

When, How, And So What

Three Essays On Managerial Practices Of Personal Tie Utilization In Organizations

by

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A Dissertation Presented in Partial Fulfillment  
of the Requirement for the Degree  
Doctor of Philosophy

Approved July 2014 by the  
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August 2014

## ABSTRACT

Over the past several decades, social network remains the most prevalent and prominent in the strategy and organization theory literature. However, despite the considerable research attention scholars devoted to exploring the implications and mechanisms of social ties and networks in management and organizational contexts, the following question has largely remained understudied: To what extent can top managers' personal ties and networks actually contribute to their firms? This thesis will strive to explore this research question by theoretically highlighting three logically consequent managerial decisions: (1) "*When*"—when will top managers choose to use their personal ties and networks in their firms; (2) "*How*"—will top managers use their managerial ties and networks to serve the best interest of their firms or to satisfy their self-interests; and (3) "*So what*"—how would the decision of using managerial ties and networks to benefit their firms influence other decisions of the firms. Using both primary data and archival information from Chinese firms, I will empirically test the step-wise framework. I expect this thesis to contribute to both strategic leadership and social network research and management practices.

“Impossible is a word to be found only in the dictionary of fools.”

-----Napoleon Bonaparte

It was a long path covered with grass and thorns, but I enjoyed every step.

And I feel so lucky that I was never alone in the long journey.

I hereby dedicate this dissertation work to my beloved parents,

Mr. Jie Jiang and Mrs. Qing Cai.

You have loved me and supported me unconditionally.

I love you with all my heart.

I dedicate this dissertation work to my advisor,

Dr. Albert A. Cannella.

You have been, and will always be my mentor and friend, in my research and in my life.

I am so happy and proud to be your student.

I also dedicate this dissertation work to everyone who has ever helped me in my research,

in my study, and in my life.

I sincerely appreciate all your help.

## ACKNOWLEDGEMENTS

The entire dissertation work has significantly benefited from the guidance of my graduation committee members, Dr. Albert A. Cannella (chair), Dr. Glenn Hoetker, Dr. Luiz F. Mesquita, and Dr. Cynthia E. Devers. I also want to thank Dr. Jun Xia, my friend and colleague, for his comments and suggestions for the overarching theoretical framework. With regard to each chapter, Chapter 2 has benefited from the detailed comments by Devereaux Jennings, David Krackhardt, Giuseppe Labianca, Jun Xia, and seminar participants in University of Memphis, University of New Mexico, City University of Hong Kong, and Tsinghua University in China. Chapter 3 has benefited from the detailed comments by Wei Shen and Jun Xia. Chapter 3 has benefited from the detailed comments by Amy Hillman, Pamela Barr, Jie Jiao, Wei Shen, and Jun Xia.

The surveys used in Chapters 2 and 4 were supported by Chinese National Natural Science Foundation NO. 71072009.

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CHAPTER 1  
INTRODUCTION

## GENERAL RESEARCH QUESTION DEVELOPMENT

Over the past three decades, scholars have devoted considerable attention to examining top managers' personal ties and networks<sup>1</sup> (i.e., managerial ties and networks, see Carpenter, Li, & Jiang (2012) for an extensive review). Through the perspective of strategic leadership and upper-echelon theory (Finkelstein, Hambrick, & Cannella, 2009; Hambrick, 2007; Hambrick & Mason, 1984), as the major agents of their firms (Hambrick, 2007; Sundaramurthy & Lewis, 2003), top managers are naturally motivated to use their personal endowments (including their social connections) to serve their firms. Following this logic, scholars have commonly deemed managerial ties and networks valuable resources that can significantly benefit firms, providing access to otherwise inaccessible resources (Shane & Cable, 2002; Hallen, 2008; Uzzi & Ryon, 2003), reducing transaction costs in interorganizational relationships (Gulati, 1995; Uzzi, 1997), and enhancing firm performance (Acquaah, 2007; Eisenhardt & Schoonhoven, 1996; Li & Zhang, 2007). Accordingly, so far, a wide-spread consensus on managerial ties and networks in the extant literature is the “micro-macro link” (c.f., Peng & Luo, 2000), i.e., the association between managerial ties and networks and their beneficial implications for firms. However, I argue that this micro-macro link perspective may be incomplete.

I initiate my argument by anatomizing the seemingly straightforward micro-macro link. The argument of micro-macro link naturally involves two different actors: top managers, the personal actors who directly participate in managerial ties and

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<sup>1</sup> Importantly, following prior social embeddedness studies (e.g., Shane & Cable, 2002; Uzzi, 1997, 1999; Uzzi & Lancaster, 2003) in this dissertation study I mainly focus on managers' embedded ties/networks with entities outside of the firms they serve (e.g., people in other firms, governments). Embedded ties/networks (e.g., friendship or family ties/networks) differentiates from arm's-length ties/networks with the existence of mutual confiding, reciprocal service, emotional attachment and shared time between participants (Granovetter, 1985; Uzzi, 1999). Without particular specification, the managerial (personal) ties/networks discussed in this study all refer to embedded ties/networks of managers with entities outside of their firms.

networks, and the firms, the organizational actors that benefit from managerial ties and networks. There is a basic fact with regard to these two actors: *It is the top managers as individual social actors, rather than the focal firms as organizations, that actually maintain and control the valuable managerial ties and networks and make the decision of using them.* In such a manner, the “owner” and beneficiary of managerial ties and networks in the argument of micro-macro link are actually separated. Parallel to the well-acknowledged argument about the separation of ownership and control in the agency theory literature (i.e., Allow, 1984; Fama & Jensen, 1983), I define this critical feature of the micro-macro link as “*the separation of ownership and beneficiary*”.

Drawing on this insight, it is reasonable to posit that the micro-macro link between managerial ties and networks and their beneficial implications for firms may not necessarily stand. Specifically, as discussed above, the central bond that connects the “ownership” and the “beneficiary” is top managers’ role as organizational agents and strategic leaders of their firms (Finkelstein et al., 2009; Li & Zhang, 2007). It is the best interest and responsibilities borne by this organizational agent role that drives the top managers to lend their personal network endowments to their firms. However, to the work-life interface literature (Katz & Kahn, 1978; Korman, Wittig-Berman, & Lang, 1981), top managers simultaneously assume multiple roles. Particularly, it is natural that they serve both as the organizational agents of their firms and as individual social entities in their personal life (Carpenter et al., 2012; Korman & Korman, 1980). Given the distinct natures of these two managerial roles, they intrinsically bear different responsibilities and indicate different interest demands, and may thus require managers to act differently to fulfill the distinct requirements of these two roles (Edwards & Rothbard,

2000; Kanter, 1977). In such a manner, when managers make the decision about using their managerial ties and networks, they may naturally concern both the best interests of their firms and their self-interests (Shapiro, 2005; Sundaramurthy & Lewis, 2003). Naturally, using managerial ties and networks to benefit their firms may have different implications for the two sets of interest considerations. That is, it naturally satisfies the firms' best interests, but may not necessarily represent the self-interests of top managers as individual social actors. On the one hand, directly participating in and maintaining these managerial ties and networks, top managers may personally bear the potential costs of using these social connections (Carpenter et al., 2012). On the other hand, as only a part of their firms, top managers cannot personally capture all the benefits of using managerial ties and networks to serve their firms. As a result, out of their self-interest considerations, top managers may not necessarily decide to use managerial ties and networks to benefit their firms. First, they may decide to not use their managerial ties and networks in the operation of their firms. Moreover, even if they decide to use their managerial ties and networks in their firms, they may use them in ways that benefit themselves rather than the firms (Jiang, Cannella, Jiao, & Gao, 2013). Accordingly, subject to these decisions, firms may not necessarily benefit from the managerial ties and networks of their top managers.

Taken together, I argue that behind the micro-macro link between managerial ties and networks and their beneficial implications for firms are the managerial decision-making processes through which top managers deliberately balance the benefits and costs of using managerial ties and networks based on the best interests of both their firms and themselves. These decisions may directly determine the extent to which firms can

actually benefit from the managerial ties and networks of their top managers. However, the extant micro-macro link literature has almost exclusively adopted the standpoint of firms, endeavoring to shed light on the beneficial implications of managerial ties and networks as well as the mechanisms through which these benefits take place (Carpenter et al., 2012). This emphasis explicitly or implicitly presumes that they will always use their managerial ties and networks to serve the best interests of their firms. Accordingly, little research effort has been devoted to examining such managerial decision-making processes underlying the micro-macro link, therefore largely leaving open the following question: *To what extent do firms actually benefit from the managerial ties and networks of their top managers?*

#### **DEVELOPMENT OF THE THREE SPECIFIC RESEARCH QUESTIONS**

Against this backdrop, in this dissertation research I attempt to shed light on the understudied question—to what extent do firms actually benefit from the managerial ties and networks of their top managers. As discussed above, to accurately understand the practical value of managerial ties and networks, it is necessary to explore the managerial decision-making processes through which top managers deliberately balance the benefits and costs of using managerial ties and networks. In the three essays, I respectively focus on the following three managerial decisions, which are in substance interrelated to each other in a logical sequence: **1) “When”**—*when will managers choose to use their personal ties and networks in their firms;* **2) “How”**—*will managers use their managerial ties and networks to serve the best interest of their firms or to satisfy their self-interests;* and **3) “So what”**—*how would the decision of using managerial ties and networks to benefit their firms affect other decisions in firms.* These three decisions

capture three important missing connections in the micro-macro link, which together tie in a general theoretical framework about the process through which the potential value of managerial ties and networks can be realized in firms. Figure 1 depicts this framework.

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Insert Figure 1 about here

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*When.* In the first study, I focus on an interesting yet long neglected topic in network research literature: *while there is a consensus that social networks can be highly valuable resources and benefit network participants saliently, does the instrumental value of social ties and networks necessarily mean that actors will definitely use the social ties and networks they possess?* Namely, a subtle yet critical issue has been largely overlooked in prior network studies: Being personally connected with another (i.e., “having a tie”) does not necessarily mean that an actor will always try to capture benefits from this social tie (i.e., “using a tie”) (Carpenter et al., 2012). First, the instrumental value of a tie depends, at least partially, on context (Burt, 1992, 1997; Li et al., 2008). More importantly, it has been well-established that using social ties can incur costs (e.g., Granovetter, 1985; Portes, 1996, 2000; Putnam, 1995). As such, actors may naturally be cautious about calling upon their social contacts, thus making the two notions, “having a tie” and “using a tie”, to differ theoretically and practically from each other.

This distinction between having a tie and using a tie may have especially important implications for managers’ decision of using managerial ties and networks in their firms. As discussed, managers may personally bear the risks and costs when they draw upon these personal social contacts in their firms, especially the potential loss of the personal social capital they lend to their firms (Carpenter et al., 2012). In such a manner, it is reasonable to posit that managers will be cautious when deciding whether to use their

managerial ties in their firms as well as which managerial ties they choose to use.

However, without specifically differentiating between having a tie and using a tie, prior studies have largely left open the following question: *When do managers use their personal ties in their firms' operation?*

The first study is designed to address this understudied question in the extant literature. Using a special research setting—entrepreneurs in new ventures, I attempt to examine the ways in which entrepreneurs make the decision to use (or not to use) their managerial ties to facilitate the fundraising process of their new ventures, a special case of managerial tie and network utilization in their firms.

**How.** I attempt to shed light on a natural following-up question of the issue *when* in the second study. As discussed above, top managers may base their decision about using their managerial ties and networks on both the best interests of their firms and their self-interests. In such a manner, it is natural that managerial ties and networks can be used by managers to benefit themselves personally or to benefit their firms (Carpenter et al., 2012; Ibarra, Kilduff, & Tsai, 2005). For example, prior studies have well documented that fact that managers may apply their personal ties with external stakeholders (e.g., government officials, managers in other firms) to advance the performance of their organizations (e.g., Acquah, 2007; Li & Zhang, 2007; Peng & Luo, 2000). Meanwhile, it has also been widely noticed that top executives may also use their friendship ties to select outside directors to serve their own self-interest, increasing their own power and influence in their companies and exerting more personal influence on the firms' decision making, and increasing their compensation (Hwang & Kim, 2009; Westphal, 1999). To this end, an interesting question left open in the literature is: *even if*

*managers actually use managerial ties and networks in their firms, will they use them in ways that serve their firms' best interests or in self-interested ways to benefit themselves?*

The second study is specifically designed to shed light on this question of “*how*”. Particularly, I focus on an interesting managerial practice in declining firms, i.e., their ship-jumping behavior. Ship jumping refers to upper-echelon administrators' proactive and voluntary turnover prior to the crisis or decline of their firms (Boivie, Graffin, & Pollock, 2012; Marcel & Cowen, 2014; Semadeni, Cannella, Fraser, & Lee, 2008). In declining firms endangered by crisis (e.g., huge financial loss, scandal, etc.), executives' social capital may have two-fold implications. On the one hand, managerial social capital provides the firms valuable resources and social supports to manage and survive the decline (e.g., Daily, 1995; Fischer & Pollock, 2004, Geletkanycz, Boyd, & Finkelstein, 2001). On the other hand, executives' social capital, as important source of information and social impact (Burt, 2001; Finkelstein, Hambrick, & Cannella, 2009), may provide executives more opportunities to jump ship. Accordingly, executives in declining firms may choose to use their social capital in two conflicting ways. On the one hand, executives, as the strategic leader of their firms, may use their social capital to serve the best interest of their firms and prevent the decline. However, doing so may cause the executives' personal losses such as tainted reputation and devaluation on labor market (Semadeni et al., 2008). On the other hand, executives may use their social capital to serve their best self-interest, searching for ship-jumping opportunities and abandoning the endangered firms. In such a manner, in a declining firm, an executive's social capital tends to have paradoxical implications, either inhibiting or encouraging his/her ship-jumping behavior. This dilemma leads to the following unanswered question: How would



executives' social capital affect their ship-jumping behaviors in declining firms? By examining how executives' social capital endowments affect their ship-jumping behavior, I explore the mechanisms behind the different ways in which they use their social capital.

***So what.*** After addressing the question of “*when*” and “*how*”, the third question that is essential to the determination of the value of managers' personal networks to their firms is “*so what*”, i.e., *what would be the consequences, especially consequences that are not directly relevant to organizational performance, if managers have used their personal networks to support their organizations' operation?* Despite the strong advancements and thorough understanding about the positive implications of managerial network utilization for firms' operation and performance (e.g., Acquaah, 2007; Gulati & Higgins, 2003; Hallen, 2008; Li et al., 2008; Peng & Luo, 2000; Shane & Cable, 2002; Uzzi, 1997), little effort has been devoted to examining other possible influences of managerial network utilization efforts on firms beyond their performance-boosting effects.

Particularly, as a special operational practice, managerial network utilization may largely interact with other potential or actual operational practices and strategic choices of the focal firms (Child, 1997; Eisenhardt & Zbaracki, 1992), thus incurring potential side effects on the focal firms' operation along with its performance-boosting implications. For example, drawing on the insight of social embeddedness (c.f., Granovetter, 1985; Uzzi, 1999), scholars have shown that in business relationships built up on the basis of managers' personal ties, both transactional parties face the normative pressures to act in accord with shared expectation, showing benevolence, trustworthiness and long-term orientation to each other (Uzzi, 1996; 1997; Uzzi & Lancaster, 2003). As

such, firms may be forced by such normative pressures of social embeddedness to act more generous and supportive to their business partners in personal tie-based transactions, and tend to be more hesitant to terminate such embedded business relationships (Gargiulo & Benassi, 2000; Gulati, 1995; Shane & Cable, 2002; Uzzi, 1997). To accurately comprehend the real value of managers' personal ties and networks to their firms, it is necessary to understand these potential effects of managerial network utilization, rather than solely focusing on its influences directly related to organizational performance.

The third study is designed to address these potential side effects of using managers' personal networks to serve their firms. I specifically test the relationships between two strategic alternatives—using entrepreneurs' personal business and political ties and using opportunistic behaviors—that can both be adopted by new ventures to solve their intrinsic liability of newness, attempting to shed light on the non-performance effects of managerial network utilization.

### **BASIC THEORETICAL FRAMEWORKS OF THE THREE STUDIES**

I develop the three studies in following ways. In Essay 1 (“*when*”), “*Who you know and who you count on: A risk-taking model of entrepreneurs' social tie utilization in venture fundraising*”, I demonstrate that “having a tie” is different from “using a tie” for top managers. My fundamental argument is that to entrepreneurs, having personal connections with investors may not necessarily equate to the effort to use these ties; instead, entrepreneurs may go through deliberate decision making process to determine whether or not to apply their entrepreneur-investor ties, as well as which ties to use. That is, by activating their social ties with investors to raise funds, entrepreneurs intentionally take on a level of personal risk. Specifically, using entrepreneur-investor ties to raise

funds for new ventures naturally attaches interpersonal norms and social exchange rules to the resulting venture-investment relationships (Uzzi, 1997, 1999). On the positive side, entrepreneurs can draw on these relational norms to persuade or even obligate investors to whom they are personally connected to invest in their ventures. However, these social norms and interpersonal codes reciprocally regulate both sides of the entrepreneur-investor ties in use (Blau, 1964; Gouldner, 1960). As a result, by using their social ties to convince or obligate investors to invest, entrepreneurs also accept some personal risk. That is, when entrepreneurs successfully raise funds by using social ties and eventually the venture falls well short of investors' expectations, the investors may perceive that the entrepreneurs violated the interpersonal codes of social exchange in securing the investment. Therefore, the entrepreneurs may bear significant personal costs, such as damaged social ties and socioemotional losses (Batjargal et al., 2013; Gomez-Mejia, Cruz, Berrone, & De Castro, 2011; Jiang, Cannella, & Jiao, 2012). As such, I argue that the activation of entrepreneur-investor ties in venture fundraising involves entrepreneurs' personal risk taking, which, by nature, is determined by a deliberate decision-making process (Hogarth, 1989).

Drawing on this insight, I highlight entrepreneurs' decisions about using their personal social ties with investors in venture fundraising. I posit that the personal risks borne by entrepreneurs who raise funds by making specific, personal appeals to investors with whom they have social ties are largely determined by two factors: the riskiness of the venture, linked to the obligation that investors (responding actors) take on by investing; and the strength of the tie being considered (tie strength), linked to the strength of norms governing the relationship. I further capture the riskiness of venture investment

with two proxies: venture quality, which indicates the venture's strategic capabilities and growth potential (Shepherd et al. 2000), and outcome extremeness, which indicates both the size of the investment at stake and the possibility of losing most or all of the investment (Sanders & Hambrick, 2007). Drawing insights from prospect theory (Tversky and Kahneman, 1978, 1992) and the behavioral agency model (Wiseman & Gomez-Mejia, 1998), I discuss how these factors (venture quality, outcome extremeness, and tie strength) respectively and jointly affect entrepreneurs' choices regarding the activation of social ties with investors to raise funds for their ventures.

In Essay 2 (“*how*”), “*Strong enough to fight or strong enough to flee? Executive social capital and ship jumping in declining firms*”, I attempt to shed light on the different ways in which top managers use managerial ties and networks in their firms. Prior studies have widely noticed that firms prefer to hire managers with high social status, which indicates the abundance of their managerial ties and networks (Finkelstein et al., 2009; Kim & Cannella, 2008). However, as discussed, in declining firms, top managers can use these social capital endowments in two different ways. They may either choose to stay and use their social capital to save their firms or opt for jumping ship through their social capital and abandoning their firms. I draw upon the perspective of resource dependence theory (RDT) to address this dilemma. Focusing on the interdependent relationships between actors, RDT posits that the dependence of an actor on other actors allows these stakeholders to exert some level of power over the focal actor and thus affect its decisions and actions (Pfeffer, 1987; Pfeffer & Salancik, 1978). In their seminal study, Pfeffer and Salancik (1978) posit that these interdependencies within and beyond an organization, and, consequently, the distribution of power and

control in the organization, both affect “the tenure and selection of major organizational administrators” (1978: 228). As such, RDT provides a natural theoretical perspective to examine executives’ ship-jumping behavior (Hillman, Withers & Collins, 2009).

Following the logic of RDT, I attribute executives’ ship-jumping behavior to two forms of dependencies, i.e., their external dependencies on the environmental context, and their internal dependencies on their firms.

Prior studies suggest that a central incentive for executives to jump ship is to keep themselves from being personally stigmatized by their firms’ crisis (Semadeni et al., 2008). In such a manner, I posit that executives may depend on taking external positions to avoid the potential stigma. In this regard, the social capital endowments of executives determine the degree of their external dependencies on these external positions. That is, as important components of executives’ social capital, these social contacts and networks can serve as a buffering mechanism that effectively mitigates the negative personal impact of firm crisis on executives (Wiesenfeld, Wurthmann, Hambrick, 2008; Zajonc, 1980). Accordingly, executives with high social capital endowments depend less on taking new jobs to avoid stigmatization by the current firm. However, executives’ social capital also determines the feasibility of their external employment opportunities (Dess & Shaw, 2001; Smith et al., 2012). In such a manner, while low network endowment makes it more necessary for an executive to jump ship, it also confines his/her available opportunities of doing so. Taken together, I posit a non-monotonic (inverted U-shaped) relationship between executives’ social capital endowment and their ship-jumping behavior.

Meanwhile, executives also largely depend on the resource endowments of their

firms and the members in their firms (Cannella & Lubatkin, 1993; Hillman et al., 2009). Particularly, executives largely depend on their firms, as well as their network endowments, to develop their social ties and networks (Westphal, Boivie, Chng, 2006; Zajac, 1988). These internal dependencies also tend to affect executives' decision to jump ship. On the one hand, they determine the opportunity cost of ship-jumping behaviors, such that executives may lose important and otherwise irreplaceable identities and connections if they jump ship from firms with abundant social capital endowments. On the other hand, the social capital endowments of a firm also determine executives' relative power and discretion within the firm (Finkelstein & Hambrick, 1987), such that executives may be entrenched in firms with high social capital endowments because of the lack of decision discretion. Following this logic, I adopt two indicators for these internal dependencies, i.e., the peer social capital, which refers to the social capital endowments of other upper echelon administrators in a firm, and the interfirm network, which refers to the firm's interfirm network endowments in the industrial network. I posit that both peer and interfirm network can reduce the likelihood of executive ship jumping behavior, as well as strengthen the effect of executives' social capital on their ship-jumping behavior.

In the third study (“so what”), “*The rationale of original sin: A behavioral model of new ventures' opportunism*”, I focus on the effects of entrepreneurs' managerial network utilization on a prevalent practice among new ventures—opportunism. I predict that managerial network utilization can intervene in entrepreneurs' decision making of opportunism in their new ventures, significantly reducing new ventures' opportunistic behaviors in business relationships. I mainly base the theoretical framework of this study

on prospect theory (Kahneman & Tversky, 1979; Sitkin & Pablo, 1992) and behavioral agency model (Wiseman & Gomez-Mejia, 1998). I posit that when perceiving high venture failure risks, entrepreneurs, as risk-averse decision makers, tend to take risk and engage in opportunism in new ventures to save their new ventures from failing and avoid the perceived fixed venture failure loss. However, if the focal entrepreneurs largely use their personal networks in their new ventures, they may personally bear the costs and risks of these opportunistic behaviors because of the strong connection between these entrepreneurs as individual social actors and their new ventures' operational practices, thus making them more concerned to use opportunism to save their new ventures. Plus, as strategic alternatives that can be used to address the intrinsic liability of newness, i.e., the extremely high venture failure risk (c.f., Bruderl & Schussler, 1990; Singh, Tucker, & House, 1986), managerial network utilization can reduce the necessity for new ventures to behave opportunistically, thus further confining their opportunism.

### **THE THEORETICAL CONTINUITY OF THESE THREE STUDIES**

In essence, these three studies are all designed around a central issue—the decisions of managerial network utilization. I mainly draw on the managers' standpoint, examining their decision-making processes through which their managerial ties and networks can be applied in ways that actually benefit their firms. As such, these three studies together construct a three-stage framework that fills the missing connections in the micro-macro link.

The first study, “*when*”, explicitly demonstrates the difference between the network endowments managers possess and the activated network they use to contribute to their firms, thus providing direct support to the necessity of the whole dissertation

research. Furthermore, they also provide a useful theoretical perspective as well as a series of indicators that can be used to determine which ties and networks owned by managers will they choose to use in different situations. In such a manner, the first study will help to clarify the first key issue of accurately determining the practical value of managerial ties and networks to their firms, i.e., ***which managerial ties and networks would be relevant to the focal firms.***

The second study, “*how*”, is logically consequent on the first study. Namely, only those managerial network using efforts that are conducted in accord with their firms’ best interests are valuable and desirable for the focal firms and can actually contribute to the construction of the micro-macro link. As such, by exploring the different ways in which different managerial network endowments can be used in firms, the second study contributes to accurately assessing the practical value of managerial ties and networks by further clarifying the second key issue, i.e., ***to what extent would these managerial ties and networks be used in ways that are desirable and valuable to the focal firms.***

The third study, “*so what*”, posits how managers’ personal network utilization may potentially affect their other strategic decisions. Even if managers actually use managerial ties and networks on behalf of their firms, these efforts may not necessarily lead to beneficial consequences for firms. In such a manner, it is necessary to understand the possible side effects and opportunity costs of managerial network utilization. As such, the third study completes the logic chain of the determination of practical value of managers’ personal ties and networks by clarifying the third key issue, i.e., ***what would be the possible side effects and opportunity costs if managers actually use managerial ties and networks to benefit heir firms.***



Taken together, these three studies compose an integrative theoretical chain in a logically stepwise way, i.e., which ties and networks would be in use → to what extent would they be used in valuable ways for the focal firms → what would be the opportunity costs of their favorable performance implications (see Figure 1). In such a manner, the three studies together open the black box of the micro-macro link, shedding light on in ways in which the practical value of managerial ties and networks to their firms can be determined.

## **METHODS**

In this first study, I used the high-tech ventures in Beijing as the research setting, examining the venture investments between start-up stage ventures registered in Beijing and local venture capital (VC) firms. I chose this research setting for several reasons. I chose start-up stage ventures because the start-up stage typically follows successful prototype or business model development and testing and the start-up is designed to generate the first production for sale (Ruhnka & Young, 1987; Sahlman, 1990; Tyebjee & Bruno, 1984). Therefore, start-up ventures have few established business connections and visible achievements, thus reducing the potential confounding effects from signals of venture quality that are accessible to VCs (Hallen, 2008). Likewise, choosing high-tech ventures registered in Beijing ensures the similarity in venture scope and geographic location, leading to consistency in environmental factors (industrial and business policy, regional economic development, infrastructure conditions, etc.).

Second, most Chinese VC firms are located in larger cities, like Beijing and Shanghai (Batjargal, 2007; Batjargal & Liu, 2004; Bruton, Ahlstrom, & Puky, 2009; Lu, Tan, & Huang, 2011). Also, as the center of the high-tech industrial cluster in Northern

China, Beijing has preferential institutional and market environments, which encourage the participation of both entrepreneurs and investors (Chinese Yearbook, 2012). To this end, the research setting provides abundant ventures and investors clustering in a geographically restricted region. The spatial proximity of ventures and investors leads to a relatively dense entrepreneur-investor network, which naturally allows the establishment and maintenance of embedded social ties between entrepreneurs and VCs. Therefore, the research setting of local venture investment is well suited to the phenomenon of interest in this study .

