

## Managerial ties and firm performance in an emerging economy: Tests of the mediating and moderating effects

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**Abstract** Although the literature documents the direct effects of managerial ties on firm performance, the empirical results are divergent and inconclusive. To explain these disparities, this study (1) develops and tests a model that establishes the role of external resource acquisition as a salient mediating mechanism through which managers' business and political ties influence firm performance; and (2) examines the moderating role of environmental turbulence that further explains the impact of managerial ties on resource acquisition (the mediator). Results from a survey of 253 firms in China indicate that resource acquisition plays a partial mediating role in the relationships between the two sub-dimensions of managerial ties and firm performance. Environmental turbulence shows a curvilinear (i.e., inverted U-shaped) moderating effect on the business ties–resource acquisition relationship, whereas it dampens the positive effect of political ties on resource acquisition. Theoretical and managerial implications are discussed.

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The performance effects of managerial ties, executives' personal relations with managers at other firms (i.e., *business ties*), and government officials (i.e., *political ties*), have attracted increasing attention in both strategic management and organizational literatures. A great deal of research has demonstrated the importance of managerial ties to organizational growth and performance, especially in emerging economies such as China (e.g., Li, Poppo, & Zhou, 2008; Peng & Luo, 2000), Russia (e.g., Batjargal, 2003), and Ghana (e.g., Acquaah, 2007). But a careful literature review suggests that this line of research has produced mixed empirical findings. The majority suggests a positive relationship between managers' micro ties and macro organizational performance (Acquaah, 2007; Peng & Luo, 2000; Xin & Pearce, 1996). But Guthrie (1998) and Peng and Zhou (2005) contended that this positive relationship tends to be declining over time. In an empirical analysis in the Chinese context, Li et al. (2008) provided evidence that managerial ties have a positive effect on performance for domestic firms, whereas the effect is curvilinear (i.e., inverted U-shaped) for foreign firms. Similarly, Li, Zhou, and Shao (2009) found that the heavy utilization of political ties decreases the profitability of foreign firms in China.

These significant controversies have raised an interesting topic on how managerial ties affect firm performance. In addressing this issue, most of the previous studies have devoted to investigating the direct impact of managerial ties on firm performance (e.g., Peng & Luo, 2000; Xin & Pearce, 1996). However, the fact that managerial ties are so common across most firms suggests that these ties by themselves are not very likely to convert directly into superior performance. Through some converting mechanisms, managerial ties can better enhance firm performance. Some studies have recently attempted to examine the mediators between the ties–performance relationships. These mediators include channel capability and responsive capability (Gu, Hung, & Tse, 2008) and institutional advantage (Li & Zhou, 2010). Despite these efforts, previous studies have provided limited knowledge about how managerial ties influence firm performance, and the real mechanisms behind this relationship are still ambiguous (Li et al., 2008; Powell, 1996).

To enrich the mediating mechanisms and deepen our understanding of the nature of the ties–performance relationship, this study introduces a key concept, external resource acquisition, as a mediating variable for explaining how managerial ties are materialized into firm performance and profitability. Previous studies have theoretically acknowledged the positive effect of managerial ties on the exchange and sharing of scarce resources (Li et al., 2008; Peng & Luo, 2000; Wu, 2008). The recent resource management perspective argues that accessing and acquiring valuable and rare resources increase firm competitive advantage (Sirmon, Gove, & Hitt, 2008; Sirmon & Hitt, 2003; Sirmon, Hitt, & Ireland, 2007). Further, since most firms in emerging economies face the condition of insufficient internal resources (Madhok, 2002; Wu, 2008), acquiring resources from outside, thus, builds a converting mechanism from managerial ties to superior performance. Taken together,

we contend that the extent of external resource acquisition plays the role of an intermediate variable to mediate the disputable ties–performance relationship.

Recent studies within the social network framework suggest that the value of managerial ties is conditional on other factors such as organizational characteristics (e.g., firm size and ownership types), market-level variables (e.g., market competition), and industry-level factors (e.g., business sectors and industry growth rates) (Li et al., 2008; Peng & Luo, 2000). Empirical studies have also produced abundant evidence on the moderating influence of environmental factors on the effectiveness of managerial ties. For example, Boisot and Child (1996) and Luo (2003) found that high uncertainty introduced by undeveloped formal institutions spurs managers to take advantage of informal personal connections (such as *guanxi*) to maintain competitive advantage (c.f. Gong, Chow, & Ahlstrom, 2011). Gu et al. (2008) produced evidence that competitive intensity and technological turbulence dampen the effect of *guanxi* on firm performance. Li et al. (2008) found that competitive intensity decreases the effect of managerial ties on performance, whereas structural uncertainty augments this effect. These studies provide a plausible and necessary way to further investigate the effects of managerial ties in a more context-specific manner. To advance knowledge about the contingent value of managerial ties, we posit that environmental turbulence serves as a contingency that shapes the relationship between managerial ties and resource acquisition (the mediator).<sup>1</sup> Especially, we expect the moderating effects for business ties and political ties to be different due to the separate functions and characteristics of the two types of ties.

The present study represents a replication with extension, also important in the strategic management literature (Peng, Zhang, & Li, 2007; Peng, Zhou, & York, 2006), to explore the simultaneous mediating and moderating influences on the effects of managerial ties. We test the conceptual model in a sample of 253 firms operating in China. China provides a rich setting for this analysis. First, China's economy is traditionally based heavily on *guanxi*. Especially during the current transitional period, managers' interpersonal ties are particularly prevalent as China has not yet established formal institutional systems (Hoskisson, Eden, Lau, & Wright, 2000). Therefore, the critical role of managers' micro ties in macro firm strategies and performance outcomes deserves in-depth investigation. Second, Chinese firms tend to find themselves lacking needed resources as they operate in an emerging economy (Madhok, 2002; Wu, 2008). Therefore, Chinese firms would have to effectively acquire external resources as complements for internal resource scarcity. Thus, examination of the mediating role of resource acquisition is particularly meaningful in the given research context. Finally, the economic transition in China has the characteristics of incompleteness of market information, poorly specified property rights, underdeveloped laws, and institutional instability (Boisot & Child, 1996; Luo, 2003; Xin & Pearce, 1996). This implies an uncertain and turbulent business environment for firms operating in China. Accordingly,

<sup>1</sup> Ray, Barney, and Muhanna (2004) suggested that in analyzing complex organizational relationships, studies should adopt the variables closely related with independent variables as dependent variables, rather than distant performance. We follow this suggestion and examine the moderation on the relationship between managerial ties and the mediator, resource acquisition.

empirical investigation of the contingent role of environmental turbulence has its particular value in the Chinese context.

