appear to be more competitive than those not adopting OFDI. This is because through exposure to foreign markets, firms can acquire international market knowledge that will help them accumulate market-based capabilities (Liu *et al*, 2014). Moreover, these capabilities will help firms compete with domestic competitors as the market-supporting institution develops in China. Accordingly, investors may prefer to invest capital in firms that adopt OFDI. Third, suppliers may be more committed to long-term cooperation with firms that adopt OFDI because Chinese firms undertaking OFDI are

often vertically integrated with their home country suppliers, and suppliers of OFDI firms have the opportunity to expand their market scope (Yiu *et al*, 2007). Therefore, these suppliers are willing to maintain close connection with firms that choose to adopt OFDI.

However, because the legitimacy of market stakeholders is often not available to every firm, firms in the same industry that require similar inputs and supply similar products or services need to compete for the legitimacy of market stakeholders (Basdeo *et al*, 2006). This legitimacy competition can create industrial isomorphic pressure among firms in the same industry. The winners of this competition tend to use the endorsement of market stakeholders to maximize their market shares. Without the acquisition of legitimacy from market stakeholders, firms in the same industry will find it difficult to achieve long-term prosperity. Meanwhile, firms that do not adopt OFDI may be viewed as less competent in the eyes of market stakeholders when more firms in the same industry go abroad for investment. Consequently, when more firms in the same industry go abroad for investment, firms that have not yet adopted OFDI are more likely to conform to domestic industrial isomorphic pressure. Thus, we hypothesize that:

**Hypothesis 2:** The likelihood of a firm adopting an isomorphic strategy of OFDI will increase as industrial isomorphic pressure increases.

### **Domestic regional isomorphic pressure moderated by state ownership**

Because of the decentralization in China's economic reform, the Chinese central government has been decentralizing control power over many centrally tied SOEs to regional governments (Park *et al*, 2006). SOEs affiliated with regional governments can build a political linkage between the firm and the regional government through state ownership. Because of this linkage, firms with substantial state ownership can often acquire strategic resources or preferential treatment from the regional government. Moreover, the executives of local firms with substantial state ownership may be appointed by the regional governments (Park *et al*, 2006; Wang *et al*, 2012). Therefore, as noted by Oliver (1991), firms tend to respond to institutional pressures when they are dependent on institutional constituents. In particular, firms with substantial state ownership have a strong motivation to maintain legitimacy derived from the regional government.

Under this condition, the likelihood that a firm will use an isomorphic strategy increases when they are subject to isomorphic pressures from their peers within the same region. In particular, as an increasing number of firms within the same region go abroad for investment, the dependence on regional government may intensify regional isomorphic pressure on firms to engage in OFDI. Indeed, if those firms with majority state ownership do not adopt OFDI, they may be regarded as less competent than the firms that adopt OFDI. Even more seriously, their executives may not be promoted and may even be fired.

In contrast, compared to firms with majority state ownership, firms with minority or no state ownership are concerned less about government-conferred legitimacy. Although the endorsement of regional government may still be useful to them (sometimes), firms with minority or no state ownership are more independent of the government. They make the OFDI decision based primarily on their business objectives, not political mandates (Oliver, 1991). Therefore, firms with minority or no state ownership are less motivated to adopt OFDI under a given level of regional isomorphic pressure. Thus, we hypothesize that:

**Hypothesis 3:** The positive effect of regional isomorphic pressure on the likelihood of a firm adopting an isomorphic strategy of OFDI (as predicted in H1) will be stronger for firms with higher levels of state ownership.

### **Domestic industrial isomorphic pressure moderated by firm size**

Firm size is thought to exert a key influence on the legitimating requirements which firms must conform to (Brammer and Pavelin, 2004). Large firms tend to receive more publicity and have greater name recognition (Suchman, 1995). To maintain this favorable status, they are more likely to care about how they are perceived by market stakeholders (Young and Makhija, 2014). The adoption of expected behavior is the best way for large firms to preserve the endorsement of market stakeholders. In China, large firms tend to be expected to adopt OFDI (Morck *et al*, 2008). There exist two related reasons for this inclination. The first is that large firms typically possess resources and credibility required by internationalization. For example, the banking

system is more willing to make loans to large Chinese firms (Buckley *et al*, 2007). The second is that it is relatively easy for large Chinese firms to obtain government approval of their OFDI projects (Luo *et al*, 2010). In this way, we expect the influence of industrial isomorphic pressure on the responsiveness of firms to be stronger for larger firms.

