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DUELING INSTITUTIONAL LOGICS AND THE EFFECT ON STRATEGIC ENTREPRENEURSHIP IN CHINESE BUSINESS GROUPS

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Focusing on a period of institutional friction when institutions are in transition, this study examines the dueling institutional logics that simultaneously operated as business groups were implemented to foster strategic entrepreneurship activities in China. Our findings from 1,095 Chinese business group-affiliated firms show that the original institutional logic of state control and ownership remains a potent factor, while the new institutional logic in support of strategic entrepreneurship takes place through business groups' informal and formal organization controls. Further, the state logic causes rigidity and inflexibility for firms to react to the new institutional demands, thus weakening the positive effects of business group formal and informal controls on strategic entrepreneurship. This study contributes to the institution-based view by highlighting that dueling logics coexist in business groups and investigating how they can be sources of variation in advancing strategic entrepreneurship during periods of institutional friction. Copyright © 2014 Strategic Management Society.

INTRODUCTION

In economies transitioning from a planned toward a market-based economic system, firms face a new institutional logic to be globally competitive while still dealing with a dominant state logic. The resulting contradictory demands on the firm generate institutional friction that impacts a firm's strategic choices (Kim, Kim, and Hoskisson, 2010). In this article, we examine the question of how such institutional friction impacts firms' strategic choices regarding corporate entrepreneurship and innovation.

One setting where these contradicting institutions are likely to have an impact on corporate entrepreneurship and innovation is China. On the one hand, traditional statist institutions in China are likely to lead firms to avoid entrepreneurship and innovation. On the other hand, the newly emerging market-based institutions are urging firms to engage in more entrepreneurial and innovative activities in order to enhance market competitiveness. To deal with such dueling institutional logics, business groups were implemented in China to facilitate this transition and overcome the lack of an emphasis on market competitiveness. As a new organizational form, business groups have been found to significantly aid emerging economies to transition from an imitator to innovator economy through their role of generating internal market incentives (Amsden and Hikino, 1994; Khanna and Palepu, 1997; Leff, 1978). However, it

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is unclear how a business group facilitates corporate entrepreneurship and innovation among its affiliate firms (Chang, Chung, and Mahmood, 2006), especially in the midst of dueling institutional logics associated with institutional transitions.

Therefore, this article examines the impact of competing institutional logics on strategic choices for corporate entrepreneurship and innovation in business group affiliated firms in China. We examine the competing institutional logics through a firm's founding leadership and ownership history and through the impact of formal and informal controls emphasized in business groups and how they influence firm actions focused on corporate entrepreneurship and innovation. We examine these dueling forces during a period of institutional friction as the adoption of strategic entrepreneurial practices in business group firms in China had begun but were not complete. Our empirical context consists of 1,095 affiliates of the largest 250 business groups in China during a period of heightened institutional change.

By examining how conflicting institutions influence the level of corporate entrepreneurship and innovation, this study makes a number of contributions to the literature. First, we theoretically expand the understanding of the institution-based view of the firm in strategy and entrepreneurship, which highlights that strategic choice is an outcome of the dynamic interactions between institutions and organizations (Peng, 2002; Peng *et al*., 2009; Peng, Wang, and Jiang, 2008). Our study examines the strategic choices made by firms in a conflicted transitioning institutional environment. We demonstrate the coexistence of multiple and incoherent logics that are manifested in the legacy forces embedded in state bureaucracy and the market-oriented change forces enacted by business groups to institute new organizational practices like strategic entrepreneurship. This approach shows that heterogeneous strategic outcomes may result from firms' strategic choices during periods of institutional incongruence of dueling institutional logics, and it allows us to address public policy issues as encouraged by Barney (2005) in the strategic entrepreneurship literature. A second contribution is expanding the understanding of conflicting logics that can exist in organizations as they progress through their institutional evolution in transition economies. In particular, our study highlights how higher-order changes can cause conflict among lower-order institutional implementation efforts. The emphasis on the competition between higher-order and lower-order logics sheds light on how historically and normatively rooted logics generate resistances for new strategy implementation (Fiss and Zajac, 2004; Lounsbury, 2007; Marquis and Lounsbury, 2007). Third, because the organizational form (business groups) in which these conflicting logics take place is relatively new in the literature on strategic entrepreneurship, we enrich the understanding of the role of formal and informal organizational controls in institutionalizing strategic entrepreneurship in this organization form. Finally, our findings will also remind managers and policy makers in transition economies that even while developing new organizational forms such as business groups to foster market-oriented practices, these organizations still face resistance due to historically embedded conflicting institutional logics.

DUELING INSTITUTIONAL LOGICS AND STRATEGIC ENTREPRENEURSHIP

In emerging economies such as China, the institutional transition toward a market-based economy pressures firms to increase their emphasis on strategic entrepreneurship to achieve improved long-term competitiveness. Our conceptualization of strategic entrepreneurship is consistent with that of Hitt *et al*. (2011), who defined strategic entrepreneurship as those actions where firms 'simultaneously address the dual challenges of exploiting current competitive advantages (the purview of strategic management) while exploring for opportunities (the purview of entrepreneurship) for which future competitive advantages can be developed and used as the path to value and wealth creation' (Hitt *et al*., 2011: 59).

Our theoretical premise lies in the institution-based view of the firm and literature on competing logics. The institution-based view draws from both the sociological and economic branches of institutional theory, highlighting institutional pressures as both constraints and facilitators of firm strategy (Ahuja and Yayavaram, 2011; Peng, 2002; Peng *et al*., 2009). Instead of viewing institutions as forces or pressures that drive firms to comply with norms, theorists argue institutions can be viewed as opportunities for firms to formulate strategies to conduct economic exchanges in a more efficient way. Treating institutions as explanatory variables rather than as background, the institution-based view focuses on

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the interaction between institutions and organizations and considers strategy as an outcome of such an interaction and reflection of the formal and informal institutional constraints and opportunities that a manager confronts (Peng *et al*., 2009; Jarzabkowski, 2008). Research on the institution-based view (Ahuja and Yayavaram, 2011; Peng *et al*., 2009) has demonstrated how strategy outcomes and firm performance will differ in different institutional settings, thus generating additional sources of rents other than firm-based and industry-based perspectives. By helping entrepreneurs manage the institutional environment and formulating capabilities to generate nonmarket or institutional rents, the institution-based view offers a fresh perspective to account for sources of variations in firms' strategic choices and organizational practices. Our approach extends the institution-based view by showing that heterogeneous strategic outcomes may result from firms' strategic choices during periods of institutional incongruence or coexistence of dueling institutional logics.

As new institutions are introduced, however, there is often friction between past institutional logic and desired institutions. During the period of institutional friction, tension builds. To manage this tension and encourage entrepreneurship, the Chinese government emphasized, in its policy change, a new organizational form—business groups. Business groups are generally defined as a set of legally independent business entities bound by economic and social ties (Khanna and Palepu, 2000). The Chinese groups resemble the Japanese *keiretsu* and Korean *chaebol* (Keister, 2000). This new set of firms faced institutional demand for strategic entrepreneurship from the government, yet also had institutional legacies associated with state control and bureaucracy, thus creating dueling logics regarding strategic entrepreneurship. As Ostrom (1990; 2005) suggested, institutions nest within one another. Higher-order changes, such as the move toward implementing business groups in China, can cause conflict among lower-order institutional implementation efforts, such as the move toward strategic entrepreneurship within business groups. Scholars can view the dueling between lower-order logics through the institutional factors that underpin them (Thornton, 2002).

In the context of business groups, we focus on two forms of higher-order institutions composing government legacies that discourage strategic entrepreneurship: one is the administrative heritage of the business group, and the other is the government ownership legacy. However, the formation of business groups seeks to instill a new mind-set and nurture new behaviors toward market-oriented goals (Yiu, Bruton, and Lu, 2005). As a result, this new organizational form also generates lower-level institutional factors that encourage member firms to increase their emphasis on strategic entrepreneurship. We examine two such mechanisms: formal systems, manifested in the use of objective financial control measures to reward and discipline member firms, and efforts at indoctrinating new values and norms through informal controls, represented by the socialization and development of a strong group culture. We next examine in greater detail the interactions between dueling state and market logics to emphasize strategic entrepreneurship in Chinese business group firms. The model in Figure 1 summarizes our proposed hypotheses.