Our data collection included two annual surveys, one in 2011 and one in 2012. Both surveys were distributed after the Chinese Spring Festival (in March of 2011 and February of 2012). Because many Chinese firms close their fiscal years before the Chinese Spring Festival rather than before the calendar year, the timing helped us to capture complete information about local venture investments made during the previous year. In each survey, I used the official reports and records from the Beijing Administration for Industry and Commerce and the Beijing Municipal Bureau of Financial Work to identify VC firms registered and operating in Beijing (I identified 67 in 2010 and 70 in 2011). With the assistance of local government and the local venture capital association, I approached these VCs asking for their agreement to participate in this study. There were 43 firms in 2011 and 41 in 2012 that agreed to participate. To check for potential nonresponse bias, I compared the participating VC firms with non-participating ones in terms of their registered asset size and the number of investments they made, and found no significant differences on these dimensions. Then, I surveyed the CEOs/managing partners in these VC firms about their venture investment actions

during the previous year in the district.

Importantly, in the venture financing process, each venture only receives investment from a small number of VC firms, and likewise, each VC firm can only evaluate and then invest in a limited number of new ventures (Hallen, 2008; Sorenson & Stuart, 2001, 2008). As a result, it has been widely recognized in the venture financing literature that relative to the population of all possible venture-VC dyads, the successful formation of investment ties between ventures and VCs is a rare event (Batjargal & Liu, 2004; Hallen, 2008; Sorenson & Stuart, 2001). For this reason, using all possible dyads between the VC firms and the start-up stage ventures to test the hypotheses would have yielded biased estimates, because using logistic regression to account for rare events tends to underestimate coefficients for factors that predict positive outcomes (King & Zeng, 2001). Moreover, intuitively, VC firms do not invest in ventures that they have not evaluated. For these reasons, I restricted the sample to venture-VC dyads in which VCs actually evaluated the ventures as potential investment targets.

Following prior studies (e.g., Batjargal & Liu, 2004; Hallen, 2008; Jensen, 2003), I adopted a choice-based sampling technique (Manski & Lerman, 1977; Manski & McFadden, 1981; McFadden, 1980). To identify the sample new ventures, I asked the VC survey participants to identify all the start-up stage new ventures they had evaluated in the previous year in the district. This process identified 167 ventures in the 2011 survey and 159 ventures in the 2012 survey. All sample ventures were private firms. To ensure the representativeness of this choice-based sample, I compared these sample ventures and a set (500) of randomly-chosen high-tech ventures in China in terms of their registered asset size, number of employees, and firm age, and found no statistically

significant differences on these dimensions. After sending out a request to participate to the ventures identified above, 124 ventures in 2011 and 109 ventures in 2012 agreed to participate in this study. Comparing the participating ventures with non-participating ones, I found no significant differences on their registered asset size, number of employees, or firm age. This process led to 427 venture-VC dyads in the 2011 survey and 389 in the 2012 survey, which in total included 89 actual investment dyads – ventures funded by VC firms (42 in 2011 and 47 in 2012) – and 727 non-investment dyads – VCs that evaluated a sample venture but did not fund it. These 816 effective dyads composed the final choice-based sample. The 89 investment dyads involved 84 sample ventures (i.e., three ventures received investments from two VCs and one venture received investments from three VCs). For each sample venture, I asked its major strategic leader (CEOs, general managers, board chairs, etc.) about new venture and his/her social ties with sample venture capitalists.

All surveys were conducted via structured interviews. The authors conducted face-to-face interviews with all sample VC firms and 89 sample ventures (38 in 2011 and 56 in 2012). Trained interviewers were hired to conduct the telephone interviews with the remaining sample ventures in the company of the research assistants.

In the second study, I chose the specially treated public firms in Chinese stock market provide as the empirical setting to test the theory. In May 2003, China launched the revised delisting risk monitoring system, mandating that if a publicly listed company reports accounting losses in two consecutive years, its stock will be put under special treatment (ST for short) for delisting risk warning and listed with the prefix of “\*ST” (Jiang & Wang, 2008). \*ST stocks are subject to special trading and financial restrictions.

For example, the daily stock price movement for an ST stock cannot exceed 5% in either direction. Moreover, the ST stock will not be allowed to raise additional capital from the stock market. After a stock is prefixed with \*ST, it will be suspended from public trading after the company reports one more annual loss, and delisted after two. In contrast, the company will be able to remove the \*ST prefix if its performance is significantly improved after the \*ST filing. Drawing on this insight, in Chinese stock market, the \*ST filing indicates both the current decline of a company's performance and the high risk of its stock market failure in the future. As such, a company's \*ST announcement is a strong and publicly accessible signal indicating its declining tendency (Zhou, 2013). Moreover, since the \*ST filing requires two consecutive annual financial loss, it naturally allows executives to proactively jump ship before the filing.

I collected longitudinal data about 248 publicly listed Chinese companies whose stock was prefixed with \*ST (\*ST companies for short) from 2004 to 2011. The data was collected from two leading Chinese stock market data providers, i.e., WIND Information, and CSMAR Solution. I excluded \*ST companies that experienced reverse merger from the sample. Reverse merger, or “*Mai Ke* (买壳)” in Chinese, refers to the following practice. A private company takes control of an \*ST company by buying its stock (usually 70% to 90%), and then makes the decision for the \*ST company to acquire the private firm. Doing this will allow the \*ST company to reorganize and turnover by using superior assets of the private firm, and the private firm to get access to public capital in the stock market. It has been acknowledged that reversed mergers will often lead to major change in top management teams before and after \*ST filing and thus confound the findings (Darrrough, Huang, & Zhao, 2013). This exclusion narrowed the sample size

down to 122 \*ST firms.

Following prior studies (e.g., Marcel & Cowen, 2014; Semadeni et al., 2008), for each sample \*ST company, I examined the year-end reports for each sample \*ST company, identifying its major executives, i.e., the CEO, CFO, president, and executive vice president as the sample executives. In total, this method leads to a sample of 278 executives of the 122 \*ST companies.

In the third study, I chose the computer and communication equipment manufacturing industry in three southeast provinces in China as the research setting. I chose this setting for several reasons. First, the computer and communication equipment manufacturing industry is dominated by new ventures in China (Dowling & McGee, 1994; McDougall, 1989; Wadhwa & Kotha, 2006). Second, according to official industrial reports (China yearbook, 2011), the industry in these three provinces is well established, including relatively complete industrial value chains, well-developed infrastructures, and strong connections and cooperation between firms and research institutes (c.f., Porter, 1985). These munificent environments further encourage entrepreneurial actions (Venkataraman, 1997). Additionally (and important for the methodology), opportunistic behavior can be judged most objectively and accurately by external stakeholders who have relational experience with the firms in question (c.f., Carson et al., 2006; Luo, 2007). Using participant firms in the same region and same industry allows us to capture intra-industry networks across sample firms and, accordingly, use these networks to locate qualified informant firms to evaluate the extent of new venture opportunism.

The data collection process was conducted from February 2010 to October 2011. I

began by conducting 25 interviews (with 16 top managers in computer and communication equipment manufacturing firms and 9 executives in industrial associations) to ensure the content validity of the survey items. Interviewees were asked to check the relevance and completeness of the items based on their industrial experience and personal perceptions. Based on their responses and suggestions, I made minor adjustments to several items to enhance their content validity in the research setting. With the adjusted survey, I then conducted a pilot study with 69 top managers in the three sample provinces and finalized the items used in the formal survey.

The data collection process included multiple stages and involved both established firms and new ventures. First, with the assistance of a government-funded national research institution, I secured access to a directory including the total 4,386 firms registered in the communication equipment manufacturing industry in the three provinces. I contacted all 4,386 firms to request their CEOs or general managers to indicate at least 3 firms with which they have or have had business relationships or of which they are aware as participants in their industry. After a follow-up reminder, I received 329 responses, with each response nominating at least 3 firms. As a result, these respondents nominated a total of 631 individual firms, where 187 firms (29.6%) were nominated more than once. I used these 631 firms as the survey sample frame.

Prior entrepreneurship studies in China have commonly defined new ventures as firms younger than 5 years (e.g., Li & Zhang, 2007; Zhao & Aram, 1995). The interviewees from both firms and industrial associations largely consented to this criterion for identifying new ventures in computer and communication equipment industry in China. As such I defined new ventures as firms founded within the past 5

years. Following this definition, 206 out of the 631 sample firms were classified as new ventures. The average age was 12.23 years (SD=5.69) for all participant firms (including both new ventures and established firms), and 2.18 years (SD=2.01) for sample new ventures.

After identifying the survey participants, I conducted the next round of surveys. To avoid consistency biases that may exist when both independent and dependent variables are collected at the same time (c.f., Podsakoff & Organ, 1986), I used a temporally lagged design involving two time periods, collecting explanatory variables at Time 1 and predictor variables at Time 2 (approximately five months later). All sample firms received the same Time 1 survey, capturing some independent variables such as low legitimacy, information unverifiability and institutional inefficacy. As I will describe below, resource scarcity was captured from archival data. At Time 2, I adopted two different versions of the survey, such that new ventures were only asked to report their utilization of their leaders' personal ties and networks, while established firms were asked to report their business partners' opportunism. This separation of informants is designed to reduce self-report bias in the assessment of opportunism. Preliminary tests of the Time 2 survey data showed that new ventures have a higher opportunism propensity than established firms ( $t=2.78$ ,  $p<0.01$ ), but their use of managerial networks was not different from that of established firms ( $t=1.32$ , ns.).

A total of 606 sample firms (96.0%) made effective responses to both Time 1 and Time 2 surveys, including 201 new ventures (97.6%) and 405 established firms (95.3%). These sample new ventures and established firms showed no significant difference with the non-responding ventures and established firms in their average age, scale of



registered capital and number of employees. I used the 201 new ventures as the final sample for theoretical testing, and using the information from the 405 established firms to assess the opportunism and resource scarcity of the sample ventures and crosscheck the reliability of the answers from sample ventures.

### **EXPECTED CONTRIBUTIONS**

Together as a doctoral dissertation, these three studies contribute to prior managerial network and managerial social capital research by specifically anatomizing the “micro-macro links” between managerial ties and networks as managers’ personal endowments and their instrumental value to the focal firms as economic organizations (c.f., Li et al., 2008; Peng & Luo, 2000), and therefore help to answer the to date understudied question: *to what extent can firms actually benefit from the managerial ties and networks of their top managers.*

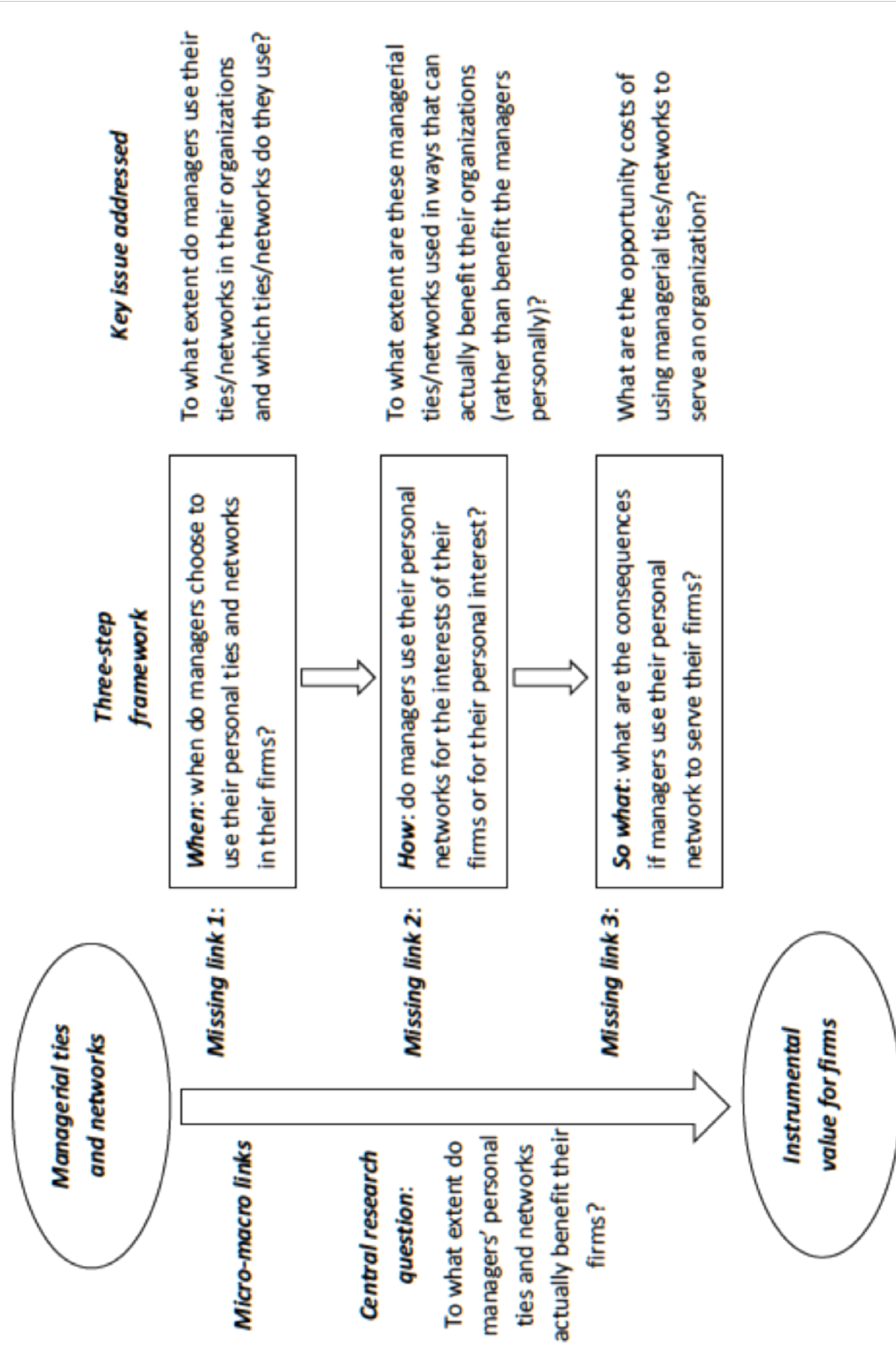
As discussed earlier, management and organizational scholars so far have almost exclusively treated the favorable implications of managerial ties and networks for firms in a taken-for-grant way, barely attempting to open the black box of the actual process through which the value of these personal endowments of managers can be realized at the organizational level. By systematically anatomizing the potential relationship between the micro and the macro end of such “micro-macro link” into three logically consequent questions (i.e., *which ties and networks would be in use, to what extent would they be used in value-creating ways for the focal firms, and what would be the opportunity costs of their favorable performance implications*), and drawing on the insight of behavioral decision making theories to fill these blanks by closely examining managers’ personal decision making processes, these studies provide an exploratory theoretical framework

that can be used by future studies to determine the practical value of managers' personal ties and networks to their organizations, complementing the extant managerial network and managerial social capital research by developing an "inner" perspective to examine the "micro-macro links".

Plus, by specifying the three major theoretical questions in specific research settings, the three studies also respectively contribute to their specific research domains. To name a few, the first study, "***Who you know and who you count on: A risk-taking model of entrepreneurs' social tie utilization in venture fundraising***", contributes to network research by theoretically and empirically justifying the differentiation between "having a tie" from "using a tie", and advances venture financing research by provides a new behavioral theory perspective to examine venture investment process. The second study, "***Strong enough to fight or strong enough to flee? Executive social capital and ship jumping in declining firms***", contributes to strategic leadership research by bridging across social capital theory and resource dependence theory in studying executives' turnover (c.f., Carpenter et al., 2012; Ibarra et al., 2005; Khatri et al., 2006; Portes, 1998), and shows the applicability of an alternative perspective to examine agent-principal relationships, that is, bridging the self-interest assumption of agency theory and the altruism assumption of stewardship theory, which have been mainly contrasted in prior studies (c.f., Sundaramurthy & Lewis, 2003). The third study, "***The rationale of original sin: A behavioral model of new ventures' opportunism***", largely complements the extant opportunism research by shedding light on the unsolved question as mentioned, i.e., the possible reason and mechanisms underlying firms' opportunistic behaviors. Also, it sheds light on the unexpected consequences of an understudied managerial decision of

their social network utilizations on their other decisions. These specific contributions will be listed in each paper in detail.

**FIGURE 1**  
**INTEGRATIVE THEORETICAL FRAMEWORK**



## CHAPTER 2

### WHO YOU KNOW AND WHO YOU COUNT ON: A RISK-TAKING MODEL OF ENTREPRENEURS' SOCIAL TIE UTILIZATION IN VENTURE FUNDRAISING

## INTRODUCTION

There is a broad consensus in prior network studies that actors can capture important benefits from their social contacts (i.e., Bourdieu & Wacquant, 1992; Burt, 1997; Lin, 2001). Given their beneficial implications, actors' social ties have generally been treated as valuable personal endowments. Accordingly, researchers have focused a good deal of attention on identifying the value of social ties and understanding the mechanisms behind realizing that value (Kilduff & Brass, 2010).

However, a subtle yet critical fact about social ties is that being connected to another does not necessarily mean that an actor will intentionally activate the connection (Carpenter, Li, & Jiang, 2012). Specifically, it has been well-established in prior network research that the activation of social ties is accompanied by certain costs and risks (e.g., Granovetter, 1985; Portes, 1996, 2000; Putnam, 1995). For example, norms of reciprocity attached to social ties implies that actors who activate ties accept a level of social indebtedness in doing so (Gouldner, 1960; Yang, 1994). Failure to appropriately reciprocate violates interpersonal norms and jeopardizes the ties, thus incurring potential losses of social capital, reputation, affective commitment, and so on (Blau 1964). For this reason, by activating social ties, actors sometimes accept personal risks and to avoid these risks, they may sometimes avoid activating their social ties (Carpenter et al., 2012). Drawing on this insight, to unveil the extent to which actors actually benefit from their social ties, it is important to understand the decision-making process behind tie activation. However, with few exceptions ( Borgatti & Cross, 2003; Levin, Walter, & Murnighan, 2011; Smith, Menon, & Thompson, 2012), prior studies have ignored the issues behind tie activation, implicitly assuming that actors will always use the ties they have.

I believe that understanding the decision-making process behind social tie activation is especially important for managerial social ties, i.e., managers' interpersonal contacts (kinship ties, friendship ties, personal acquaintance, etc.) with external stakeholders. Scholars have widely highlighted the beneficial implications of managerial networks in securing access to external resources (Acquaah, 2007; Collins & Clark, 2003; Peng & Luo, 2000). However, as I have explained, managers may avoid using their social ties to secure resources for their firms. Particularly, as direct participants in their networks, managers may personally bear some costs when using their personal contacts on behalf of their firms. As such, it is reasonable to expect that managers will be cautious about and may sometimes intentionally avoid using their social ties to seek resources for their firms. Building on this notion, to fully understand the contributions of managerial social ties and networks to firms, it is necessary to highlight the decision-making process behind managers' social tie activation and specifically differentiate between "having a managerial social tie" and "using this tie to secure resources for firms".

Against this backdrop, I focus on a special case of managers deciding whether or not to use their personal social ties to benefit their firms – entrepreneurs in the process of new venture fundraising. I chose this setting for several reasons. First, entrepreneurs' social contacts are particularly valuable for new ventures, nearly all of which suffer from significant liabilities of newness (Li & Zhang; Liu, Li, Hesterly, & Cannella, 2011). For this reason, entrepreneurs are strongly motivated to activate their personal social ties as they seek venture funding. Second, entrepreneurs tend to have relatively high risk propensity and risk tolerance (Stewart & Roth, 2001), therefore potentially making them more likely to accept any personal risks associated with using their social ties to support

their ventures. Third, the new venture setting is one in which the responding actors (those secured through social tie activation) must accept significant risk in responding. As such, the risks of tie activation are important for managers in this setting because if the venture fails, the responding actors (the investors) will place blame squarely on the requesting actor (the entrepreneur). For these reasons, the setting has all the critical characteristics necessary for testing the difference between having a tie and using a tie.

Our basic argument is that by activating their social ties with investors to raise funds, entrepreneurs intentionally take on a level of personal risk. Specifically, using entrepreneur-investor ties to raise funds for new ventures naturally attaches interpersonal norms and social exchange rules to the resulting venture-investment relationships (Uzzi, 1997, 1999). On the positive side, entrepreneurs can draw on these relational norms to persuade or even obligate investors to whom they are personally connected to invest in their ventures. However, these social norms and interpersonal codes reciprocally regulate both sides of the entrepreneur-investor ties in use (Blau, 1964; Gouldner, 1960). As a result, by using their social ties to convince or obligate investors to invest, entrepreneurs also accept some personal risk. That is, when entrepreneurs successfully raise funds by using social ties and eventually the venture falls well short of investors' expectations, the investors may perceive that the entrepreneurs violated the interpersonal codes of social exchange in securing the investment. Therefore, the entrepreneurs may bear significant personal costs, such as damaged social ties and socioemotional losses (Batjargal et al., 2013; Gomez-Mejia, Cruz, Berrone, & De Castro, 2011; Jiang, Cannella, & Jiao, 2012). As such, I argue that the activation of entrepreneur-investor ties in venture fundraising involves entrepreneurs' personal risk taking, which, by nature, is determined by a



deliberate decision-making process (Hogarth, 1989).

Drawing on this insight, I highlight entrepreneurs' decisions about using their personal social ties with investors in venture fundraising. I posit that the personal risks borne by entrepreneurs who raise funds by making specific, personal appeals to investors with whom they have social ties are largely determined by two factors: the riskiness of the venture, linked to the obligation that investors (responding actors) take on by investing; and the strength of the tie being considered (*tie strength*), linked to the strength of norms governing the relationship. I further capture the riskiness of venture investment with two proxies: *venture quality*, which indicates the venture's strategic capabilities and growth potential (Shepherd et al. 2000), and *outcome extremeness*, which indicates both the size of the investment at stake and the possibility of losing most or all of the investment (Sanders & Hambrick, 2007). Drawing insights from prospect theory (Tversky and Kahneman, 1978 1992) and the behavioral agency model (Wiseman & Gomez-Mejia, 1998), I discuss how these factors (venture quality, outcome extremeness, and tie strength) respectively and jointly affect entrepreneurs' choices regarding the activation of social ties with investors to raise funds for their ventures.

This study contributes to the extant literature in several ways. First, I emphasize an understudied topic – the difference between having a tie and using a tie, or more broadly, the network an actor participates in, and his/her efforts to apply this network toward instrumental ends (Carpenter et al., 2012). By specifically demonstrating the theoretical and practical differences between having a tie and using a tie, this study contributes to network research by establishing the necessity of considering multiple forms of networks (e.g., “the potential network an actor participates in” and “the utilized

or activated network the actor actually applies”) especially in studies focusing on the implications of social ties and networks. Second, this study also contributes to the strategic leadership literature by considering the following unanswered question: *To what extent do firms benefit from their managers’ personal social ties and networks?*

Researchers have commonly treated the personal ties and networks of managers as endowments of their firms (Kilduff & Brass, 2010). However, prior research varies significantly in the explanatory power of managerial personal ties and networks on their beneficial implications for firms (Carpenter et al., 2012). By showing that managers may not necessarily use their personal ties on behalf of their firms, this study provides an explanation for the mixed evidence about the implications of managerial personal ties and networks. Lastly, using behavioral decision theory to highlight the risk-taking behind tie activation in securing venture investment, this study provides a socio-psychological perspective for studying venture investment that goes beyond and complements prevalent theoretical approaches in prior venture finance research, such as transaction cost analysis (e.g., Sahlman, 1990) and agency theory (e.g., Gompers, 1996).

### **MANAGERIAL TIE ACTIVATION: FROM WHO YOU KNOW TO WHO YOU COUNT ON**

Fundraising efforts represent an essential yet challenging entrepreneurial task (Zhang, Souitaris, Soh, & Wong, 2008). Financially constrained ventures often rely on their leaders’ personal connections to secure needed funds (Baron & Markman, 2000; Sorenson & Stuart, 2001; Uzzi, 1996). The social exchange norms of mutual obligation, mutual support and interpersonal affect embedded in these social ties may allow entrepreneurs to motivate actors to whom they are personally tied to be more supportive

and generous toward the ventures (Granovetter, 1985; Gulati, 1998; Uzzi, 1999). Using this logic, scholars have widely argued that entrepreneur-investor ties can significantly facilitate venture fundraising (Cable & Shane, 1997; Uzzi, 1996).

The predicted beneficial implications of social ties for venture financing reflects the logic of social embeddedness (Uzzi, 1997, 1999), which emphasizes that “commercial transactions take place through social relationships and networks of relationships that use exchange protocols associated with social, noncommercial attachments to govern business dealings” (Uzzi, 1999: 482). Uzzi describes how the interpersonal norms and affection involved in managerial personal ties affect interfirm relationships, inclining firms to act toward each other like “...a ‘relief organization’ for the other firms in its network. The stronger firms in the network may dedicate resources to weaker members at a rate that outpaces their capacity to rejuvenate their own resources “ (1997: 59). This logic suggests that managers can draw on the norms of mutual support and mutual obligation and the interpersonal affection embedded in their social ties to persuade or obligate others to be more generous and supportive in interfirm transactions, therefore facilitating their access to valuable external resources (Gulati, 1995; Shane & Cable; Uzzi, 1996).

However, having valuable social ties does not necessarily mean that a manager will use these ties to seek resources for their firms (Carpenter et al., 2012; Nadler, 1987; Smith, Smith, & Bliss, 2011). As discussed earlier, by using their social ties to conduct interfirm transactions, managers potentially accept some personal risks. That is, by attaching the relational norms and interpersonal affect to interfirm relationships and regulating economic transactions with these interpersonal codes, managers intertwine

their social ties with interfirm transactions. As a result, any undesired outcomes occurring in the transactions may be perceived as violating the interpersonal norms regulating social ties, leaving the managers personally bearing some responsibility for the undesired outcomes. Accordingly, the manager may suffer from consequent personal loss of social capital and socioemotional well-being, such as loss of valuable social contacts, tainted reputation, damaged social identity, and so on (Blau, 1964; Jiang et al., 2012). Following this logic, it is reasonable to predict that managers will be cautious about using their personal social ties to secure resources for their firms.

Regarding the beneficial effects of entrepreneur-investor ties on venture fundraising, the distinction between having a tie and using a tie has particular implications. Specifically, given the risky nature of the context, venture investment naturally involves the acceptance of significant risk on the part of investors (Amit, Glosten, & Muller, 1990; Gompers & Lerner, 2001). As such, by activating their personal ties to raise funds for their ventures, entrepreneurs draw on the relational norms and interpersonal affective commitments attached to those social ties to convince or obligate investors to take risk by investing in their ventures. Consequently, entrepreneurs also accept some personal risks: When an entrepreneur uses a personal tie to raise funds and the venture significantly underperforms or fails, the investor may feel personally violated because the entrepreneur drew on the personal connection to secure the investor's commitment. Accordingly, the investor is likely to blame the entrepreneur for misrepresenting the venture and for taking advantage of their personal relationship, thus causing the potential loss of the entrepreneur's personal social capital and socioemotional wealth. Therefore, it is natural that entrepreneurs will exercise significant care in making

decisions about using personal social ties to raise funds for their ventures. Taken together, I posit that using entrepreneur-investor ties in venture fundraising intrinsically represents entrepreneurs' taking personal risks on behalf of their ventures.

In sum, I argue that for entrepreneurs, having social ties with investors does not necessarily equate to the activation of those ties in venture fundraising. Rather, using these ties to raise funds reflects entrepreneurs' personal risk taking, which is the outcome of a deliberate decision-making process (Lichtenstein & Slovic, 2006; Sitkin & Pablo, 1992). Next, I will highlight the decision mechanisms through which entrepreneurs determine whether or not to take personal risks and activate their social ties in venture fundraising.