This paper has the following organization. Section two provides a detailed explanation of the theoretical rationale and derives four sets of hypotheses to explain the complex relationships linking managerial ties to firm performance. Section three explains the theory-testing procedures. Section four provides a discussion of the results of the analysis and section five highlights some implications for managerial practice and future research.

## Theoretical background and hypotheses

### Dimensions of managerial ties

Managerial ties represent top managers' boundary-spanning activities and personal *guanxi* relations with external actors (Geletkanycz & Hambrick, 1997). Prior research, rooted in social capital theory, asserts that managers' network ties are a critical type of social capital (Adler & Kwon, 2002; Wu, 2008). Following this logic, Gu et al. (2008) viewed Chinese *guanxi* as a governance mechanism. They provided evidence that *guanxi* affects performance indirectly through channel capability and responsive capability, and that market forces dampen the positive effect of *guanxi* on performance. Managerial ties, serving as a critical substitute for incomplete formal institutions, tend to provide a variety of advantages for firms, such as helping them obtain partner support and overcome institutional barriers (Li et al., 2008; Peng & Luo, 2000). These ties constitute an important basis for firms to tackle internal resource scarcity and pursue performance objectives in rapidly changing environments.

In emerging economies such as China, top managers may cultivate interpersonal connections and *guanxi*-based ties with such actors as executives at other firms and government officials. Accordingly, Peng and Luo (2000) defined managerial ties in terms of two dimensions: business vs. political. Business ties are relationships that a firm's senior executives build with their counterparts in such firms as suppliers, customers, and competitors. The incentives to cultivate business ties would be various, including obtaining customers (Peng & Luo, 2000), utilizing market opportunities and countering market threats (Carroll & Teo, 1996; Geletkanycz & Hambrick, 1997), securing credit, opening dialogues, and building trust (Hoskisson et al., 2000). Political ties refer to the process of developing top managers' personal *guanxi* relations with officials in government departments, industrial bureaus, and regulatory organizations such as tax bureaus and state-owned banks. Firms build political ties for many specific intentions, such as to complement for the incomplete formal institutions, to overcome institutional barriers, to adapt to regulatory changes, and to obtain policy support, project approval, and state-owned scarce resources (Luo, 2003; Park & Luo, 2001; Xin & Pearce, 1996).

### Resource acquisition as a mediator

In present China, an underdeveloped legal framework and frequently changing institutional environment compel firms to rely on informal social ties to do business

(Li et al., 2009; Xin & Pearce, 1996). Empirical studies mostly advocate that managerial ties are beneficial to firm performance (Acquaah, 2007; Luo, 2003; Peng & Luo, 2000). But others contend that managerial ties may have dark sides that will damage their positive value. These dark sides include top managers' personal indebtedness (Vanhonacker, 2004), domino effects brought by friend firms' failure (Uzzi, 1997), and possibilities of lowering ethical standards and hindering the development of legal systems (Warren, Dunfee, & Li, 2004). These controversial arguments require looking inside the nature of the complex ties–performance relationship. Drawing on the resource management perspective, this study proposes that resource acquisition plays an intermediate role in the relationships between the two sub-dimensions of managerial ties and firm performance.

In today's changing competitive environments, firms have begun to realize that possessing abundant resources becomes increasingly difficult when they rely solely on their own. Firms must be able to continuously acquire resources from outside to build and sustain competitive advantage (Madhok, 2002; Wu, 2008). Managerial ties, as one kind of social capital, can help firms acquire and obtain scarce resources, a source of competitive advantage (Gu et al., 2008; Wu, 2008). This study adopts the concept of *resource acquisition* to describe the process by which firms identify, access, and obtain valuable resources from outside. These resources include both tangible resources such as raw materials and financial capital, and intangible resources like know-how and management practices. Combining this definition with the preceding analysis on the ties–performance link, we contend that managerial ties will not directly influence firm performance; instead, the performance is dependent on the process that firms appropriately identify and acquire external resources through managers' relations with external actors.

### The mediating path for business ties

Resource acquisition serves as a mediator between business ties and firm performance for a few reasons. First, building ties with business actors can offer extra potential opportunities for accessing valuable knowledge and resources from the partners (Batjargal, 2003), facilitating the effectiveness of resource acquisition. For example, managers' close *guanxi* relations with supplier executives provide firms with effective supply information and quality materials and services, even under deferred payment (Boisot & Child, 1996). Managers' ties with customer executives may offer their firms highly loyal customers and valuable market demand information (Li, 2005). Moreover, managers' close connections with competitor executives facilitate information exchange (Capaldo, 2007; Xin & Pearce, 1996) and potentially provide information about the competitors' behaviors and actions. Second, close ties generate mutual trust (Granovetter, 1973) and norms of reciprocity (Larson, 1992) that encourage firms to exchange key information and resources with each other. This mitigates the information asymmetries in their resource exchange process. Third, managers who build strong *guanxi*-based personal connections with business actors will have a good understanding of how to understand, assimilate, and seize resources from the partners. They can also easily bundle these resources into an integrated whole, bringing coordination effects. Therefore, managers' connections with business partners may facilitate the process of external resource acquisition.

On the other hand, identifying and acquiring external resources effectively and efficiently, as the resource management perspective suggests, drives organizational performance (Ireland & Webb, 2006; Sirmon & Hitt, 2003; Sirmon et al., 2007). This logic implies that acquiring external financial, human, and technical resources serves to improve firm performance. Collectively, the above analyses provide a basis for the proposition of a mediating role of resource acquisition in the business ties–performance link.

**Hypothesis 1** Resource acquisition mediates the business ties–performance relationship in such a way that business ties have a positive impact on resource acquisition that, in turn, has a positive impact on firm performance.