State logic: institutional legacies

Existing institutional elements can constrain new practices in a period of institutional friction (Scott, 2002). The old logic does not disappear overnight; instead, for a time, the old and new logics compete for dominance. In China, former planned economy governmental behaviors may create an institutional legacy constraint that discourages firms from adopting new institutional practices or may create an impetus to act only in a symbolic fashion. State influence in China is almost unavoidable because of the government's desire to retain unchallenged political control and stability while encouraging the development of a free market (Scott, 2002). In the absence of a secure property rights system and a well-functioning capital market, the Chinese government cannot fully transfer its ownership to private hands. Therefore, the government can exert influence in firms both directly through the ownership of shares in firms and indirectly through its imprint during the founding of business group firms.

The presence of the state logic is embedded in society and will affect the likelihood of organizational change, not because of a set of written laws but because of the widespread set of shared beliefs on how firms are to behave. Past studies suggest that historically rooted logics invisibly generate resistances for organizational change and new strategy adoption (Fiss and Zajac, 2004; Lounsbury, 2007; Marquis and Lounsbury, 2007). Newman (2000) discusses the relationship between the extent of institutional change and likelihood of organizational

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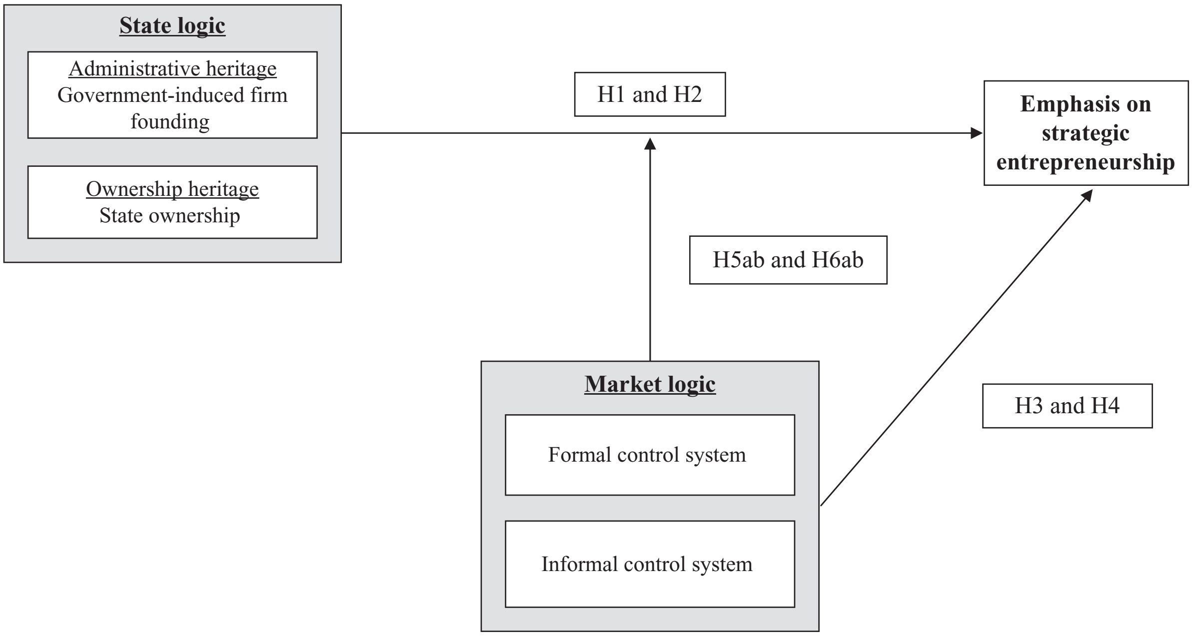

Figure 1. Dueling institutional logics and emphasis on strategic entrepreneurship in business group firms

transformation in a transition economy. She suggests that firms associated with the old institutional order will experience less change since informal institutional logics are subject to strong inertia, causing the system to implement the new logic slowly (Dacin, Goodstein, and Scott, 2002; Oliver, 1992). Applying this line of reasoning in explaining variations in firms' emphasis on strategic entrepreneurship, we argue that firms that are subject to stronger state embeddedness and control have a greater likelihood of not responding to the institutional pressures to increase the emphasis on strategic entrepreneurship. A firm's embeddedness in the old institutional context not only creates inertia for organizational learning or unlearning, but also creates strategic confusion for organizational transformation (Newman, 2000). In the following section, we examine the effects of the state logic in terms of administrative heritage and state ownership legacy in firms.

Administrative heritage

Administrative heritage refers to an organization's way of doing things that is shaped by its founders and leaders and its organizational history (Bartlett and Ghoshal, 1989). The founding of a firm leaves an indelible influence on a firm's strategy and structure by imprinting an initial strategic direction and setting constraints on subsequent strategic changes (Stinchcombe, 1965). In China, there can be very complex organizational forms. For example, Delios, Wu, and Zhou (2006) identified 16 different forms of publicly traded businesses in China. These different forms of business are the result of issues such as historical foundation for the business, levels of ownership, and control.

While numerous business forms operate in China, scholars can make some generalizations about member firms in business groups. One key issue that impacts member firms is how they became associated with the business group. In China, a common way that firms can become associated with a business group is through administrative restructuring induced by various levels of the government (Keister, 2000). Government-induced founding includes the conversion of state-owned enterprises (SOEs) into affiliate firms of a business group by conveying government licenses to a private party to operate the firm or by transferring an existing industrial bureau into a business group so that all entities under the bureau become affiliate firms of the group (Yiu *et al.*, 2005). For example, the Shougang Enterprise Group is a merger that the government encouraged among 13 industrial ministries in the steel sector. In such government-induced business groups, the administrative hierarchy of the former state-owned

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enterprise or industrial bureau remains largely the same once the unit becomes part of the business group.

As a result of this residual leadership, firms founded by government administrative means are more likely to inherit a socialist redistributive government mind-set, since the leaders and their 'ways of doing things' seldom change once the firms become part of the business group (White *et al*., 2008). This situation results in compliance when government officials ask the better-performing member firms in a business group with government legacy to still acquire, or redistribute, their profits to subsidize poorly performing member firms in order to maintain sufficient employment opportunities or to achieve other social welfare objectives (e.g., funding local schools or healthcare). But such requests encumber the member firms' resources and incentives for strategic entrepreneurship. Accordingly, we expect that:

Hypothesis 1: State-induced firm founding is negatively related to the emphasis on strategic entrepreneurship of member firms in a business group.

State ownership legacy

Another key element scholars can observe in a wide swath of member firms in a business group is the holding of ownership shares by the state. In China, governmental units continue to hold ownership stakes in a firm after such a firm transforms from previous government bureaus or state-owned enterprises. There are few opportunities in the external capital market for government to transfer ownership to private parties. Also, due to more rigorous budget constraints since the economic transition, government-owned enterprises have become vehicles for local governments, in the absence of asset markets, to cash in the value of land under their control (Naughton, 1994). For these reasons, government continues to retain a significant amount of ownership stakes in enterprises.

However, state ownership may decrease a firm's pursuit of strategic entrepreneurship. First, compared to privately owned companies, government-owned enterprises are subject to more opportunistic behaviors of managers and government officials, who may extract value from the firm in excess of what they put in, as these enterprises are both owned by and affiliated with the government (Jefferson, 1998). Such opportunistic behavior may put a firm's long-term entrepreneurial growth at risk. Second, government tends to place more emphasis on non-profit goals, such as provisions for social welfare and employment opportunities (Boycko, Shleifer, and Vishny, 1996), and provide weak incentives for employees with respect to cost reduction and quality innovation (Shleifer, 1998). Past literature has found a negative relationship between government ownership and market-to-book value, an indicator of shareholder value (Thomsen and Pedersen, 2000), and a negative relationship between firm innovative activities and state ownership (Antoncic and Hisrich, 2003). Accordingly, we expect that:

Hypothesis 2: State ownership is negatively related to the emphasis on strategic entrepreneurship of member firms in a business group.

Market logic: new institutional focus

During a period of institutional friction, a new institutional logic pushes the firm in new directions. In China, one form of new logic stresses market orientation. In the subsections that follow, we will examine how the new market-oriented institutional logic institutionalized in business groups encourages strategic entrepreneurship in group affiliates. We specifically focus on two types of mechanisms: formal and informal systems in a business group (Thornton, 2002).