## **A RISK-TAKING MODEL OF TIE ACTIVATION IN VENTURE**

### **FUNDRAISING**

#### **The elements of personal risk involved in using entrepreneur-investor ties**

Risk is generally defined as a condition in which decision makers can assign possibilities to probable outcomes (for historical context, see Knight, 1921; Rothschild & Stiglitz, 1970; von Neumann & Morgenstern, 1947). In managerial decision-making contexts, this general notion of "risk" includes several elements, with distinct implications for decision-making (March & Shapira, 1987; Sanders & Hambrick, 2007; Shapira, 1995). Therefore, I disaggregate the elements of risk to highlight the mechanisms behind the personal risk-taking of entrepreneurs.

Based on the above discussion, using social ties in venture fundraising is personally risky for entrepreneurs, because they draw on the interpersonal norms and affection to convince or obligate their personal contacts (investors) to accept significant

risk. By nature, these interpersonal codes reciprocally regulate both sides of the social ties in use (Blau, 1964; Gouldner, 1960; Yang, 1994). Therefore, when entrepreneurs successfully raise funds by using social ties and the venture's performance falls well short of investors' expectations, the entrepreneurs are likely to be perceived as having violated the norms of interpersonal exchange and therefore as personally culpable for the original investment decision. Using this logic, I posit that the personal risk borne by entrepreneurs in activating social ties is naturally determined by two factors: (1) *the scale of the risk they convince their social ties (investors) to accept*, and (2) *the strength of relational norms they draw on*. As I will describe, the scale of the risk is represented by *the riskiness of the requested venture investment*, and the strength of the relational norms is represented by *the strength of the tie in use* (Carpenter et al., 2012).

I argue that the riskiness of the requested venture investment and entrepreneur-investor tie strength together shape the potential personal risks related to the use of social ties. On the one hand, the riskier the requested venture investment, the more likely the venture may dramatically underperform, thus making the entrepreneur more likely to be personally blamed by the investors. On the other hand, the stronger the entrepreneur-investor tie that is activated, the stronger the interpersonal norms and affection drawn upon, and the more likely that the entrepreneur will be perceived as personally responsible for any bad outcomes, and the more social capital and socioemotional wealth that is put at risk (Jiang et al., 2012). Next, I will discuss how the riskiness of the venture and entrepreneur-investor tie strength affect entrepreneurs' decision of social tie activation in venture fundraising.

### **The riskiness of the requested venture investment**

According to prospect theory, risk includes two components: the probability of gain/loss, and the significance or magnitude of possible outcomes (Fishburn, 1988; Hogarth & Einhorn, 1990). Following this logic, I adopt two concepts to capture the riskiness of a venture investment: venture quality, which indicates the likelihood of failure to meet return expectations, and outcome extremeness, which indicates the scale and variance of investment outcomes (“big losses versus big wins”).

*Venture quality.* Venture quality, as reflected by ventures’ founding team capabilities, strategy, and growth potential (Shepherd, 1999; Shepherd, Douglas, & Shanley, 2000; Thornhill & Amit, 2003), is naturally linked to venture performance and survival. Low-quality ventures are more likely to underperform or fail and less likely to produce high returns for investors (Brealey & Myers, 1996; Hall & Hofer, 1993). As such, it is of higher personal risk for entrepreneurs to use their personal social ties to raise funds for low-quality ventures.

In addition, venture investors, as rational actors, naturally focus their investments on those ventures that are expected to produce high returns, so low-quality ventures are of lesser attractiveness to investors (Brealey & Myers, 1996; Hall & Hofer, 1993). Therefore, when entrepreneurs successfully raise funds for low-quality ventures using their social ties, the investments are more likely to be based on investors’ interpersonal obligations to the entrepreneurs and less likely to be based on the rational calculation of the ventures’ value as investment targets. As such, investors will be more likely to blame the entrepreneurs personally for undesired outcomes.

Taken together, I posit that it is personally more risky for entrepreneurs to use

their social ties with investors to raise funds for their ventures when the ventures are of low quality. Accordingly, entrepreneurs tend to be more hesitant about activating their entrepreneur-investor ties when their ventures are of low quality.

***H1a: Venture quality is positively related to the likelihood that entrepreneurs will activate their personal social ties in venture fundraising.***

***Outcome extremeness.*** The extremeness of a risky situation reflects the range of variance in the expected payoff, indicating the likelihood of significant gain/loss, i.e., “big loss and big win” (Hogarth, 1989; Sitkin & Pablo, 1992; Tversky & Simonson, 1993). The concept of extremeness captures two important facets of a risky situation: the amount at stake, and the likelihood of extraordinary loss. Accordingly, in this study I define outcome extremeness as the variance of expected investment outcomes, which arises from both the scale of investment and the possibility of losing most or all of it (Sanders & Hambrick, 2007).

I posit that high outcome extremeness tends to discourage entrepreneurs from using their social ties in venture fundraising. It has been noted that decision makers are naturally averse to options with high extremeness in outcomes (Simonson & Tversky, 1992; Tversky & Simonson, 1993). Given this tendency of extremeness aversion, investors tend to be more concerned and cautious about highly extreme investments (Ruhnka & Young, 1991; Slovic, 1995). For this reason, entrepreneurs might need to rely more heavily on the interpersonal affection and relational norms embedded in their social ties to secure needed investments for ventures of high outcome extremeness. Moreover, it has been widely noted that actors are more likely to attribute large failures to external factors (Feather, 1969; Streufert & Streufert, 1969; Vaara, 2002). For these



reasons, investors are more likely to blame entrepreneurs personally for any extreme losses from investments secured through social ties. Taken together, I posit that it is personally more risky for entrepreneurs to use social ties for ventures of high outcome extremeness, which in turn discourages entrepreneurs from using social ties in those settings.

***H1b: Outcome extremeness is negatively related to the likelihood that entrepreneurs will activate their personal social ties in venture fundraising.***

***Interaction between venture quality and outcome extremeness.*** With regard to the two elements of risk, i.e., the probability and the magnitude of possible outcomes, scholars have argued that they will often have interactive effects as well as main effects (Hogarth & Einhorn, 1990; March & Shapira, 1987). Prospect theory predicts that the possible gain/loss (as the product of the probability and magnitude of possible outcomes) affects how decision makers frame a situation, which in turn affects their choices (Fishburn, 1988; Fleishman, 1988; Tversky & Kahneman, 1986). Specifically, entrepreneurs, as loss-averse decision makers, tend to be more risk averse if they frame the alternative as a likely gain, and more risk seeking if they frame the alternative as a likely loss (Wiseman & Gomez-Mejia, 1998).

Following this logic, I posit that venture quality and outcome extremeness may interact to jointly affect decisions about using social ties in venture fundraising. That is, when their ventures are of high quality and have high outcome extremeness, entrepreneurs are more likely to frame the likely outcome as a gain (Forlani & Mullins, 2000). Therefore, they may be more averse to taking the personal risks associated with

using social ties to raise funds. Further, high-quality ventures are more likely to attract investment (Batjargal & Liu, 2004). As such, leaders of high-quality ventures may be able to secure even extreme-outcome investments without drawing on their social ties and accepting potential personal risk. Following this logic, I predict that high venture quality coupled with high outcome extremeness tends to make entrepreneurs less likely to use their social ties.

In contrast, for low-quality ventures, entrepreneurs are more likely to frame the alternative to using social ties as venture failure (Jiang et al., 2012). In this setting, entrepreneurs are likely to become risk-seeking, perhaps “grasping at straws” to avoid venture failure (Hannafey, 2003). Moreover, low venture quality constrains venture fundraising, and coupled with high outcome extremeness tends to make investments very difficult to secure without the use of social ties. Taken together, I expect that entrepreneurs will be motivated by low venture quality to accept more personal risk by using social ties to secure extreme outcome investments, gambling on the “big wins” that these investments promise. Thus, I predict that:

***H2: Venture quality will positively moderate (strengthen) the negative effect of outcome extremeness on the likelihood of activating social ties to secure venture investment.***

### **The strength of entrepreneur-investor ties**

As a central feature of social relationships, tie strength reflects the interaction intensity and mutual commitment between relational partners (Krackhardt, 1992; Marsden & Campbell, 1984). Granovetter defined tie strength as “a (probably linear) combination of the amount of time, the emotional intensity, the intimacy (mutual

confiding), and the reciprocal services which characterize the tie” (1973: 1361).

Therefore, tie strength represents the shared time and experience, mutual belongingness and trustworthiness, and perceived obligation of benevolence and mutual support between actors, capturing the strength of interpersonal norms and the extent of affective commitments involved in their social ties (Coleman, 1990; Granovetter, 1985).

In venture fundraising, the strength of entrepreneur-investor ties in use has two implications. First, as the strength of a tie increases, the entrepreneur and investor both tend to perceive a stronger normative obligation to act for mutual benefit (Emerson, 1972; Granovetter, 1985; Macneil, 1980). As such, by activating their strong entrepreneur-investor tie, entrepreneurs will be more strictly regulated by the interpersonal codes attached to the ties in use. Thereby, if an entrepreneur successfully draws on a strong tie to raise funds yet the target venture significantly underperforms or fails, he/she will tend to endure a greater violation of interpersonal norms. Therefore, the focal entrepreneur is more likely to be personally blamed and thus suffer from higher personal loss (Ekeh, 1974). Reinforcing this effect is the fact that tie strength also reflects the level of socioemotional commitment in a tie (Coleman, 1988; Granovetter). So by activating a strong tie, the entrepreneur naturally puts a larger socioemotional endowment (e.g., reputation, social identity, affective commitments) at risk, and thus faces higher potential personal loss (Jiang et al., 2012). In sum, using strong ties to raise funds leads to higher personal risks for entrepreneurs. Accordingly, they tend to be more reluctant to use strong social ties to raise funds for their ventures.

***H3: The strength of an entrepreneur-investor tie is negatively related to the likelihood that the entrepreneur will activate the tie in venture***

*fundraising.*

*Interaction between tie strength and venture riskiness.* Following the same logic as outlined above, I further predict that the strength of entrepreneur-investor ties will interact with the riskiness of the venture in the tie-activation decision. That is, considering the high personal risks implied by utilizing strong ties, entrepreneurs tend to be more sensitive to the high risks involved in venture investments with low venture quality or high outcome extremeness when they need to draw on strong entrepreneur-investor ties to raise funds for their ventures. As such, I posit that as venture quality declines or outcome extremeness increases, the choice to use an entrepreneur-investor tie changes more sharply with strong ties than with weak ties.

*H4a: The strength of an entrepreneur-investor tie moderates the relationship between venture quality and the likelihood of tie activation, such that as venture quality declines, the likelihood of tie activation decreases more sharply with strong ties than with weak ties.*

*H4b: The strength of an entrepreneur-investor tie moderates the relationship between venture outcome extremeness and the likelihood of tie activation, such that as venture outcomes become more extreme, the likelihood of entrepreneur-investor tie activation decreases more sharply with strong ties than with weak ties.*

## **METHOD**

### **Research Setting and Data Collection**

I used the high-tech ventures in Beijing as the research setting, examining the venture investments between start-up stage ventures registered in Beijing and local

venture capital (VC) firms. I chose this research setting for several reasons. I chose start-up stage ventures because the start-up stage typically follows successful prototype or business model development and testing and the start-up is designed to generate the first production for sale (Ruhnka & Young, 1987; Sahlman, 1990; Tyebjee & Bruno, 1984). Therefore, start-up ventures have few established business connections and visible achievements, thus reducing the potential confounding effects from signals of venture quality that are accessible to VCs (Hallen, 2008). Likewise, choosing high-tech ventures registered in Beijing ensures the similarity in venture scope and geographic location, leading to consistency in environmental factors (industrial and business policy, regional economic development, infrastructure conditions, etc.).

Second, most Chinese VC firms are located in larger cities, like Beijing and Shanghai (Batjargal, 2007; Batjargal & Liu, 2004; Bruton, Ahlstrom, & Puky, 2009; Lu, Tan, & Huang, 2011). Also, as the center of the high-tech industrial cluster in Northern China, Beijing has preferential institutional and market environments, which encourage the participation of both entrepreneurs and investors (*Chinese Yearbook*, 2012). To this end, the research setting provides abundant ventures and investors clustering in a geographically restricted region. The spatial proximity of ventures and investors leads to a relatively dense entrepreneur-investor network, which naturally allows the establishment and maintenance of embedded social ties between entrepreneurs and VCs. Therefore, the research setting of local venture investment is well suited to the phenomenon of interest in this study.

Our data collection included two annual surveys, one in 2011 and one in 2012. Both surveys were distributed after the Chinese Spring Festival (in March of 2011 and

February of 2012). Because many Chinese firms close their fiscal years before the Chinese Spring Festival rather than before the calendar year, the timing helped us to capture complete information about local venture investments made during the previous year. In each survey, I used the official reports and records from the Beijing Administration for Industry and Commerce and the Beijing Municipal Bureau of Financial Work to identify VC firms registered and operating in Beijing (I identified 67 in 2010 and 70 in 2011). With the assistance of local government and the local venture capital association, I approached these VCs asking for their agreement to participate in this study. There were 43 firms in 2011 and 41 in 2012 that agreed to participate. To check for potential nonresponse bias, I compared the participating VC firms with non-participating ones in terms of their registered asset size and the number of investments they made, and found no significant differences on these dimensions. Then, I surveyed the CEOs/managing partners in these VC firms about their venture investment actions during the previous year in the district.

Importantly, in the venture financing process, each venture only receives investment from a small number of VC firms, and likewise, each VC firm can only evaluate and then invest in a limited number of new ventures (Hallen, 2008; Sorenson & Stuart, 2001, 2008). As a result, it has been widely recognized in the venture financing literature that relative to the population of all possible venture-VC dyads, the successful formation of investment ties between ventures and VCs is a rare event (Batjargal & Liu, 2004; Hallen, 2008; Sorenson & Stuart, 2001). For this reason, using all possible dyads between the VC firms and the start-up stage ventures to test the hypotheses would have yielded biased estimates, because using logistic regression to account for rare events

tends to underestimate coefficients for factors that predict positive outcomes (King & Zeng, 2001). Moreover, intuitively, VC firms do not invest in ventures that they have not evaluated. For these reasons, I restricted the sample to venture-VC dyads in which VCs actually evaluated the ventures as potential investment targets.

Following prior studies (e.g., Batjargal & Liu, 2004; Hallen, 2008; Jensen, 2003), I adopted a choice-based sampling technique (Manski & Lerman, 1977; Manski & McFadden, 1981; McFadden, 1980). To identify the sample new ventures, I asked the VC survey participants to identify all the start-up stage new ventures they had evaluated in the previous year in the district. This process identified 167 ventures in the 2011 survey and 159 ventures in the 2012 survey. All sample ventures were private firms. To ensure the representativeness of this choice-based sample, I compared these sample ventures and a set (500) of randomly-chosen high-tech ventures in China in terms of their registered asset size, number of employees, and firm age, and found no statistically significant differences on these dimensions. After sending out a request to participate to the ventures identified above, 124 ventures in 2011 and 109 ventures in 2012 agreed to participate in this study. Comparing the participating ventures with non-participating ones, I found no significant differences on their registered asset size, number of employees, or firm age. This process led to 427 venture-VC dyads in the 2011 survey and 389 in the 2012 survey, which in total included 89 actual investment dyads – ventures funded by VC firms (42 in 2011 and 47 in 2012) – and 727 non-investment dyads – VCs that evaluated a sample venture but did not fund it. These 816 effective dyads composed the final choice-based sample. The 89 investment dyads involved 84 sample ventures (i.e., three ventures received investments from two VCs and one venture

received investments from three VCs). For each sample venture, I asked its major strategic leader (CEOs, general managers, board chairs, etc.) about new venture and his/her social ties with sample venture capitalists.

All surveys were conducted via structured interviews. The authors conducted face-to-face interviews with all sample VC firms and 89 sample ventures (38 in 2011 and 56 in 2012). Trained interviewers were hired to conduct the telephone interviews with the remaining sample ventures in the company of the research assistants.

### **Measures**

I collected data from sample entrepreneurs and sample venture capitalists respectively. Information about the venture fundraising process and the outcome was collected from venture capitalists and information about entrepreneur-investor ties was collected from entrepreneurs. To minimize self-evaluation bias, I surveyed both venture capitalists and entrepreneurs about venture quality and outcome extremeness. Additionally, I collected control variables from both sample entrepreneurs and venture capitalists.

To the extent possible, I used well-established measures to design the survey instrument. Since most of the original measures were in English, I consulted three Chinese experts in entrepreneurship and venture capital research who had served as faculty members in US universities to ensure the accuracy of the translation. Also, before the 2011 survey, I conducted eleven in-depth interviews (with four venture capitalists and 6 entrepreneurs in the district, and one officer in the local venture capital association) to ensure the content validity of the measures. Then, I conducted a pilot study including twelve venture capitalists and fifteen entrepreneurs to further ensure the appropriateness



of the survey for the research setting.

***Entrepreneur-investor ties.*** As noted earlier, I surveyed sample entrepreneurs about their embedded social ties with sample venture capitalists. Following prior network studies, especially those based on Chinese research settings (e.g., Batjargal, 2007; Batjargal & Liu, 2004; Chen, Chen, & Huang, 2012; Chen, Chen, & Xin, 2004; Lin & Dumin, 1986; Yang, 1994), I used four items to measure four categories of entrepreneur-investor ties with different strength (reported below in descending order of their tie strength connotation): family ties (“Among these venture capitalists, who is your family member or relative”), friendship ties (“... , who was your personal friend prior to your fundraising”), acquaintance ties (“... , who did you personally know as an acquaintance prior to your fundraising”), and referral ties (“... , who did you know as personally known by someone else you personally trust”). Each sample entrepreneur was provided with a roster including the names of all sample venture capitalists that had evaluated his or her venture during the past year and was asked to assess his/her personal relationship with each venture capitalist with the above four items by choosing the one that best characterized the relationship. As a result, each entrepreneur-investor dyad was coded as either 1 (having a tie) or 0 (not having a tie). To measure the tie strength of each entrepreneur-investor tie, I coded the tie strength of family ties as 4, friendship ties as 3, acquaintance ties as 2, referral ties as 1, and 0 if there was no tie. Among the 816 sample venture-VC dyads, 316 included social ties (of one of the above types) between venture capitalists and entrepreneurs. Note that I also asked investors about the existence and the strength of all the sample entrepreneur-investor ties and their responses were fully consistent with those of entrepreneurs.

***Entrepreneurs' effort to use entrepreneur-investor ties.*** As discussed above, I asked sample VCs to list ventures in the district that they evaluated as investment targets in the previous year. To capture entrepreneurs' efforts to use their social ties with venture capitalists in their fundraising, I asked the following question to venture capitalists in sample VCs: "Among those ventures you have evaluated, whose entrepreneurs have drawn on their social ties with you (including family connections, friendship connections, acquaintance connections, and referral connections ("somebody who I know well knows this entrepreneur")) to approach you and request investment through personal efforts (e.g., personal visiting, favor seeking, dining, etc.)?" I dummy coded this measure, with the value 1 indicating the entrepreneur tried to activate a personal tie and 0 otherwise. Descriptive results showed that among the 316 sample entrepreneur-investor dyads in which there were social ties present between the entrepreneur and the investor, only 180 actually involved entrepreneurs' efforts to use their social ties with sample VCs (56.96%). This provides preliminary support for the prediction that entrepreneurs may choose not to use their social ties with investors in their venture fundraising.

***Venture quality and outcome extremeness.*** As discussed, I collected information about venture quality from both VCs and entrepreneurs. I captured venture quality with two dimensions: venture growth potential and startup team qualification (Batjargal & Liu, 2004; Shane & Cable, 2002). Venture growth potential was measured by two items from Batjargal and Liu (2004). The items were "The venture is a potentially high-growth firm" and "The venture's strategy is superior to its competitors" (Cronbach's  $\alpha=.712$ ). Second, I asked entrepreneurs to evaluate the qualifications of the start-up team. Startup team

qualifications were measured with the two items from Batjargal and Liu (2004). The two items were “Members of the startup team had previous startup experience” and “Members of the startup team had experience in relevant industries” (Cronbach’s  $\alpha=.848$ ). All four items were captured on 5-point scales, with 1 indicating “strongly disagree” and 5 indicating “strongly agree”.

Likewise, I surveyed both VCs and entrepreneurs about the outcome extremeness in sample ventures. For each sample venture, the extremeness of its venture investment was measured with two dimensions: the magnitude of venture investment, and the extremeness of venture outcome, which were captured by items based on scales from Forlani and Mullins (2000) and Simon, Houghton, and Aquino (2000). The items were “How big was the amount of investment requested by the venture” and “How extreme was the expected performance (i.e., big gain and big loss) of the venture before fundraising?” (Cronbach’s  $\alpha=.738$ ). The items were captured on 5-point scales, with 1 indicating “very low” and 5 indicating “very high”.

Importantly, it has been noted that the presence of entrepreneur-investor ties may tend to inflate investors’ evaluations of venture quality (Batjargal & Liu, 2004). I contrasted sample VCs’ evaluation of venture quality in venture-VC dyads with and without entrepreneur-investor ties, clustering observations involving the same venture. Result showed that in general, VCs tend to have higher evaluation of the quality of ventures with which they have entrepreneur-investor ties ( $t=2.59, p<0.05$ ). Since having a tie is the natural prerequisite of using a tie (Carpenter et al., 2012), using the venture quality evaluation from VCs may lead to an endogeneity problem. That is, having a tie may both affect using a tie, the dependent variable, and perceived venture quality, the

independent variable (Bascle, 2008; Hamilton & Nickerson, 2003). As a result, I only used entrepreneurs' evaluations to capture venture quality to avoid this possible endogeneity problem. Since entrepreneurs decision-making derives from their own perceptions, it is reasonable for us to use their judgments of venture quality. Furthermore, for each sample venture, I examined the intraclass correlation coefficient (ICC) between its entrepreneur's judgments and those of VCs. Result showed strong agreement (ICC=0.72), indicating high reliability for this measure.

For the same reason, I also examined the relationship between entrepreneur-investor ties and VCs' evaluations of the outcome extremeness, and found no statistically significant difference between venture-VC dyads with and without entrepreneur-investor ties ( $t=1.09$ , ns.). Further, no evidence that I am aware of has theoretically or empirically shown that the presence of entrepreneur-investor ties affect VCs' judgment about the magnitude of their investment outcomes or the outcome extremeness of ventures. I captured venture outcome extremeness by averaging the evaluations from entrepreneurs and VCs, yielding a measure that reflected relatively high agreement (ICC=0.77).

***Control variables.*** Following prior studies, I controlled for several attributes of sample VCs and ventures. I controlled for the number of prior investments made by each sample VC in the technology development district, because prior studies suggest that experience may significantly affect VCs' decision making patterns (e.g., Shane & Cable, 2002; Shepherd, Zacharakis, & Baron, 2003; Stuart & Sorenson, 2007). I also controlled for the size of each VC firm (the assets under management). For sample new ventures, I controlled for their prior fundraising experience with any VC (1 if the entrepreneur had prior fundraising experience from any VC and 0 otherwise). I also controlled for the

number of startup team members, venture age, the age of the sample entrepreneur, and the scale of registered venture assets. Since the data came from two surveys, I also included a year dummy to control for potential confounding effects (1 for data from 2012 and 0 for 2011). Finally, following prior studies, I controlled for the quality of the business plan that the sample ventures used in their fundraising. Business plan quality was measured in the VC survey with two items from Shane and Cable (2002): “The business plan was thorough in its coverage of key issues” and “The business plan did an excellent job of articulating the opportunity” (Cronbach’s  $\alpha=.879$ ).

### **Statistical method**

Consistent with prior venture financing studies (e.g., Batjargal & Liu, 2004; Hallen, 2008; Shane & Cable, 2002; Sorenson & Stuart, 2001), I used binominal logistic regression to estimate the likelihood of successful venture investment in the sample of entrepreneur-investor dyads. Since using logistic regression in matched data may potentially produce underestimates (King & Zeng, 2001), the findings are naturally on the conservative side. Importantly, many ventures appeared in the sample multiple times, because they were evaluated by more than one VCs. As such, the error variances for venture-VC dyads involving the same venture may not be independent because of some unobserved features of the focal venture. For this reason, I clustered observations involving the same venture to avoid potential autocorrelation, which could generate biased coefficient variance estimates (Weesie, 1999; Wooldridge, 2002).

## **RESULTS**

Table 1 reports descriptive statistics and correlations for the variables in the model. In particular, the existence of entrepreneur-investor social ties and entrepreneurs’

efforts to use these ties are highly but not perfectly correlated ( $r=.669$ ;  $p<.01$ ). Also, the existence of entrepreneur-investor social ties is only marginally related to venture fundraising success ( $r=.069$ ;  $p\approx.10$ ), while the likelihood of tie activation has a positive relationship with venture fundraising success ( $r=.146$ ;  $p<.01$ ). These results provide preliminary evidence to support the theoretical framework, i.e., the distinction between “having a tie” and “using a tie”. Since some control variables are relatively highly correlated, I standardized all continuous control variables to reduce multicollinearity. After standardization, the mean variance inflation factor (VIF) across models never exceeded 2.3 and the highest VIF for any variable was 3.5, indicating that multicollinearity was not a threat to this study (O'Brien, 2007).

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INSERT TABLE 1 ABOUT HERE

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Table 2 reports the logistic regressions modeling the likelihood that an entrepreneur will activate a personal tie with a given VC in venture fundraising. Obviously, actors cannot activate social ties they do not have. As such, decision-making about tie activation is not relevant to entrepreneur-VC dyads without ties. For this reason, I followed prior studies (e.g., Smith et al., 2012) and limited the sample to those venture-VC dyads where personal entrepreneur-investor ties exist. That is, I test all hypotheses about entrepreneur-investor tie activation (i.e., H1, H2, H3 and H4) with a subsample consisting of the 316 entrepreneur-VC dyads in which the entrepreneurs and venture capitalists actually had social ties.

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INSERT TABLE 2 ABOUT HERE

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## Hypotheses tests

In Hypotheses 1a and 1b, I predicted that venture quality will encourage entrepreneurs to use their social ties in fundraising, while outcome extremeness will make entrepreneurs more cautious about using their entrepreneur-investor ties. In Model 5 of Table 2 (the full model including all main effects), both venture quality ( $\exp(b)=0.582$ ;  $p<.001$ ) and venture outcome extremeness ( $\exp(b)=-0.738$ ;  $p<.001$ ) are significantly related to the utilization of entrepreneur-investor ties and in the expected directions. Also, following the suggestions of Hoetker (2007) and Wiersema and Bowen (2009), I further examined the marginal effects of venture quality and outcome extremeness. As shown in Figures 2.1 and 2.2, the marginal effects of venture quality are consistently positive, and those of outcome extremeness are consistently negative. Also, the magnitude of effects for both variables changes smoothly and monotonically. Taken together, the evidence provides strong support for Hypotheses 1a and 1b.