#### The mediating path for political ties

Because of the imprint of the norms and values inherited from the formal centrally planned economy, emerging economies such as China contain former planned economy residuals, which result from the government's interface with and relationship dominance over firms (Child & Tse, 2001). With this background, the Chinese government still has considerable power to allocate scarce resources and approve projects (Peng & Luo, 2000). Existing literature has also emphasized the non-substitutability of the government in emerging economies, in which political ties serve as a critical substitute for incomplete institutions (Park & Luo, 2001) and these ties would enable firms to overcome institutional barriers and obtain legitimacy (Peng, 2004). Generally, political ties facilitate firms' acquisition of external resources in the following ways.

First, under the residual influence of the planned economy, the Chinese government still controls considerable critical and scarce resources (e.g., Child & Tse, 2001; Makino, Isobe, & Chan, 2004), and interferes constantly in micro-level commercial activities (Ring, Bigley, D'Aunno, & Khanna, 2005). Managers' close ties with government officials facilitate their firms to handle institutional barriers and obtain a variety of privileges to acquire external resources (e.g., Park & Luo, 2001). For example, firms with close ties with officials in the local government may obtain a piece of land at a price largely lower than the market price. These firms can also obtain reduced or waived local taxes and fees, or gain grants for additional financial incentives (Child, 1994). Besides, ties with government officials facilitate firms' collaborations with universities and other research institutions, which serve as critical channels for the acquisition of advanced knowledge and technologies (Zhang, 2006).

Second, since China still lacks a well-established legal framework and institutional system, its economic transition has left a large number of policy ambiguities and legal *lacunae* (Hoskisson et al., 2000; Li & Atuahene-Gima, 2002). As both legislators and law executors, government officials may be most familiar with the country's laws and regulations. Hence, close ties with these officials may help firms correctly interpret regulatory change and obtain appropriate policy support in, for example, enforcing contracts and settling negotiations. These facilitate firms to effectively acquire critical information, knowledge, and technologies.

Third, political ties assist firms to gain external legitimacy (Zimmerman & Zeitz, 2002), endowing them with a good reputation, prestige, and reliability. This offers opportunities for firms to obtain exclusive resources and keep their partners' opportunistic behaviors at bay when exchanging resources with them.

In summary, these arguments suggest that managers' close *guanxi* relations with government officials may place their firms in a good position to acquire valuable resources outside their boundaries, and further lead to improved performance.

**Hypothesis 2** Resource acquisition mediates the political ties–performance relationship in such a way that political ties have a positive impact on resource acquisition that, in turn, has a positive impact on firm performance.

### Environmental turbulence as a moderator

Traditional research describes the environment by dynamism, munificence, and complexity (Dess & Donald, 1984). While some recent studies continue to emphasize these dimensions of the general environment variable, others have begun to focus on environmental turbulence and its composition. For example, Chonko, Jones, Roberts, and Dubinsky (2002) suggested that environmental turbulence consists of customer, competitive, and technological dimensions. Calantone, Garcia, and Droege (2003) and Lichtenthaler (2009) defined environmental turbulence in terms of technological turbulence and market turbulence. Kuivalainen, Sundqvist, Puumalainen, and Cadogan (2004) suggested that heterogeneity, dynamism, competition, uncertainty, and hostility compose the characteristics of environmental turbulence together; any alone cannot describe the concept thoroughly. Accordingly, we define *environmental turbulence* as a situation composing of uncertain customer demand, highly developing technology, unpredictable competitive behavior, and temporary competitive advantage.

In emerging economies such as China, business environments tend to be highly complex and turbulent, caused mostly by policy ambiguity, government intervention, and institutional transition. The environmental effects on managerial ties and its relationship with performance have attracted great attention from scholars who have interest in emerging economies. According to the social capital view, for example, Boisot and Child (1996), Luo (2003), and Peng and Luo (2000) posited that managerial ties will become more desirable when market competition and/or uncertainty exist. Within the market efficiency perspective, Gu et al. (2008) suggested that competitive intensity and technological turbulence will dampen the effect of managerial ties on firm brand performance. The paradox of environmental turbulence on the one side and the importance of the environment to dynamic resource management on the other suggest that we should integrate environmental contingency logic into our research model. We propose that investigation of the contingent role of environmental turbulence is valuable for further explaining the impact of managerial ties on firms' resource acquisition activities.

Although environmental turbulence serves as a critical contingency, however, we contend that the logic behind the two moderations involved in business ties and political ties are different. Resource dependence theory argues that when firms are in

short supply of certain resources, they will seek to build and develop relationships with others that help them to acquire needed resources (Ulrich & Barney, 1984). Business ties, which are in nature more market-embedded, may provide valuable market resources (Peng & Luo, 2000) and diverse heterogeneous knowledge (Capaldo, 2007) for firms, helping them grasp changing market needs rapidly and predict competitors' behaviors accurately. In contrast, political ties tend to benefit firms indirectly, such as pushing collaborations (Zhang, 2006) and overcoming institutional barriers (Gu et al., 2008; Wu, 2008). In this sense, political ties may play a limited role in helping firms handle market change since these ties are not deeply embedded in the market. Therefore, firms can acquire needed resources through business ties rather than political ties in turbulent environments.

Furthermore, although both ties undertake obligations and costs, political ties are cultivated and sustained in a more unequal condition than business ties (Li et al., 2009), which makes firms suffer from political interferences and obligations. But firms with close business ties do not need to fear this situation in which firms' ability to deal with environmental change may be decreased. Given the different influencing mechanisms, this study separates the moderating effects of environmental turbulence on the relationships between the two types of managerial ties and resource acquisition.

#### Moderating effect on business ties and resource acquisition

In a relatively stable environment, there is less uncertainty about the future and the market. Firms can often effectively search, access, and acquire desired resources in a stable environment, even if they do not invest many resources in predicting the future. In this sense, it seems that resources are redundant in the stable environment and firms do not need to rely on business partners to acquire external resources. In other words, the effect of business ties on resource acquisition is weak or non-significant in a stable environment.