Business group formal control

A main objective of the Chinese government in the formation of business groups is to transform SOEs into globally competitive firms (Yiu, 2011; Yiu *et al*., 2005). Market-based incentives are one key means of reshaping such firms. Thus, an important task in the formation of business groups has been to design effective formal management structures and budget mechanisms. Formal control, like budgets, employs objective criteria, such as return on investment, to evaluate a subsidiary manager's performance (Hoskisson and Hitt, 1988) and, as such, serves as a formal micro-level institution that shapes affiliate firm behavior in a business group.

The logic for market-oriented firms is supported through the establishment of control systems that allow firms to judge behaviors more accurately and, as a result, generating pressures within the business group for affiliate firms and the overall group to meet the established criteria in order to maintain the legitimacy of the organization. The metrics establish expectations about what is normal and should occur. In China, the metrics focused on creating competitive production and market efficiency (Simons, 1994). Budget control helps achieve a higher degree of fiscal discipline, encourages a more effective capital allocation process, and creates incentives for affiliate firm managers to engage in more strategic entrepreneurial activities. We build this argument while acknowledging that if one examines the control literature, financial controls, as a form of formal controls, have shown a dampening effect on strategic entrepreneurial behavior (Hitt *et al*., 1996; Morris *et al*., 2006). However, from an institution-based view in a transition economy, where financial controls are typically new formal controls, we argue they will have a different impact.

In such a setting, organizations implement the change hoping to move the strategic orientation from social welfare to market competitiveness. The institutional perspective posits that one of the central goals of an organization is to obtain legitimacy. Explicit rules create both structures and symbolic actions that indicate what is valuable to the organization (Bates and Hennessy, 2010). Such rules and structure act to encourage the firm to conform to the desired institutional logic (Sauder and Espeland, 2009). Historically, the control literature focuses on mature economies where firms' overemphasis on control can shorten the managerial time horizon. In a transition economy, we argue that such formal controls can help introduce a market orientation and, thus, do not create a late-stage overemphasis on financial controls. Accordingly, we expect that:

Hypothesis 3: The use of formal control within a business group is positively related to the emphasis on strategic entrepreneurship of member firms in the business group.

Business group informal control

As noted in the previous hypothesis, a firm's control systems reflect the formal logics that exist in an organization at a micro level. In contrast, the taken-for-granted modes of behavior occur from the beliefs of the organization, which come, in turn, from the socialization of the individuals in the organization (Westphal and Zajac, 2001). Such socialization comes through the interaction among participants, with individuals implicitly being coerced into accepting the taken-for-granted modes of behavior in order to attain the psychic rewards from the organization (Fogarty and Dirsmith, 2001).

Informal beliefs are less visible to external constituents but no less critical to the institutional change process (Fogarty and Dirsmith, 2001). In large measure, they are less critical because these beliefs and values help create a system of self-regulation with a feedback process diffused across participants (Larson, 1992). Such common beliefs can have important impacts on the organization, such as facilitating the institutionalization of new strategic and entrepreneurial practices, particularly when affiliate firms have a different history and background (Oliver, 1992). Similarly, such common beliefs can help encourage knowledge acquisition, knowledge exploitation, and risk taking among firms in the network, which then leads to more firm innovations (Larson, 1992; Tsai and Ghoshal, 1998; Yli-Renko, Autio, and Sapienza, 2001). Therefore, common beliefs in the business group can help effectively bind the firms in the business group together and shape the strategic mind-sets of the affiliate firms toward enhanced strategic entrepreneurial intensity (Yiu *et al*., 2007). Accordingly, we expect that:

Hypothesis 4: The use of informal control within a business group is positively related to the emphasis on strategic entrepreneurship of member firms in the business group.

Interactions between dueling logics

The process of promoting strategic entrepreneurship in transition economies is challenging, as a mixture of dueling logics occurs concurrently during a period of institutional friction. Therefore, we further examine the interactions between the dueling logics.

Scholars characterize institutionalization as a process in which institutions shape organizational actions such that over time the actions become the standard (Tolbert and Zucker, 1996). New organizational practices are not equally institutionalized because this process depends on how such new practices are encoded in members of the collective, while encoding depends on both the development of the values underlying new practices as well as formalizing sanction or reward systems for those practices. Also, scholars have recognized the key influence agency can have on micro-institutions (Hargrave and Van de Ven, 2009). Our examination of the interaction effects allows us to distinguish among the

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agency effects (that is, the institutional discretion possible among affiliate firms in a business group) between the dueling forces.

The formal institutional structures implemented by large business groups traditionally follow a top-down approach and, as such, tend to be coercive and mimetically copied by affiliate firms because they must either comply or face adverse consequences from the business group headquarters. Accordingly, we argue that due to their power to set rules, monitor activity, and enforce compliance (Wicks, 2001), formal controls do not allow as much room for agency or choice by affiliate firm decision makers. However, when institutional legacy or institutionalization of past practices is high in affiliate firms, new organizational practices (such as strategic entrepreneurship) that deviate too much from the previous regime would render such practices as 'illegitimate,' causing rigidity and a loss of creativity and flexibility that would allow these firms to react to the new institutional demands (Vermeulen, Van Den Bosch, and Volberda, 2007; Volberda, 1996). In other words, when founded or owned at higher levels by the state, firms may not benefit from the positive effects of formal organizational controls on strategic entrepreneurship.

Similarly, the effectiveness of adopting the logic of strategic entrepreneurship also hinges on the change in the cognitive frame of the leaders associated with former state-owned monopolies and on the influence of state ownership. Enactment of new practices requires the conscious choice of members to encode the institutional principles and internalize the values underlying such principles (Barley and Tolbert, 1997). Informal control and social adaptation associated with such control allow for more agency or discretion in regard to institutional change and, thus, more bottom-up possibilities toward strategic entrepreneurial behavior by affiliate firms. Vermeulen and colleagues (2007) support this argument and explain that informal controls backed by normative and cognitive institutional forces interact such that a shared system of meaning can arise within a group. Past studies found that successful implementation of innovations are facilitated by discarding formal rules, sharing the identity and goals of the organization, and changing perceptions to value risks as part of the game (Vermeulen *et al*., 2007). However, such implementation would be difficult if there is strong legacy resulting from founding and continued state ownership effects. Therefore, to successfully institute new practices, it requires a disassociation with historical contexts so that members can more completely identify with the new organizational goals such as an increased focus on strategic entrepreneurship (Barley and Tolbert, 1997). Taken together, we argue that the effectiveness of informal controls on strategic entrepreneurship will be weakened by the continuing presence of state legacy.

Accordingly, we expect that:

Hypothesis 5a: The positive effect of the business group's formal control on the emphasis on strategic entrepreneurship of its member firms is weaker if the firm was founded by the state than if it was not.

Hypothesis 5b: The positive effect of the business group's informal control on the emphasis on strategic entrepreneurship of its member firms is weaker if the firm was founded by the state than if it was not.

Hypothesis 6a: The positive effect of the business group's formal control on the emphasis on strategic entrepreneurship of its member firms is weaker as the level of state ownership increases.

Hypothesis 6b: The positive effect of the business group's informal control on the emphasis on strategic entrepreneurship of its member firms is weaker as the level of state ownership increases.

METHODS

Sample

China is the empirical setting for this study. In part, we chose this nation and a specific period of time since we wanted to ensure that we had a period of institutional friction during which we expected to find a potential conflict between emergent institutions encouraging strategic entrepreneurship and those still creating pressure for maintenance of the status quo. As a result, we looked to a period—1999—in which the establishment of business groups had begun, but was not secure.

In our sample, we employed the definition of business groups used by the Chinese government (the National Statistics Bureau). That is, a business group consists of legally independent entities partly or wholly owned by a parent firm and registered as affiliated firms of that parent firm. We targeted 1,250 firms, which represented five-member firms from each of the largest 250 business groups in our sample.[1] Such a large sample allows us the opportunity to cover a broad range of industries. In fact, the sample consists of firms covering 29 states and six major Chinese industrial sectors (agriculture and architecture, transportation and telecommunication, manufacturing, wholesale and retailing, property and real estate, and conglomerate). We examine the larger business groups in the nation, as they allow a stronger test of the theory proposed. Given that business groups in China contribute close to 60 percent of China's industrial output (Yiu, 2011), we expect that large business groups will have a more significant impact on strategic entrepreneurial activities across the entire country. Additionally, because large diversified firms are likely to implement internal control systems, the larger-sized business groups allow us to test the effects of group control systems. In this sample, we include the top 250 business groups; however, the size (in terms of three-year average total assets) of affiliate firms ranged from very small (less than 0.3 million RMB) to very large (more than 30 billion RMB). As noted, the analysis of this study is at the member firm level.