In Hypothesis 2, I predicted that venture quality would strengthen the effect of outcome extremeness. Model 6 of Table 2 displays the evidence. In contrast to the prediction, the interaction effect between venture quality and outcome extremeness is marginally significant and positive ( $\exp(b)=0.635$ ;  $p<.10$ ), suggesting that venture quality weakens the negative effect of outcome extremeness on the utilization of entrepreneur-investor ties and thus failing to support Hypothesis 2. This interaction effect is graphed in Figure 3.1. The figure suggests that outcome extremeness is negatively related to tie activation for low-quality ventures, and the effects fall to zero as venture quality increases. However, for high quality ventures, outcome extremeness is uniformly

positively related to tie activation. Put differently, entrepreneurs are more likely to use their ties to investors under two circumstances: high quality ventures with high outcome extremeness, and low quality ventures with low outcome extremeness.

In Hypothesis 3, I predicted that entrepreneurs would be more cautious about activating their strong ties. Model 5 of Table 2 shows, in accord with the prediction, tie strength is weakly negatively related to the activation of entrepreneur-investor ties ( $\exp(b)=-0.321$ ;  $p<.10$ ). Further, Figure 2.3 shows that the marginal effects of tie strength are persistently negative, smooth, and monotonic. These results together provide weak support for Hypothesis 3.

In Hypotheses 4a and 4b, I predicted that tie strength would intensify the effects of venture quality and outcome extremeness on tie activation. Models 7 and 8 of Table 2 display the relevant evidence. In Model 7, the interaction effect between venture quality and entrepreneur-investor tie strength is significant and positive ( $\exp(b)=0.632$ ;  $p<.01$ ), strongly supporting Hypothesis 4a. Further, as shown in Figure 3.2, entrepreneurs' utilization of weak ties declines as venture quality increases, while their utilization of strong ties increases as venture quality increases. Put differently, for low-quality ventures, entrepreneurs tend to activate weak ties, while for high-quality ventures they tend to activate strong ties (friends and relatives).

In contrast, Model 8 shows that the interaction between outcome extremeness and the strength of entrepreneur-investor ties is marginally significant but positive ( $\exp(b)=0.438$ ;  $p<.10$ ), going against the prediction of Hypothesis 4b. As shown in Figure 3.3, the activation of weak ties declines more sharply than the activation of strong ties as outcome extremeness increases. That is, entrepreneurs are more likely to call on



their friends or relatives to raise funds when their ventures are characterized by outcome extremeness.

To summarize, I found that entrepreneurs are more likely to use their entrepreneur-investor ties to raise funds under two circumstances: high quality ventures with high outcome extremeness, and low quality ventures with low outcome extremeness. Considering this finding together with the implications of entrepreneur-investor tie strength, I can further argue that for high quality ventures with high outcome extremeness, it is the strong entrepreneur-investor ties that are more likely to be activated by entrepreneurs seeking investors. In contrast, for low quality ventures with low outcome extremeness, entrepreneurs tend to draw on weak ties.

#### **Further extension: Implications of the separation between having a tie and using a tie**

So far, I have highlighted the mechanisms underlying the choice of whether or not to activate a personal tie in venture fundraising. A natural question that follows is: *how meaningful is this differentiation in practice?* More specifically, in empirical work considering the value of social ties to new venture funding, does the distinction between having social ties with investors and activating those ties to secure funds impact the conclusions of empirical models? To further demonstrate the relevance and meaningfulness of the differentiation between having a tie and using a tie, I also empirically tested the practical implications of having ties versus using ties for the venture fundraising success. To capture venture fundraising success, I asked sample VCs about their venture investment decisions with respect to the sample ventures they nominated – that is, to identify which ventures they actually funded. Venture fundraising

success was measured with a dummy variable.

Notably, as I showed above, entrepreneurs' choices about tie activation are affected by venture quality and outcome extremeness, both of which impacted venture fundraising success (e.g., Gompers, 1995; Shane & Cable, 2002). To resolve potential endogeneity problems, I used instrumental-variable regression, where using a tie is the endogenous estimator and venture quality and outcome extremeness are the instrumental variables. I applied Lewbel's (2000) special regressor method to estimate this binary choice model with discrete endogenous estimator (see also Baum, McEvily, & Rowley, 2012). Results show that after controlling for potential endogeneity, the utilization of entrepreneur-investor ties significantly increases the likelihood of successful funding ( $\exp(b)=0.438$ ;  $p<.01$ ). Further, I used the interaction of tie activation (a dummy variable) and tie strength to further evaluate the effects of tie strength. Results show that the effect of tie activation on venture fundraising success is significantly strengthened by tie strength ( $\exp(b)=0.759$ ;  $p<.001$ ).

In contrast, after controlling for the activation of entrepreneur-investor ties, the existence of ties *per se* does not effectively predict venture fundraising success. To control for the effects of using a tie, I excluded all entrepreneur-investor dyads in which entrepreneurs have social ties with investors and also used these social ties in their fundraising, only comparing observations in which entrepreneurs have social ties with investors but chose not to use them and those in which no personal tie exists. Results show that in the 636 entrepreneur-investor dyads in which the entrepreneurs did not use social ties in their fundraising, whether the entrepreneurs had ties with VCs did not significantly affect their venture fundraising success, either before or after the addition of

venture quality indicators (as sole predictor,  $\exp(b)=-0.440$ ; *ns.*; after entering venture quality indicators,  $\exp(b)=-0.310$ , *ns.*).

This evidence is broadly consistent with the key argument – that entrepreneurs will deliberately choose whether to use their social ties with investors as well as which ties to use. For the inactivated or “dormant” entrepreneur-investor ties, the interpersonal codes embedded in these ties are intentionally separated by entrepreneurs from their venture fundraising efforts and, accordingly, may not affect venture fundraising success. Put differently, if entrepreneurs do not actively make use of their social ties with investors, those entrepreneur-investor ties may not be able to benefit their ventures in venture fundraising. In the next section, I will discuss the implications of these results.

## DISCUSSION

An assertion widely held by researchers is that top managers’ social ties and networks are valuable resources for their firms (Carpenter et al., 2012; Kilduff & Brass, 2010; Zaheer, Gözübüyük, & Milanov, 2010). Motivated by this belief, scholars have so far devoted considerable research effort to understanding the beneficial implications of social ties and the mechanisms underlying those implications. However, a few recent studies (e.g., Carpenter et al., 2012; Smith et al., 2011) have noted the absence of a subtle but important question: *If managers have social ties with external stakeholders, does this necessarily mean that they will use these ties to secure resources for their firms?* Thus far, little effort has been paid to theoretically separating having a tie and using a tie, and empirically validating the distinction.

Failing to differentiate between having a tie and using a tie may hamper the understanding of social ties and networks in organizational and management contexts.

For example, not differentiating between these two concepts can blur the actual implications of managers' social ties for firm-level operations and performance. As I and others have noted, some conclusions in prior social network and social capital studies have reported a distinct lack of significance for managers' social ties as an antecedent of firm performance (Carpenter et al., 2012). One possible explanation, investigated in this study, is that managers may intentionally avoid using their social ties to serve their firms. It is reasonable to expect that only those managerial ties are actually accessed by managers can contribute to performance. Drawing on this insight, it is necessary to specifically differentiate between activated managerial ties and "inactivated" or "dormant" ties, rather than simply assuming all managerial personal ties and networks as firms' social capital.

In this paper, I attempted to specifically address the differentiation between having a tie and using a tie for managers. Drawing on the rationale of social embeddedness (Uzzi, 1997, 1999), I argued that the reason that managers sometimes avoid using their social ties to secure resources for their firms is because tie activation involves the acceptance of personal risk. That is, by drawing on the interpersonal codes embedded in their social ties to convince or obligate investors to invest, managers may be perceived as personally responsible for any undesired outcomes. Accordingly, the managers may jeopardize the social ties they activate, potentially losing valuable social capital and socioemotional wealth (Coleman, 1990; Gomez-Mejia et al., 2011; Granovetter, 1985; Jiang et al., 2012). Therefore, using their social ties to seek resources for their firms is a risky decision for managers and one they will carefully weigh.

I used a specific setting, i.e., entrepreneurs using their social ties with investors in

venture fundraising, to specifically illustrate the decision making underlying managerial tie activation. As discussed earlier, entrepreneurs have relatively high motivation to apply their social ties for the benefit of their ventures (Li & Zhang, 2007) and, if tie activation is successful, investors accept significant financial risk. Accordingly, the entrepreneurship setting is a good one for testing the theoretical framework. I examined the implications of two major sources of entrepreneurs' personal risks, i.e., the riskiness of venture investment, which depicts the scale of risk they personally obligate investors to share, and the strength of the entrepreneur-investor tie in use, which captures the severity of the possible norm violation as well as the magnitude of consequent socioemotional losses. Following prior studies, the riskiness of requested venture investment can be captured by two proxies: venture quality and outcome extremeness. Drawing on behavioral decision making theory (e.g., Hogarth, 1989; Lichtenstein & Slovic, 2006; Tversky & Kahneman, 1992; Wiseman & Gomez-Mejia, 1998), I predicted the way in which these risk determinants (venture quality, outcome extremeness, and the strength of the tie in use) respectively and jointly affect entrepreneurs' choice to use their social ties to raise funds for their ventures.

Our empirical results supported most of the hypotheses. Specifically, I found that tie activation was strengthened by high venture quality and weakened by high outcome extremeness – both findings confirming that venture risk affects the tie activation decision. Also, given the potential for high socioemotional losses implied by using strong ties, entrepreneurs are generally more conservative about using their strong ties in venture fundraising. Finally, as I predicted, the interaction between tie strength and venture quality showed that as venture quality declines, the choice to use activate a tie

decreases more sharply with strong ties than with weak ties. Taken together, these findings confirm that entrepreneurs are generally averse to the personal risks incurred by using their entrepreneur-investor ties to raise funds and thus will deliberately choose whether or not to activate a tie as well as which tie to activate.

A surprising and intriguing finding that was contrary to the prediction is that for high (low) quality ventures, high (low) outcome extremeness tends to significantly encourage tie activation. Put differently, entrepreneurs are more likely to use their entrepreneur-investor ties in their venture fundraising under two circumstances: high quality ventures with high outcome extremeness, and low quality ventures with low outcome extremeness (see Figure 2.1). Further, as shown in Figures 2.2 and 2.3, entrepreneurs are more likely to draw on their strong ties when venture quality is high and when venture outcomes are extreme. I can therefore further argue that for high-quality ventures with high outcome extremeness, strong entrepreneur-investor ties are more likely to be activated. In contrast, for low-quality ventures with low outcome extremeness, entrepreneurs tend to draw on weak ties with investors.

I attribute this pattern of entrepreneurs' personal tie activation to the framing of the decision to activate. It is likely high venture quality leads entrepreneurs tend to focus more on the possible big win, perceiving extreme-outcome ventures as big opportunities. As such, the norms involved in their social ties may obligate entrepreneurs to share such opportunities with their strong ties. For example, an experienced entrepreneur said:

*“...sometimes I actually feel obliged to include my close friends or relatives in my entrepreneurial efforts by letting them invest in my ventures. [This is] [b]ecause I am confident that the venture could make a big hit and make everyone on board rich in the*

*foreseeable future. If that happened, where would I be if I hadn't invited my relatives or friends [to invest]? For sure they will be angry at me for not presenting a great opportunity to them. They may even feel betrayed by me. That's why I may as well just turn to them first to get big money for the ventures I feel very confident of, even if that means they could end up losing what they invest..."*

Finally, as an extension to the major findings, I also tested the implications of the separation between having a tie and using a tie for venture fundraising performance. Results show that as expected, after controlling for the effects of entrepreneurs' choice to activate a tie, the existence of social ties between entrepreneurs and investors had no statistically significant effect on venture fundraising success. Specifically, if an entrepreneur decides to not use his/her social ties with a VC, this VC, despite the *presence* of a tie, will not favor the venture in financing decisions.

It has been noted that social ties and networks can serve both as pipes through which actors can exchange otherwise inaccessible information and as carriers of social norms and interpersonal rules that regulate actors' interactions (Adler & Kwon, 2002; Carpenter et al., 2012; Jiang et al., 2012; Podolny, 2001). For non-activated ties where the normative implications are insulated from the venture investment relationships, the ties may still be valuable as information channels, providing investors with access to private information about entrepreneurs and their ventures in trustworthy ways. In settings like this, the effects of entrepreneur-investor ties serve to help investors accurately assess venture value and promise, without concern for entrepreneurs' potential opportunism (Aldrich & Zimmer, 1986; Broschak, 2004). As such, the empirical findings of prior studies conform to the evidence I presented about non-activated

entrepreneur-investor ties. That is, they intrinsically work as a risk-mitigating instrument, the effects of which depend on the riskiness of the requested venture investments rather than a cronyism mechanism that directly advances the success of venture fundraising. This interesting result aligns with the argument made by Smith and colleagues (2011), such that actors' intentional activation of social ties is necessary for the ties to have an impact, therefore further confirming that it is both necessary and meaningful for future social capital researchers to specifically differentiate "having a tie" and "using a tie".

Moreover, the practical implication of the differentiation between having a tie and using a tie also suggests a methodological issue in managerial tie and network research, most troublesome when responding actors accept significant risk by responding to a personal request from another. That is, it may be inappropriate to simply examine the effects of the presence of managerial ties and networks on firm outcomes. That is, simply examining the existence of managerial social ties without differentiating between activated and non-activated ties effectively omits a meaningful variable that both directly relates to the major predictor (i.e., having a tie) and affects the predicted outcome (i.e., firm performance). This would result in an omitted variables problem and accordingly, might hide the true implications of managerial ties and networks (Bascle, 2008; Hamilton & Nickerson, 2003). To fully understand the performance implications of managerial ties and networks, it is necessary to specifically differentiate having a tie from using a tie to deal with the potential endogeneity problem.

### **Expected contributions**

This study contributes to the literature in several ways. First and foremost, I contribute to social network research by shedding light on an understudied topic – the



difference between the network an actor participates in, and his/her efforts to apply this network toward instrumental ends (Carpenter et al., 2012). Specifically, by theoretically separating “having a tie” from “using a tie”, and empirically showing the importance of this distinction, I contribute to the extant network research by showing the need for theoretically and empirically separating the potential network an actor participates in and the activated network the actor actually applies. This distinction is important any time tie activation places the responding network member at some risk. This study demonstrates that to understand the benefits actors actually secure from their social ties, it is necessary for researchers to specifically capture social tie activation, rather than simply assuming that actors will always use their social ties as needed. As such, this study provides a new perspective for understanding the actual implications of social ties and networks.

Second, this study also contributes to the strategic leadership literature by providing an explanation for the mixed evidence about the effect size of managerial ties and networks, showing that not all managerial social contacts actually contribute to firms. Instead, to better understand the actual effects and implications of social ties and networks in managerial contexts, it is necessary for future researchers to consider the actual process through which value is captured from managerial social ties. Particularly, it is valuable to specifically highlight the managerial decision-making and effort behind social tie activation, rather than generally aggregate all managerial social ties as part of the social capital endowments of firms.

This study also contributes to the extant venture financing literature. First, I addressed the discrepancy between the findings of prior venture financing studies and the social embeddedness perspective, showing that whether social ties between entrepreneurs

and investors can effectively facilitate venture fundraising success after controlling for the effects of venture quality largely depends on whether the social ties are actually used by entrepreneurs. Moreover, by using behavioral decision theory to highlight actors' decision making process in venture investment, this study provides a new theoretical perspective for studying venture investment that goes beyond and complements prevalent theoretical approaches in prior venture finance research, such as transaction cost analysis (e.g., Sahlman, 1990) and agency theory (e.g., Gompers, 1996).

### **Future Extensions**

As an initial research effort examining the difference between “having a tie” and “using a tie”, this study has several potential limitations that also suggest directions for future research. First, in this study, all theoretical relationships were developed and tested in the specific context of new ventures and venture fundraising. Also, I only focused on social ties between investors and entrepreneurs. As such, caution is needed in generalizing the results of this study to other settings. Future research can benefit from replicating the present study in the context of established firms and comparing the conclusions across different contexts and different managerial social ties. Additionally, I note that this study does not generalize to settings where responding actors confront low costs and low risks, and such settings are quite common.

**TABLE 1**  
**DESCRIPTIVE STATISTICS RESULTS**

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Having a tie	.39	.47	-													
2. Using a tie	.22	.42	.669	-												
3. Venture quality	3.21	1.76	.076	.157	-											
4. Outcome extremeness	3.68	1.27	-.046	.129	.202	-										
5. Business plan quality	2.95	0.87	.006	.037	.273	-.011	-									
6. Prior experience with VC	.57	.50	.019	.052	.369	.065	.357	-								
7. Entrepreneur age	36.21	10.15	.025	.081	.255	.081	.594	.279	-							
8. Number of venture founder	3.10	1.16	-.063	.084	-.390	-.017	-.174	-.286	-.529	-						
9. Venture assets	2.54	0.75	.054	.065	.276	.108	.590	.248	.178	-.495	-					
10. VC assets	16.61	6.73	.074	.130	.083	.067	.142	.254	.287	-.127	.164	-				
11. Prior venture investments	1.8	1.13	.066	.110	.190	.136	.453	.252	.039	-.376	.553	.479	-			
12. New venture age	2.85	1.67	.075	.137	.119	.071	.033	.277	.438	-.118	.607	.056	.095	-		
13. Year dummy	.48	.50	-.033	.076	-.008	.000	-.045	.001	-.084	.012	-.084	-.037	-.026	-.045	-	
14. Tie strength	.68	.97	.874	.582	-.033	-.021	.099	.038	.062	-.114	.125	.117	.099	.135	-.072	-
15. Venture funding success	.11	.31	.069	.146	-.164	-.102	.152	.063	.076	-.100	.100	.124	.074	.149	.036	.052

1. Unit for venture and venture capital assets: Million RMB

2. Perceived venture risk, business plan quality, venture growth potential and startup team quality are standardized factor or values.

TABLE 2 LOGIT MODELS OF ENTREPRENEUR-INVESTOR SOCIAL TIE ACTIVATION

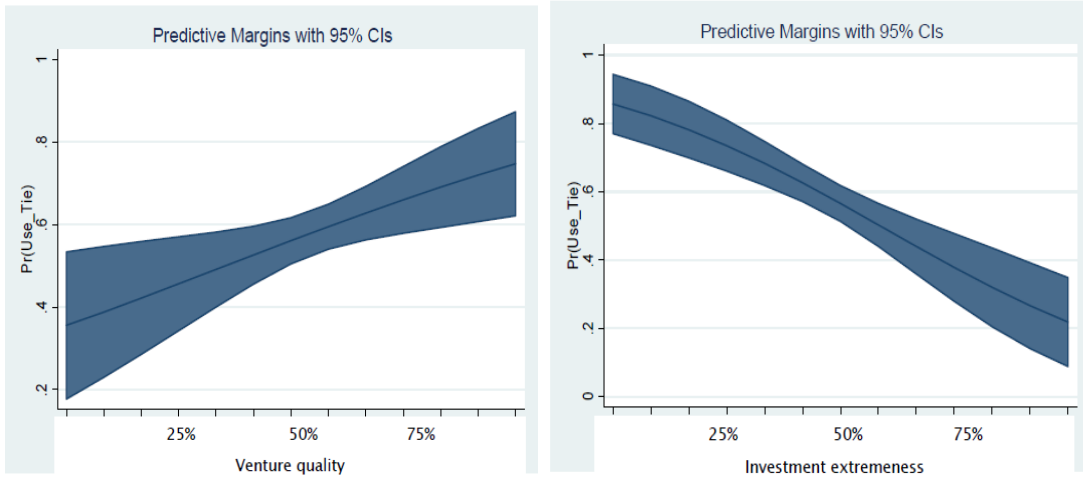
	Model 1 Exp(b) (s.e)	Model 2 Exp(b) (s.e)	Model 3 Exp(b) (s.e)	Model 4 Exp(b) (s.e)	Model 5 Exp(b) (s.e)	Model 6 Exp(b) (s.e)	Model 7 Exp(b) (s.e)	Model 8 Exp(b) (s.e)
Prior experience with VC	.167 (.29)	.037 (.28)	.143 (.29)	.171 (.29)	-.136 (.30)	-.167 (.30)	-.097 (.31)	-.085 (.28)
Entrepreneur age	.125 (.15)	.083 (.15)	.155 (.16)	.122 (.15)	.078 (.17)	.034 (.16)	.107 (.17)	.038 (.17)
Number of venture founder	.124 (.14)	.188 (.14)	.159 (.15)	.120 (.14)	.290* (.15)	.276† (.18)	.336* (.16)	.293* (.15)
Venture assets	-.314† (.18)	-.384* (.19)	-.302† (.19)	-.289 (.18)	-.384* (.19)	-.359† (.20)	-.291 (.20)	-.375* (.19)
VC assets	.246 (.16)	.120 (.17)	.315 (.18)	.248 (.16)	.087 (.18)	.116 (.19)	.065 (.20)	.072 (.18)
Prior venture investments	.205 (.14)	.130 (.14)	.290* (.14)	.198 (.14)	.164 (.13)	.154 (.13)	.141 (.15)	.170 (.13)
New venture age	.348* (.17)	.266 (.18)	.333* (.17)	.372* (.18)	.211* (.19)	.194 (.19)	.239 (.20)	.234 (.19)
Year	-.415† (.26)	-.422† (.26)	-.385 (.27)	-.446† (.26)	-.452† (.27)	-.461† (.27)	-.589* (.27)	-.482† (.26)
Business plan quality	.123 (.11)	-.020 (.13)	.108 (.11)	.113 (.11)	-.200 (.13)	-.235† (.13)	-.213 (.15)	-.202 (.13)
Venture quality	.291* (.12)				.582*** (.14)	.614*** (.14)	-.399 (.30)	.624*** (.15)
Investment extremeness			-.557*** (.13)		-.738*** (.16)	-.750*** (.16)	-.641*** (.16)	-1.463*** (.46)
Tie strength				-.170 (.16)	-.321† (.17)	-.292† (.17)	-.734* (.31)	-.343* (.17)
Venture quality x investment extremeness						.635† (.38)		
Tie strength x venture quality							.632** (.20)	
Tie strength x investment extremeness								.438† (.23)
Pseudo log-likelihood	-203.80	-201.01	-194.14	-203.28	-185.01	-183.67	-173.86	-182.54
Chi-square (df)	29.82 (9)	31.29 (10)	47.08 (10)	30.46 (9)	54.41 (12)	64.98 (13)	61.84 (13)	48.58 (13)
Pseudo R2	.0563	.0692	.1010	.0587	.1433	.1495	.1949	.1547

\*\*\* p<0.001 \*\* p<0.01 \* p<0.05 † p<0.10

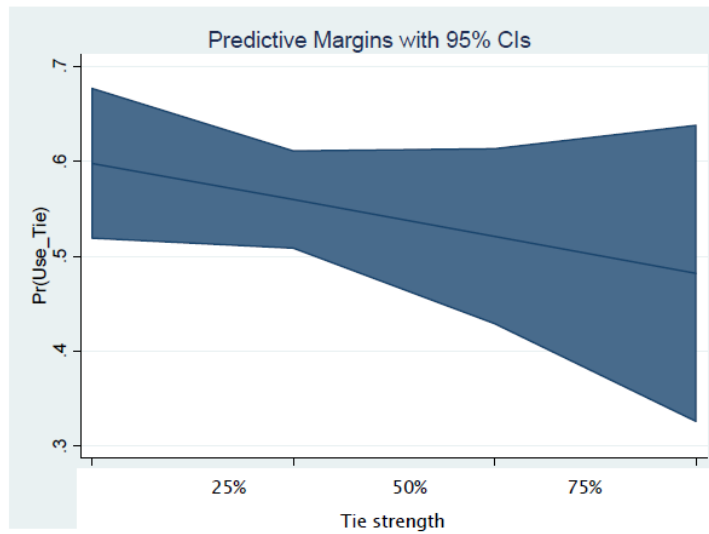
**FIGURE 2**  
**MARGINAL EFFECTS**

**2.1 Venture quality (on tie utilization)**

**2.2 Outcome extremeness (on tie utilization)**

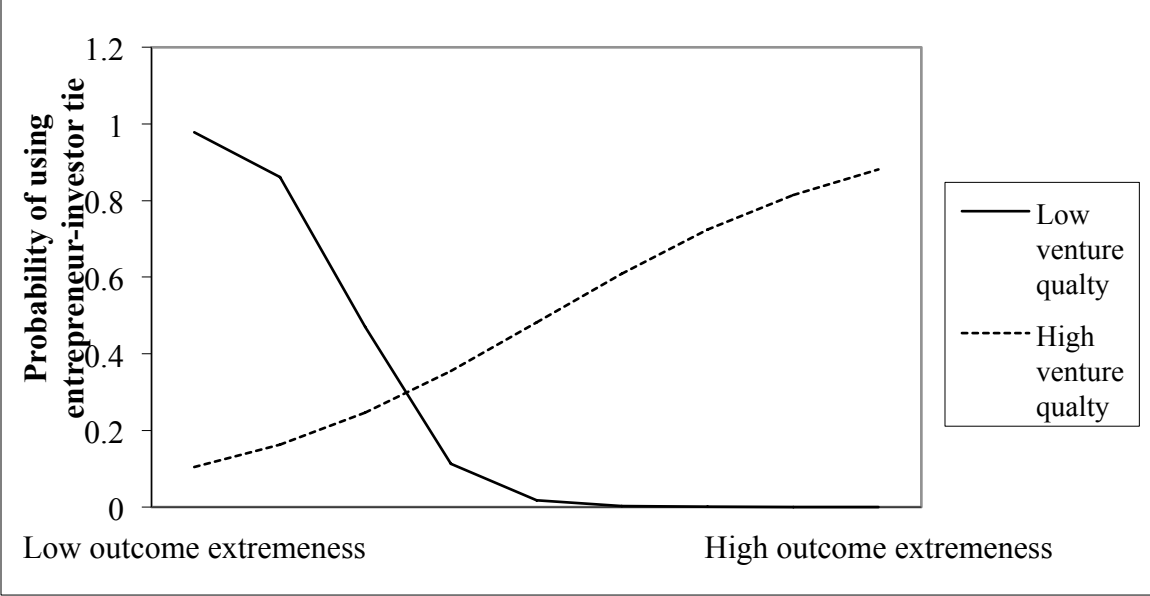


**2.3 Strength of entrepreneur-investor ties (on tie utilization)**



**FIGURE 3**  
**INTERACTION EFFECTS BETWEEN RISK COMPONENTS AND TIE**  
**STRENGTH**

**Figure 3.1**



**Figure 3.2**

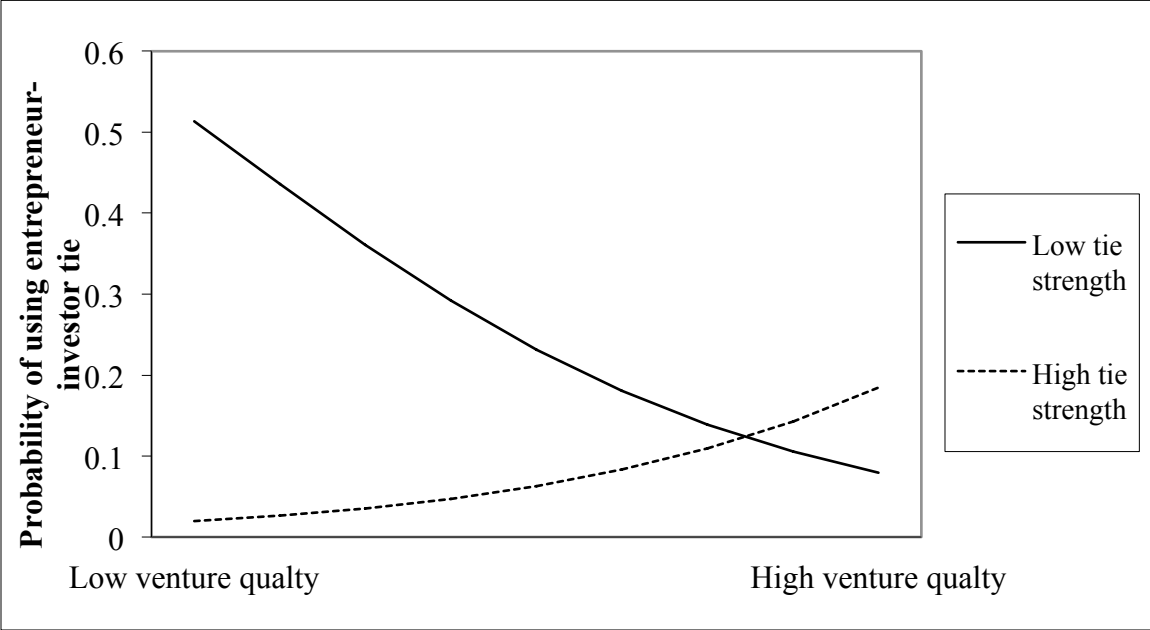
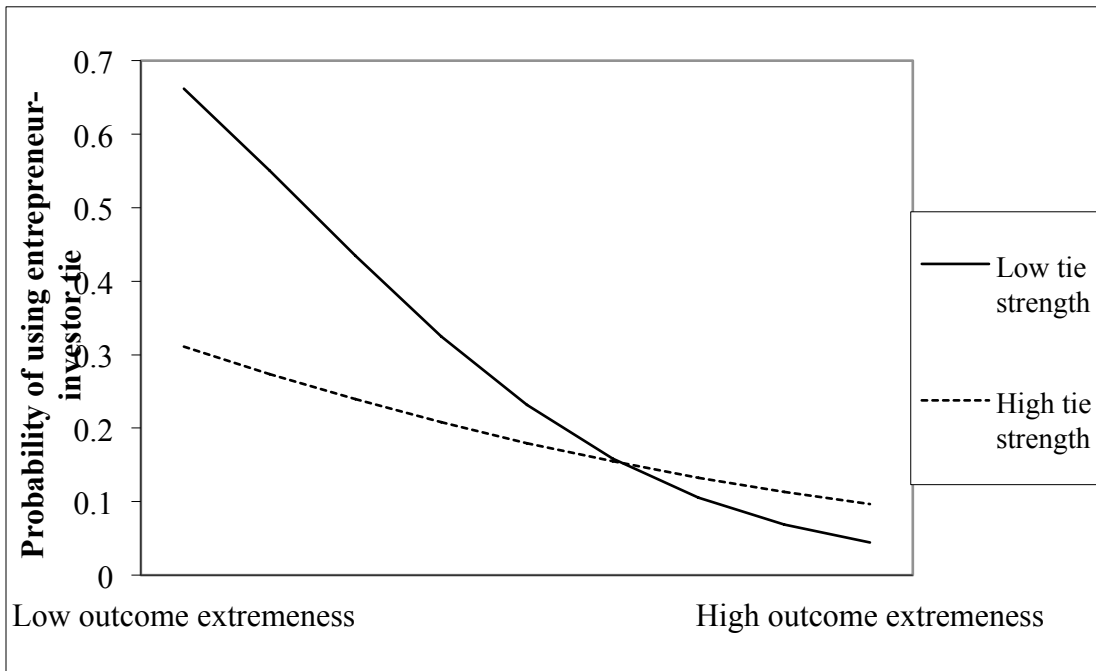