But as the degree of environmental turbulence increases, business ties tend to become more salient and important for firms to rely on. In a turbulent environment, firms may observe that resources concerning market change are likely to become relatively limited and unobtainable. For example, frequently changing customer demands lead to related market information becoming rapidly obsolete. Highly changing technologies make the behaviors of both current and potential competitors unpredictable (Calantone et al., 2003). As resource dependence theory suggests, the turbulent environment forces firms to acquire needed resources in certain ways. Business ties provide an effective means for firms to acquire these resources. For example, ties with customers enhance the predictability of the market and strengthen customer loyalty (Luo, 2003). And close ties with competitors offer opportunities to predict potential competitive behaviors and counter environmental shock through collaboration and coordination. Therefore, environmental turbulence increases the positive effect of business ties on resource acquisition.

However, this moderating effect will not be linear as previous studies have hinted (e.g., Luo, 2003; Peng & Luo, 2000). Instead, when the level of environmental turbulence increases to a certain point, the increasing positive relationship between business ties and resource acquisition will come to a threshold and beyond this point the relationship will decline.



Specifically, too high turbulence will decrease the positive effects of business ties on resource acquisition. First, excessive turbulence tends to make the value of existing resources change greatly. Facing this situation, firms are less likely to have a full understanding of the value of resources accessed through business ties and are more concerned about the risk of resource exchange. Second, as the external environment becomes extremely turbulent, the collective blindness of business partners may occur (Gu et al., 2008) which in turn lower the efficiency of firms' external resource identification and acquisition activities. Third, the trusting relationships among business partners will fade because of difficulties in monitoring one another in highly turbulent environments, hindering inter-partner resource exchange activities. Finally, valuable resources may not always occur in the current relational networks, especially when the external environment is extremely turbulent. If firms are reluctant to form new business relationships due to the lock-in effect derived from network inertia (Gulati, Nohria, & Zaheer, 2000), current relations will preclude the possibility of cultivating new ties with those firms with new and useful resources. As a result, firms are overembedded in particular partner relationships (Uzzi, 1997) and they may thus overlook external potential profit-generating resources. Therefore, while moderate environmental turbulence creates new opportunities, excessive turbulence can also destroy them.

**Hypothesis 3** The effect of business ties on resource acquisition is greatest at the moderate level of environmental turbulence, such that the relationship between business ties and resource acquisition across low, medium, and high levels of environmental turbulence is inverted U-shaped.

#### Moderating effect on political ties and resource acquisition

In contrast, we predict that environmental turbulence dampens the effect of political ties on resource acquisition. As environments become increasingly turbulent, firms need to acquire appropriate information and knowledge to deal with unexpected changes (Sirmon et al., 2007). For example, firms need market-related information to cope with changing customer demands. They need the newest knowledge about competitors' behaviors and technologies to forecast future competitive scenarios. Resource dependence theory suggests that if they cannot obtain the information in a certain way, they will be less likely to depend on this way to acquire resources (Ulrich & Barney, 1984). As an optional way, political ties serve more as a kind of bridging ties (McEvily & Zaheer, 1999) that help firms seek information and resources indirectly. It is difficult for ties with government officials to directly provide resources related with market change (e.g., knowledge about changing customer demand and information about potential competitive behaviors). As a result, firms may decrease the dependence on political ties to acquire resources in highly turbulent environments.

Furthermore, in turbulent environments, political interference and obligation accompanying political ties (Fan, Wong, & Zhang, 2007; Globberman, Peng & Shapiro, 2011; Lin, Fang, & Zhou, 1998) will result in lower resource acquisition efficiency. For example, in order to obtain resources through political ties, managers

must undertake government officials' interference and extra arrangement, such as being required to hire some unprofessional government bureaucrats or poorly-skilled employees even in important positions (Fan et al., 2007; Warren et al., 2004). But firms need more professional employees to predict market changes and adapt to technological progress (Sirmon et al., 2007). The unnecessary bureaucrats and employees are often unable to deal with market changes and environmental turbulence, which is likely to mislead firms' resource acquisition activities. That is, the efficiency of acquiring resources through political ties will decline in turbulent environments. We would thus expect that environmental turbulence adversely affects firms' motivation and efficiency to acquire resources through political ties.

**Hypothesis 4** Environmental turbulence negatively moderates the effect of political ties on resource acquisition.

## Methods

### Research design and data collection

We test the above hypotheses using data collected in a questionnaire survey of 598 firms operating in China. These firms were randomly selected from the published Yellow Page, located in most provinces of the country (i.e., Shaanxi, Gansu, Henan, Beijing, Tianjin, Liaoning, Shandong, Jiangsu, Hebei, Shanxi, Sichuan, Guangdong, and Shanghai) and distributed in a wide range of industries including mechanical manufacturing, energy, transportation, chemicals, pharmaceutical, electronics, and telecommunication.

We developed the questionnaire based on previous studies, first in English. To check the instrument validity of the English items, the research team invited two academics to comment on the utilization of the scale items and we revised some of the questions according to their feedback. These two academics then translated the questionnaire into Chinese for facilitating understanding and answering of the questions. Next, five senior managers evaluated the content and meaningfulness of the Chinese items. The research team modified the items difficult to understand or unnecessarily repeated. Last, two other academics again translated the revised questionnaire into English and back-translated into Chinese.

We collected data through on-site interviews from the 598 randomly selected firms (see Hoskisson et al., 2000). The key informants were carefully chosen to ensure that they had the knowledge and background to complete the questionnaire in a thoughtful manner. Top executives such as presidents, general managers, or vice general managers would conform to these requirements. We thus chose firms' top executives as informants in this study.

To minimize the possibility of misinterpretation of the questions, the interviewers first read the related background references to have a complete and insightful understanding of this study. They then obtained training in special interviewing skills. In the interview process, the interviewers first explained the academic purpose thoroughly and then provided detailed guidelines for filling out the questionnaire. At

last, after screening and deleting responses with extensive missing data, we obtained 253 valid data for the following analysis.

To examine the potential non-response bias, we compared the respondents and the non-respondents on three variables (number of employees, sales, and ownership type) using t-tests. No difference was statistically significant at the significance level of 0.05. Also, we found no significant difference between earlier 151 respondents and 102 later respondents on the scores of all question items at a 99% confidence interval (Armstrong & Overton, 1977). Therefore, non-response bias was not a major problem in the study.