Data collection

We collected the data with the help of China's National Statistics Bureau, which is increasingly engaging in contract research similar to our independent survey. To ensure data quality and reliability, we employed several procedures. First, as there are typically no extensive published data in transition economies like China, we collected archival and perceptual survey data at both the business group and the member firm levels. The archival survey focuses on collecting firm accounting and financial information, which the surveyed firms report annually to the Statistics Bureau. However, our surveys are independent of the Statistical Bureau's annual data collection efforts. The perceptual survey, provided by the top managers of the surveyed firms, focused on collecting strategy and control information. As a policy, we collected data from different surveys filled out by different individuals to lessen the possibility of a common method variance problem and reduce potential respondents' bias.

Second, we took several actions in administering the questionnaires to help ensure data quality and reliability. We translated and back translated the questionnaires to eliminate measurement errors due to language differences. A pilot study tested the questionnaires with a group of Chinese managers before launching the large-scale distribution of the survey. We surveyed the five largest member firms of each business group since group controls would likely have the most influence on these firms, and the use of multiple informants from each group allowed information triangulation. Following James, Demaree, and Wolf (1984), interrater reliabilities, R_{WG}, of the measurement scales of member firms' perceptions about their business groups were above 0.7, indicating satisfactory interrater agreement.

Third, nonresponse bias is minimal; there is a 91 percent response rate. We received a total of 1,172 questionnaires from the member firms. After cases with missing information were deleted, the final sample size was 1,095. Contracting with a government agency, the Enterprise Survey Organization of China's National Statistics Bureau, to collaborate in the data collection facilitated a high response rate. One of the coauthors flew to the Beijing headquarters to coordinate and supervise the data collection process. Regarding the data collection procedure, local branches of the Enterprise Survey Organization were in charge of distributing and collecting the survey data, while the Beijing headquarters was in charge of auditing the data collection process and conducting follow-up phone interviews to validate the information reported by the sample firm managers. Also, because the National Statistical Bureau is the repository for firm-level official performance reporting purposes, the opportunity for this agency to validate the data helped to ensure the accuracy of the information.

Finally, to help ensure data quality and reliability, the survey was sent out in 1999, and responses were received within a two-month period. The data collection efforts were appropriately timed to capture the institutional and business group effects, because China's economic reform entered the transition stage where China gradually phased out old institutions and introduced new ones in 1994 (Qian, 2000); by

[1] The sample consists of group-affiliated firms only. Most independent firms in China are smaller start-up firms. However, we included ownership shares held by foreign joint venture partners as a control variable in the empirical model to control for effects that might be similar to independent firms, which are largely nonexistent at the enterprise level that we analyze at the particular stage of China's economic development. Keister's (1998) study on China's business groups also included group-affiliated firms only.

1996, most Chinese business groups had already been formed (China Economic Yearbook, 1997).

Measures

The measurement items came from four different surveys: archival and perceptual surveys at the group level and archival and perceptual surveys at the member firm level. Most importantly, the archival and perceptual surveys were filled out by different respondents to minimize the concern for common method variance bias. In general, firm demographics and performance data were provided by a firm's chief accountant, while perceptual questions regarding business group control and strategy were answered by the CEO or top executives. To further mitigate the concern for common method variance, we included interaction terms in the empirical model because respondents were unlikely to be guided by a cognitive map that included difficult-to-visualize interaction effects (Chang, Witteloostuijn, and Eden, 2010). A *post hoc* Harman one-factor analysis was conducted and showed that variance in the data was not attributed to a single factor (Podsakoff and Organ, 1986).

Dependent variable

Emphasis on strategic entrepreneurship

Scholars have recognized that a key aspect that summarizes much of strategic entrepreneurship is corporate entrepreneurship (Hitt *et al*., 2001). Therefore, as our dependent variable, we employ increasing levels of corporate entrepreneurship to operationalize strategic entrepreneurship. Specifically, we measure four dimensions: (1) expenditures on R&D; (2) investment on plants and equipment; (3) number of new products introduced to markets; and (4) expenditures on new market development. R&D expenditure is a major predictor of a firm's involvement in innovative activities (Zahra and Covin, 1995). Investment in equipment is a measure of technological innovativeness (Lumpkin and Dess, 1996), without which technological improvements for new ideas would lie fallow (cf. DeLong and Summers, 1991). Number of new products introduced to markets and expenditures on new market development measured the extent of product-market innovations (Zahra, 1996). In the perceptual survey at the member-firm level, we employed a seven-point scale to measure the four items (from 'decreased' to 'increased') indicating the average change in the emphasis on the four kinds of expenditures over the last three years. Because these scale items were highly intercorrelated, we made sure to combine them rather than examine them as separate dependent variables. The Cronbach's alpha of the scale is 0.81.

Independent variables

Government-induced administrative heritage

Taken from the member firms' perceptual survey, this measure is a dummy variable such that a value of '1' indicates the member firm was founded through government declaration and '0' indicates that the member firm was founded through more voluntary means.

State ownership legacy

Taken from the group archival survey, this is measured by the total percentage of ownership shares held by various levels of government in the business group.

Business group formal control

This is a perceptual measure of how member firms' managers view the formal controls implemented by the parent firm in their respective business groups. We adopted this scale from Hill, Hitt, and Hoskisson (1992). The formal control scale, in the format of a seven-point response scale, measures the extent to which a business group adopts a formal mechanism, such as evaluating member firms' performance by objective measures including: (1) return on assets, (2) profit, (3) sales, and (4) sales growth. The Cronbach's alpha of the formal control scale is 0.82. This scale is different from a firm performance scale, as the objective is to measure the extent to which member firms' behaviors are homogenized by a common objective standard that, in this case, refers to financial performance evaluation criteria set by the business group parent.

Business group informal control

This refers to the extent that member firms within a business group adopt informal controls, such as socialization and the establishment of trusts and common values for collective interests of the business group. We developed a scale that consisted of six items: (1) participate in social activities with

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other managers from member firms in the business group; (2) maintain trusting relationships within the group; (3) maintain cordial relationships with other managers in the group; (4) maintain the member firm's reputation in the group; (5) support each other, even sacrificing one's unit benefits and supporting other units to achieve goals; and (6) comply with a strong group culture. Taken together, the six items measure the extent to which business group members internalize values and beliefs in informal ways. The Cronbach's alpha of the scale is 0.82.

Control variables

Member firm level

We controlled for four variables at the member firm level that have effects on strategic entrepreneurship in past studies. They include firm size, measured by the logarithm of total assets and the logarithm of number of employees; relative firm performance, measured by the return on assets (ROA), return on equity (ROE), and return on sales (ROS) relative to the principal competitors in the industry (Chaney and Devinney, 1992); current ratio, measured by current assets divided by current liabilities; and firm age measured by subtracting the founding year of the firm from 1999 (Sorensen and Stuart, 2000*)*. We expect firm size to have a negative relationship with strategic entrepreneurial intensity (Zahra, 1996). Current ratio and firm performance are indicators of slack resources available for firm expansion and R&D (Hitt *et al*., 1996; Zahra, 1996). Also, the competitive environments of different industries may vary a great deal in a transition economy where some industrial sectors are still under government protection and, thus, have less need for engaging in strategic entrepreneurial activities. For these reasons, we control for industry effects by including 13 industry dummies according to the industrial classification of China's Securities and Regulatory Commission (CSRC).

Business group level

We included four variables at the business group level to control for business group effects on the increases in the emphasis of member firms' strategic entrepreneurship. The variables are: (1) group's product diversification measured by the entropy measure (Palepu, 1985); (2) group's geographic dispersion (measured by a geographical code count); and (3) group performance (a perceptual measure of group ROA). Group product and geographic scope, and group performance are proxies for the amount of resources available for member firms' strategic entrepreneurial activities. In addition, many Chinese firms have alliances with foreign partners to gain access to market-oriented capabilities (Yiu, Lau, and Bruton, 2007). The potential impact of such alliances led us to utilize ownership percentage owned by foreign venture partners as an additional control variable, and we also consider this factor as a proxy control for firms being more independent of a business group.