Figure 3.3



## CHAPTER 3

### STRONG ENOUGH TO FIGHT OR STRONG ENOUGH TO FLEE? EXECUTIVE SOCIAL CAPITAL AND SHIP JUMPING IN DECLINING FIRMS



## INTRODUCTION

It has been widely acknowledged in strategic leadership research that top executives' social capital can significantly benefit their firms, providing access to otherwise inaccessible resources (Li & Zhang, 2007; Shane & Cable, 2002; Hallen, 2008; Uzzi & Ryon, 2003), reducing transaction costs in interorganizational relationships (Gulati, 1995; Uzzi, 1997), and so on. Following this logic, scholars have consensually deemed executives' social capital a valuable endowment of their firms (i.e., "managerial social capital", c.f., Acquah, 2007), devoting considerable effort to highlighting the benefits of executives' social capital and the underlying mechanisms (Carpenter, Li, & Jiang, 2012).

However, I argue that this consensus might be incomplete. It has been recently noted that actors intentionally determine the way in which they utilize their social capital (Jiang, Cannella, Jiao, & Gao, 2014; Levin, Walter, & Murnighan, 2011; Smith, Menon, & Thompson, 2012). Drawing on this insight, the beneficial implications of top executives' social capital for their firms may largely arise from their role as strategic leaders, which naturally motivates them to use their personal endowments to serve the best interest of their firms (Hambrick, 2007; Hambrick & Mason, 1984). However, it is natural that these executives also have self-interested considerations (Daily, Dalton, & Cannella, 2003). In this regard, it is likely that executives may decide to utilize their social capital for their own benefits, rather than in ways that can serve the best interests of their firms. Accordingly, executives' social capital may not necessarily benefit the firms but rather personally benefit the executives.

This debate has particularly important implications when there is potential

conflict of interests between executives and their firms. Particularly, in declining firms endangered by crisis (e.g., severe financial loss, scandal, etc.), executives' social capital may have two-fold implications. On the one hand, managerial social capital provides the firms valuable resources and social support to manage and survive the decline (e.g., Daily, 1995; Fischer & Pollock, 2004; Geletkanycz, Boyd, & Finkelstein, 2001). On the other hand, executives' social capital, as an important source of information and social impact (Burt, 2001; Finkelstein, Hambrick, & Cannella, 2009), may provide executives more opportunities to "jump ship", i.e., proactive and voluntary departure from the declining firms (Boivie, Graffin, & Pollock, 2012; Marcel & Cowen, 2014; Semadeni, Cannella, Fraser, & Lee, 2008).

Accordingly, executives in declining firms may choose to use their social capital in two contrasting ways. On the one hand, executives, as the strategic leaders of their firms, may use their social capital to serve the best interests of their firms and turn around the decline. However, doing so may cause the executives' personal losses such as tainted reputations and devaluation on the labor market (Semadeni et al., 2008). On the other hand, executives may use their social capital to serve their best self-interest, searching for ship-jumping opportunities and abandoning the endangered firms. As such, in a declining firm, an executive's social capital tends to have paradoxical implications, either inhibiting or encouraging his/her ship-jumping behavior. This dilemma leads to the following unanswered question: How does executives' social capital affect their ship-jumping behaviors in declining firms?

I draw upon the perspective of resource dependence theory (RDT) to address this question. Focusing on the interdependent relationships between actors, RDT posits that

the dependence of an actor on other actors allows others to exert some level of power over the focal actor and thus affect its decisions and actions (Pfeffer, 1987; Pfeffer & Salancik, 1978). In their seminal study, Pfeffer and Salancik (1978) posit that these interdependencies existing within and beyond an organization, and, consequently, the distribution of power and control in the organization, both affect “the tenure and selection of major organizational administrators” (1978: 228). As such, RDT provides a natural theoretical perspective to examine executives’ ship-jumping behavior (Hillman, Withers & Collins, 2009). Following the logic of RDT, I attribute executives’ ship-jumping behavior to two forms of dependencies, i.e., their external dependencies on the environmental context, and their internal dependencies on their firms.

Prior studies suggest that a central incentive for executives to jump ship is to keep themselves from being personally stigmatized by their firms’ crisis (Semadeni et al., 2008). As such, I posit that executives may depend on taking external positions to avoid the potential stigma. In this regard, the social capital endowments of executives determine the degree of their external dependencies on these external positions. That is, as important components of executives’ social capital, these social contacts and networks can serve as a buffering mechanism that effectively mitigates the negative personal impact of firm crisis on executives (Wiesenfeld, Wurthmann, Hambrick, 2008; Zajonc, 1980). Accordingly, executives with high social capital endowments depend less on taking new jobs to avoid stigmatization by the current firm. However, executives’ social capital also determines the feasibility of their external employment opportunities (Dess & Shaw, 2001; Smith et al., 2012). As such, while a low network endowment makes it more necessary for an executive to jump ship, it also confines his/her available

opportunities to do so. Taken together, I posit a non-monotonic (inverted U-shaped) relationship between executives' social capital endowment and their ship-jumping behavior.

Executives also depend on the resource endowments of their firms and the members in their firms (Cannella & Lubatkin, 1993; Hillman et al., 2009). Particularly, executives largely depend on their firms, as well as their network endowments, to develop their social ties and networks (Westphal, Boivie, Chng, 2006; Zajac, 1988). These internal dependencies also tend to affect executives' decision to jump ship. Following this logic, I adopt two indicators for these internal dependencies, i.e., the peer social capital, which refers to the social capital endowments of other upper-echelon administrators in a firm, and the interfirm network, which refers to the firm's interfirm relationships in the broader industrial network. I posit that both peer and interfirm network can reduce the likelihood of executive ship jumping behavior, as well as strengthen the effect of executives' social capital on their ship-jumping behavior.

I strive for the following contributions. First, as discussed, prior network studies have largely taken executives' social capital as a resource of their firms. I point out that this argument is not complete. Using the instance of executives' ship-jumping behavior in declining firms, I highlight that executives may not always use their social capital to benefit the firm; instead, they may use these networks in self-interested ways to serve their personal interest. As such, I contribute to social capital research by providing a more complete understanding about the implications of executive social capital and highlighting the boundary conditions of its benefits, i.e., the "managerial social capital" (Acquaah, 2007, Peng & Luo, 2000).

Second, I contribute to strategic leadership research by exploring a new way of applying resource dependence theory in this area. Resource dependence theory has been widely applied in studying the relationship between firms and their upper echelon administrators (Hillman et al., 2009). However, with few exceptions, prior studies unilaterally focus on how firms depend on the endowments of their executives and directors (e.g., human capital, social capital, reputation, status, etc.) (e.g., Cannella & Lubatkin, 1993; Daily, 1996; Harrison, Torres, & Kukalis, 1988; Hillman & Dalziel, 2003), yet paid little attention to understanding the counterpart of the interdependence, i.e., how executives and directors depend on their firms. By using RDT to highlight how firms' social capital endowments impact executives' ship-jumping behavior, I explore the implications of executives' dependence on their firms, thus complementing the extant strategic leadership and resource dependence studies.

Lastly, I show that the effects of executives' social capital for their ship-jumping behavior may vary across different levels of social capital endowments of a firm. This finding indicates that executives may intentionally decide the way in which they use their networks based on different contingencies. In this regard, echoing the call of recent comprehensive reviews (e.g., Carpenter et al., 2012), this study points out an important direction for future managerial decision research, i.e., the decision to utilize their social capital.

## **THEORETICAL BACKGROUND**

### **Jump ship from declining firms**

When a firm faces severe decline, its executives may opt for abandoning the endangered firm and taking new jobs somewhere else. This action is labeled as “jump

ship”, i.e., proactive and voluntary turnover in firms under crisis (large financial loss, bankruptcy, scandal, etc.) (Marcel & Cowen, 2014; Semadeni et al., 2008). Given its popularity and prominence in modern firms, ship-jumping behavior of upper-echelon administrators has recently attracted increasing research effort.

A central incentive behind executives’ ship-jumping behavior is to avoid personal stigmatization by the crisis of the firms they serve. Stigma refers to the damage and stain to actors’ identity deriving from socially discredited events, characteristics, or associations (Devers, Dewett, Mishina, & Belsito, 2009; Goffman, 1963). Prior research has illustrated how this stigma may transfer from firms to their members, especially executives (D’Aveni, 1990; Kulik, Bainbridge, & Cregan, 2008; Sutton & Callahan, 1987; Wiesenfeld et al., 2008). Specifically, as the major agents of their firms, executives are often perceived as personally associated with and responsible for their firms’ actions and outcomes (Carpenter, Geletkanycz, & Sanders, 2004; Meindl & Ehrlich, 1987). As such, when discrediting events stigmatize a firm (corporate failure, organizational misconduct, etc.), this association between the firm and its executives is likely to mar the reputation and social identity of the executives (Pozner, 2008). From this perspective, if an executive chose to stay in the declining firm, he/she may be perceived by external stakeholders as personally responsible for the decline and possible failure of the firm, thus leading to potential personal losses such as damaged professional reputation and devaluation by the labor market (Boivie et al., 2012). To avoid the potential “stigma-by-association” (Goffman, 1963) with their declining firms, executives tend to be encouraged to jump ship before the firms actually fail and use the proactive exit to buttress the potential personal stigma (Semadeni et al., 2008).

Importantly, ship-jumping behaviors may cause significant costs, such as the pay cut of taking a lower-level job and the loss of firm-specific skills and knowledge and social status (Castanias & Helfat, 1991; Boivie et al., 2012). These potential costs may discourage executives from jumping ship. Moreover, external opportunities for executives to jump ship from their current firms may not be always available. Therefore, it is reasonable that executives may need to deliberately balance the potential benefits and costs of ship jumping and make the decision of doing so or not.

Nevertheless, so far, little effort has been devoted to examining how executives in declining firms make the decision to jump ship. Few recent studies have discussed the determination of directors' ship-jumping behavior. For example, Marcel and Cowen (2013) focused on the ship-jumping behavior of directors following fraud announcements, pointing out that directors with higher relational and human capital are more likely to stay and strive to turn around the crisis ("cleaning house") rather than jumping ship. Boivie, Graffin and Pollock (2012) showed that the financial and reputational risk related to shareholder lawsuits and financial restatements can motivate directors to jump ship. However, as insiders who are deeply embedded in their firms, executives may have different considerations than directors in the decision of ship jumping. For example, directors can simultaneously serve on multiple boards, while executive positions are generally full time and exclusive. Therefore, the ship-jumping behavior of executives may be more confined.

Taken together, the decision mechanism behind executives' ship-jumping behavior remains unclear. Against this backdrop, I strive to highlight the way in which executives in declining firms decide whether or not to jump ship.

## **A resource dependence model of executive ship jumping**

I draw upon the perspective of resource dependence theory to address the paradox between the potential benefits and costs of ship jumping. Resource dependence theory (RDT) posits that actors are embedded in networks of interdependencies where they rely upon each other to survive and perform (Pfeffer, 1987; Pfeffer & Salancik, 1978). This resource dependence perspective has been widely applied to depict the relationship between firms and their upper-echelon administrators (Daily et al., 2001; Hillman et al., 2009). On the one hand, firms depend on the resources and capabilities of their executives and directors to support their operations and achieve superior performance. On the other hand, executives and directors depend on their firms to secure economic rents and develop their personal identity, reputation and social capital (Hambrick, Geletkanycz, & Fredickson, 1993; Westphal et al., 2006; Zajac, 1988). In such a manner, it is reasonable to predict that executives' dependencies on their firms will impact their decision making, including their ship-jumping behaviors.

Particularly, I posit that the benefits and costs of ship-jumping behaviors both arise from executives' interdependencies inside and outside of their firms. First, as discussed, the central benefit of ship-jumping behavior is for executives to avoid being personally stigmatized by their firms (Semadeni et al., 2008). For the purpose, executives rely upon external employment opportunities to defend their personal identity and social status. Put differently, the benefits of ship jumping are determined by the extent to which executives depend on accepting external positions to prevent potential stigmatization by their current firms. Meanwhile, the potential costs of jumping ship, which mainly arise from the opportunity costs of giving up the position in the current



firms, are largely determined by executives' dependence on their current firms.

Following this logic, I suggest that executives' ship-jumping behaviors are largely determined by both their internal and external dependencies.

Drawing on this resource dependence perspective, in this study I focus on using an important personal endowment of executives, i.e., their social networks, to highlight the decision mechanism of their ship-jumping behavior. Prior studies show that executives' social capital is one of the essential antecedents of their turnover (Adler & Kwon, 2002; Cao, Maruping, & Takeuchi, 2006; Finkelstein et al., 2009). Meanwhile, as an essential managerial personal resource as well as an important connection between executives and their firms, executives' social capital endowments also affect the extent to which they are stigmatized by their firms (Jiang, Cannella, & Jiao, 2013; Wiesenfeld et al., 2008). In such a manner, it is reasonable to posit that executives' social capital tends to play essential roles in the decision of their ship jumping. I draw on the above resource dependence perspective to develop hypotheses below about how executives' social capital endowments affect their ship-jumping behavior, as well as the contingencies under which their effects may vary.

### **HYPOTHESIS DEVELOPMENT**

It has been widely acknowledged that executives' social capital endowments can significantly benefit both the executives themselves and their firms (Adler & Kwon, 2002; Carpenter et al., 2012). For this reason, I suggest that the social capital of executives may have two-fold implication for their ship-jumping behaviors. On the one hand, it has been widely acknowledged that social capital can provide actors better access to external employment opportunities (e.g., Burt, 1992; Dess & Shaw, 2001; Seibert, Kraimer, &

Liden, 2001). As such, it is reasonable that executives with higher social capital endowments are more likely to find new jobs quickly without suffering significant social and financial loss, allowing them to more effectively jump ship. On the other hand, executives' social capital endowments are of particularly high value for the turnaround of declining firms (Daily, 1995), and declining firms will favor the retention of executives with high social capital endowments (Marcel & Cowen, 2014), and thus strive to better attract and keep these executives so as to retain their social capital. This potentially increases the opportunity costs for those socially well-endowed executives to jump ship. As such, executives' social capital tends to simultaneously enhance the potential benefits and costs of jumping ship. This paradox blurs the implications of executives' social capital for the ship-jumping behavior.

The resource dependence framework of ship jumping provides a valuable perspective to address the seemingly paradoxical implications of executives' social capital. As discussed, executives' ship-jumping behavior largely reflects the balance between their dependencies on external employment opportunities to avoid stigmatization and their dependencies on their firms. Following this logic, the above two-fold implications of executives' social capital tend to affect both their external and internal dependencies. Plus, these interdependencies between the executives and their firms also tend to be impacted by the endowments and resources of the firms (Cannella & Lubatkin, 1993), which will accordingly moderate the effects of the social capital endowments of the executives.

### **Executives' social capital and ship jumping: A resource dependence model**

As discussed, the nature of executives' ship-jumping behavior in declining firms

rests in the truth that executives need to proactively leave their current firms so as to cut the personal association through which the potential failure of the firms may stigmatize them personally (Semadeni et al., 2008). In such a manner, the more likely executives will be personally blamed for and stigmatized by the firm failure, the more they will depend on taking external employment opportunities as a buffering mechanism to defend their reputation and social status from the stigma-by-association with their firms (Devers et al., 2009).

Social capital of executives may also work as a mitigating mechanism for the potential stigmatization (Jiang et al., 2014; Wiesenfeld et al., 2008). First, executives with abundant social contacts can use their social contacts as channels to effectively communicate private information about themselves and about their firms (Davis & Greve, 1997; Davis, Yoo, & Baker, 2003; Shane & Cable, 2002). This private information can help executives to divert the blame or defend themselves when encountering firm decline or crisis, thus separating themselves from discredit by association with their firms (Wiesenfeld et al., 2008). Second, executives who have high levels of social capital endowments are generally perceived as reliable, credible and competent (D'Aveni, 1990; Giordano, 1983). These positive stereotypes may change the way in which external stakeholders interpret and attribute the failure or crisis of the firms. That is, in their sensemaking process, external stakeholders are less likely to blame executives with high social capital endowments for the discrediting events of their firms in order to keep the consistency of their perception toward the executives; instead, they tend to justify and excuse these executives (Hollander, 1958; Sonenshein, 2007; Weick, 1995). Moreover, through the social embeddedness perspective (Granovetter, 1985; Uzzi, 1997, 1999), the

interpersonal codes of mutual support and trustworthiness attached in social ties and networks tend to drive the executives' social contacts to support them and tolerate their mistakes (Jiang et al., 2014). For this reason, social capital endowments tend to protect executives from being stigmatized by the decline of their firms, thus lowering their dependence on external opportunities and making it less necessary for them to jump ship to avoid stigmatization. Plus, as discussed above, executives with high social capital endowments tend to be particularly valuable for declining firms to turnaround (Daily, 1995). Therefore, declining firms may strive to retain these well-endowed executives with extra efforts, such as higher compensation and more titles, thus increasing their dependence on the current firms and increasing the potential opportunity costs of their ship jumping. Taken together, I posit that executives with high levels of social capital endowments tend to be less likely to jump ship.

In contrast, executives with low levels of social capital do not have enough social capital to draw on to effectively buffer themselves from the decline or crisis of their firms. Accordingly, they tend to rely more on jumping ship to avoid the stigmatization. However, as discussed, executives' social capital endowments also affect the availability of external employment opportunities (Burt, 1992; Smith et al., 2012). While it is more necessary for executives with few social contacts to jump ship, their social capital may not be able to provide appropriate opportunities, thus hampering them from doing so. As a result, executives with low levels of social capital endowments may be confined in their current firms and less likely to jump ship.

Taken together, I expect an inverted U-shaped relationship between executives' social capital endowments and their ship-jumping behavior in declining firms. That is,

when the social capital endowment of executives is low, it may impede the executives' search for external employment opportunities and thus hamper their ship-jumping behavior. As their network endowment increases, it will lead to more and more ship-jumping opportunities and thus allow the executives to do so. However, when executives' social capital endowment becomes very high, it will decrease the necessity for the executives to jump ship to avoid stigmatization and increase the opportunity costs of doing so, thus discouraging their ship-jumping behavior. I thus have the following hypothesis:

***Hypothesis 1: There is an inverted U-shaped relationship between executives' social capital endowment and their ship-jumping behavior, such that executives with medium high levels of social capital are more likely to jump ship.***

#### **Peer social capital and interfirm networks**

It has been widely acknowledged that executives' decisions and actions, including their turnover, are affected by the resources held by their firms and other members in the firms (Arthaud-Day, Certo, Dalton & Dalton, 2006; Cannella & Lubatkin, 1993; Finkelstein et al., 2009). Through the resource dependence perspective, in the interdependency between executives and their firms, the resource endowments of the firms and the members of the firms determine an executive's dependence on them, thus shaping his/her relative power and decision-making discretion in the firm (Hillman et al., 2009). Following this logic, in this study I focus on a central resource of executives' peer upper-echelon administrators and the firms, i.e., their social capital, exploring their roles in determining executives' ship-jumping behavior.

***Peer social capital.*** I define an executive's peer social capital as the network

endowments of other upper-echelon administrators (i.e., executives and directors) in his/her firm. First, executives can establish personal connections with other executives and directors in their firms through their daily communication and interaction, thus making these peer upper-echelon administrators important components of their social networks (Jiang et al., 2014). As such, the more prestigious and socially well-endowed these peer administrators, the more would they contribute to the focal executives' social status and reputation and thus help the executives to better develop their personal influence and social capital. Moreover, through the brokerage of their peer administrators, executives can be referred to otherwise unconnected external stakeholders (Burt, 1992). For example, Kim and Cannella (2008) suggest that connections with other directors can help upper-echelon administrators to receive more external director appointments. This referral effect of peer social capital can facilitate the development of the executives' social network. Accordingly, by providing access to a wider range of external contacts, peer administrators with higher social capital endowments can better help the executives in developing their social capital.

Taken together, I posit that executives depend on the peer social capital endowments of other executives and directors in their firms. This internal dependence has important implications for the ship-jumping behaviors of the executives. On the one hand, jumping ship may potentially break the connections between executives and their peer administrators (Carpenter et al., 2012). As such, when other upper-echelons in their firms have abundant social capital, it will be harder for the executives to find a new job that can effectively compensate the loss of their current peer social capital endowments, therefore significantly increasing the opportunity cost for executives to jump ship. On

the other hand, as a source of executives' dependence on their firms, the social capital endowments of upper-echelon administrators determine their power (Stevenson & Radin, 2009; Westphal & Zajac, 1995). Therefore, high peer social capital depicts high power of other administrators over the executives, which, to resource dependence theory, allows them to exert high levels of influence over the executives' actions and decisions (Pfeffer & Salancik, 1978). This may also potentially hamper the executives from voluntarily abandoning their declining firms and proactively jump ship. Taken together, I have the following hypotheses:

***Hypothesis 2: The peer social capital of other upper-echelon administrators in a firm is negatively related to the likelihood of executives' ship-jumping behavior.***

***Interfirm network.*** I define a firm's interfirm network as its interorganizational exchange relationships with other firms in the industrial network. The interfirm network of a firm is an important resource for its executives. On the one hand, as discussed, the reputation and social status of executives are tightly associated with the status of their firms (Devers et al., 2009; Wiesenfeld et al., 2008). As such, serving in the central firms with high status in the industrial network can largely benefit the reputation and social status of executives. On the other hand, it has been noted that executives often develop their own personal relationships based on the interfirm contacts of their firms (e.g., Westphal et al., 2006; Zajac, 1988). In such a manner, executives can benefit from their firms' interfirm networks in the development of their social capital (Carpenter et al., 2012).

Drawing on this insight, I argue that the size of a firm's interfirm network also determines its executives' dependence on the firm. Accordingly, executives' dependence

on their firms' interfirm networks tend to impact their ship-jumping behavior. First, as discussed above, it increases the opportunity costs of ship jumping, such that it is harder for executives to get new employment opportunities that can effectively substitute the current employers with abundant interfirm relationships and central status in the industrial network. Plus, the size of a firm's interfirm network and (accordingly) its industrial status largely determine the autonomy of their executives (Hambrick & Finkelstein, 1987; Granovetter, 1985), such that in firms that are deeply embedded in large amount of interfirm relationships, the decisions and actions of executives may be largely impacted and sanctioned by external stakeholders (Carpenter et al, 2012; Uzzi, 1997, 1999). In such a manner, executives' ship-jumping behavior may be further discouraged by the social or institutional pressures from the industrial network. Taken together, I posit:

***Hypothesis 3: The size of the interfirm network of a firm is negatively related to the likelihood of executives' ship-jumping behavior.***

***Moderating effects of peer social capital and interfirm network.*** Given the above implications of peer social capital and interfirm network, I further expect them to moderate the non-monotonic effect of executives' social capital on their ship-jumping behavior. Specifically, in firms with higher levels of peer social capital and interfirm network endowments, executives with low social capital endowments will be more constrained in their ship jumping. That is, their limited social contacts will hamper them to find external employment opportunities that can effectively compensate the high social loss of leaving the current firms (Burt, 1992). Likewise, for executives with high social capital endowments, the higher opportunity costs of ship jumping, coupled with their low



necessity of doing so, will further reduce their willingness to proactively jump ship.

Taken together, peer social capital and interfirm networks tend to effectively reduce the likelihood for executives with low or high social capital to jump ship.

However, for executives with medium levels of social capital, high peer social capital and interfirm network endowments may have more complicated implications. That is, when the network endowments of their peers and the firms increase, executives will suffer from stronger power disadvantage (Pfeffer & Salancik, 1978; Stevenson & Radin, 2009), thus making them more likely to become the victim of the scapegoating process, where the firms and other executives and directors attribute the discredited events to the focal executives (Gamson & Scotch, 1964; Shen & Cho, 2005). In such a manner, in firms with higher levels of peer social capital and interfirm network endowments, executives with medium levels of social capital endowments suffer from higher risk of being scapegoated, because they may not be able to defend themselves as the most well-connected ones can. However, comparing with highly socially constrained executives, they can still get access to ship-jumping opportunities, even if the opportunity costs of doing so are also increased. In such a manner, I expect the likelihood of ship jumping for executives with medium levels of social capital may decline slower when their firms' peer social capital and interfirm network endowments increase.