When more firms in the same industry adopt OFDI, large firms that do not adopt OFDI can be subject to the threat of losing legitimacy and the support of market stakeholders (Abrahamson and Rosenkopf, 1993). In particular, the mere fact that many large firms have engaged in OFDI becomes the cue that it is normal or even legitimate for large firms to adopt OFDI. When this occurs, large firms that do not undertake OFDI tend to appear abnormal and illegitimate to their market stakeholders. Consequently, consumers may reduce their purchases from such firms, suppliers may reconsider having a relationship with them, and the investors may reduce their investments. To avoid these adverse reactions, large firms are more concerned about the legitimacy competition, and are therefore more likely to conform to domestic industrial pressure by manifesting their OFDI capabilities to obtain the endorsement of market stakeholders.

In contrast, small firms may be relatively unconcerned about legitimacy from market stakeholders. Although such legitimacy is also useful for them, it is unnecessary for them to manifest capabilities to obtain the endorsement of market stakeholders because of their inferior position in resource competition and lower

market exposure to the public (Dean *et al*, 1998). Therefore, small firms are less motivated to respond to industrial isomorphic pressure by adopting OFDI. Thus, we hypothesize that:

**Hypothesis 4:** The positive effect of industrial isomorphic pressure on the likelihood of a firm adopting an isomorphic strategy of OFDI (as predicted in H2) will be stronger for larger firms.

## **Methods**

### **Setting and sample**

We test the hypotheses of our study in the context of China which is appropriate for the following reasons. First, both its central and regional governments encourage Chinese firms to engage in OFDI by offering government support such as financial support and foreign exchange assistance. Given this supportive policy, an increasing number of firms from various regions and different industries invest abroad (Wu and Chen, 2014). Therefore, Chinese OFDI firms enable us to empirically examine how their OFDI behavior is influenced by peers within the same region or in the same industry. Second, there exist tremendous inter-regional differences among 31 provinces in China (Liu *et al*, 2014). Such regional variance enables us to investigate the effect of legitimacy competition among domestic firms. Table 1 presents information about the provincial distribution of annual OFDI flow in the period of 2008-2012. Coastal provinces are the biggest sources of Chinese OFDI. In contrast,



inland provinces make less of a contribution to Chinese OFDI. Third, although state-owned firms and large firms remain the dominant force, an increasing number of firms with different levels of state ownership and of different sizes adopt OFDI as restrictions are liberalized (Morck *et al*, 2008; Cui and Jiang, 2012). This trend allows us to explore how ownership identity and firm size influence the motivation of a firm and its response to isomorphic pressures from its peers in the context of China.

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We construct a balanced panel dataset for OFDI of Chinese firms that are listed on the Shenzhen or Shanghai Stock Exchange. One focus of our study is the role of regional governments. Because regional governments do not have the authority to appoint executives or regulate state-owned assets of SOEs affiliated with central government (Lin, 2011), and do not have much of an impact on their internationalization decisions, we exclude these firms from our sample. We obtain the raw data for our study primarily from two sources: (1) the “China Stock Market and Accounting Research (CSMAR)” database, which prior studies have viewed as reliable; (2) the “Overseas Foreign Investment Enterprises and Institutions List” compiled by China’s Ministry of Commerce (MOFCOM). This list includes investing information for all Chinese firms whose overseas projects have been approved by MOFCOM from 1980 to the present. We set the time window of the dataset as the

2008-2012 period. After merging these two data sources, we have a sample of 107 firms across 30 industries based on the two-digit SIC codes of China, and 22 provincial-level regions. This final sample comprises 535 firm-year observations with complete information.

## **Measures**

### **Dependent variable**

#### *Firm-level outward FDI*

For our dependent variable (firm-level OFDI), we use the total counts of OFDI projects adopted by a focal Chinese firm in a given year  $t$  as the measurement (Xia *et al.*, 2014). To develop this measure, we rely on the “Overseas Foreign Investment Enterprises and Institutions List” compiled by the MOFCOM. With this list, we can identify the OFDI projects of a firm according to the locations or the names of its subsidiaries.

### **Independent and moderating variables**

#### *Domestic isomorphic pressures*

Similar to prior studies (e.g., Henisz and Delios, 2001; Yang, 2009; Li and Parboteeah, 2015), we measure domestic regional pressure and domestic industrial pressure as the total counts of OFDI projects adopted by other Chinese firms within the same region and in the same industry before year  $t$ , respectively. The response inducement of a Chinese firm to domestic isomorphic pressures is measured by the degree to which

that firm reacts to the counts of OFDI projects adopted by its peers. When the response inducement to domestic isomorphic pressures is stronger, the likelihood that the focal firms will engage in OFDI activity is higher. Our study focuses on Chinese firms with which focal firms share the same region and industry, because domestic regional peers and domestic industrial peers usually compete with each other and thus adopt imitative strategy or behavior when they face similar challenges (Henisz and Delios, 2001; Li and Yao, 2010). We define the region of a firm as the province in which its headquarter is located and identify its industry membership using China's two-digit SIC codes. The data on domestic regional and industrial isomorphic pressures are also obtained from the "Overseas Foreign Investment Enterprises and Institutions List" compiled by the MOFCOM.