RESULTS

Descriptive statistics

Table 1 presents means, standard deviations, and correlations of the variables. The individual variance inflation factors (VIF) range from 1.03 to 1.86, and the average VIF is 1.26, which is far below the commonly accepted VIF of 10 (Cohen *et al*., 2003; Neter, Wasserman, and Kutner, 1989). Therefore, we are confident that the threat of multicollinearity is minimal.

Results of hypotheses tests

Table 2 presents the regression results related to the hypotheses. We input the control variable in Model 1. The state legacy variables are added in Model 2, while business groups' formal and informal control variables are shown in Model 3. Model 4 contains all the control and hypothesized variables. Finally, interaction terms are added hierarchically in Models 5 to 7.

Hypotheses 1 and 2 predict that state's administrative heritage and state ownership legacy are negatively related to the emphasis on strategic entrepreneurship of member firms in a business group. In Model 2 and Model 4 of Table 2, the coefficients of firms' government-induced founding and state ownership are negative ($p < 0.10$ and $p < 0.01$, respectively). Thus, our findings marginally support Hypothesis 1 and support Hypothesis 2. In regard to the institutional change effects of business groups, Models 3 and 4 show that both formal and informal controls have positive effects on member firms' emphasis on strategic entrepreneurship, as indicated by the positive and significant coefficients of formal control and informal control ($p < 0.001$ and $p < 0.05$, respectively). Therefore, both Hypotheses 3 and 4 are supported. There is a concern that the use of

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Table 1. Descriptive statistics and correlations

	Variable	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13
1.	Emphasis on strategic entrepreneurship	5.026	1.351													
2.	No. of employees (ln)	6.374	1.867	0.152												
3.	Total assets (ln)	9.867	1.996	0.114	0.642											
4.	Firm age	13.769	16.317	–0.031	0.282	0.123										
5.	Firm performance	4.567	1.588	0.461	–.060	0.015	–0.123									
6.	Current ratio	2.996	18.776	–0.002	–0.059	–0.020	–0.044	0.057								
7.	Group product diversification	0.806	0.506	0.045	0.086	0.133	0.134	0.006	–0.024							
8.	Geographic diversification	1.661	1.112	–0.034	0.093	0.094	0.052	–0.019	–0.026	–0.057						
9.	Group performance	4.687	1.667	0.122	–0.090	–0.053	0.111	0.174	0.040	0.027	–0.098					
10.	Foreign ownership	0.062	0.122	0.096	–0.066	–0.036	–0.070	0.075	0.019	0.093	–0.136	0.050				
11.	State-induced firm founding	0.342	0.475	–0.071	0.128	0.105	0.109	–0.058	0.016	–0.021	0.119	–0.088	–0.088			
12.	State ownership	0.705	0.343	–0.152	0.088	0.009	0.141	–0.082	–0.009	–0.083	0.148	–0.196	–0.456	0.172		
13.	Formal control	5.803	1.299	0.242	0.073	–0.007	0.045	0.112	–0.101	0.040	–0.093	0.085	0.061	–0.002	–0.038	
14.	Informal control	4.995	1.366	0.188	–0.042	–0.074	–0.042	0.175	0.041	–0.044	–0.094	0.106	0.091	–0.027	–0.045	0.411

N = 1,095.
All correlations > 0.06 are significant at the 0.05 level (two tailed).

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Table 2. Regression models

Dependent variable: Emphasis on strategic entrepreneurship	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Control variables							
Firm level:							
No. of employees (ln)	0.102**	0.105**	0.090**	0.093**	0.097**	0.091**	0.095**
Total assets (ln)	0.031	0.029	0.040	0.037	0.035	0.038	0.036
Firm age	–0.002	–0.002	–0.003	–0.002	–0.002	–0.002	–0.002
Firm performance	0.383***	0.377***	0.361***	0.355***	0.353***	0.352***	0.352***
Current ratio	–0.001*	–0.001*	–0.000	–0.000	–0.000	–0.001	–0.000
Business group level:							
Group product diversification	0.044	0.031	0.038	0.023	0.026	0.019	0.020
Geographic diversification	–0.011	–0.001	0.006	0.017	0.015	0.017	0.016
Group performance	0.029	0.016	0.019	0.005	0.004	0.006	0.005
Foreign ownership	0.277	–0.166	0.184	–0.288	–0.306	–0.252	–0.263
Industry dummies	included	included	included	included	included	included	included
Independent variables							
State-induced firm founding		–0.117†		–0.118†	–0.119†	–0.113†	–0.116†
State ownership		–0.357**		–.0380***	–0.376***	–0.380***	–0.374***
Formal control (FC)			0.145***	0.146***	0.205***	0.151***	0.205***
Informal control (IC)			0.053*	0.054*	0.053*	0.058*	0.057*
Firm founding X FC					–0.182**		–0.173**
Firm founding X IC					0.015		0.009
State ownership X FC						–0.168*	–0.124†
State ownership X IC						0.107	0.113†
Model R^2	0.295	0.304	0.321	0.330	0.337	0.333	0.338
Adjusted R^2	0.281	0.288	0.306	0.315	0.320	0.316	0.320
Model F statistic	21.37***	20.19***	22.01***	21.00***	19.96***	19.63***	18.69***

N = 1,095 Entries represent standardized regression coefficients. ***$p < 0.001$, **$p < 0.01$, *$p < 0.05$, †$p < 0.10$.

formal and informal controls may be endogenous. We performed a test of endogeneity using a two-step procedure with level of group centralization (measured by a response scale on the extent to which business activities within the business group is centralized at the group parent) as the instrument for the firm's decision to adopt formal and informal controls. Past research found that centralized structures facilitated the use of formal output control, while decentralized structures fit better with the use of informal behavioral control (Ouchi, 1977). The Durbin-Wu-Hausman test fails to reject the null hypothesis that the instrument is not necessary, suggesting that formal and informal controls can be considered as exogenous in our regression estimation (Bascle, 2008; Cameron and Trivedi, 2010).

Models 5 and 6 present the results of the interactions between the dueling logics. Hypotheses 5a and 5b predict that the positive effects of formal and informal controls on the member firm's emphasis on strategic entrepreneurship will be weakened by government founding. As shown in Models 5 and 7, the coefficient of the interaction term, formal control X government founding, is negative and significant at the 0.01 level. To further the analysis, we also plotted the interactions. As Figure 2a shows, the positive relationship between formal control and strategic entrepreneurship is less positive in member firms founded by the government than those that were not founded by the government. As such, our findings support Hypothesis 5a. However, we did not find significant results for the interaction between