***Hypothesis 4a: The peer social capital of other upper echelon administrators in a firm will positively moderate the effect of executives' social capital on their ship-jumping behavior. That is, when peer social capital becomes higher, the likelihood of ship jumping among executive with low or high social capital endowments will decline more significantly.***

*Hypothesis 4b: The size of the interfirm network of a firm will positively moderate the effect of executives' social capital on their ship-jumping behavior. That is, when the size of interfirm network becomes larger, the likelihood of ship jumping among executives with low or high social capital endowments will decline more significantly.*

## **METHOD**

### **Sample**

The specially treated public firms in Chinese stock market provide an excellent natural setting to test my hypotheses. In May 2003, China launched the revised delisting risk monitoring system, mandating that if a publicly listed company reports accounting losses in two consecutive years, its stock will be put under special treatment (ST for short) for delisting risk warning and listed with the prefix of “\*ST” (Jiang & Wang, 2008). \*ST stocks are subject to special trading and financial restrictions. For example, the daily stock price movement for an ST stock cannot exceed 5% in either direction. Moreover, the ST stock will not be allowed to raise additional capital from the stock market. After a stock is prefixed with \*ST, it will be suspended from public trading after the company reports one more annual loss, and delisted after two. In contrast, the company will be able to remove the \*ST prefix if its performance is significantly improved after the \*ST filing. Drawing on this insight, in Chinese stock market, the \*ST filing indicates both the current decline of a company's performance and the high risk of its stock market failure in the future. As such, a company's \*ST announcement is a strong and publicly accessible signal indicating its declining tendency (Zhou, 2013). Moreover, since the \*ST filing requires two consecutive annual financial losses, it naturally allows executives

to proactively jump ship before the filing.

I collected longitudinal data about 248 publicly listed Chinese companies whose stock was prefixed with \*ST (\*ST companies for short) from 2004 to 2011. The data was collected from two leading Chinese stock market data providers, i.e., WIND Information, and CSMAR Solution. I excluded \*ST companies that experienced reverse merger from the sample. Reverse merger, or “*Mai Ke (买壳)*” in Chinese, refers to the following practice. A private company takes control of an \*ST company by buying its stock (usually 70% to 90%), and then makes the decision for the \*ST company to acquire the private firm. Doing this will allow the \*ST company to reorganize and turnover by using superior assets of the private firm, and the private firm to get access to public capital in the stock market. It has been acknowledged that reversed mergers will often lead to major change in top management teams before and after \*ST filing and thus confound the findings (Darrrough, Huang, & Zhao, 2013). This exclusion narrowed the sample size down to 122 \*ST firms.

Following prior studies (e.g., Marcel & Cowen, 2014; Semadeni et al., 2008), for each sample \*ST company, I examined the year-end reports for each sample \*ST company, identifying its major executives, i.e., the CEO, CFO, president, and executive vice president as the sample executives. In total, this method led to a sample of 278 executives of the 122 \*ST companies.

## **Measures**

*Ship-jumping behavior.* I capture executives' ship-jumping behavior as the proactive departure from a company in the two years prior to its \*ST announcement. Namely, if the company announced its \*ST in Year  $N$ , I use Year  $N-3$  as the baseline,

extracting the names of the CEO, CFO, president, and executive vice president in the company's year-end report of Year  $N-3$ , and comparing them with the top management team composition of Year  $N-2$  and Year  $N-1$  to identify sample executives' turnover events prior the sample company's \*ST announcement.

Importantly, it is possible that not all executive turnover events I identified are due to a voluntary and proactive ship-jumping decision. Instead, the declining companies may dismiss some executives as scapegoats for their underperformance (e.g., Gamson & Scotch, 1964; Shen & Cho, 2005). As such, I need to rule out involuntary turnover to ensure the robustness of the result. To accurately identify executives' ship-jumping behavior, I tracked the reemployment of the sample executives, defining ship jumpers as executives who took a new executive position within one year after they left the prior \*ST companies. I used the database operated by three government-funded head hunting firms that mainly focus on business elites in public firms in China. According to the database, the average period for former executives in Chinese public firms to be reemployed as top executives is 2.2 years. In such a manner, the significantly shorter reemployment period of these ship-jumping executives (1 year) indicates that they may proactively engage in searching for new jobs before departing and thus suffer less devaluation on labor market, a central consequence of ship-jumping behavior (Semadeni et al., 2008). According to this coding rule, 108 of the 278 executives engaged in ship-jumping behaviors. The dependent variable, executives' ship jumping, was thus coded 1 in the year of jumping, otherwise coded 0.

*Executives' social capital and peer social capital.* Following prior studies (e.g., Marcel & Cowen, 2014), I measured executives' social capital endowment for year  $t$  as

their eigenvector centrality (logged) within the board-interlocking network across all directors in year  $t-1$ . In this interlocking network, an executive connects with other directors by serving on the same board (excluding the tie in his/her own company). Comparing with degree centrality that mainly captures the number of ties that a sample executive maintains, eigenvector centrality accounts for the importance of different social contacts, weighting the ties with well-connected contacts more (Bonacich, 1987; Carpenter et al., 2012). Similarly, peer social capital was operationalized as the sum of the logged eigenvector centrality of all other executives and directors in the company. These calculations were implemented using UCINET 6.

*Interfirm network.* The size of a sample firm's interfirm network in year  $t$  was operationalized as the number of alliances the firm maintained in year  $t-1$ , adjusted based on the average number of alliances possessed by all public firms in the firm's industry.

*Control variables.* the analyses controlled for a series of executive- and firm-level characteristics that may potentially influence executives' ship jumping. For executives' personal characteristics, I controlled for their age, their education (5 for doctoral, 4 for master, 3 for college, 2 for high school, 1 for otherwise), their experience in this industry, their tenure in the sample firm, their tenure on the current position, and the proportion of their sharing holding. Plus, following prior studies (e.g., Semadeni et al., 2008), I created three binary variables for their titles in order to control for the different effects of hierarchical level. The variable *CEO* was coded 1 if the executive was the CEO in the sample \*ST firm and 0 otherwise. The variable *Board Chair* was coded 1 if the executive served as the chairman of the board in the sample \*ST firm and 0 otherwise. The variable *Other insider director* was coded 1 if the executive served as

insider director (not chair) in the sample \*ST firm and 0 otherwise. For firm-level features, I controlled for the sample firms' age, asset scale, and the size of their board of directors.

Also, industry membership may systematically affect executives' ship-jumping behavior. To guard against the potential unobserved heterogeneity, I created a series of industrial dummies and incorporated them in all analyses, but omitted their coefficients from the tables to preserve space.

Importantly, since I selected 122 \*ST firms out of 248 \*ST firms by excluding all firms that experienced reversed merger, I applied Heckman's two-stage estimation procedure (Heckman, 1976) to control for possible sample selection bias and calculated the inverse Mills ratio as a control variable in the models.

### **Method of Analysis**

Because the observation window is finite (2 years prior to \*ST filing), the data is right censored (Allison, 1999). Using logit models to predict the binary outcomes may generate downwardly biased estimates (Tuma and Hannan, 1984). To avoid this right censoring problem, I used event history technique to model the likelihood of executive ship jumping. Event history analysis models the hazard rate, which is the likelihood that an executive will jump ship at time  $t$ , given that he/she has not engaged in ship-jumping behavior before  $t$  (Allison, 1999; Richards, 2012). The estimations derived from the following Cox proportional hazards regression model (Cox, 1972):

$$h_i(t) = h_0(t) \times \exp\left\{ \sum \beta_k \times [X_{ik}(t)] \right\}$$

where  $h_0(t)$  refers to the baseline hazard function, and  $X_{ik}(t)$  refers to the value of

the  $k$ th independent variable for actor  $i$  at time  $t$ . An important benefit of this model is that it makes no assumption about the distribution of the baseline hazard function.

Meanwhile, the error variances of observations involving the same sample firm in multiple years may not be independent because of some unobserved features of the focal firm. For this reason, I clustered observations based on firm ID in model specification to avoid potential autocorrelation (Wooldridge, 2002). The robust clustered standard error calculation, which is a generalization of the sandwich method of calculating heteroskedasticity-robust standard errors (Baum, Nichols, and Schaffer, 2010) also helps address the potential problem of heteroscedasticity.

## RESULTS

Table 3 provides means, standard deviations, and correlations. I calculated the variance inflation factors (VIFs) for all models in the analysis. Results show that the average VIF value was below 4.6, indicating that multicollinearity did not bias the estimates.

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INSERT TABLE 3 ABOUT HERE

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Table 4 reports the results of the event history analyses. Model 1 provides the baseline model including only control variables. Model 2 adds the four independent variables, i.e., executive social capital, executive social capital squared, peer social capital, and interfirm network. Models 3 add the four interaction items. In the first column of each model, I report odds ratios, which represent the proportional change in hazard rate from a one-unit increase in the independent variable (Allison, 1999; Richards,

2012). The second column of each model represents Z-scores calculated with robust clustered standard errors. I report Z-scores to demonstrate the direction of each odds ratio, i.e., increasing or decreasing hazard rate. Below, I use the evidence from Models 2 and 3 in Table 4 to test the hypotheses. I note that the effects of inverse Mills ratio are insignificant in all of the statistic models, suggesting that the results do not suffer from potential sample selection bias.

Among the main effects, Hypothesis 1 posits that executives' social capital endowments have an inverted U-shaped relationship with their ship-jumping behavior, such that executives are less likely to jump ship when their social capital endowments are particularly low or particularly high. This hypothesis is supported by the results in Model 2. The odds ratio of executive social capital is 2.67 ( $z=3.83$ ,  $p<0.05$ ), and the odds ratio of the executive social capital squared is 0.20 ( $z=-6.90$ ,  $p<0.001$ ).

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INSERT TABLE 4 ABOUT HERE

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Hypothesis 2 predicts that peer social capital can reduce the likelihood of executives' ship jumping. The evidence from Model 2 supports this hypothesis. The odds ratio for peer social capital is 0.90 ( $z=-2.44$ ,  $p<0.05$ ), indicating that increasing one unit of peer social capital is associated with a reduced hazard of executive ship jumping by 10.02 percent.

Hypothesis 3 predicts that interfirm network can reduce the likelihood of executives' ship jumping. The evidence from Model 2 supports this hypothesis. The odds ratio for the size of interfirm network is 0.87 ( $z=-2.40$ ,  $p<0.05$ ), indicating that increasing one unit of peer social capital is associated with a reduced hazard of executive



ship jumping by 13.11 percent.

However, the evidence from Model 3 does not support Hypothesis 4a, which predicts that peer social capital can strengthen the effect of executive social capital. The odds ratio is 0.04 ( $z=-2.53$ ,  $p<0.01$ ) for the interaction between executive social capital and peer social capital, and 1.60 ( $z=2.35$ ,  $p<0.05$ ) for the interaction between executive social capital squared and peer social capital. These results together show that peer social capital actually weakens the effect of executive social capital rather than strengthening it as predicted by Hypothesis 2b (see Figure 4).

Lastly, Hypothesis 4b, which predicts that interfirm network can strengthen the effect of executive social capital, is moderately supported. The results in Model 3 show that the odds ratio is 2.15 ( $z=1.82$ ,  $p<0.10$ ) for the interaction between executive social capital and peer social capital, and 0.62 ( $z=-1.88$ ,  $p<0.10$ ) for the interaction between executive social capital squared and peer social capital. These results suggest that in firms with large interfirm network, the likelihood of executives with particularly high or low social capital endowments declines faster (see Figure 5).

With respect to the significant control variables, Model 2 shows that, in declining firms, the hazard rate of ship jumping is reduced for executives who are older (odds ratio=0.39,  $p<0.01$ ), serve longer in the firms (odds ratio=0.93,  $p<0.001$ ), and have relatively less experience in the industry (odds ratio=1.06,  $p<0.001$ ).

## **DISCUSSION**

When facing the discredited occasions of their firms (e.g., financial decline, bankruptcy, delisting, scandal, lawsuit, etc.), executives and directors may either choose to stay with the endangered firms and strive to “clean the house”, or opt for jumping ship

and saving their own reputation and social status. Since the ship-jumping choice of upper-echelon administrators largely determines whether their firms can retain their human and social capital, which is essential for endangered firms to emerge from their crisis (Daily, 1994), it is of particular high importance for firms encountering crisis or decline.

Given the prominence and prevalence of ship-jumping behavior, scholars have recently devoted increasing effort to highlighting the antecedents of the ship-jumping behavior of upper-echelon administrators, especially directors. For example, Marcel and Cowen (2013) focused on the ship-jumping behavior of directors following fraud announcement, pointing out that directors with higher relational and human capital are more likely to stay and strive to turn around the crisis (“cleaning house”) rather than jumping ship. Boivie, Graffin and Pollock (2012) showed that the financial and reputational risk related to shareholder lawsuits and financial restatements can motivate directors to jump ship. However, so far, little effort has been devoted to highlighting how executives in declining firms make the decision of jumping ship. As discussed, as insiders deeply embedded in their firms, executives may base their choice of ship jumping on different considerations comparing with directors. Against this backdrop, I strive to highlight the mechanism behind executives’ ship-jumping behavior.

Through the social embeddedness perspective (Granovetter, 1985; Uzzi, 1997, 1999), executives’ decisions and actions are largely influenced by the social ties and networks they participate in. In such a manner, I focus on the effect of executives’ social capital on their ship-jumping behavior. Interestingly, social capital may have seemingly paradoxical implications for executives’ ship jumping. On the one hand, in declining

firms, executives' social capital provides the firms valuable resources and social supports to manage and survive the decline (e.g., Daily, 1995; Fischer & Pollock, 2004, Geletkanycz, Boyd, & Finkelstein, 2001). Therefore, executives' social capital may drive firms to strive to retain them, thus increasing the opportunity costs for them to jump ship. On the other hand, however, executives' social capital can also provide executives more external employment opportunities thus facilitating them to jump ship (Burt, 2001; Finkelstein, Hambrick, & Cannella, 2009). In such a manner, the way in which executives' social capital affects their ship jumping remains unclear.

This seemingly paradoxical implication represents an essential yet understudied issue in social network research: *In which way would executives use their social capital and social network* (Carpenter et al., 2012)? It has been recently noted that actors intentionally determine the way in which they utilize their social capital (Jiang et al, 2014; Levin et al., 2011; Smith et al., 2012). Particularly, simultaneously serving as the strategic leader of their firms and as individual social actors, executives may naturally use their social capital and social network, one of their central personal endowments, in two different ways. On the one hand, they can use their personal social capital endowments to serve the best interest of their firms. On the other hand, they can instead decide to utilize their social capital in ways that can best serve their self-interest. The aforementioned debate on executives' ship jumping in declining firms provides an example to this two-fold implication of executives' social capital. On the one hand, as the strategic leader of their firms, executives have the motivation to serve the best interest of their firms by staying with the declining firms and using their social capital to prevent the decline. However, as discussed, doing so may personally stigmatize these executives

and cause personal losses such as tainted reputation and devaluation on labor market (Semadeni et al., 2008). On the other hand, executives may serve their best self-interest by using their social capital to search for ship-jumping opportunities and abandoning the declining firms. This paradox largely blurs the way in which executives' social capital affect their ship-jumping behaviors in declining firms.

I draw upon the perspective of resource dependence theory to address this puzzle. Resource dependence theory (RDT) focuses on the interdependent relationships between actors, positing that actors are embedded in a network of interdependencies where they rely upon each other to survive and perform (Pfeffer, 1987; Pfeffer & Salancik, 1978). These interdependencies largely characterize the relationship between firms and their executives (Daily et al., 2001). On the one hand, firms depend on the resources and capabilities of their executives to support their operation and achieve superior performance. On the other hand, executives and directors depend on their firms to secure economic rents and develop their personal identity, reputation and social capital (Hambrick et al., 1993; Westphal et al., 2006). In such a manner, executives' decisions and actions, including their ship-jumping behaviors, are naturally influenced by their dependencies on their firms as well as on external environments. As such, RDT provides a natural perspective to examine executives' ship-jumping behavior (Hillman et al., 2009).

Following this logic, I posit that the benefits and costs of ship-jumping behaviors both arise from executives' interdependencies inside and outside of their firms. First, as discussed, the central benefit of ship-jumping behavior is for executives to avoid being personally stigmatized by their firms (Semadeni et al., 2008). In such a manner, the benefits of ship jumping rest upon how much would executives depend on accepting

external positions to prevent potential stigmatization by their current firms. Meanwhile, the potential costs of jumping ship, which mainly arise from the opportunity costs of giving up the position in the current firms, are largely determined by executives' dependence on their current firms.

Through this resource dependence perspective, the seemingly paradoxical implications can be effectively reconciled. That is, the social capital endowments of executives determine the degree to which they depend on the external employment opportunities to avoid being stigmatized by the decline of their firms. It has been acknowledged that executives' social capital can serve as a buffering mechanism that effectively mitigates the negative personal impact of firm crisis on executives (Wiesenfeld, Wurthmann, Hambrick, 2008; Zajonc, 1980). Accordingly, executives with high social capital endowments depend less on taking new jobs to avoid stigmatization by the current firm. Meanwhile, executives' social capital also determines the feasibility of their external employment opportunities (Dess & Shaw, 2001). In such a manner, while low network endowment makes it more necessary for an executive to jump ship, it also confines his/her available opportunities of doing so. I thus posit an inverted U-shaped relationship between executives' social capital endowment and their ship-jumping behavior.

Moreover, executives largely depend on their firms, as well as their network endowments, to develop their social ties and networks (Westphal et al., 2006; Zajac, 1988). These internal dependencies also tend to affect executives' decision to jump ship. On the one hand, they determine the opportunity cost of ship-jumping behaviors, such that executives may lose important and otherwise irreplaceable identities and connections

if they jump ship from firms with abundant social capital endowments. On the other hand, the social capital endowments of a firm also determine executives' relative power and discretion within the firm (Hambrick & Finkelstein, 1987), such that executives may be entrenched in firms with high social capital endowments because of the lack of decision discretion. Following this logic, I adopt two indicators for these internal dependencies, i.e., the peer social capital, which refers to the social capital endowments of other upper echelon administrators in a firm, and the interfirm network, which refers to the firm's interfirm network endowments in the industrial network. I posit that both peer and interfirm network can reduce the likelihood of executive ship jumping behavior, as well as strengthen the effect of executives' social capital on their ship-jumping behavior.

The evidence from \*ST public firms in China largely confirmed the predictions. As predicted, executives are less likely to jump ship when their social capital endowments are particularly low or particularly high. This non-monotonic effect of executive social capital has been strengthened in firms with abundant interfirm network endowments. Plus, peer social capital endowments of other upper-echelon administrators in a firm and the firm's interfirm network can both effectively discourage its executives from jumping ship when encountering decline or crisis.

A surprising finding, however, is that in contrast to the prediction, the effect of executives' social capital on their ship-jumping behavior has been weakened in firms with high levels of peer social capital endowments. To Figure 2, the inverted U-shaped effect of executives' social capital endowments becomes flatter when other executives and directors are socially well-endowed with abundant social capital and social contacts, suggesting that executives with high or low social capital endowments are more likely to

jump ship when peer social capital is high. This surprising result may show that executives with low social capital may potentially benefit from their peer administrators' social capital in their search for ship-jumping opportunities. Likewise, for executives with high social capital endowments, when other executives and directors are also endowed with high social capital, their firms may devote relatively less effort to retain them, therefore potentially reducing their opportunity costs for jumping ship. Future research may benefit from further exploring this intriguing surprise.

### **Expected contributions**

I expect this study to contribute to the literature in the following ways. First, as discussed, it has been widely acknowledged in strategic leadership research that top executives' social capital can significantly benefit their firms (Carpenter et al., 2012; Li & Zhang, 2007). As such, scholars have largely equated executives' social capital as a valuable endowment of their firms. However, I pointed out that this argument may be incomplete. That is, executives may use their personal social capital endowments to serve the best interest of their firms or to serve their self-interest. In such a manner, it may be incomplete to unconditionally take executives' social capital as their firms' resources. Using the instance of executives' ship-jumping behavior in declining firms, I highlight that executives may not always use their social capital to benefit the firm; instead, they may use these networks in self-interested ways to serve their personal interest. As such, I contribute to social capital research by providing a more complete understanding about the implications of executive social capital and highlighting the boundary conditions of their benefits, i.e., the "managerial social capital" (Acquaah, 2007, Peng & Luo, 2000).

Second, I contribute to strategic leadership research by exploring a new way of applying resource dependence theory in this area. Resource dependence theory has been widely applied in studying the relationship between firms and their upper echelon administrators (Hillman et al., 2009). However, with little exceptions, prior studies unilaterally focus on how firms depend on the endowments of their executives and directors (e.g., human capital, social capital, reputation, status, etc.) (e.g., Cannella & Lubatkin, 1993; Daily, 1996; Harrison, Torres, & Kukalis, 1998; Hillman & Dalziel, 2003), yet paid little attention to understanding the counterpart of the interdependence, i.e., how executives and directors depend on their firms. By using RDT to highlight how firms' social capital endowments impact executives' ship-jumping behavior, I explore the implications of executives' dependence on their firms, thus complementing the extant strategic leadership and resource dependence studies.

Lastly, I show that the effects of executives' social capital for their ship-jumping behavior may vary across different levels of social capital endowments of a firm. This finding indicates that executives may intentionally decide the way in which they use their networks based on different contingencies. In this regard, echoing to the call of recent comprehensive reviews (e.g., Carpenter et al., 2012), this study points out important direction for future managerial decision research, i.e., the decision of their social capital utilization.

### **Limitations and future extensions**

This study also has limitations on which future research can build. This study highlighted the interplay of resource dependence theory and social network theory when explaining the ship-jumping behavior of executives. However, other theories also



provide useful insights. For example, while RDT emphasizes the power inducement to add new alliance partners, other theoretical perspectives, such as prospect theory, also provide alternative perspectives to highlight the decision mechanism of executives' ship jumping. In this regard, future research can benefit from embracing other theoretical perspectives and contrasting and integrating them with the current framework.

Besides, future studies can benefit from exploring the differences and connections between the ship-jumping behaviors of executives and directors. As I discussed, as outsiders, directors can simultaneously serve on multiple boards, thus allowing them to diversify their risk and giving them more freedom to jump ship. In contrast, the positions of executives are often full-time and exclusive, thus making their turnover more restricted and with higher risk and cost. Plus, I also show that executives' ship-jumping behavior is affected by their peer directors' social capital endowments, which have been shown as an important antecedent of the ship-jumping behavior of directors (e.g., Marcel & Cowen, 2014). This may suggest that the ship-jumping behavior of executives and that of directors may have potential connections. In such a manner, future research can benefit from theoretically and empirically contrasting the decision mechanisms of executives and directors and highlighting their potential connections.

TABLE 3 DESCRIPTIVE STATISTICS

Variables	Mean	S.D.	Correlation coefficients																	
Executive ship jumping	0.31	0.47	-																	
Executive social capital	2.72	0.55	0.43	-																
Peer social capital	1.66	0.79	0.22	-0.07	-															
Interfirm network	2.20	0.59	-0.03	-0.26	0.24	-														
Executive age	6.58	3.67	-0.37	-0.28	-0.21	0.04	-													
Education	0.08	0.19	0.01	0.03	-0.04	-0.02	-0.02	-												
Tenure in the firm	63.01	8.10	0.11	-0.49	0.39	0.38	-0.07	-0.03	-											
Tenure in the industry	10.43	2.15	0.06	0.03	0.02	0.30	-0.05	0.07	-0.08	-										
Tenure at the position	9.80	3.38	0.18	0.14	0.28	0.03	-0.18	0.08	-0.11	0.06	-									
Executive share holding	2.21	1.36	-0.08	-0.07	0.06	0.02	0.08	0.04	0.07	-0.20	-0.06	-								
CEO	0.03	0.18	0.06	0.05	-0.10	-0.02	-0.06	-0.05	0.01	-0.01	-0.09	0.00	-							
Board chair	0.01	0.10	0.04	0.01	-0.02	0.09	-0.02	-0.04	0.02	-0.02	0.00	-0.03	-0.02	-						
Other insider director	0.23	0.42	0.05	-0.05	0.14	-0.01	-0.01	0.01	0.11	-0.15	-0.01	0.05	-0.10	-0.06	-					
Firm age	0.32	0.20	0.07	0.00	-0.01	0.04	-0.06	0.15	0.13	-0.03	-0.03	-0.05	0.06	-0.02	0.15	-				
Board size	2.18	1.30	-0.07	-0.21	0.12	0.15	0.08	-0.01	0.26	-0.03	-0.06	0.05	0.07	-0.05	0.13	0.24	-			
Asset scale	0.28	0.62	0.06	0.11	0.03	-0.06	-0.09	0.81	-0.08	0.09	0.13	0.03	-0.06	-0.05	-0.03	-0.12	-0.10			

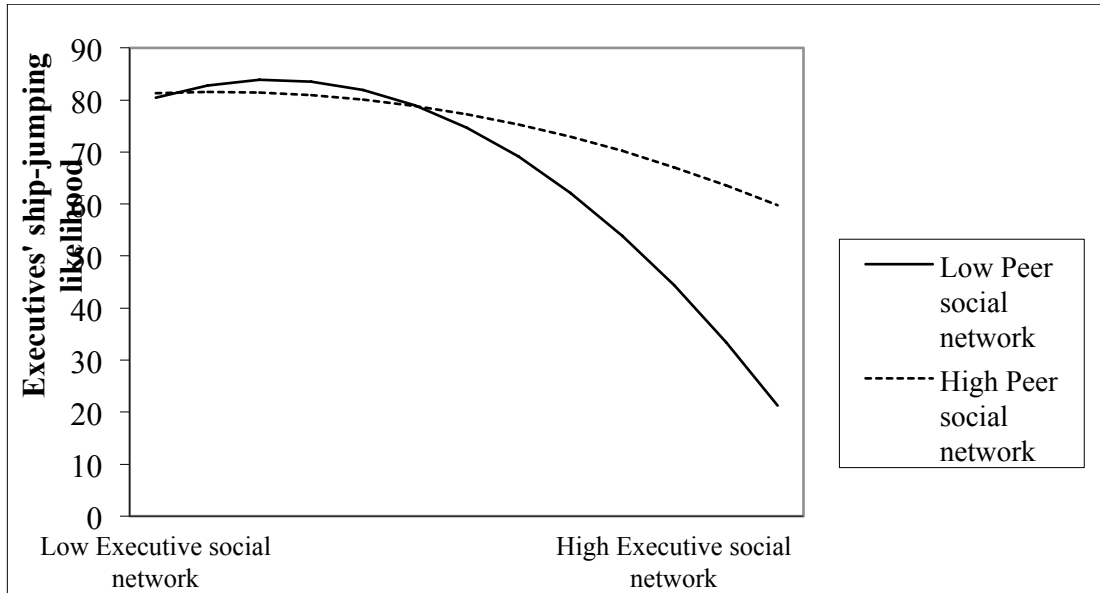
\* Unstandardized means and standard deviations are presented. Correlations represent standardized values. N=278