As we collected the measurement items in the same survey instrument by asking one single informant per organization, the potential for common method variance would also exist. We first adopted Harman's one-factor test to examine common method variance (Podsakoff & Organ, 1986). Specifically, we examined the 21 survey items using an unrotated, principal components factor analytic procedure. No single predominant factor emerged. Instead, the analysis generated seven factors with Eigenvalues larger than 1. The maximum variance was 22.95%, and the cumulative variance explained by all these seven extracted factors was 68.08%. The exploratory factor analysis results show that no dominant single factor accounted for the majority of covariance in the variables.

Although the exploratory factor analysis indicated that there was not a single overall factor for the assessments of the variables, such an analysis does not indicate the statistical significance of possible common method variance. To obtain a more precise assessment of such bias in the data, we further used a confirmatory factor analysis approach to test for common method variance (Menon, Bharadwaj, & Howell, 1996). A model positing that a single factor underlies the study variables was assessed by linking all items to a single factor. This model did not fit the data well (chi-square to degrees of freedom ratio of 6.470, GFI = 0.683, NFI = 0.395, and CFI = 0.428), as compared with the fit for the measurement models for all latent variables (chi-square to degrees of freedom ratio of 1.815, GFI = 0.908, NFI = 0.837, and CFI = 0.918). Collectively, these results show that common-method bias was not a serious problem in the study.

## Measures

*Managerial ties* Following Peng and Luo (2000), we measured business ties and political ties separately, each with three items. We used a Likert-type response format, ranging from 1 "strongly disagree" to 7 "highly agree." Specifically, business ties were measured by asking the informants to assess whether they had established close relationships with top managers at (1) buyer companies; (2) supplier companies; and (3) competitor companies. The three items measuring political ties were: whether the senior managers had established close relationships with (1) political leaders in various levels of the government; (2) leaders in industrial bureaus; and (3) officials in regulatory and supporting organizations such as tax bureaus, state banks, and commercial administration bureaus.

*Firm performance* We used perceptual measures to assess firm performance rather than objective or secondary data. The main reason was that most of the private or

private-controlled Chinese firms declined to provide related financial figures. Specifically, the informants rated their firm's performance indicators relative to its principal competitors over the last 3 years on: (1) return on sales (ROS); (2) return on investment (ROI); (3) return on equity (ROE); (4) return on asset (ROA); and (5) net profits, each on a seven-point scale from 1 "very low" to 7 "very high."

In an attempt to validate our survey measure of firm performance, we correlated it with objective performance collected from the public sources. Not all firms have publicly reported their objective performance data. Of the 253 sample firms, we collected only 101 firms that reported the complete information of objective performance in terms of profits in each year during the period of 2006–2008. The correlation between our survey measure of firm performance and the objective measure was .30 ( $p < .05$ ). This correlation provides partial support for the validity of our survey measure of firm performance.

*Resource acquisition* We developed a response scale that captures the different outcomes of resource acquisition as perceived by the managers. The theoretical domain for the scale items was based on Sirmon and Hitt (2003) and Sirmon et al. (2007). Specifically, the informants were asked to assess the extent to which they had acquired (1) advanced technologies; (2) managerial expertise; (3) financial resources; (4) human capital; and (5) key information from outside, each on a seven-point scale, ranging from 1 "very little" to 7 "very high."

*Environmental turbulence* We adopted four items to measure environmental turbulence (e.g., Calantone et al., 2003). The informants were asked to assess if they agreed with the following statements: (1) Competitors introduced new products frequently; (2) Customer demand was fairly difficult to forecast; (3) Market share was unstable among the same competitors; and (4) The technology was rapidly changing. A Likert-type response format was used ranging from 1 "strongly disagree" to 7 "highly agree."

*Control variables* We measured *firm ownership type* by a dummy variable, coded 1 for state-owned enterprises (SOEs) and 0 for non-SOEs. *Firm development stage* was measured by the four stages of the firm's product life cycle: 1 for introduction stage, 2 for growth stage, 3 for maturity stage, and 4 for recession stage. *Industrial position* was measured by asking the informants to assess the ranking of their company in the industry: 1 (former 30%), 3 (intermediate), and 5 (later 30%). *Firm size* was measured by the logarithm of the number of employees. *Internal resource scarcity* was measured by asking the informants to assess whether their firm has enough resources inside, on a seven-point scale ranging from 1 "strongly disagree" to 7 "highly agree." Since our sample comes from seven different industries, we included industry dummies to control for industrial heterogeneity: *Industry I* for mechanical manufacturing industry; *Industry II* for energy industry; *Industry III* for transportation industry; *Industry IV* for chemical industry; *Industry V* for pharmaceutical industry; *Industry VI* for electronic industry; and *Industry VII* for telecommunication industry.

## Analyses and results

### Reliability and validity

This study used SPSS 16.0 to estimate the model's reliability and validity and to test the proposed hypotheses. We operationalized composite reliability using Cronbach's alpha. Typically, the literature agrees that reliability coefficients of 0.70 or higher are adequate (Cronbach, 1951). Nunnally (1978) further stated that permissible alpha values can be slightly lower (0.60) for newer scales. As shown in Table 1, most alpha values are more than 0.70, except for that of business ties (0.62). Although business ties showed a relatively low alpha value, considering the specific context in China and that most studies adopted this three-item scale, this degree of alpha is acceptable.

**Table 1** Reliability and validity.<sup>a</sup>

Construct/Items	Loadings	alpha	AVE (%)
Business ties		.62	57.18
1. Relationships with top managers in buyers	.84		
2. Relationships with top managers in suppliers	.79		
3. Relationships with top managers in competitors	.62		
Political ties		.85	76.85
1. Relationships with officials in government departments	.88		
2. Relationships with leaders in industrial bureaus	.90		
3. Relationships with leaders in regulatory and supporting organizations	.84		
Firm performance		.88	67.96
1. ROS	.76		
2. ROI	.84		
3. ROE	.85		
4. ROA	.81		
5. Net profits	.87		
Resource acquisition		.87	66.02
1. Advanced technologies	.80		
2. Managerial expertise	.78		
3. Financial resources	.84		
4. Human capital	.90		
5. Key information	.74		
Environmental turbulence		.70	53.21
1. Unpredictable competitive behaviors	.77		
2. Unstable market share	.74		
3. Uncertain customer demands	.73		
4. Rapidly changing technologies	.68		

<sup>a</sup> Extraction method: principal component analysis; Rotation method: varimax with kaiser normalization.