#### *State ownership*

Our study focuses on SOEs affiliated with regional governments and identifies the regions in which they are located according to the "Overseas Foreign Investment Enterprises and Institutions List". We hypothesize the moderating effect of state ownership that is used to measure the motivation of a Chinese firm to obtain or maintain legitimacy from the regional government. State ownership establishes a political tie between the government and a firm, which allows the firm to be resource-dependent and legitimacy-dependent on the government (Cui and Jiang, 2012). Compared with firms that have either minority or no state ownership, firms with majority state ownership depend more on the government (Pan *et al.*, 2014) and

therefore concerned more with the legitimacy of the government. Similar to prior studies (e.g., Wang *et al*, 2012; Pan *et al*, 2014), we measure state ownership in a Chinese firm in year t-1 as the proportion of equity shares owned by the governments or their agencies. The ownership data of the sample firm is obtained from the CSMAR database.

#### *Firm size*

Firm size in our study is used to measure the need of a Chinese firm to obtain or maintain legitimacy from the market stakeholders. It also reflects the level of market stakeholders' expectations on the strategic actions of firms (Young and Makhija, 2014). Large Chinese firms tend to be expected to adopt OFDI for the following reasons. Compared to small Chinese firms, they possess more of the resources and credibility required by internationalization (Buckley *et al*, 2007). In addition, it is relatively easy for the OFDI project of a large Chinese firm to be approved by the government (Luo *et al*, 2010). Based on prior studies (Wang *et al*, 2012; Young and Makhija, 2014), firm size is measured by the number of employees of the focal firm in a given year t-1. Given that this variable is highly skewed, we conduct a logarithmic transformation on it before using it in our analysis (Sharfman and Fernando, 2008). This reduces skewness to conventional levels and results in a data distribution that is closer to normality. Information on the number of employees is also obtained from the CSMAR database.

## **Control variables**

Numerous factors that may also influence the OFDI activities of a firm are identified by prior studies. Therefore, a set of control variables are introduced into our models.

### *International experience*

We control for a firm's international experience that represents the knowledge about how to operate in foreign markets (Lu *et al*, 2014b). Such experience helps reduce the liability of foreignness and enables firms to accumulate organizational capabilities in the host country (Salomon and Wu, 2012). Therefore, firms with more international experience have a stronger tendency to adopt OFDI. International experience is measured as the cumulative number of the OFDI projects owned by the firm before year it adopts new subsequent foreign entries. The data on international experience are obtained from the "Overseas Foreign Investment Enterprises and Institutions List".

### *Return on assets (ROA)*

We control for a firm's ROA that indicates its previous performance (Liu *et al*, 2014). Organizations that perform better have more resources for OFDI (Lu *et al*, 2014b). We measure performance using the lagged value of ROA in year t-1 (Salomon and Wu, 2012; Lu *et al*, 2014a).

### *Foreign equity share*

Foreign equity share is also controlled for in our study (Pan *et al*, 2014), because foreign investors can provide firms with important information about the global

market and spur them to engage in OFDI activities (Lu *et al*, 2014b). Such information enables firms to alleviate liability of foreignness, thus affecting their internationalization activities. We measure this variable as the proportion of equity shares held by the foreign investors in a firm in year t-1.

#### *Leverage*

The leverage of a firm is used as a proxy to control for potential slack resources (Lu *et al*, 2011; Lu *et al*, 2014a). Prior studies emphasize the high resource requirement associated with internationalization. Firms have a stronger tendency to engage in OFDI activities when they have more slack resources (Cui *et al*, 2014). In our study, leverage is measured by debt-to-assets ratio with a one-year lag (Xia *et al*, 2014).

#### *Intangible assets*

We control for the impact of intangible assets, because this represents a firm's technological capability that can exert a significant influence on internationalization (Wang *et al*, 2012; Liu *et al*, 2014). Intangible assets can give an advantage to a firm when operating in overseas markets (Pan *et al*, 2014), and therefore, firms are more likely to adopt OFDI activities when they have more intangible assets. We conduct a logarithmic transformation on the variable of intangible assets because of its skewness. This reduces the skewness to the conventional level (Sharfman and Fernando, 2008). The data of return on assets (ROA), foreign equity share, leverage and intangible assets are obtained from the CSMAR database.