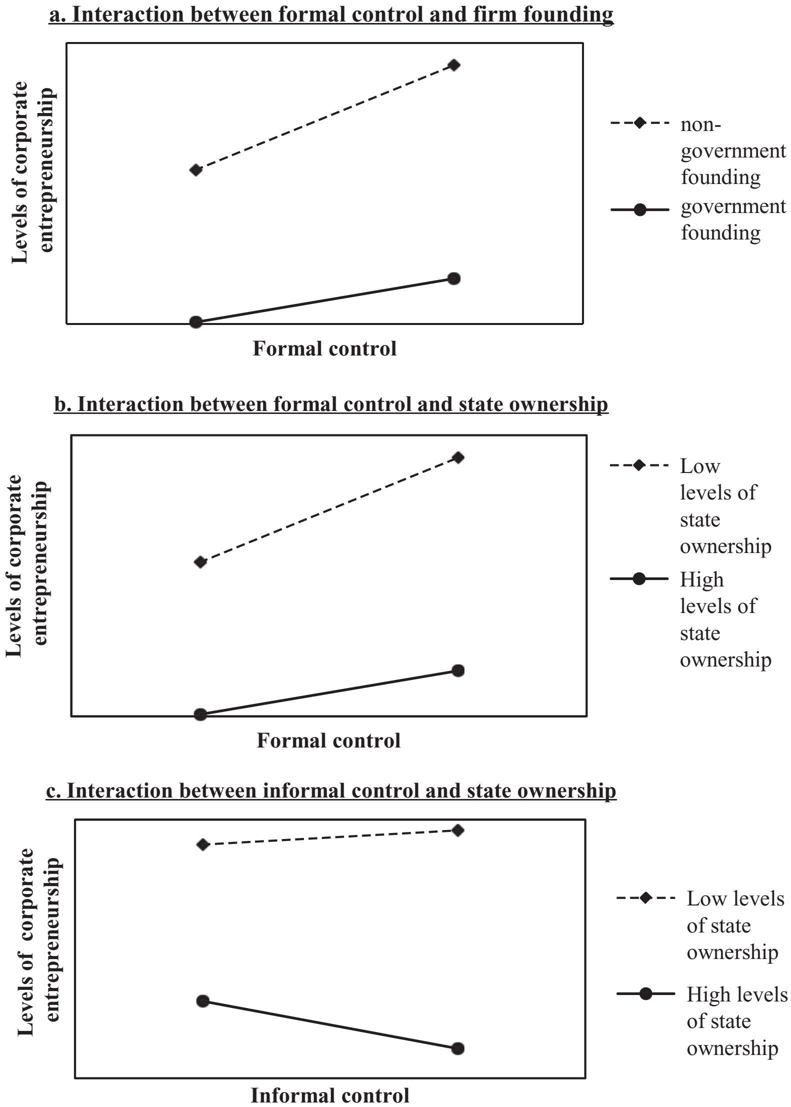

Figure 2. Interaction plots

government founding and informal control. So, Hypothesis 5b is not supported.

Finally, Hypotheses 6a and 6b predict that the positive effects of formal and informal controls on the member firm's level of strategic entrepreneurship will be weakened by state ownership. Models 6 and 7 show that the coefficients of the interaction term (formal control X state ownership) is negative ($p < 0.10$) and that of informal control X state ownership is positive ($p < 0.10$). As illustrated by Figure 2b and Figure 2c, the relationship between formal control and strategic entrepreneurship becomes less positive as state ownership increases. In regard to informal control, its effect on strategic entrepreneurship is positive at lower levels of state ownership and becomes negative at higher levels of state ownership. Therefore, Hypotheses 6a and 6b both receive marginal support.

To conclude, we find significant main effects from those lower-level institutions underpinning the logic of state control of business (government founding and government ownership) on the strategic entrepreneurship of the firm. In addition, we find that the logic that pushes greater market orientation associated with business groups' introduction of both formal and informal controls also impacts the strategic entrepreneurship of member firms. Looking at the interactions, state-induced founding plays a significant moderating role in the relationship between formal control and the emphasis of the member firms' on strategic entrepreneurship, indicating the significance of historical roots of state-controlled firms. Compared to state founding, the moderating effects of state ownership are only marginal. We will discuss the potential explanations in the next section.

DISCUSSION AND CONCLUSION

This study examines how business groups in transition economies respond to conflicting institutional logics at a time of institutional friction for a greater or lesser emphasis on strategic entrepreneurship as a new organizational practice. The foundation for this examination is the institution-based view. This theoretical view allows us to deepen the understanding about the variation of firms' adoption of strategic entrepreneurship with the presence of dueling institutional pressures. The institution-based view, in turn, allows us to engage in discussion regarding public policy implications as Barney (2005) suggests. Improved understanding of such public policy issues, such as how nations encourage the transition to market economies, remains critical. The evidence in our study suggests that nations, no matter their intentions, cannot ignore the historical embeddedness of their settings. Scholars cannot assume that strategic entrepreneurship is present and functions in transition economy contexts where there are conflicting institutional logics acting for and against firms' efforts to increase their emphasis on strategic entrepreneurship. The dueling logics present in business groups in China lead to variations in the emphasis on strategic entrepreneurship among member firms in the business groups. Thus, we also extend the institution-based view by showing that heterogeneous strategic outcomes may result from firms' strategic choices during periods of institutional friction.

In particular, our findings demonstrate that lower-level institutions of embedded government founding and state ownership constrain firms from enacting strategic entrepreneurship. Concomitantly, change efforts to encourage a new market orientation through business groups' formal controls and informal controls facilitate and reorient member firms to encode the values for and enact strategic entrepreneurial behaviors. We further find that the positive effects of formal controls on strategic entrepreneurship are attenuated by both government founding and state ownership, while the effects of informal controls on strategic entrepreneurship turn from positive to negative as the level of state ownership increases.

More specifically, during the period of institutional friction of our study, we find that the embedded state logic has a strong negative impact on business group firms to increase their emphasis on strategic entrepreneurship. These findings are consistent with the view that firms are more likely to change their institutional logic when there are actors who hold power in the organization and who are vested in the old institutional logic (Westphal and Zajac, 2001). Our results show that firm founding continues to influence organizations through political embeddedness or close political ties between the government and firms it founded, and cognitive embeddedness or the founder's (government) philosophy (Eden and Spender, 1998).

The effect of the state logic is stronger in the form of continued state shareholding, as compared to that of firm founding. Our findings indicate that state ownership negatively affects a firm's emphasis on strategic entrepreneurship in a business group, and such negative effects continue at higher levels of state ownership even in the presence of a business group's formal and informal control systems. This finding supports the view that powerful organizational actors, in our case the state owner who retains a substantial portion of shares in business group firms, are likely to favor a symbolic response to the actual adoption of new organizational practice to meet new institutional demands that may have conflict with their interests (Oliver, 1991; Westphal and Zajac, 2001). Recently, literature has pointed out that there are different forms of state ownership in the transition economy of China (Delios *et al*., 2006). To further examine the effects of state ownership, we ran additional models by bisecting state ownership into absolute state ownership (directly controlled by central and local governments of China) and collective ownership (ownership held by collective enterprises that are smaller-sized marketized firms owned by the collectives that are ultimately owned by a local state government) (Nee, 1992; Walder, 1995). We found that state ownership continued to negatively affect the emphasis on strategic entrepreneurship among member firms ($p < 0.05$), while collective ownership had a positive relationship with the emphasis on strategic entrepreneurship ($p < 0.01$). Future research may further examine the various forms of state shares on firms' adoption of market practices to provide a more comprehensive understanding of state ownership.

Our findings also provide support that both formal and informal control systems of the business group help encourage conformity among member firms to engage in more market-based economic activities, such as strategic entrepreneurship. We provide evidence that institutionalization of new organizational practices varies among organizations because actors respond to institutional pressures differently (Sauder and Espeland, 2009). In particular, we find that the use of formal controls is effective in the business group to increase its members' emphasis on strategic entrepreneurship. This finding is interesting because the use of objective, formal evaluation systems in more developed institutional settings have been found to disincentivize managers to engage in risky and long-term strategic entrepreneurial behaviors (Hoskisson and Hitt, 1988). However, in a transition economy context, where information asymmetry is high and business group membership is selective, a more formal, disciplinary power-based evaluation system serves to simplify and stratify information about the performance of member firms, which provides incentives for member firms to enact a new institutional demand (Sauder and Espeland, 2009). Although the effects of formal controls are attenuated by government founding and state ownership, we find that formal controls still have a positive relationship with strategic entrepreneurship in firms founded by the government and those with higher levels of state ownership. This finding indicates that formal controls effectively shift the institutional logic of business group member firms to increase their emphasis on strategic entrepreneurship. Accordingly, business groups can become an institutional actor to facilitate strategic entrepreneurship, even in the face of powerful logics associated with government legacy effects, if effectively implemented.

Although informal controls have positive impacts on firms to increase their emphasis on strategic entrepreneurship, the effects depend on the context. In our study, we find that state ownership negatively moderates the relationship between informal controls and strategic entrepreneurship. As shown in Figure 2b, the relationship between informal controls and strategic entrepreneurship turns from positive to negative as the levels of state ownership increase. Although the level of significance is only marginal, such a finding points to the unique nature of the institutional friction stage that was occurring in China during the study period; that is, when the newly formed business groups were still owned and controlled by the state with a more socialist mind-set (White *et al*., 2008). Because of the deeply embedded mind-set in the pre-transition regime, the internalization of values and beliefs about strategic entrepreneurship in firms with high state ownership would take longer to be effective.

Taken together, our interactive relationship results provide insights into transformed SOEs or business groups in transition economies such as China. During the enterprise reform in China, the government aimed to introduce various incentive systems to improve the productivity and performance of the former SOEs or business group firms. However, our study indicates that while the implementation of both formal and informal controls has positive main effects on the emphasis of strategic entrepreneurship, such effects are attenuated in firms with state legacies. As such, managers and policy makers of SOEs need to be cautious about the consistency between the institutionalization of new organizational practices and governance and control of the firms. Although the use of formal controls that rely on structuration to sanction and set norms for appropriate behaviors may be more effective in the short run, for long-term effectiveness, a supportive cultural change for an emphasis on strategic entrepreneurship is needed.