TABLE 4 COX MODEL OF EXECUTIVE JUMP SHIP

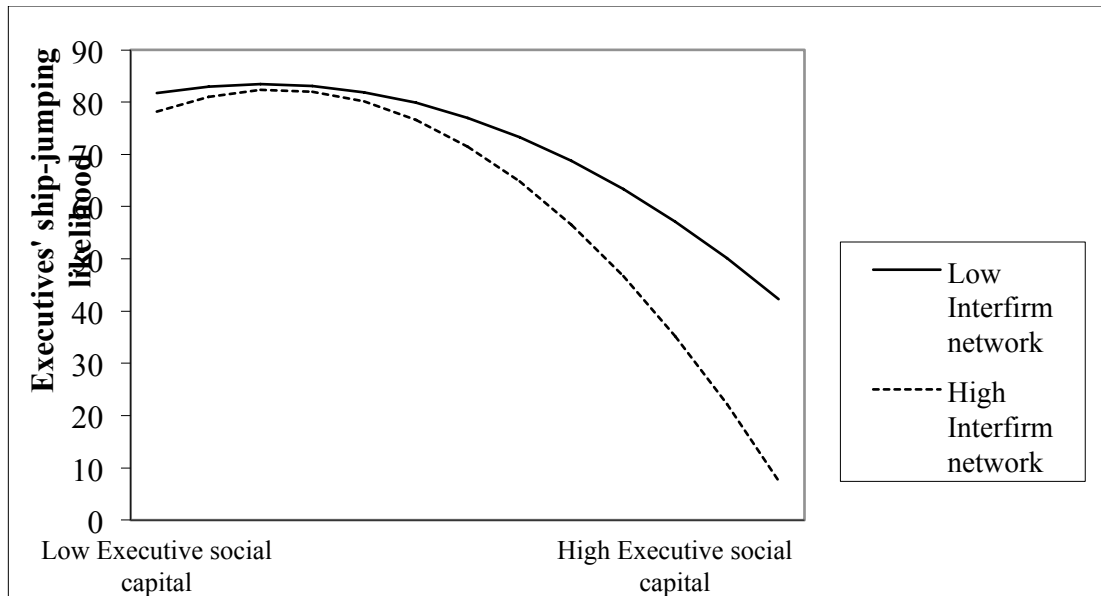
	Model 1		Model 2		Model 3	
	Haz. Ratio (Robust Sd.)	z	Haz. Ratio (Robust Sd.)	z	Haz. Ratio (Robust Sd.)	z
Executive age	0.68 (0.02)	-16.77 ***	0.39 (0.02)	-19.61 **	0.40 (0.02)	-17.58 ***
Education	1.33 (0.69)	0.55	0.67 (0.24)	-1.09	0.73 (0.25)	-0.92
Tenure in the firm	1.02 (0.01)	2.97 ***	0.93 (0.01)	-10.19 ***	0.93 (0.01)	-8.99 ***
Tenure in the industry	1.04 (0.02)	2.26 *	1.06 (0.02)	3.61 ***	1.06 (0.02)	3.94 ***
Tenure at current position	1.01 (0.02)	0.58	1.03 (0.01)	2.16	1.03 (0.01)	2.15 *
Executive share holding	0.97 (0.04)	-0.92	1.04 (0.03)	1.18	1.04 (1.04)	1.23
CEO	1.09 (0.19)	0.47	1.08 (0.19)	0.44	1.09 (0.19)	0.48
Board chair	2.13 (0.62)	2.61 **	1.65 (0.53)	1.55	1.81 (0.62)	1.74 †
Other insider director	1.19 (0.14)	1.45	1.42 (0.14)	3.52 ***	1.46 (0.15)	3.75 ***
Firm age	1.00 (0.23)	0.01	0.84 (0.18)	-0.84	0.84 (0.18)	-0.80
Board size	1.01 (0.05)	0.22	0.98 (0.03)	-0.64	0.98 (0.03)	-0.70
Asset scale	0.90 (0.12)	-0.77	0.94 (0.07)	-0.77	0.94 (0.07)	-0.89
Inverse Mills Ratio	0.93 (0.04)	-1.52	0.99 (0.03)	-0.40	0.99 (0.03)	-0.34
Executive social capital			2.67 (3.90)	3.83 *	1.75 (8.13)	1.11
Executive social capital squared			0.20 (0.05)	-6.90 ***	0.24 (0.17)	-2.02 *
Peer social network			0.90 (0.04)	-2.44 *	1.99 (3.92)	2.69 **
Interfirm network			0.87 (0.05)	-2.40 *	0.01 (0.02)	-1.76 †
Executive social capital*Peer social network					0.04 (0.05)	-2.53 **
Executive social capital squared*Peer social network					1.60 (0.32)	2.35 *
Executive social capital*Interfirm network					2.15 (3.63)	1.82 †
Executive social capital squared*Interfirm network					0.62 (0.16)	-1.88 †
Log pseudo-likelihood	-301.96		-292.11		-294.44	
Wald Chi-square	497.69***		916.34***		933.16***	

- a. The hazard rate of firm delisting is the dependent variable. I reported odds ratios and the Z-scores based on robust standard errors. Odds ratios are interpreted as the proportional change in hazard rate from a one-unit increase in the independent variable. 1 indicates no change. Odds ratios lower than 1 indicate that increases in independent variables decrease the hazard rate, and those greater than 1 indicate that increase in independent variables increase the hazard rate.
- b. † p< 0.10; \* p< 0.05; \*\* p< 0.01; \*\*\* p< 0.001

**FIGURE 4 QUADRATIC INTERACTION BETWEEN EXECUTIVE SOCIAL CAPITAL AND PEER SOCIAL CAPITAL**



**FIGURE 5 QUADRATIC BETWEEN EXECUTIVE SOCIAL CAPITAL AND INTERFIRM NETWORK**



## CHAPTER 4

### THE RATIONALE OF ORIGINAL SIN: A BEHAVIORAL MODEL OF NEW VENTURE

#### OPPORTUNISM

## INTRODUCTION

In the interfirm context, opportunism typically represents a firm's attempts to take unfair advantage of its partners by violating mutual agreements or business moral codes (Wathne & Heide, 2000; Williamson, 1979). Given its prevalence and prominence in exchange relationships, opportunism has attracted considerable research efforts during the past several decades (Carson, Madhok, & Wu, 2006). However, despite the fairly thorough understanding of opportunism, little has been done to address the following question: How firms make the decision to behave opportunistically? Particularly, opportunism may incur high potential costs for the opportunistic firms (Das, 2006; Hill, 1990). In this regard, what mechanisms drive firms and their decision makers to reach the decision of opportunism regardless its high potential costs?

Exploring the decision mechanisms behind opportunism has important implications. Prior studies have primarily taken the victim's perspective to study opportunism, treating opportunism as a ubiquitous liability in exchange relationships and thus providing an advanced understanding of the contingencies stimulating or preventing opportunism (Williamson, 1996). In contrast, little attention has been directed toward examining opportunism from the viewpoint of opportunistic actors (Luo, 2007; Nooteboom, 1996). As such, it is hard to fully understand why some firms are more opportunistic than others in similar transactional situations. In this regard, opening the black box of decision mechanisms behind opportunism will advance the understanding of opportunism by addressing the potential differences between firms' opportunism propensity.

Against this backdrop, in this study I highlight the decision mechanisms of

opportunism in the context of new ventures. It has been widely realized that compared with established firms, new ventures have a relatively high propensity to behave opportunistically (Hannafey, 2003; Longenecker, McKinney, & Moore, 1988; Lorenzoni & Ornati, 1988)<sup>2</sup>. As such, it is relevant and important to highlight the decision-making mechanisms behind the prevalent opportunism among new ventures. It has been widely acknowledged that entrepreneurs generally have high discretion in new ventures (Finkelstein & Hambrick, 1987), making their decisions essential to ventures' strategic choices, including opportunism. As such, I specifically focus on the managerial decision-making process in which entrepreneurs deliberately weigh the benefit and cost of acting opportunistically. Drawing upon the perspective of prospect theory (Lichtenstein & Slovic, 2006; Tversky & Kahneman, 1992) and behavioral agency theory (c.f., Wiseman & Gomez-Mejia, 1998), I frame the decision-making mechanism of venture opportunism as a loss-averse decision.

I start by highlighting the major value of opportunism, i.e., securing resources that can alleviate short-term threats (Das, 2006; Hill, 1990). By violating the regulation of mutual agreements or informal regulations (social norms, business ethics, etc.) and sacrificing partners' interests, opportunism allows firms to secure extra short-term gains (Ghoshal & Moran, 1996; Grossman & Hart, 1986). It has been noted that entrepreneurs are loss-averse actors, who are willing to take significant risk to avoid perceived losses (Forlani & Mullins, 2000; Gomez-Mejia, Cruz, Berrone, & Castro, 2011; Wiseman & Gomez-Mejia, 1998). As such, I posit that the merit of opportunism provides entrepreneurs a valuable way to avoid potential losses in their entrepreneurial practices

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<sup>2</sup> Some prior studies have referred to the high opportunism propensity as "original sin" (e.g., Hebert & Link, 1982; Jackall, 1988).

with certain potential costs. According to the extant entrepreneurship research, entrepreneurs generally face two potential losses: the economic loss related to the ventures' failure, and the noneconomic loss of their personal social identity, reputation, social capital, and so on (Gomez-Mejia et al., 2011). The basic argument is that opportunism can benefit entrepreneurs by preventing the economic loss of their new ventures, and arise the potential cost of incurring high potential noneconomic loss.

Specifically, the extra gain from opportunism can help the opportunistic ventures to better survive and perform, thus effectively preventing economic losses from venture failure (Hannafey, 2003). In this regard, I predict that when loss-averse entrepreneurs perceive high venture failure risk, they are more motivated to engage in opportunism to save their ventures and avoid the economic losses of venture failure.

However, given its illegitimate nature, opportunism is socially discredited and thus may potentially contaminate the reputation and legitimacy of opportunistic firms (Das, 2006; Heide & John, 1990; Ray, 1994). As such, due to their close association with their ventures, entrepreneurs may be personally stigmatized by their ventures' opportunistic behaviors and personally suffer from noneconomic losses such as tainted reputation and damaged social capital (Pozner, 2008; Wiesenfeld, Wurthmann, & Hambrick, 2008). I focus on a specific indicator of the association between entrepreneurs and their ventures—the extent to which they use their personal networks to facilitate the interorganizational exchange of their new ventures. Personal networks consist of ties that involve friends, relatives, or significant acquaintances. When entrepreneurs use their personal networks to serve their new ventures, they are forced to accept personal responsibility for their new ventures' misdeeds and suffer more from behaving



opportunistically.

Finally, prior studies have shown that personal ties and networks are frequently used by entrepreneurs to secure resources needed by their ventures. As such, the perceived level of venture failure risk may also encourage entrepreneurs to draw upon their personal networks to support venture survival. Given that using their personal networks decreases the likelihood of acting opportunistically, I predict that the use of entrepreneurs' personal networks will mediate the relationship between venture failure risk and opportunistic behavior.

I strive to contribute to the extant literature in following ways. First, by modeling opportunism as a risky strategic choice, I explore the managerial decision mechanism behind new ventures' opportunism, thus shedding light on the understudied question: how do firms reach the risky decision to behave opportunistically? By opening the black box of the decision making underlying venture opportunism, this study advances the extant opportunism literature with a complementary perspective, which provides more complete understanding of opportunism.

Second, by drawing on behavioral decision theory to model entrepreneurs' risk-taking decisions regarding opportunism in their ventures, I contribute to the literature by introducing a new perspective to opportunism research—a perspective that complements transaction cost theory (Williamson, 1985), the major theoretical backdrop for prior opportunism research.

Third, I theoretically and empirically demonstrate the different implications of economic and noneconomic losses for entrepreneurs' risk-taking decisions in their ventures, showing that the economic and noneconomic considerations have sharply

different effects on entrepreneurs' decisions regarding their ventures' opportunism. This result indicates the tension between the two roles of entrepreneurs, i.e., the strategic leader in their ventures and the social actor in their social life, thus pointing out valuable directions for future entrepreneurship research.

Finally, this study also has important implications for business practice. By shedding light on the decision-making process behind opportunism, the findings provide valuable insights that can facilitate firms to effectively screen out opportunistic partners in their partner selection.

### **A BEHAVIORAL MODEL OF OPPORTUNISTIC ACTION**

As emphasized earlier, opportunism is an intentional business practice with specific benefits and costs for the opportunistic actor (Ghoshal & Moran, 1996; Luo, 2007; Nooteboom, 1996) so I analyze it as such. Drawing from prospect theory (Lichtenstein & Slovic, 2006; Tversky & Kahneman, 1992) and behavioral agency theory (Wiseman & Gomez-Mejia, 1998), I propose a model of the behavioral decision processes through which entrepreneurs choose whether or not to engage in opportunism in their ventures' operation. Figure 6 illustrates the theoretical model.

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Insert Figure 6 About Here

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### **The Value of Opportunism: A Loss-Averse Perspective**

Despite the well-recognized negative implications of opportunism for victims, there is little doubt that it can be instrumentally valuable for opportunistic firms (Luo, 2006). By violating formal or informal institutions (contracts, social norms, business

ethics, etc.) and sacrificing business partners' interests and potentially their own legitimacy and reputations, actors often secure gains by acting opportunistically (Das, 2006; Hill, 1990; Jiang, Jin, Jiao, & Ma, 2009). Particularly, because opportunism extracts value from business partners, it typically leads to short-term gains for the opportunistic actor (Das, 2006). These gains can help the opportunistic firms to deal with immediate needs and save them from urgent pressure, effectively supporting their survival (Hannafey, 2003; Jiang et al., 2009). Particularly, in the new venture setting, opportunistic behavior can enhance a new venture's resource base and help to mitigate short-term resource pressure. For example, a firm can convey false yet attractive information to current and prospective stakeholders, thus increasing its chance to form valuable relationships, such as important contracts, alliances and investment ties (John, 1984; Wathne & Heide, 2000).

This merit of opportunism is likely to be particularly salient and valuable as the short-term gains captured through opportunism can effectively mitigate ventures' survival pressure.

However, the benefits of opportunism also come with risks and potential costs. First, opportunism may fail to achieve the desired gains. For example, if opportunistic behaviors are quickly discovered, those targeted may withhold the promised resources or otherwise withdraw their support and may even respond with lawsuits (Brown, Dev, & Lee, 2000; Kale, Singh, & Perlmutter, 2000). Moreover, as discussed, opportunism is largely discredited because of its exploitative and illegitimate nature (Carson et al., 2005; Das & Teng, 2001; Ray, 1994). Therefore, widespread awareness that a venture has behaved opportunistically will harm its legitimacy and reputation (Das, 2006; Hill, 1990).

These consequences of opportunism may be destructive to new ventures. Taken together, opportunism tends to be a potentially beneficial yet highly risky practice for new ventures. Accordingly, an unaddressed question is: When would entrepreneurs decide to take the risk and enjoy the beneficial implication of opportunism in their ventures' operation?

Through a behavioral decision perspective, I posit that entrepreneurs' decision of opportunism is driven by a loss-averse mechanism. In their behavioral agency model, Wiseman and Gomez-Mejia (1998) suggest that executives are not value-maximizing in their decision processes, but rather are loss averse, such that they prefer riskier choices when the alternative involves sure losses (Sitkin & Pablo, 1992). Scholars have shown that this loss-averse tendency also applies to the decision making of entrepreneurs, who are willing to take high risk when facing significant threats or losses (Forlani & Mullins, 2000; Gomez-Mejia et al., 2007; Gomez-Mejia et al., 2011). In such a manner, it is reasonable to predict that given the beneficial outcome of opportunism, entrepreneurs may choose to draw on the high risk and engage in opportunism in order to prevent perceived losses.

These potential losses in the new venture context, to the extant entrepreneurship literature, (e.g., Batjargal et al., 2009; Gomez-Mejia et al., 2007), can be classified into two categories: the economic loss related to the ventures' survival and performance, and the noneconomic loss of the socioemotional wellbeing of the entrepreneurs (e.g., social identity, reputation, social capital, etc.). I posit that these two losses play essential and distinct roles in entrepreneurs' loss-averse decision of venture opportunism.

### **The Economic Loss: Perceived Venture Failure Risk**

It is not uncommon that many new ventures, as the carrier of the risky

entrepreneurship efforts, face economic losses (Shane & Venkataraman, 2000; Zhang, Souitaris, Soh, & Wong, 2008). Particularly, it has been widely acknowledged that new ventures largely suffer from a “liability of newness” (Bruderl & Schussler, 1990; Hannan & Freeman, 1983; Stinchcombe, 1965), i.e., the particularly high risk of failure for these newly established organizations. Accordingly, venture failure is one of the most important causes of ventures’ economic loss. In such a manner, when entrepreneurs, as loss-averse decision makers, feel threatened by the fear of venture failure, they may “grasp at any straw” to avoid the perceived economic loss and save their new ventures (Hannafey, 2003). As discussed above, the potential benefits of acting opportunistically, i.e., generating short-term gains and securing extra resources (Das, 2006; Das & Kumar, 2010), will tend to alleviate the immediate pressure in new ventures’ operation and thus support their survival. In this regard, opportunism provides entrepreneurs an effective way to avoid the potential economic loss from venture failure. Taken together, I posit that when venture failure is the reference point in the decision making of entrepreneurs, they are more likely to elect to act opportunistically.

The likelihood that venture failure is the reference point for decision making depends on the perceived likelihood of venture failure. Referent-dependent decision research shows that individuals possess multiple reference points, but only the most salient (largely subject to its likelihood) dominates decision making at any given time (Devers, McNamara, Wiseman, & Arrfelt, 2008; Lichtenstein & Slovic, 2006; March & Shapira, 1992; Tversky & Wakker, 1995). So, as the risk of venture failure increases, failure becomes more and more salient as a reference point in decision making. This suggests that the higher the failure risk in a new venture, the more likely that venture

failure will become the reference point of decision making, and accordingly, the more likely the outcome will be a choice to act opportunistically (see Figure 6). Accordingly, I now consider the internal and external factors that are associated with venture failure risk.

***Determinants of Venture Failure Risk.*** Based on prior entrepreneurship research, I suggest that venture failure risk arises both from the intrinsic drawbacks of new ventures, including lack of startup resources and low legitimacy (c.f., Palmer, Friedland, & Singh, 1986; Stinchcombe, 1965), and from environmental volatility (Shepherd, Douglas, & Shanley, 2000).

As newly established organizations, new ventures go through an adaptive process through which they establish repetitive organizational processes and accumulate knowledge about their task environments (Bruderl & Schussler, 1990; Hannan & Freeman, 1977; Schumpeter, 1934). This process is characterized by intensive investment coupled with low returns, and new ventures seldom have enough resources to ensure survival (Eisenhardt & Schoonhoven, 1990; Freeman, Carroll, & Hannan, 1983). In such a manner, resource scarcity is among the central causes of venture failure (Aspelund, Berg-Utby, & Skjevdal, 2005). In such a manner, entrepreneurs tend to be threatened by possible venture failure when facing severe lack of resources. Moreover, as discussed, opportunism can help new ventures to gain extra resources. To the resource-constrained ventures, the resources secured through opportunism are of particularly high value, effectively alleviating the pressure of resource scarcity. Taken together, I posit that the resource scarcity of new ventures can motivate entrepreneurs to engage in opportunism to save their new ventures from possible failure.

***H1a: The severity of a new venture's resource scarcity is positively related to the***

*extent to which it acts opportunistically.*

Additionally, new ventures generally suffer from low legitimacy because they are not fully embedded in the industrial networks (Bruderl & Schussler, 1990; Palmer et al., 1986). A firm's legitimacy refers to a peer judgment of its appropriateness and desirability within the institutional system of norms and values in its industrial context (DiMaggio & Powell, 1991; Suchman, 1995). It has been consensually acknowledged that legitimacy is critical for a firm to get access to external support and the resources held by other firms, which are essential for new ventures to overcome the liability of newness (Zimmerman & Zeitz, 2002). However, as newly established firms, new ventures commonly have little accomplishment records or existing relationships with incumbent firms. This information asymmetry largely hampers these young organizations from demonstrating their appropriateness and desirability and earning the accreditation from peer firms in their industrial environments to (Shane & Cable, 2002). As a result, the lack of legitimacy impedes new ventures from effectively securing external support from other firms, thus jeopardizing their survival (Shepherd et al., 2000; Zimmerman & Zeitz, 2002). Following the logic above, it is reasonable that legitimacy also shapes entrepreneurs' decision making of opportunism, such that when the legitimacy of their new ventures is low, entrepreneurs are more likely to be threatened by the possible venture failure and thus engage in opportunism to save their ventures. I have the following hypothesis:

***H1b: A new venture's lack of legitimacy is positively related to the extent to which it acts opportunistically.***

In addition to resource scarcity and legitimacy, venture failure is also linked to

environmental volatility – the unpredictability of the contextual factors in a given industrial setting over time (Boyd, Dess, & Rasheed, 1993; Carson et al., 2006; Luo, 2007). Volatile environments intensify the liability of newness (Shepherd et al., 2000). An environment characterized by continuous and unpredictable changes inhibits firms from forming and stabilizing supportive relationships with external stakeholders, thus hampering their resource and knowledge accumulation and endangering their survival and growth (Brüderl, Preisendörfer, & Ziegler, 1992; Shane & Stuart, 2002). New ventures are particularly vulnerable to environmental volatility. Because their resource base tends to be weak and committed support from external stakeholders is lacking, new ventures often struggle to survive and adapt to environment changes. Further, because they lack experience, new ventures are pressed for knowledge that can help them to manage a volatile environment (Jiang et al., 2009; Thornhill & Amit, 2003). As such, environmental volatility also increases venture failure risk, and, accordingly, encourages entrepreneurs to act opportunistically to save their ventures from failing.

***H1c: Environmental volatility is positively related to the extent to which it acts opportunistically.***

### **The Noneconomic Loss: Stigma-by-Association and Social Network Utilization**

It has been acknowledged that entrepreneurship is not a purely economic practice, but rather possesses social characters (Larson & Starr, 1993; Zafirovski, 1999). As a result, entrepreneurs also face certain noneconomic losses (Gomez-Mejia et al., 2011). Particularly, entrepreneurs are commonly identified as the leaders and key agents of their ventures. As such, the actions and operational practices of new ventures are typically attributed directly to entrepreneurs (Meindl & Ehrlich, 1987), potentially affecting their



socioemotional wellbeing (e.g., their reputation, social identity, social capital, etc.). For example, Gomez-Mejia and colleagues (2007) found that the reputation and social status of a family is largely bonded with its family venture. For this reason, the noneconomic losses related to ventures' opportunism are a special set of potential societal costs confronting entrepreneurs personally in new venture decision making. According to behavioral agency theory, entrepreneurs are more likely to avoid risk when they personally bear the negative consequences of risk taking (Wiseman & Gomez-Mejia, 1998). Moreover, the noneconomic losses personally borne by entrepreneurs will naturally shift the reference point in decision making away from the economic loss of venture failure. As a result, the noneconomic loss arising from new ventures' opportunism will make entrepreneurs more cautious in making the choice to act opportunistically.

The noneconomic losses related to acting opportunistically naturally arise from the negative implications of the behavior. Because behaving opportunistically violates widely held principles of business ethics and social norms, opportunism is generally discredited as a business practice (Longenecker et al., 1988). As a result, opportunism endangers the opportunistic firms' reputation and legitimacy (Das, 2006; Heide & John, 1990), and contaminates its social identity (Devers, Dewett, Mishina, & Belsito, 2009). Prior research has illustrated how contaminated organizational identity, i.e., stigma, may transfer from firms to their members, especially managers (D'Aveni, 1990; Kulik, Bainbridge, & Cregan, 2008; Sutton & Callahan, 1987; Wiesenfeld et al., 2008). As the major agents of their firms, managers are often perceived as personally associated with and responsible for their firms' actions and outcomes (Carpenter, Geletkanycz, &

Sanders, 2004; Meindl & Ehrlich, 1987; Semadeni, Cannella, Fraser, & Lee, 2008). As such, when discrediting events stigmatize a firm (corporate failure, organizational misconduct, etc.), its managers are likely to be tainted by their association with the discrediting organization (Pozner, 2008). From this perspective, as the clear leaders of their ventures (Eisenhardt & Schoonhoven, 1996), entrepreneurs are particularly likely to personally bear some costs when they choose to act opportunistically in their ventures, therefore causing noneconomic losses such as tainted personal reputation and social identity and damaged social capital.

I focus on a specific indicator of the perceived association between entrepreneurs and their ventures' opportunism—the extent to which entrepreneurs use their personal ties and networks in their ventures. As the major leader of their new ventures, entrepreneurs frequently (though not universally) use their personal networks to support the operation of their ventures (Baum & Silverman, 2004; Larson & Starr, 1993; Li & Zhang, 2007). Since actors' personal networks are commonly recognized as valuable personal endowments, or, social capital (Adler & Kwon, 2002; Bourdieu, 1986; Lin, 2001), lending this valuable social capital to new ventures indicates entrepreneurs' strong commitment to their ventures (Jiang et al., 2009). Accordingly, the utilization of entrepreneurs' personal networks indicates a strong association between the entrepreneurs and their new ventures, which, to the perspective of “stigma-by-association” (Devers et al., 2009; Goffman, 1963), leads external stakeholders to attribute the responsibility of new ventures' discredited actions, including opportunism, to entrepreneurs personally.

More importantly, by using their personal networks to support their new ventures,

entrepreneurs are likely to be forced to take personal responsibility for actions involving personal ties (Carpenter, Li, & Jiang, 2012). Using entrepreneurs' personal networks in ventures reflects the logic of social embeddedness – “commercial transactions take place through social relations and networks of relations that use exchange protocols associated with social, noncommercial attachment to govern business dealing” (Uzzi, 1999). In transactions conducted on the basis of entrepreneurs' personal connections, entrepreneurs participate in these transactions as individual social entities as well as the agents of their ventures, such that stakeholders may extend resources to a given venture largely out of their perceived personal relationships or obligations to the entrepreneur (Larson & Starr, 1993). Accordingly, entrepreneurs may naturally be viewed as personally responsible for any discredited practices or undesired outcomes in the business relationships attached to them. Moreover, the social embeddedness perspective highlights that interpersonal moral codes and social exchange norms involved in personal networks are linked to business relationships (Uzzi, 1997, 1999). For this reason, undesired actions or outcomes in these business relationships may not just breach organization-level business ethics but also violate the interpersonal moral codes and social exchange norms that individual entrepreneurs follow in their personal lives.

In sum, when entrepreneurs intensively use their personal networks to support the operation of their ventures, they are more likely to be perceived as being fully and personally responsible for the opportunistic behaviors enacted by their ventures. This perceived association makes venture opportunism more likely to stigmatize entrepreneurs as individuals and leads to the noneconomic losses (contaminated reputation, damaged social capital, etc.) personally borne by the entrepreneurs. As a result, entrepreneurs are

more likely to avoid acting opportunistically in their ventures when they have used their personal networks to serve their ventures. Formally stated, and illustrated in Figure 6:

***H2: The extent to which an entrepreneur uses personal networks in his or her new venture will be negatively associated with the extent to which the venture acts opportunistically.***

### **Venture Failure Risk and Entrepreneurs' Use of Personal Ties and Networks**

Prior studies have widely acknowledged the merits of managers using their personal social ties for the benefit of their organizations (Acquaah, 2007; Li, Poppo, & Zhou, 2008; Peng & Luo, 2000). First, through the perspective of social embeddedness (c.f., Uzzi, 1997), managers can draw on the norms of mutual support and mutual obligation and the interpersonal affection embedded in their personal networks to persuade or obligate their social contacts to be more generous and supportive in interfirm transactions, therefore facilitating their access to valuable external resources (Gulati, 1995; Shane & Cable, 2002). In such a manner, the use of entrepreneur's personal ties and networks can facilitate their new ventures to secure resources from critical resource providers, such as investors and alliance partners (Batjargal & Liu, 2004; Eisenhardt & Schoonhoven, 1996; Hallen, 2008; Shane & Cable, 2002), thus compensating for otherwise insufficient startup resources of new ventures (Hsu, 2007). Accordingly, the utilization of entrepreneurs' personal networks provides an effective solution to ventures' resource scarcity.