### *Index of product markets and index of factor markets*

In order to control for the impact of the regional development of economic institutions on the OFDI activities of Chinese firms, we take into account of the index of product markets and the index of factor markets in our study. Through operating in a region with developed institutional environment where the product market and factor market are efficient, firms may have accumulated market-based capabilities that can be exploited in overseas markets (Liu *et al*, 2014). The two types of institutional indices are developed by the National Economic Research Institute (NERI) of China (Fan *et al*, 2010).

### *Industry*

To differentiate between manufacturing firms and non-manufacturing firms, a dummy variable is used in our study. It has a value of 1 if the firm belongs to the manufacturing industry (Cui and Jiang, 2012). Through various kinds of collaboration with foreign firms at home, many Chinese manufacturing firms have accumulated unique manufacturing capabilities that enable them to engage well in OFDI activities (Liu *et al*, 2016).

### *Year*

The global financial crisis in 2008 may exert a significant influence on the adoption of OFDI activities by Chinese firms. This crisis may provide Chinese firms with investment opportunities in the foreign market, which will motivate them to go abroad

for investment. To capture its impact, a dummy variable is included in our study. The year after 2008 is coded as 1, otherwise 0.

## **Results**

Our dependent variable *firm-level OFDI* is a nonnegative count variable, which suggests the need to employ Poisson or negative binomial (NB) regression model (Greene, 2003). Poisson regression model assumes that the mean and variance of the dependent variable are equal. This assumption is violated in our study, because the distribution of firm-level OFDI is overdispersed (Xia *et al*, 2014). In this case, NB regression model is more appropriate for our analysis. Furthermore, to correct for unobserved firm heterogeneity, we make use of panel data analysis techniques such as fixed-effect or random-effect model. We also conduct a Hausman test to identify the better model between the fixed-effect model and random-effect model (Greene, 2003). The results of this test show that the fixed-effect NB regression is the preferred model in our study.

Table 2 provides descriptive statistics and correlation coefficients for the variables employed in our analysis. All correlation coefficients between independent variables are relatively low. Following Xia *et al* (2014), we also check the variance inflation factors (VIF) in a parallel set of OLS regression models. All VIF values are less than the acceptable level of 10, indicating no serious problems of multicollinearity in the estimation. In addition, we mean-center all independent variables to minimize potential multicollinearity (Aiken *et al*, 1991). To avoid potential endogeneity



between the independent variables and the dependent variable, we use independent variables lagged by one year in our models.

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Table 3 reports our results from the fixed-effect NB regression model. Hypotheses 1 and 2 state that the domestic regional isomorphic pressure and industrial isomorphic pressure have positive impacts on the OFDI of Chinese firms. In Model 2 the coefficient of domestic regional isomorphic pressure is significantly positive ( $b=0.0105$ ,  $p<0.01$ ). In Model 3, the coefficient of domestic isomorphic pressure is also significantly positive ( $b=0.0115$ ,  $p<0.05$ ). Therefore, Hypotheses 1 and 2 are supported.

Hypothesis 3 suggests that state ownership strengthens the effect of domestic regional isomorphic pressure on the OFDI of Chinese firms, whereas Hypothesis 4 suggests that firm size strengthens the effect of industrial isomorphic pressure on their OFDI. The result in Model 4 shows a positive and significant effect for the interaction between domestic regional isomorphic pressure and state ownership ( $b=0.0482$ ,  $p<0.01$ ). The result in Model 5 shows a positive and significant effect for the interaction between domestic industrial isomorphic pressure and firm size ( $b=0.0052$ ,  $p<0.05$ ). Therefore, Hypotheses 3 and 4 are supported.

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To assess the sensitivity of our findings, we also conduct several robustness tests. First, there may be concerns about the structure of our data (firms nested in regions and in industries). To address this concern, we use HLM to check the sensitivity of the results. We can clearly find that all results reported in Table 4 are generally similar to those of the original tests. The coefficient of domestic regional pressure is significantly positive in both Model 1 ( $b=0.0063$ ,  $p<0.01$ ) and Model 2 ( $b=0.0075$ ,  $p<0.01$ ), whereas the interactive effect of domestic regional pressure and state ownership is also significantly positive in both Model 1 ( $b=0.0103$ ,  $p<0.1$ ) and Model 2 ( $b=0.0114$ ,  $p<0.1$ ). In addition, the coefficient of domestic industrial pressure is significantly positive in both Model 3 ( $b=0.0059$ ,  $p<0.01$ ) and Model 4 ( $b=0.0058$ ,  $p<0.01$ ), whereas the interactive effect of domestic industrial pressure and firm size is also significantly positive in both Model 3 ( $b=0.0026$ ,  $p<0.05$ ) and Model 4 ( $b=0.0026$ ,  $p<0.1$ ). Therefore, the hypotheses (namely H1, H2, H3, and H4) supported by the original analyses also receive statistical support from the robustness test.