Theoretically, the results provide two key insights. First, we contribute to a deeper understanding of an institution-based view of strategic entrepreneurship by suggesting more clearly how dueling logics can simultaneously operate to influence strategic entrepreneurial activities. While scholars have pointed to a need for greater understanding of public policy issues by management researchers (Barney, 2005), the use of the institution-based view allows us to specifically examine the role of government, particularly the logic of government that still permeates many aspects of transitional economies. Second, our focus on the organizational mechanisms in institutionalizing new organizational practices such as strategic entrepreneurship demonstrates the recursive relationships between institutions and organizational actions. In this regard, we are able to explain variations of the adoption of strategic entrepreneurship among firms formed to achieve such objectives in transition economies.

Transition economies are a significant part of the world economy. However, forward economic movement in such nations will require a greater understanding of strategic entrepreneurship in former state enterprises. This research has helped lay the foundation for a greater understanding, but more research is still required. For example, at the early stage in the reforms when this research was undertaken, there was not as much ownership variety as at a later stage of market institutional development. In an ideal setting, it would be preferable to have a very large sample in which we could have more fine-grained analysis of different types of firms. Compared to the time frame of this study, currently there is a larger range of firm types in China. Delios *et al*. (2006) identify at least 16 different categories of firms based on different formats of government and private ownership. The ability to understand the impact of these categories of firms on strategic entrepreneurship and the roles of these dueling forces in each would be insightful. Our study's sample size and the nature of the data do not allow it. However, we acknowledge the desirability of such investigations as a future research topic. Additionally, the discipline needs to better understand how nations beyond China have pursued restructuring of former state enterprises (Filatotchev *et al*., 2003). The field needs to develop a richer institution-based view as an additional theoretical perspective on strategic entrepreneurship (Bruton, Ahlstrom, and Li, 2010).

Longitudinal studies are indispensable for exploring how the institutional logics ebb and flow over time as the institutional transition progresses. For example, initial attempts at institutional change as exampled in our study create a period of institutional friction where there are countervailing forces, as we hypothesized. As privatization continues and a variety of different ownership types evolve, future research can adopt a larger sample over a longer time span for investigating strategic entrepreneurship in these evolving organizational forms. Besides, employing longitudinal methodology in future research could provide greater insight on the impact of the incremental approach to institutional change taken in China versus the Big Bang approach taken elsewhere (e.g., Russia) where more drastic institutional change in a short period of time was attempted (Hitt *et al*., 2004).

CONCLUSION

Focusing on a period of friction when institutions are in transition, this study examines the dueling institutional logics that simultaneously operate in business groups in China. The emphasis on strategic entrepreneurship in transition economies is critical as nations seek to revitalize existing state-owned firms. However, the evidence provided in this study suggests that such efforts must be well thought out and designed. Although both formal systems designed to reward such activities and informal systems to develop new cultures are important in creating the desired strategic outcomes, their effectiveness is hampered by the embedded state logic. We believe that the results of this study provide insights for managers and policy makers in transition economies by highlighting the means and constraints that are available to encourage strategic entrepreneurship.

REFERENCES

Ahuja G, Yayavaram S. 2011. Explaining influence rents: the case for an institutions-based view of strategy. *Organization Science* **22**: 1631–1652.

Amsden AH, Hikino T. 1994. Project execution capability, organizational know-how, and conglomerate corporate growth in late industrialization. *Industrial and Corporate Change* **3**(1): 111–147.

Antoncic B, Hisrich RD. 2003. Privatization, corporate entrepreneurship, and performance: testing a normative model. *Journal of Developmental Entrepreneurship* **8**(3): 197–218.

Barley SR, Tolbert PS. 1997. Institutionalization and structuration: studying the links between action and institution. *Organization Studies* **18**(1): 93–117.

Barney JB. 2005. Should strategic management research engage public policy debates? *Academy of Management Journal* **48**(6): 945–948.

Bartlett CA, Ghoshal S. 1989. *Managing Across Borders: The Transnational Solution*. Harvard Business School Press: Boston, MA.

Bascle G. 2008. Controlling for endogeneity with instrumental variables in strategic management research. *Strategic Organization* **6**(3): 285–327.

Bates K, Hennessy D. 2010. Tilting at windmills or contested norms? Dissident proxy initiatives in Canada. *Corporate Governance: An International Review* **18**(4): 360–375.

Boycko M, Shleifer A, Vishny R. 1996. A theory of privatisation. *Economic Journal* **106**: 309–319.

Bruton G, Ahlstrom D, Li H. 2010. Institutional theory and entrepreneurship: where are we now and where do we need to move in the future? *Entrepreneurship Theory and Practice* **34**(3): 421–440.

Cameron AC, Trivedi PK. 2010. *Microeconometrics Using Stata (MUS)*. Stata Press: College Station, TX.

DOI: 10.1002/sej

Chaney PK, Devinney TM. 1992. New product innovations and stock price performance. *Journal of Business Finance and Accounting* **19**(5): 677–695.

Chang S, Witteloostuijn A, Eden L. 2010. From the editors: common method variance in international business research. *Journal of International Business Studies* **41**(2): 178–184.

Chang SJ, Chung CN, Mahmood IP. 2006. When and how does business group affiliation promote firm innovation? A tale of two emerging economies. *Organization Science* **17**(5): 637–656.

China Economic Yearbook. 1997. Economic Yearbook Press: Beijing, China.

Cohen J, Cohen P, West SG, Aiken LS. 2003. *Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences* (3rd edn). Lawrence Erlbaum: Mahwah, NJ.

Dacin MT, Goodstein J, Scott WR. 2002. Institutional theory and institutional change: introduction to the special research forum. *Academy of Management Journal* **45**: 45–57.

Delios A, Wu ZJ, Zhou N. 2006. A new perspective on ownership identities in China's listed companies. *Management and Organization Review* **2**(3): 319–343.

DeLong BJ, Summers LH. 1991. Equipment investment and economic growth. *Quarterly Journal of Economics* **106**: 445–502.

Eden C, Spender JC. 1998. *Managerial and Organizational Cognition: Theory, Methods and Research*. SAGE Publications: London, U.K.

Filatotchev I, Wright M, Uhlenbruck K, Tihanyi L, Hoskisson RE. 2003. Governance, organizational capabilities, and restructuring in transition economies. *Journal of World Business* **38**: 331–347.

Fiss P, Zajac EJ. 2004. The diffusion of ideas over contested terrain: the (non)adoption of a shareholder value orientation among German firms. *Administrative Science Quarterly* **49**(4): 501–534.

Fogarty T, Dirsmith MW. 2001. Organizational socialization as instrument and symbol: an extended institutional theory perspective. *Human Resource Development Quarterly* **12**(3): 247–266.

Hargrave TJ, Van de Ven AH. 2009. Institutional work as the creative embrace of contradiction. In *Institutional Work: Actors and Agency in Institutional Studies of Organizations*, Lawrence TB, Suddaby R, Leca B (eds). Cambridge University Press: Cambridge, U.K.; 120–140.

Hill CWL, Hitt MA, Hoskisson RE. 1992. Cooperative versus competitive structures in related and unrelated diversified firms. *Organization Science* **3**: 501–521.

Hitt MA, Ahlstrom D, Dacin MT, Levitas E, Svobodina L. 2004. The institutional effects on strategic alliance partner selection in transition economies: China vs. Russia. *Organization Science* **15**(2): 173–185.

Hitt MA, Hoskisson RE, Johnson RA, Moesel DD. 1996. The market for corporate control and firm innovation. *Academy of Management Journal* **39**: 1084–1119.

Hitt MA, Ireland RD, Camp SM, Sexton DL. 2001. Strategic entrepreneurship: entrepreneurial strategies for wealth creation. *Strategic Management Journal* **22**(6/7): 479–491.

Hitt MA, Ireland RD, Sirmon DG, Trahms CA. 2011. Strategic entrepreneurship: creating value for individuals, organizations, and society. *Academy of Management Perspectives* **25**(2): 57–75.