We assessed convergent validity by examining both the average variance extracted (AVE) and factor loadings. Table 1 shows that all the AVE values are well above the recommended threshold level of 50%. Of the 18 items in the various scales, loadings of 16 items are more than 0.70, except for ties with competitors (0.62) and uncertain customer demand (0.68). Since prior related studies have all adopted the item *ties with competitors* as a key dimension of business ties, this study kept this item, and the same reason for the item of *uncertain customer demand*. Therefore, the statistical results generally satisfied the convergent validity test.

We assessed discriminant validity with a common method that Fornell and Larcker (1981) suggested. They recommended observing whether the AVE for each construct is greater than the squared correlations between constructs. Table 2 presents the square roots of the AVEs for each construct along the diagonal and the correlation coefficients among all theoretically related constructs in the off-diagonal elements. The data in Table 2 show that the diagonal elements are all greater than each of the off-diagonal elements in the corresponding rows and columns. Obviously, the results supported the discriminant validity of the constructs.

### Hypotheses tests

We conducted a three-step regression analysis to examine the mediating effects (Table 3). First, we examined the effects of the control variables on performance by regressing performance on these three variables (Model 1). Then, in Step 1, we added the two independent variables to test the effects of political ties and business ties on firm performance. Results in Model 2 show that both political ties and business ties are positively related to performance. In Step 2, we regressed resource acquisition on business ties, political ties, and the control variables to test their effects on resource acquisition (Model 3b). Then we regressed performance on resource acquisition and the control variables to examine its effect on performance. Results in Model 3a suggest that resource acquisition has a significantly positive effect on performance, offering an empirical support to the resource management theory. In Step 3, we regressed performance on political ties, business ties, and resource acquisition, controlling for firm size, industry position, and development stage. Results in Model 4 show that the effects of business ties and political ties on performance are both reduced, but still significantly positive. This indicates that resource acquisition partially mediates the linkage between managerial ties and performance, supporting both Hypotheses 1 and 2.

Because the hypotheses suggest interaction terms composed of managerial ties and environmental turbulence, we employed a moderated hierarchical regression analysis (Aiken & West, 1991). To minimize the potential threat of multicollinearity, we mean-centered all independent variables constituting interaction terms, and then created the interaction terms by multiplying the relevant mean-centered variables (Aiken & West, 1991). As Table 4 shows, the analysis first includes the control variables in the model (Model 1), then adds the independent variables (Model 2), thereafter adds the moderator variable and its squared term (Model 3), and finally includes the interaction terms (Model 4). In the four models, the largest variance inflation factor, a multicollinearity indicator, is 2.03, well below the 10.0 cutoff. Thus, multicollinearity was not a concern in this study.

Table 2 Correlations and discriminant validity.<sup>a</sup>

Variables	Mean	s.d.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Business Ties	4.76	1.11	<b>.76</b>															
2. Political Ties	5.02	1.33	.43 <sup>***</sup>	<b>.88</b>														
3. Resource Acquisition	4.77	1.06	.30 <sup>***</sup>	.21 <sup>**</sup>	<b>.81</b>													
4. Environmental Turbulence	4.92	1.08	.19 <sup>**</sup>	.09	.29 <sup>***</sup>	<b>.73</b>												
5. Performance	4.72	1.10	.24 <sup>***</sup>	.11 <sup>+</sup>	.22 <sup>***</sup>	.21 <sup>***</sup>	<b>.82</b>											
6. Industry Position	2.82	1.78	-.05	-.10	-.01	.17 <sup>***</sup>	.03	<b>1</b>										
7. Firm Size	2.82	0.90	.05	.18 <sup>**</sup>	.13 <sup>*</sup>	.16 <sup>*</sup>	.08	-.01	<b>1</b>									
8. Firm Development Stage	1.99	1.10	-.09	-.18 <sup>**</sup>	-.18 <sup>**</sup>	-.17 <sup>**</sup>	-.18 <sup>**</sup>	-.08	-.31 <sup>***</sup>	<b>1</b>								
9. Resource Scarcity	3.59	1.57	.21 <sup>**</sup>	.11 <sup>+</sup>	.20 <sup>**</sup>	.28 <sup>***</sup>	.32 <sup>***</sup>	-.06	.12 <sup>+</sup>	-.22 <sup>**</sup>	<b>1</b>							
10. Ownership	0.44	0.50	-.04	.18 <sup>**</sup>	.06	-.11 <sup>+</sup>	-.04	.07	.35 <sup>***</sup>	-.04	-.11 <sup>+</sup>	<b>1</b>						
11. Industry I	0.26	0.44	-.05	-.15 <sup>*</sup>	-.05	-.02	.02	.18 <sup>**</sup>	.12 <sup>+</sup>	-.06	.05	-.06	<b>1</b>					
12. Industry II	0.11	0.32	.01	-.00	.01	-.05	.08	.04	.06	-.08	-.01	.11	-.22 <sup>**</sup>	<b>1</b>				
13. Industry III	0.20	0.40	.02	.09	.03	-.08	-.05	-.10	.04	.10	-.04	.15 <sup>*</sup>	-.30 <sup>***</sup>	-.18 <sup>**</sup>	<b>1</b>			
14. Industry IV	0.09	0.29	.08	-.01	.06	.18 <sup>**</sup>	-.02	.06	.01	-.03	.12	-.12 <sup>+</sup>	-.19 <sup>**</sup>	-.12 <sup>+</sup>	-.16 <sup>*</sup>	<b>1</b>		
15. Industry V	0.11	0.31	-.01	.06	-.09	-.09	-.07	-.05	-.06	.11 <sup>+</sup>	-.06	.01	-.21 <sup>**</sup>	-.13 <sup>*</sup>	-.18 <sup>**</sup>	-.11	<b>1</b>	
16. Industry VI	0.07	0.25	-.01	-.01	-.04	.01	.04	-.17 <sup>**</sup>	-.14 <sup>*</sup>	.05	-.07	-.04	-.16 <sup>*</sup>	-.10	-.13 <sup>*</sup>	-.09	-.10	<b>1</b>
17. Industry VII	0.04	0.20	-.02	-.03	.03	-.00	-.08	.10	-.00	-.05	.05	.06	-.12 <sup>+</sup>	-.07	-.10	-.07	-.07	-.05

<sup>a</sup> Diagonal elements (in bold) are square roots of the AVE values.