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Second, Chinese firms appear to have a particularly strong tendency to invest in

offshore financial centers and tax havens for tax purposes (Morck *et al*, 2008). The motives behind these investments may be different from those reflected by other OFDI flows. In this case, the inclusion of these investments for tax purposes may create bias in the data of Chinese OFDI and make it difficult to properly understand the international activities of Chinese firms (Sutherland and Anderson, 2014). Therefore, we also run an analysis using a sample that excludes investments in the tax havens of British Virgin Islands and the Cayman Islands, Macao and Hong Kong to check the robustness of our findings (Meyer *et al*, 2014). The results are as robust as those of the full sample, suggesting that the issue of the investments in offshore financial centers and tax havens is not a problem in our study. Because of space constraints, the robust results are not presented but are available to readers upon request.

Third, the nature of the industry that a firm belongs to is likely to play an important role in influencing the OFDI activities of Chinese firms. We conduct a robustness test by introducing more industry dummies into our analysis. Specifically, we examine the possible industry-specific effects for industries in which Chinese investing firms have historically been concentrated, such as capital-intensive industry (Ramasamy *et al*, 2012), the mining industry and the machinery and equipment industry (Buckley *et al*, 2007). Our results are consistent. Because of space constraints, the robust results are not presented but are available to readers upon request.

## **Discussion**

The findings of our study support the prediction that Chinese firms tend to implement OFDI strategies in responding to domestic regional isomorphic pressure, as well as in responding to domestic industrial isomorphic pressure. Moreover, the positive impact of domestic regional isomorphic pressure on a Chinese firm's probability of adopting OFDI strategy is strengthened by state ownership in the firm, whereas the positive impact of domestic industrial isomorphic pressure on a Chinese firm's probability of adopting OFDI strategy is strengthened by its firm size. In addition, the significant results of "firm size" and "international experience" deserve further discussion. As Table 3 shows, "firm size" receives positive and statistically significant results in Models (1-6), suggesting that firm size may give firms greater capabilities to engage in OFDI. In contrast, "international experience" receives negative and statistically significant results across models. One potential reason is that Chinese firms with greater international experience may feel less of a need to rely on OFDI as a means of gaining legitimacy because they have satisfied the expectations of the legitimating actors, such as regional government and market stakeholders.

## **Theoretical contributions**

Our study offers comprehensive insights and empirical evidence on isomorphic pressures and legitimacy-seeking motivation for the OFDI activities adopted by Chinese firms. Especially, our study extends and enriches institutional theoretical perspectives on foreign direct investment in the following ways. First, it makes

contributions to a better understanding of institutional theory, particularly in the context of international business. Prior studies primarily focus on the impact of external institutional pressures on firms' strategic choices in foreign direct investment (FDI) (Davis *et al*, 2000; Yiu and Makino, 2002; Yang, 2009; Li and Parboteeah, 2015). This approach is generally centered on a premise that firms tend to pursue an isomorphic strategy when they experience external isomorphic pressures imposed by the institutional environment (Yang, 2009). However, not all firms possess similar legitimacy-seeking motivation, and their responses to isomorphic pressures vary considerably. In other words, the willingness of firms to respond to a given isomorphic pressure is bound by their legitimacy-seeking motivation. For example, the results presented in our study suggest that firms with substantial state ownership actively respond to domestic regional isomorphic pressure by adopting OFDI because they are more concerned with legitimacy from the regional government. If state-owned firms do not adopt OFDI when an increasing number of firms within the same region go abroad for investment, their top officers may be viewed as incompetent and possibly fired by the government. The same logic applies to firms in the same industry. Large firms respond to domestic industrial isomorphic pressure by adopting OFDI because they attach importance to legitimacy from their market stakeholders. If large firms fail to fulfill market stakeholders' expectations, they will be subject to more commercially adverse reactions from the market, including loss of reputation (Brammer and Pavelin, 2004). Therefore, our study's conceptual and

empirical analysis shows that firms' adoption of isomorphic behavior is not an autarchic phenomenon prompted by external isomorphic pressure, but instead the outcome of the interplay between external isomorphic pressure and firms' legitimacy-seeking motivation.