Hoskisson RE, Hitt MA. 1988. Strategic control systems and relative R&D investment in large multiproduct firms. *Strategic Management Journal* **9**(6): 605–621.

James LR, Demaree RG, Wolf G. 1984. Estimating within-group interrater reliability with and without response bias. *Journal of Applied Psychology* **69**(1): 85–98.

Jarzabkowski P. 2008. Shaping strategy as a structuration process. *Academy of Management Journal* **51**: 621–650.

Jefferson GH. 1998. China's state enterprises: public goods, externalities, and Coase. *American Economic Review* **88**(2): 428–432.

Keister LA. 1998. Engineering growth: business group structure and firm performance in China's transition economy. *American Journal of Sociology* **104**(2): 404–440.

Keister LA. 2000. *Chinese Business Groups: The Structure and Impact of Interfirm Relations during Economic Development*. Oxford University Press: Hong Kong, China.

Khanna T, Palepu K. 1997. Why focused strategies may be wrong for emerging markets. *Harvard Business Review* **75**(4): 41–51.

Khanna T, Palepu K. 2000. The future of business groups in emerging markets: long-run evidence from Chile. *Academy of Management Journal* **43**(3): 268–285.

Kim H, Kim H, Hoskisson RE. 2010. Does market-oriented institutional change in an emerging economy make business-group-affiliated multinationals perform better? An institution-based view. *Journal of International Business Studies* **41**(7): 1141–1160.

Larson A. 1992. Network dyads in entrepreneurial settings: a study of the governance of exchange relationships. *Administrative Science Quarterly* **37**: 76–104.

Leff NH. 1978. Industrial organization and entrepreneurship in the developing countries: the economic groups. *Economic Development and Cultural Change* **26**(4): 661–675.

Lounsbury M. 2007. A tale of two cities: competing logics and practice variation in the professionalizing of mutual funds. *Academy of Management Journal* **50**: 289–307.

Lumpkin GT, Dess GG. 1996. Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Review* **21**(1): 135–172.

Marquis C, Lounsbury M. 2007. Vive la résistance: competing logics and the consolidation of U.S. community banking. *Academy of Management Journal* **50**: 799–820.

Morris MH, Allen J, Schindehutte M, Avila R. 2006. Balanced management control systems as a mechanism for achieving corporate entrepreneurship. *Journal of Managerial Issues* **18**(4): 468–493.

Naughton B. 1994. Chinese institutional innovation and privatization from below. *American Economic Review* **84**(2): 266–270.

Nee V. 1992. Organizational dynamics of market transition: hybrid forms, property rights, and mixed economy in China. *Administrative Science Quarterly* **37**(1): 1–27.

Neter J, Wasserman W, Kutner M. 1989. *Applied Linear Regression Models*. Richard D. Irwin: Homewood, IL.

Newman KL. 2000. Organizational transformation during institutional upheaval. *Academy of Management Review* **25**(3): 602–619.

Oliver C. 1992.The antecedents of deinstitutionalization. *Organization Studies* **13**: 563–588.

Oliver W. 1991. Comparative economic organization: the analysis of discrete structural alternatives. *Administrative Science Quarterly* **36**(2): 269–296.

Ostrom E. 1990. *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge University Press: Cambridge, U.K.

Ostrom E. 2005. *Understanding Institutional Diversity*. Princeton University Press: Princeton, NJ.

Ouchi WG. 1977. The relationship between organizational structure and organizational control. *Administrative Science Quarterly* **22**(1): 95–113.

Palepu K. 1985. Diversification strategy, profit performance, and the entropy measure. *Strategic Management Journal* **6**(3): 239–255.

Peng MW. 2002. Towards an institution-based view of business strategy. *Asia Pacific Journal of Management* **19**(2/3): 251–267.

Peng MW, Sun SL, Pinkham B, Chen H. 2009. The institution-based view as a third leg for a strategy tripod. *Academy of Management Perspectives* **23**(3): 63–81.

Peng MW, Wang DY, Jiang Y. 2008. An institution-based view of international business strategy: a focus on emerging economies. *Journal of International Business Studies* **39**(5): 920–936.

Podsakoff PM, Organ DW. 1986. Self-reports in organizational research: problems and prospects. *Journal of Management* **12**(4): 531–545.

Qian Y. 2000. The institutional foundations of China's market transition. In *Annual World Bank Conference on Development Economics 1999*, Pleskovic B, Stiglitz J (eds). The World Bank: Washington, D.C.; 289–310.

Sauder M, Espeland WN. 2009. The discipline of rankings: tight coupling and organizational change. *American Sociological Review* **74**: 63–82.

Scott WR. 2002. The changing world of Chinese enterprise: an institutional perspective. In *The Management of Enterprises in the People's Republic of China*, Tsui AS, Lau CM (eds). Kluwer Academic Publishers: Boston, MA; 59–78.

Shleifer A. 1998. State versus private ownership. *Journal of Economic Perspectives* **12**: 133–150.

Simons R. 1994. How new top managers use control systems as levers of strategic renewal. *Strategic Management Journal* **15**(3): 169–189.

Sorensen JB, Stuart TE. 2000. Aging, obsolescence, and organizational innovation. *Administrative Science Quarterly* **45**: 81–112.

Stinchcombe AL. 1965. Social structure and organizations. In *Handbook of Organizations*, March JG (ed). Rand McNally: Chicago, IL; 142–193.

Thomsen S, Pedersen T. 2000. Ownership structure and economic performance in the largest European companies. *Strategic Management Journal* **21**(6): 689–705.

Thornton PH. 2002. The rise of the corporation in a craft industry: conflict and conformity in institutional logics. *Academy of Management Journal* **45**(1): 81–101.

Tolbert PS, Zucker LG. 1996. The institutionalization of institutional theory. In *Handbook of Organization Studies*, Clegg SR, Hardy C (eds). SAGE Publications: London, U.K.; 175–190.

Tsai W, Ghoshal S. 1998. Social capital and value creation: the role of intrafirm networks. *Academy of Management Journal* **41**: 464–478.

Vermeulen PM, Van Den Bosch FJ, Volberda HW. 2007. Complex incremental product innovation in established service firms: a micro institutional perspective. *Organization Studies* **28**(10): 1523–1546.

Volberda HW. 1996. Toward the flexible form: how to remain vital in hypercompetitive environments. *Organization Science* **7**(4): 359–374.

Walder AG. 1995. Local governments as industrial firms: an organizational analysis of China's transitional economy. *American Journal of Sociology* **101**(2): 263–301.

Westphal JD, Zajac EJ. 2001. Decoupling policy from practice: the case of stock repurchase. *Administrative Science Quarterly* **46**(2): 202–228.

White RE, Hoskisson RE, Yiu DW, Bruton GD. 2008. Employment and market innovation in Chinese business group affiliated firms: the role of group control systems. *Management Organization Review* **4**: 225–256.

Wicks D. 2001. Institutionalized mindsets of invulnerability: differentiated institutional fields and the antecedents of organizational crisis. *Organization Studies* **22**: 659–692.

Yiu DW. 2011. Multinational Advantages of Chinese Business Groups: A Theoretical Exploration. *Management and Organization Review* **7**: 249–277.

Yiu DW, Bruton GB, Lu Y. 2005. Understanding business group performance in an emerging economy: acquiring resources and capabilities in order to prosper. *Journal of Management Studies* **42**(1): 183–206.

Yiu DW, Lau C, Bruton GD. 2007. International venturing by emerging economy firms: the effects of firm capabilities, home country networks, and corporate entrepreneurship. *Journal of International Business Studies* **38**(4): 519–540.

Yiu DW, Lu Y, Bruton GB, Hoskisson RE. 2007. Business groups: An integrated model to focus future research. *Journal of Management Studies* **44**: 1551–1579.

Yli-Renko H, Autio E, Sapienza HJ. 2001. Social capital, knowledge acquisition, and knowledge exploitation in young technology-based firms. *Strategic Management Journal* **22**(6/7): 587–613.

Zahra SA. 1996. Governance, ownership, and corporate entrepreneurship: the moderating impact of industry technological opportunities. *Academy of Management Journal* **39**: 1713–1735.

Zahra SA, Covin JG. 1995. Contextual influences on the corporate entrepreneurship-performance relationship: a longitudinal analysis. *Journal of Business Venturing* **10**: 43–58.

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