Off-diagonal elements are the correlations of the main variables of interest to the study.

N = 253; <sup>+</sup> p < .1; \* p < .05; \*\* p < .01; \*\*\* p < .001.

**Table 3** Mediation regression models.

Variables	Performance				Resource acquisition
	Model 1	Model 2	Model 3a	Model 4	Model 3b
Industry I	.19+	.14	.12	.10	.24*
Industry II	.07	.06	.04	.04	.15+
Industry III	.20*	.14	.17+	.13	.09
Industry IV	.13	.11	.11	.10	.04
Industry V	.18*	.16*	.14+	.14+	.17*
Industry VI	-.03	-.03	-.04	-.04	.11
Industry VII	.18**	.17*	.16*	.16*	.10
Resource scarcity	-.34***	-.29***	-.31***	-.27***	-.14**
Ownership	-.06	-.04	-.04	-.02	-.01
Firm size	.07	.07	.08	.08	.08
Firm development stage	-.08	-.09	-.06	-.07	-.18***
Industry position	-.08	-.09	-.09	-.09	-.03
Business ties		.18***		.16**	.21***
Political ties		.16***		.13**	.19***
Resource acquisition			.19***	.13**	
R Square	.21	.26	.24	.27	.24
Adjusted R square	.15	.17	.17	.18	.15
F value	3.25***	3.08***	3.57***	2.97***	2.50***

$N = 253$ ; +  $p < .1$ ; \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ .

As Table 4 shows, results in Model 2 suggest that political ties and business ties are positively and significantly related to resource acquisition. In Model 3, environmental turbulence is positively and significantly related to resource acquisition, while environmental turbulence square shows a significantly negative relationship with resource acquisition. In Model 4, the interaction between business ties and environmental turbulence square produces a negative relationship with resource acquisition. This finding reflects an inverted U-shaped moderating effect of environmental turbulence on the business ties-resource acquisition relationship. Thus Hypothesis 3 is supported. The interaction between political ties and environmental turbulence is significantly negative. That is, Hypothesis 4 is supported by our data.

To illustrate visually how environmental turbulence moderates business ties' and political ties' effects, we referred to Gu et al.'s (2008) method and plotted 3D figures to show the effects in Figures 1 and 2. Figure 1 illustrates the interaction effects of business ties and environmental turbulence on resource acquisition. At a lower level of environmental turbulence, the effect of business ties on resource acquisition is not noticeable, with the slope near zero; while with the increase of environmental turbulence, the slope increases, presenting a positive effect of business ties on resource acquisition; after environmental turbulence increases beyond a certain threshold, the slope begins to decrease, finally presenting a negative effect of

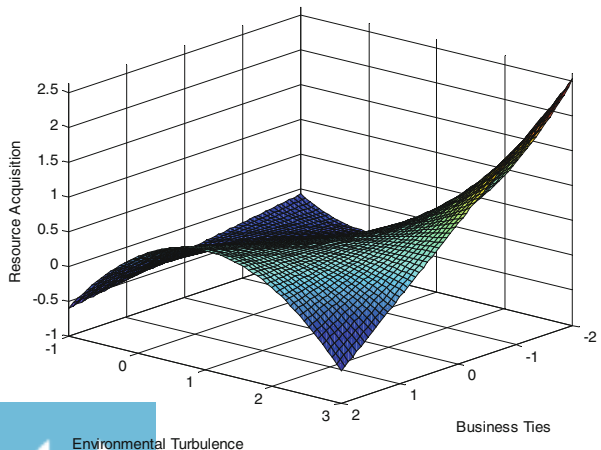


**Table 4** Moderation regression models.

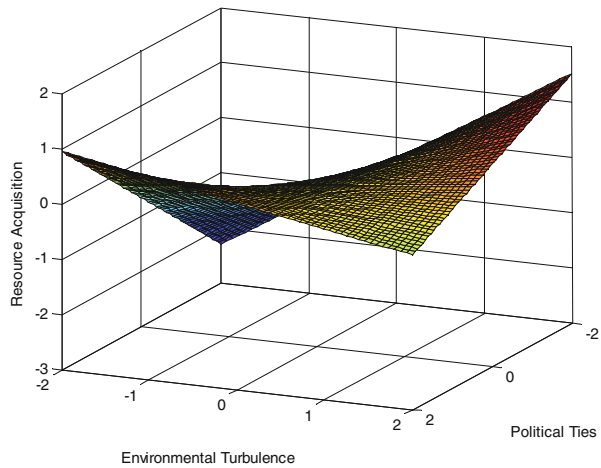
Variables	Resource acquisition			
	Model 1	Model 2	Model 3	Model 4
Industry I	.23*	.24*	.20*	.17+
Industry II	.10	.15+	.11	.06
Industry III	.05	.09	.04	.03
Industry IV	.02	.04	.06	.02
Industry V	.17+	.17*	.16*	.15*
Industry VI	.07	.11	.08	.01
Industry VII	.08	.10	.10	.06
Resource scarcity	-.21***	-.14**	-.10+	-.07
Ownership	-.01	-.01	-.02	-.00
Firm size	.13*	.08	.03	.06
Firm development stage	-.19***	-.18***	-.18***	-.19***
Industry position	-.03	-.03	.04	.10*
Business Ties (BT)		.21***	.18***	.19***
Political Ties (PT)		.19***	.19***	.19***
Environmental Turbulence (ET)			.28***	.33***
ET <sup>2</sup>			-.10*	-.09
BT×ET				.16***
BT×ET <sup>2</sup>				-.16*
PT×ET				-.31***
R square	.16	.24	.32	.39
Adjusted R square	.09	.15	.20	.26
Change in R square		.08	.08	.07
F value	2.17**	2.50***	2.80***	3.01***

*N* = 253; + *p* < .1; \* *p* < .05; \*\* *p* < .01; \*\*\* *p* < .001.