Second, our study can help us to fully understand the impact of isomorphic pressures in the context of international business. It systematically examines the role of domestic regional isomorphic pressure and domestic industrial isomorphic pressure in the OFDI activities of Chinese firms, an area that is not fully explored in prior studies. Our findings confirm that Chinese firms conform to pressure from both their domestic regional peers and their domestic industrial peers by adopting OFDI. Isomorphic conformation can help Chinese firms obtain domestic legitimacy from the regional government and market stakeholders, further endowing them with political capital (e.g., their senior managers have the opportunity to become members of the Political Consultative Committee or People's Congress), economic resources (e.g., government contracts) and more positive reactions from market stakeholders. Conversely, firms that do not adopt OFDI may lose the endorsement of the regional government and market stakeholders when they are confronted with domestic regional isomorphic pressure and domestic industrial isomorphic pressure. As a result, this study improves our knowledge of isomorphic pressure that influences OFDI activities of firms.

Third, our study enriches existing knowledge about the motives of the OFDI of

Chinese firms. Why do Chinese firms go abroad to invest? The rapid growth of their OFDI has attracted academic attention to this research question. An increasing number of studies have examined different motives for their OFDI. The main proposition of these studies is that OFDI of Chinese firms is driven by efficiency considerations such as the desire to reduce their domestic constraints and to pursue critical resources (Sutherland, 2013). However, to accomplish the goal of efficiency, firms need to be socially legitimate. The manner in which legitimacy considerations drive their OFDI is an understudied issue in existing literature (Cui and Jiang, 2009). Our study contributes to this stream of literature by demonstrating that Chinese firms are attempting to gain domestic legitimacy from both regional governments and market stakeholders by engaging in OFDI. Our study also echoes Lu *et al's* (2011) call for more studies to conceptually and empirically examine the motives underlying the OFDI of Chinese firms.

### **Practical implications**

Our study has some important implications for both policy makers and managers. First, both academic literature and the popular press emphasize the impact of the Chinese central government on the OFDI activities adopted by Chinese firms. However, it should be noted that China is characterized by regional disparity, and firms in different regions may be systematically different in terms of their internationalization strategies and behavior. Firms within inland regions often lack the motivation to respond to the “Going Abroad” policy because they do not have the

necessary advantages to compete with coastal-region firms for support from the central government (e.g., financial support). Our evidence shows that regional governments can make use of the legitimacy competition effect among firms within a single region to encourage firms to adopt OFDI. Therefore, regional governments complement the central government in encouraging Chinese firms to “go abroad”. In particular, the central government needs to attach more importance to the role of inland regional governments and decentralize more powers to them in managing OFDI.

Second, our results show a positive association between domestic isomorphic pressures and the adoption of OFDI activities by Chinese firms. To maintain legitimacy from regional government and market stakeholders, the top managers of Chinese firms need to understand and respond to pressures from their regional and industrial peers. Failure to do so can have negative consequences. This is particularly true for state-owned firms or large firms, both of which may be viewed as less competent if they do not adopt OFDI when an increasing number of similar firms go abroad for investment. Accordingly, their senior managers may not be promoted and even be fired.

### **Limitations and future research directions**

Our study has some limitations that suggest further research opportunities. First, due to data availability, our study focuses on the probability of firms adopting the OFDI strategy, and it does not examine how domestic isomorphic pressures affect other



internationalization decisions such as entry mode selection and location choice. Future research can extend our theory by examining the legitimacy competition effect in other contexts of internationalization decisions.

Second, although our study shows that Chinese firms tend to adopt an isomorphic strategy of OFDI to obtain legitimacy from the regional government when they experience domestic regional isomorphic pressure, it does not empirically examine the direct role of government support in guiding and supporting internationalization activities. Research on the OFDI of Chinese firms has highlighted that government support can confer resource advantages upon firms engaged in overseas investment, thus allowing them to offset their lack of competitive advantages (Buckley *et al*, 2007; Luo *et al*, 2010). However, Anderson and Sutherland (2015) find no statistically significant relationship between domestic institutional support and the asset-seeking investment encouraged by the Chinese government. Therefore, more research is needed to examine how government supports are transformed into firm's specific ownership advantages and how firms use these advantages in overseas markets.

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## Appendix

**Table 1:** Comparison of annual OFDI flow across regions in the period of 2008-2012 (US \$ millions)

Province	Annual OFDI flow					Province	Annual OFDI flow				
	2008	2009	2010	2011	2012		2008	2009	2010	2011	2012
Guangdong	1213.94	773.88	1195.77	1902.69	3221.55	Chongqing	112.15	51.94	398.82	418.57	555.16
Shanghai	325.43	987.52	1558.11	1513.16	1761.98	Jilin	74.16	338.41	180.41	197.16	276.88
Beijing	205.82	305.81	693.83	745.34	1186.42	Xinjiang	163.63	192.37	373.46	375.28	259.20
Jiangsu	270.25	697.78	1201.05	2001.29	2922.73	Jiangxi	14.46	40.38	212.80	280.90	365.90
Zhejiang	505.58	782.07	2621.39	2113.97	2401.90	Shanxi (1)	27.54	325.76	38.63	149.73	263.62
Shandong	486.27	909.34	1587.50	2077.04	3057.74	Shanxi (2)	144.99	132.30	289.20	441.54	548.87
Sichuan	127.99	260.93	343.51	533.43	737.11	Guangxi	85.37	64.63	172.49	122.37	236.20
Hubei	34.50	109.47	138.32	690.09	500.30	Hainan	1.13	74.54	224.77	1201.44	306.19
Anhui	53.15	57.20	809.67	508.75	545.16	Yunnan	239.15	270.01	474.06	570.80	709.81
Liaoning	325.58	880.76	1774.29	1149.50	2839.15	Inner Mongolia	4.60	185.25	39.73	104.03	460.35
Hunan	465.02	1016.28	311.35	804.83	1401.63	Gansu	386.51	16.37	101.32	634.97	1339.23
Fujian	279.39	310.80	476.81	343.42	530.66	Guizhou	0.15	5.22	5.10	19.50	5.86
Tianjin	152.77	187.98	309.25	572.47	628.02	Ningxia	15.71	12.54	30.80	12.49	48.34
Hebei	47.09	151.52	427.12	354.37	470.01	Qinghai	2.02	2.08	1.10	1.73	8.52
Heilongjiang	142.85	129.36	173.14	158.03	354.03	Tibet	0.00	0.00	0.29	2.16	0.00
Henan	236.36	178.32	156.18	301.71	244.97						

Data source: National Bureau of Statistics of China, China's Ministry of Commerce, various years

Note: The capital of Shanxi (1) is Taiyuan, while the capital of Shanxi (2) is Xi'an. They are different province names in Chinese.

**Table 2:** Descriptive statistics and Pearson correlation coefficients<sup>a, b</sup>

	<i>Variables</i>	<i>Mean</i>	<i>S.D.</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>	<i>11</i>	<i>12</i>
1	Firm-level OFDI	0.68	1.33	1.0000											
2	International experience	1.94	2.97	0.1267	1.0000										
3	ROA	0.07	0.06	0.0368	-0.0423	1.0000									
4	Foreign equity share	0.01	0.06	-0.0259	-0.0785	-0.0109	1.0000								
5	Leverage	0.49	0.18	0.0472	0.2236	-0.4341	-0.0255	1.0000							
6	Intangible assets	18.63	1.75	0.1292	0.3130	-0.0355	-0.0058	0.2224	1.0000						
7	Deve. of product markets	9.13	1.06	-0.0958	-0.1300	0.0380	0.1026	-0.0673	-0.0774	1.0000					
8	Deve. of factor markets	6.64	1.97	-0.0655	-0.1089	0.0476	0.1068	-0.0693	-0.1204	0.4876	1.0000				
9	State ownership	0.09	0.17	-0.0305	-0.1090	-0.0106	-0.0349	0.0536	0.1138	0.0200	-0.1641	1.0000			
10	Firm size	8.17	1.29	0.1805	0.4158	0.0435	-0.0804	0.2510	0.6438	0.0085	-0.1289	0.1280	1.0000		
11	Regional iso.pressure	64.01	66.03	-0.0047	0.1127	-0.0115	0.0385	-0.1145	0.0162	0.2163	0.4050	-0.2506	0.0185	1.0000	
12	Industrial iso.pressure	56.79	61.89	0.0419	0.1833	-0.1830	0.0786	-0.0405	0.0089	-0.0807	0.0557	-0.0722	0.0216	0.3499	1.0000

<sup>a</sup> 107 firms, 535 observations<sup>b</sup> Pearson correlation coefficients that are > 0.095 or < -0.095 are significant at p<0.05.