**Figure 1** The effect of interaction between environmental turbulence and business ties on resource acquisition



**Figure 2** The effect of interaction between environmental turbulence and political ties on resource acquisition



business ties on resource acquisition. Thus Figure 1 shows an inverted U-shaped moderating effect of environmental turbulence on the relationship between business ties and resource acquisition. Likewise, Figure 2 shows that the effect of political ties is much stronger when environmental turbulence is low than when it is high. As Figure 2 shows, the slope of the political ties–resource acquisition relationship always decreases from positive to negative when environmental turbulence increases. In particular, the effect of political ties goes from highly positive to negative. Take together, Figures 1 and 2 provide additional support for Hypotheses 3 and 4.

## Discussion

The primary objective of this study is to understand whether or not, when, and how managerial business and political ties affect firm performance. Combining social capital theory and the resource management perspective, we propose resource acquisition as the mediating mechanism and environmental turbulence as the moderating mechanism for the influences of managerial ties on resource acquisition. The empirical findings provide several valuable and interesting theoretical and practical implications.

### Theoretical implications

The first major implication of our findings is that we contribute to the resource management perspective by indicating a key antecedent (managerial ties) from the social capital theory. Both political ties and business ties are verified by our data as critical determinants to firms' resource acquisition activities. Besides, our findings confirm the positive impact of resource acquisition on firm performance, providing empirical support to the resource management framework proposed by Sirmon and Hitt (2003) and Sirmon et al. (2007).

The second major implication of our findings is that we suggest a mediating effect to the ties–performance link. Both business ties and political ties have independent effects on firm performance through the mediating effect of resource acquisition. This suggests that due to internal resource scarcity, emerging economy firms need to acquire external resources through managerial ties to enhance performance. These findings enrich the existing mediating literature on the value of managerial ties (cf. Gu et al., 2008; Li & Zhou, 2010). Besides, political ties and business ties, due to their separate functions and characteristics, may have different levels of reliance on resource acquisition as a mediator to improve firm performance. This view suggests that the two types of managerial ties may have distinct values (see Li et al., 2009) and scholars should analyze them separately.

The third major implication of our findings is that our research provides some insights into the boundary conditions of managerial ties by examining the moderating effects of environmental turbulence. Prior work has often viewed managerial ties as an integration to investigate the moderation of environmental factors (Gu et al., 2008; Li et al., 2008; Luo, 2003). Our findings indicate that the moderating effects of environmental turbulence for business ties and political ties are different. This study provides evidence that environmental turbulence has a negative moderating effect on the political ties–resource acquisition relationship, whereas it nonlinearly moderates the relationship between business ties and resource acquisition. These findings are different from Luo (2003) who suggested that uncertainty will enhance the effect of managerial ties, and also distinct from Gu et al. (2008) and Li et al. (2008) who suggested that uncertainty will dampen the effect of *guanxi*. These findings further our understanding regarding the contingent effects on managerial ties.

### Practical implications

The present study also makes important implications for managerial practice by explaining the actions and the environments that interact with managers' micro ties to affect firms' macro strategies and performance. First, relative to those firms in Western countries, firms in emerging economies face more constrained resource conditions and more turbulent business environments. The findings here indicate that managers should pay attention to both ties building and resource acquisition which are two key elements in performance improvement.

Second, in the haste caused by environmental turbulence, firms often give up or cannot catch up to many good opportunities. Firms with strong network ties should realize that effective acquisition of external information, knowledge, and resources enables them to utilize these ties to achieve the desired performance objectives. That is, managers should view ties building and utilization as a critical social capital to seize the opportunities of accessing and acquiring external resources and competences. However, our findings of the different moderating effects for the two ties indicate that managers should learn to differentiate business ties from political ties in the process of resource acquisition, especially in turbulent environments.

Third, the environmental turbulence's inverted U-shaped moderating effect on the business ties–resource acquisition linkage and negative moderating effect on the political ties–resource acquisition linkage have important implications for managers.

On the one hand, when the environment becomes extremely turbulent, the positive benefits of close business ties may become declining. Thus, managers should not over rely on business ties to acquire external resources. That is, managers must be cautious in building and utilizing much close ties with business partners, especially in highly turbulent environments. On the other hand, since environmental change dampens the positive effect of political ties, managers should not rely on too close political ties to cope with the rapidly changing environment.

### Limitations and future research

This study has certainly limitations. Some arise from the availability of data, and others relate to restrictions in the scope of the research. First, the mediators and moderators between managerial ties and firm performance are by no means exhaustive. Future studies should identify more mediator variables (e.g., both intra- and inter-organizational) between managerial ties and firm performance to further test the robustness of the theoretical predictions. Further, studying multiple mediating mechanisms simultaneously may provide a more nuanced understanding of how managerial ties affect firm performance than when these are studied one at a time. Also, future research would benefit from examining contingencies other than the uncontrollable environmental factor examined in this study.

Second, we measure managerial ties by asking the top managers whether they have established relationships with external actors. Although this measurement focuses on the formation of managerial ties and is consistent with most of the prior studies, testing the strength and/or value of ties seems to be more interesting as it explores more precise characteristics of ties. Future studies could consider studying and measuring not only tie formation but also tie value and strength.

Third, although we have taken some necessary precautions to ensure high quality data, it is insufficient. More advanced, accurate research methods and statistical models are necessary. For example, we measure firm performance by means of manager ratings. But scholars must approach subjective measures of performance with caution because this approach is likely to be biased. Research using more objective performance measures would improve the rigor of the results of perceptual measures. In addition, future research would need longitudinal designs since the impact of managerial ties on performance outcomes will take time to materialize. Also, though scholars have widely used the method of testing the mediation as in this study, others question the conceptual rationality of this method. Future research needs further examinations.

Finally, we have chosen China as the research context because of the central influence of its government, the long tradition of ties utilization, as well as its highly changing environment. But managerial ties in other countries are certainly also important. A vivid example of political ties in the recent global financial crisis is that Lehman Brothers filed for bankruptcy without help from the American government, but Morgan Stanley and Goldman Sachs survive because of the financial rescue by the government. In this sense, further investigation of the effects of managerial ties in other countries or regions should attract more attention in future research.

## Conclusion

This research offered empirical support for utilizing resource management theory to investigate the effects of managerial ties. We expanded on the social ties literature by suggesting the mediating effect of resource acquisition on the managerial ties–performance relationship. We also incorporated contingency theory to better understand the boundary conditions of the managerial ties literature and resource management perspective. We hope the current study will push future research to deepen our understanding of the mediating and moderating mechanisms of managerial ties in emerging economies.

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