**Table 3:** The fixed-effect of negative binomial (NB) model on OFDI of Chinese firms <sup>a-d</sup>

	<i>Variables</i>	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>	<i>Model 4</i>	<i>Model 5</i>	<i>Model6</i>
1	Constant	1.2251 (1.6918)	1.5753 (1.1300)	1.7334 (1.4391)	2.1546* (1.1345)	1.6342 (1.2028)	1.9591 (1.2040)
2	International experience	-0.2694*** (0.0529)	-0.3158*** (0.0531)	-0.3204*** (0.0578)	-0.3724*** (0.0559)	-0.3625*** (0.0567)	-0.3922*** (0.0572)
3	ROA	1.5147 (1.6480)	2.2592 (1.6176)	2.1668 (1.6251)	2.6912* (1.6152)	2.2851 (1.6289)	2.5479 (1.6341)
4	Foreign equity share	0.7878 (1.5900)	1.0449 (1.5851)	1.2813 (1.5937)	1.5106 (1.6087)	1.0268 (1.5970)	1.2097 (1.6023)
5	Leverage	-0.6522 (0.7732)	-0.1610 (0.7373)	-0.4154 (0.7765)	-0.1355 (0.7577)	-0.1049 (0.7571)	0.0281 (0.7609)
6	Intangible assets	0.2710* (0.1422)	0.2681* (0.1387)	0.2570* (0.1450)	0.1901 (0.1424)	0.2326* (0.1378)	0.1799 (0.1449)
7	Deve. of product markets	-0.2570** (0.1187)	-0.1471 (0.1231)	-0.1375 (0.1265)	-0.1024 (0.1254)	-0.1136 (0.1274)	-0.1170 (0.1266)
8	Deve. of factor markets	-0.0625 (0.0970)	0.0124 (0.0938)	-0.0357 (0.1000)	0.0342 (0.1009)	0.0193 (0.0926)	0.0244 (0.0961)
9	State ownership	-0.8871 (0.6939)	-0.9483 (0.6972)	-0.7328 (0.6926)	1.0969 (0.9353)	-0.8107 (0.7032)	0.9552 (0.9179)
10	Firm size	0.7774*** (0.2441)	0.8839*** (0.2287)	0.7629*** (0.2535)	0.8611*** (0.2447)	0.9348*** (0.2448)	0.9797*** (0.2470)
11	<b>Regional iso.pressure</b>		<b>0.0105*** (0.0033)</b>		0.0134*** (0.0040)	0.0113*** (0.0037)	0.0158*** (0.0041)
12	<b>Industrial iso.pressure</b>			<b>0.0115** (0.0045)</b>	0.0084* (0.0046)	0.0018 (0.0045)	0.0027 (0.0048)
13	<b>Regional iso.pressure*state ownership</b>				<b>0.0482*** (0.0167)</b>		0.0440*** (0.0164)
14	<b>Industrial iso.pressure*firm size</b>					<b>0.0052** (0.0021)</b>	0.0049** (0.0021)
	Log likelihood	-337.36	-331.34	-332.86	-326.36	-326.84	-323.67
	Wald Chi-square	56.78***	71.35***	63.57***	85.11***	74.04***	82.01***
	Incremental Chi-square to Model 1		12.03***	9.00***	22.00***	21.04***	27.38***

<sup>a</sup> 107 firms, 535 observations<sup>b</sup> Industry and time effects included in all models<sup>c</sup> Standard errors in parentheses<sup>d</sup> \*p<0.1, \*\*p<0.05, \*\*\*p<0.01

**Table 4:** Results of HLM estimates <sup>a-c</sup>

<i>Variables</i>	<i>Model 1</i>	<i>Model 2</i>	<i>Variables</i>	<i>Model 3</i>	<i>Model 4</i>
<b>Corporate level 1 (Region)</b>			<b>Corporate level 1 (Industry)</b>		
Intercept	-0.4549*** (0.1489)	1.2969* (0.7282)	Intercept	-3.0271*** (0.5578)	-2.9937*** (0.4579)
State ownership	0.0983 (0.4988)	0.1258 (0.5630)	Firm size	0.6836*** (0.1505)	0.6813*** (0.1107)
<b>Regional iso.pressure</b>	<b>0.0063***</b> (0.0009)	<b>0.0075***</b> (0.0013)	<b>Industrial iso.pressure</b>	<b>0.0059***</b> (0.0011)	<b>0.0058***</b> (0.0016)
<b>Regional iso.pressure*state ownership</b>	<b>0.0103*</b> (0.0062)	<b>0.0114*</b> (0.0065)	<b>Industrial iso.pressure*firm size</b>	<b>0.0026**</b> (0.0012)	<b>0.0026*</b> (0.0015)
<b>Level 2 (Region)</b>			<b>Level 2 (Industry)</b>		
Deve. of product markets		-0.1379 (0.0880)	Manufacturing industry		-0.1186 (0.2496)
Deve. of factor markets		-0.1132** (0.0476)			
<b>Variance component</b>					
Level2	0.32***	0.25***		0.20***	0.21***

<sup>a</sup> 107 firms, 535 observations<sup>b</sup> Standard errors in parentheses<sup>c</sup> \*p<0.1, \*\*p<0.05, \*\*\*p<0.01