***H3a: The severity of a new venture's resource scarcity will be positively associated with the extent to which its entrepreneurs use their personal networks to support the venture.***

Likewise, entrepreneurs' personal connections also facilitate new ventures to establish their legitimacy (Hallen, 2008). On the one hand, well-connected entrepreneurs per se are strong signals for their ventures' legitimacy (Hallen, 2008; Hsu, 2007), such that their personal social capital and status can help convince external stakeholders about the appropriateness and desirability of their ventures. On the other hand, entrepreneurs can use their social contacts as channels to effectively conduct private information about venture quality and promise at lower cost to external stakeholders (Burt, 1992; Dyer & Singh, 1998; Uzzi, 1997), thus alleviating the information asymmetry between their ventures and peer firms (Shane & Cable, 2002). In such a manner, when a new venture suffers from the lack of legitimacy, its entrepreneurs tend to be more encouraged to use their personal networks to overcome this liability.

***H3b: A new venture's lack of legitimacy will be positively associated with the extent to which its entrepreneurs use their personal networks to support the venture.***

Finally, using entrepreneurs' personal networks can also help new ventures to manage environmental volatility. Specifically, the social networks of entrepreneurs can facilitate the communication between new ventures and their key external stakeholders, thus effectively compensating for the opaque and unverifiable information in volatile environments and facilitating the information scanning and sensemaking of the ventures (Li & Zhang, 2007; Li, Liu, & Cannella, 2008; Luo, 2003). Furthermore, in spite of the inefficacy of formal institutions under high environmental volatility, the interpersonal moral codes attached in entrepreneurs' personal networks can provide extra informal institutional support (Boyd & Fulk, 1996; Luo, 2007; Xin & Pearce, 1998). As such, entrepreneurs are more likely to use their personal networks to support their ventures

when facing the threats of volatile environments.

***H3c: The severity of a new venture's environmental volatility will be positively associated with the extent to which its entrepreneurs use their personal networks to support the venture.***

Taken together, as strategic choices, opportunism and using entrepreneurs' personal ties and networks can both serve as solutions for entrepreneurs striving to cope with the threat of venture failure. However, a central difference between these two choices is that unlike opportunistic behaviors, which are characterized by extra orientation and the logic of value appropriation (Claro, Hagelaar, & Omta, 2003; Das, 2006; Wathne & Heide, 2000), using entrepreneurs' personal ties and networks to support venture survival represents the logic of sustainable and cooperative value creation based on reciprocity and mutual obligation (Uzzi, 1997; Uzzi & Lancaster, 2004). Comparing the conflicting and naturally mutually exclusive natures of these choices, it is reasonable to see that in the long run, using entrepreneurs' personal ties and networks provides a better alternative to opportunism as a strategic choice. Accordingly, using entrepreneurs' personal ties and networks as a solution to the potential threats of venture failure may intrinsically reduce the necessity for new ventures to behave opportunistically. Also, as discussed above, using these personal ties and networks can directly reduce ventures' opportunism by increasing the personal losses associated with acting opportunistically. Taken together, I predict a partially mediated relationship for use of entrepreneurs' personal ties and networks and new venture opportunism (as shown in Figure 6).

Formally stated:

***H4a: The use of entrepreneurs' personal ties and networks in new ventures will***

*partially mediate the relationship between new ventures' resource scarcity and opportunism.*

*H4b: The use of entrepreneurs' personal ties and networks in new ventures will partially mediate the relationships between new ventures' lack of legitimacy and opportunism.*

*H4c: The use of entrepreneurs' personal ties and networks in new ventures will partially mediate the relationships between environmental volatility and new ventures' opportunism.*

## **METHOD**

### **Sample**

I chose the computer and communication equipment manufacturing industry in three southeast provinces in China as the research setting. I chose this setting for several reasons. First, the computer and communication equipment manufacturing industry is dominated by new ventures in China (Dowling & McGee, 1994; McDougall, 1989; Wadhwa & Kotha, 2006). Second, according to official industrial reports (China yearbook, 2011), the industry in these three provinces is well established, including relatively complete industrial value chains, well-developed infrastructures, and strong connections and cooperation between firms and research institutes (c.f., Porter, 1985). These munificent environments further encourage entrepreneurial actions (Venkataraman, 1997). Additionally (and important for the methodology), opportunistic behavior can be judged most objectively and accurately by external stakeholders who have relational experience with the firms in question (c.f., Carson et al., 2006; Luo, 2007). Using participant firms in the same region and same industry allows us to capture intra-industry

networks across sample firms and, accordingly, use these networks to locate qualified informant firms to evaluate the extent of new venture opportunism.

### **Data collection**

Our data collection process was conducted from February 2010 to October 2011. I began by conducting 25 interviews (with 16 top managers in computer and communication equipment manufacturing firms and 9 executives in industrial associations) to ensure the content validity of the survey items. Interviewees were asked to check the relevance and completeness of the items based on their industrial experience and personal perceptions. Based on their responses and suggestions, I made minor adjustments to several items to enhance their content validity in the research setting. With the adjusted survey, I then conducted a pilot study with 69 top managers in the three sample provinces and finalized the items used in the formal survey.

The data collection process included multiple stages and involved both established firms and new ventures. First, with the assistance of a government-funded national research institution, I secured access to a directory including the total 4,386 firms registered in the communication equipment manufacturing industry in the three provinces. I contacted all 4,386 firms to request their CEOs or general managers to indicate at least 3 firms with which they have or have had business relationships or of which they are aware as participants in their industry. After a follow-up reminder, I received 329 responses, with each response nominating at least 3 firms. As a result, these respondents nominated a total of 631 individual firms, where 187 firms (29.6%) were nominated more than once. I used these 631 firms as the survey sample frame.

Prior entrepreneurship studies in China have commonly defined new ventures as



firms younger than 5 years (e.g., Li & Zhang, 2007; Zhao & Aram, 1995). the interviewees from both firms and industrial associations largely consented to this criterion for identifying new ventures in computer and communication equipment industry in China. As such I defined new ventures as firms founded within the past 5 years. Following this definition, 206 out the 631 sample firms were classified as new ventures. The average age was 12.23 years (SD=5.69) for all participant firms (including both new ventures and established firms), and 2.18 years (SD=2.01) for sample new ventures.

After identifying the survey participants, I conducted the next round of surveys. To avoid consistency biases that may exist when both independent and dependent variables are collected at the same time (c.f., Podsakoff & Organ, 1986), I used a temporally lagged design involving two time periods, collecting explanatory variables at Time 1 and predictor variables at Time 2 (approximately five months later). All sample firms received the same Time 1 survey, capturing some independent variables such as low legitimacy, information unverifiability and institutional inefficacy. As I will describe below, resource scarcity was captured from archival data. At Time 2, I adopted two different versions of the survey, such that new ventures were only asked to report their utilization of their leaders' personal ties and networks, while established firms were asked to report their business partners' opportunism. This separation of informants is designed to reduce self-report bias in the assessment of opportunism. Preliminary tests of the Time 2 survey data showed that new ventures have a higher opportunism propensity than established firms ( $t=2.78$ ,  $p<0.01$ ), but their use of managerial networks was not different from that of established firms ( $t=1.32$ , ns.).

A total of 606 sample firms (96.0%) made effective responses to both Time 1 and Time 2 surveys, including 201 new ventures (97.6%) and 405 established firms (95.3%). These sample new ventures and established firms showed no significant difference with the non-responding ventures and established firms in their average age, scale of registered capital and number of employees. I used the 201 new ventures as the final sample for theoretical testing, and using the information from the 405 established firms to assess the opportunism and resource scarcity of the sample ventures (as discussed below) and crosscheck the reliability of the answers from sample ventures.

### **Variables and Measures**

Table 5 provides a list of the major survey items, along with which survey stage they came from (Time 1 or Time 2), reliability statistics and the results of the confirmatory factor analysis. Since some of the original measures were from prior studies published in English, I consulted three Chinese experts in entrepreneurship and opportunism research who had served as faculty members in US universities to ensure the accuracy of the translation.

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Insert Table 5 About Here

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*Opportunism.* the six-item opportunism measure was designed based on references to earlier works (Anderson, 1988; John, 1984; Luo, 2007). Based on pre-survey interviews, I made some small adjustments in item expression to fit the uniqueness of the industry. As a network level variable, opportunism was measured with a whole network design approach (c.f., Marsden, 1990; Scott, 2000), i.e., each participant firm was asked to answer the six questions regarding each firm with which it was related

or aware of in operation. For each new venture, I then averaged across the appraisals it received from all informants on each item and used the mean as its score on this item. To gauge the reliability for this measure, I measured the intraclass correlation coefficient (ICC), which captures whether the variance between different sample groups is significantly greater than the variance within groups, and uses a one-way analysis of variance (ANOVA) approach to gauge the difference (Kenny & La Voie, 1985). An ICC coefficient above 0.50 signifies moderate agreement, while a coefficient above 0.70 indicates substantial agreement (James, Demaree, & Wolf, 1984). Result showed that the ICC of opportunism appraisals sample ventures received is 0.68, suggesting relatively high within-group agreement.

*Resource scarcity.* I averaged across the registered startup assets that each participant firm reported when it established and filed with its local government. Then, for each sample venture, I computed a ratio of its assets to the average startup assets of all established firms in the survey. I used the difference between 1 and this ratio as indicator of resource scarcity.

*Lack of legitimacy.* Legitimacy refers to the extent to which a firm can have its actions accepted and endorsed by its stakeholders reflecting the degree of the firm's embeddedness in its industrial context (Deepphouse & Suchman, 2008; Suchman, 1995). Following the suggestion of prior studies (e.g., Bruderl & Schussler, 1990; Singh, House, & Tucker, 1986), I measured firms' legitimacy as their embeddedness in the industrial network, i.e., the times the firm was nominated as a relational partner by other firms. I identified three forms of interorganizational relationships: historical ties ("with which firms your firm has had business relationships (including current ones)"), intended ties

(“with which firms your firm wants to establish future business relationships”), and awareness ties (“beyond those your firm either has had or is going to have business relationships, which firms are known by you as participants of communication equipment manufacturing industry”). For each form of relationships, I operationalize the lack of legitimacy as the difference between 1 and the ratio of a new venture’s nomination frequency to the average nomination frequency of all established firms in the survey. I generated a higher order factor of the three ratios to capture sample ventures’ overall legitimacy.

*Environmental volatility.* Accordingly to prior research (e.g., Luo, 2007; Milliken, 1987), environmental volatility is a multidimensional construct, depicting the degree of unpredictability, unverifiability, and changeability in both industrial and regional environments (Dess & Beard, 1984; Miller, 1987). In this study I captured environmental volatility using two volatility constructs suggested by Luo (2007) and Jiang et al., (2009), i.e., information unverifiability and institutional inefficacy (labeled as law unenforceability in Luo’s 2007 study). Information unverifiability refers to the extent to which “the true information about micro- and macro-business environments facing an individual business is difficult to verify” (Luo, 2007: 43). Institutional inefficacy refers to the degree to which a firm face untrustworthy legal and governmental systems that lack effective law enforcement and supervision mechanisms and experience frequent unjustified regulation changes (Jiang et al., 2009; Luo, 2007). It has been noted that in an emerging economy (like China), environmental volatility are largely resulted from the difficulties to obtain, verify and interpret information due to the industrial and institutional transformation, and the weak legal protection and government industrial

policies (Brown, 1997; Delios & Henisz, 2000; Hare & Davis, 1997; Luo, 2003). In such a manner, the two volatility variables I chose, i.e., information unverifiability and institutional inefficacy, can capture the major sources of environmental volatility encountered by Chinese firms. The participants of the pre-survey interviews also confirmed the variable selection. Both variables were measured by the items adopted by Luo (2007), with minor adjustments based on pre-survey interviews and pilot study results.

*Use of entrepreneurs' social ties and networks.* I measured entrepreneurs' efforts to use their personal ties and networks in their business practices by using the items developed in prior studies (e.g., Acquaah, 2007; Peng & Luo, 2000), asking sample entrepreneurs to appraise the extent to which they use their personal ties with customers, suppliers, competitors, and investors, in their new ventures' operation. Importantly, following the suggestions of the interviewees, I added an extra item—ties to investors—as a part of the measure.

I adopted the age of the new venture and entrepreneurs' industrial experience as control variables. As noted by prior work, as ventures age, their startup liabilities and risk of failure decline as time passes (Palmer et al., 1986), reducing the motivation to use opportunism. Further, entrepreneurs' prior experience importantly affects their available managerial ties (Hallen, 2008). These data were collected from the Time 1 survey.

## **RESULTS**

I used structural equation modeling to test the hypotheses. Following the two-step approach suggested by Anderson and Gerbing (1988), I estimated a measurement model prior to examining structural model relationships.

## Measurement Model Results

In the measurement model test, I conducted confirmatory factor analysis (CFA), and examined internal consistency and convergent and discriminant validity. As reported in Table 5, all non-fixed indicators loaded appropriately and significantly ( $p < .01$ ). In practice, factor loadings higher than 0.7 are considered acceptable (Carmines & Zeller, 1979). This criterion is met by all the items in the model. Further, the CFA model also shows high goodness of fit:  $\chi^2 = 197.69$ , with 175 degrees of freedom; normed fit index (NFI) = 0.92; non-normed fit index (NNFI) = 0.93; comparative fit index (CFI) = 0.91; root mean square error of approximation (RMSEA) = 0.058. These results suggest high reliability of the measurement model.

I use Cronbach's Alpha ( $\alpha$ ) to test the internal consistency of the measures. As reported in Table 5, all latent variables in the measurement model demonstrate adequate internal consistency ( $\alpha$  higher than 0.70). In Table 7, I also report each latent variable's average variance extracted (AVE, the average variance explained by all indicators of a latent variable) to substantiate convergent validity). I can see in Table 7 that all variables exceed the threshold of 0.50 recommended by Fornell and Larcker (1981), suggesting high convergent validity.

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Insert Table 7 About Here

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Lastly, discriminant validity is supported when the correlation coefficient between two constructs is lower than the square root of AVE of these two constructs (Fornell & Larcker, 1981), ensuring that each construct shares more variance with its own items than it shares with other constructs. In Table 7, the above criterion is met across all possible

parts of latent variables, such that diagonal elements are larger than corresponding off-diagonal cells. This evidence indicates that the constructs have high discriminant validity.

### **Structural Model Results**

Figure 7 displays the structural model results. the model generated the following goodness of fit indices:  $\chi^2=185.06$ , with 163 degrees of freedom, NFI=0.93, NNFI=0.94, CFI=0.92, RMSEA=0.049. These results together show high model fit.

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Insert Figure 7 About Here

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Hypothesis 1 predicted that the determinants of new venture failure risk, i.e., resource scarcity, low legitimacy and environmental volatility, will stimulate ventures' opportunism. The results provide strong support for all three independent variables. For example, both resource scarcity and low legitimacy are positively related to new ventures' opportunism ( $\gamma_{21}=.397$ ,  $p<.001$ ;  $\gamma_{22}=.325$ ,  $p<.001$ ). Likewise, environmental volatility also encourages opportunism (for informational unverifiability,  $\gamma_{23}=.300$ ,  $p<.001$ ; for institutional inefficacy,  $\gamma_{24}=.285$ ,  $p<.001$ ). Hypothesis 1 is strongly supported by the evidence in Figure 7.

Hypothesis 2 predicted that entrepreneurs' use of their personal social ties and networks in their ventures can restrict them from acting opportunistically in their ventures' business practices. This hypothesis also receives strong support from the evidence in Figure 7, such that the utilization of entrepreneurs' personal ties is associated with lower new ventures opportunism ( $\beta_{21}=-.382$ ,  $p<.001$ ).

Hypothesis 3 predicted that the three antecedents of venture failure risk will stimulate entrepreneurs to use their social networks to support their new ventures. Each

of these predictions is strongly supported, such that resource scarcity stimulates entrepreneurs to use their personal ties in their ventures ( $\gamma_{11}=.297$ ,  $p<.001$ ), as does low legitimacy ( $\gamma_{12}=.253$ ,  $p<.01$ ) and the two indicators of environmental volatility, i.e., information unverifiability ( $\gamma_{13}=.239$ ,  $p<.001$ ) and institutional inefficacy ( $\gamma_{14}=.211$ ,  $p<.01$ ).

Finally, Hypothesis 4 predicted that social network utilization would partially mediate the relationships between venture failure risk determinants (i.e., resource scarcity, low legitimacy, and environmental volatility) and new venture opportunism. Following the recommendations of MacKinnon and Dwyer (1993), I used a Sobel test to examine the proposed mediation effects (Baron & Kenny, 1986; Sobel, 1982). Results show that all potential paths between opportunism, resource scarcity, low legitimacy, and environmental volatility factors are significantly mediated by the utilization of entrepreneurs' personal social ties and networks, strongly supporting Hypothesis 4.

As mentioned, I controlled for new ventures' age and entrepreneurs' industrial experience. Results indicate that entrepreneurs' use of their personal ties and networks in their new ventures is positively associated with venture age ( $\gamma_{15}=.080$ ,  $p<.05$ ), and entrepreneurs' industrial experience has a similar association ( $\gamma_{16}=.091$ ,  $p<.05$ ). The evidence also indicates that venture age is strongly and negatively associated with opportunism ( $\gamma_{25}=-.082$ ,  $p<.10$ ). However, it is important not to infer a direct relationship between organizational age and opportunism from the evidence, as this study is cross-sectional and cannot be used to draw conclusions about dynamic relationships. Finally, venture opportunism seems to be lower when entrepreneurs' have more industrial experience ( $\gamma_{26}=-.081$ ,  $p<.10$ ).



## DISCUSSION

Opportunism has been widely acknowledged as a destructive liability in economic relations given its value-appropriating logic, and self-interested nature (Claro et al., 2003; Das, 2006; Wathne & Heide, 2000). Following this line of reasoning, researchers have mainly focused on opportunism governance and avoidance, and have seldom attempted to open the black box of opportunism's antecedents (Luo, 2007). To begin filling this research gap, in this study I emphasized a relatively neglected fact in prior opportunism research – that acting opportunistically is a result of a firm's conscious strategic choice, which arises from the firm's decision-making system. Drawing on this insight, I developed a behavioral model to highlight the detailed decision-making process behind new ventures' opportunism. Namely, given the extra gains that can be created by opportunistic behaviors in business relationships, entrepreneurs may choose opportunism as a risky yet beneficial strategic alternative that can be applied to save their new ventures from failure. However, as the major agents of their new ventures, entrepreneurs inevitably bear responsibilities and consequences from their new ventures' operational practices, including opportunism (Carpenter et al., 2004; Pozner, 2008). As such, if entrepreneurs may personally bear the potential costs of their new ventures' opportunism, they will be more cautious about using opportunism. Using data collected from communications equipment manufacturing firms in three provinces in China, I empirically tested the predictions of this behavioral model.

Generally, the results provided strong support to the predictions. First, both new ventures' intrinsic weaknesses (i.e., resource scarcity and low legitimacy) and environmental volatility, all of which affect the risk of venture failure, were observed to

significantly stimulate entrepreneurs to engage in opportunism. These results confirm a basic prediction of the behavioral model – that entrepreneurs’ propensity to use opportunism is tightly connected with the failure risk of their new ventures. In entrepreneurs’ strategic decision making, opportunism is a risky alternative, but perhaps preferable to venture failure. This study is among the first to provide explanations for the high opportunistic tendency of new ventures reported in prior work (c.f., Longenecker et al., 1988; Pozner, 2008).

In contrast, I found that the utilization of entrepreneurs’ personal ties and networks in venture operation can significantly restrict new ventures’ opportunism. Prior social network and social capital research has long argued that the existence of embedded personal ties in business relationships can serve as an effective safeguard against partner opportunism (e.g., Goerzen, 2007; Gulati & Gargiulo, 1999; Uzzi, 1997, 1999), but have seldom tested this prediction empirically or examined the detailed mechanisms underlying this proposed relationship. To this end, the results effectively complement the extant literature.

I developed theory and empirically tested two potential mechanisms through which entrepreneurs’ use of personal ties and networks can constrain their opportunistic propensities. On the one hand, as predicted by the behavioral model of opportunism, personally bearing significant costs of ventures’ opportunism will deter entrepreneurs from using opportunism to save their new ventures. The use of entrepreneurs’ personal ties and networks provides a key indicator of the extent to which entrepreneurs personally bear the costs of ventures’ opportunism. Specifically, when entrepreneurs use their personal social networks in their ventures, there will be a strong association between the

entrepreneurs as individuals and their ventures as organizations. Therefore, with powerful economic and social sanctions resulting from consequent regulation of embeddedness, entrepreneurs are driven to behave appropriately and act in accord with other partners' shared expectations and be more concerned about engaging in opportunism. Otherwise, they are likely to be personally stigmatized by their new ventures' opportunism.

On the other hand, using personal networks and opportunism both serve as operational responses to entrepreneurial drawbacks and environmental volatility. Given their conflicting nature, i.e., opportunism signifies a logic self-interest and value-appropriation, and personal network utilization signifies a logic of sustainable and cooperative value creation, these two choices tend to be substitutes in new ventures' strategic choices. In such a manner, using value-adding personal networks of entrepreneurs provides a better alternative to opportunism for entrepreneurs striving to save their new ventures from failure, therefore mediating the opportunism-stimulating effect of new ventures' intrinsic drawbacks and environmental volatility and accordingly, reducing new ventures' necessity and motivation to use opportunism. Given the beneficial implications of opportunism, this constraining effect may suggest a special opportunity cost of social capital utilization. That is, using managerial social capital limits the ability to use other operational actions. As noted by prior network research, embeddedness confines participants' freedom of personal choice (Krackhardt, 1992). This study expanded this conclusion, suggesting that as agents of their organizations, managers are subject to embeddedness pressure in their strategic decision making, thus conducting an embeddedness constraint from interpersonal networks to organizational

operations. These results provide important complements to the understanding of both opportunism and social capital in interorganizational contexts.

This study contributes to knowledge in the following ways. First and foremost, with the specific instance of new ventures, I provide a behavioral framework to account for opportunism as a strategic choice. As discussed earlier, unlike prior studies that have mainly treated opportunism from the victims' perspective, I examine opportunism from the standpoint of the perpetrator. The results confirm a relatively neglected fact about opportunism in prior research. That is, like other business practices such as R&D and marketing, opportunism is fundamentally a strategic choice that is determined by executive decision making, and is intended to serve the opportunistic firms' strategic demands, subject to constraints of internal endowments and external environments. As such, this study provides an alternative theoretical perspective that largely complements transaction cost theory in examining opportunism.

The results also provide a new perspective to further understanding about the implications of social networks and social capital in interorganizational contexts. Namely, the opportunism-constraining effects of using managerial social capital actually provides an answer to an important yet understudied question in the social capital literature: how does using managerial social capital in a focal firm affect other related players in the market? As mentioned, the value of social capital to a given firm is well known. However, a firm's strategic choice and operational actions will not only affect itself, but also affect external stakeholders such as competitors, cooperators, regulators, investors and so on (Porter, 1980). Particularly, using social capital implies the endorsement of relational partners and thus naturally involves multiple participants. As

such, I can expect that the effects of social capital utilization may go beyond the focal firm and affect external stakeholders. However, by focusing on unilateral benefits of social capital to focal firms, existing research has thus far not addressed the potential spillover effects of using social capital. This study provides a specific instance of this spillover effect. Using social capital can constrain a firm's opportunism, and thus reduce transaction costs, signifying a specific form of relational rents that can arise from a firm's access to social capital.

### **Limitations and Future Extensions**

As an early research effort examining the antecedents of opportunism, this study has several potential limitations that also suggest directions for future research. First, in this study, all theoretical relationships were developed and tested in the specific context of new ventures. It is well-accepted that new ventures generally have a higher likelihood of behaving opportunistically. However, this study did not emphasize established firms nor compare them to new ventures. In this regard, future research can benefit from replicating the present study in the context of established firms and comparing the conclusions across different contexts. Particularly, because new ventures always face a liability of newness, I identified four specific inducements of opportunistic behavior – resource scarcity, low legitimacy, information unverifiability and institutional inefficacy. These four factors reflect two basic sets of potential determinants: resource-based and environment-based factors. Under this logic, future research can expand the research framework by recognizing more potential inducements.

Second, the sample was from new ventures in the communication manufacturing industry in China. A natural extension of this study would be to examine the conclusions

in different industrial contexts and in different economic systems (especially in Western countries with well-established markets and legal systems) to test the generalizability of the model.

Another potential extension to the theoretical framework would be to further examine the dynamics of social capital utilization. In the present study, I developed a causal link from the antecedents to consequences of using managerial social capital in the focal organization. However, with the cross-sectional data adopted in this study, I cannot further examine the effects of this link on future social capital exploration and exploitation. To expand the present study in a dynamic way, future studies can benefit from more longitudinal research designs.

**TABLE 5**  
**SURVEY ITEMS AND RESULTS OF CONFIRMATORY FACTOR ANALYSIS**

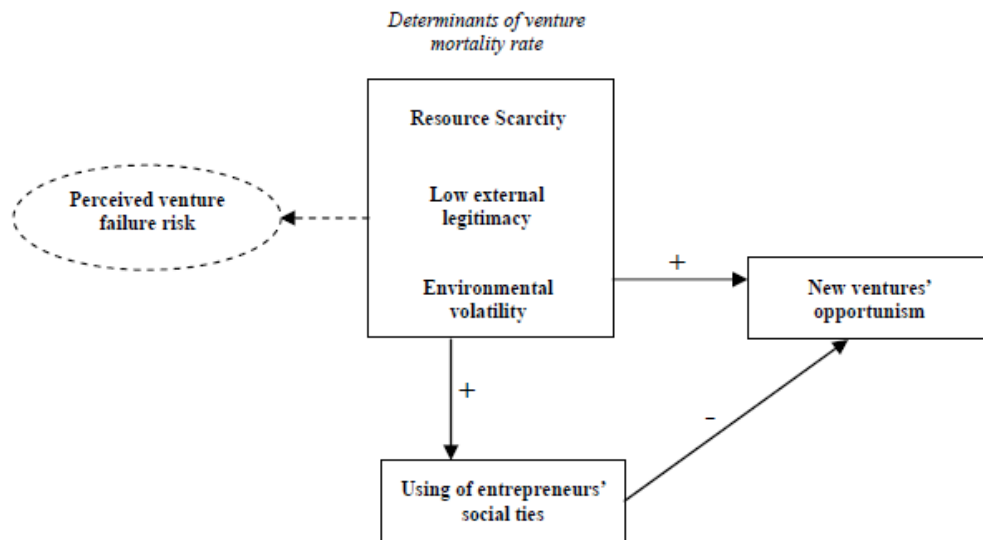
Construct	Item	Standardized Loading	Cronbach's alpha
<b><i>Opportunism</i></b>	Regarding each of your partner/former partner/firms that you are familiar with in the roster, apprise its records about following actions in economic relations:		.83
Time 2	1. Deliberately refusing to fully unveil its real information, especially negative situations, before economic relations are launched*	.75	
	2. Making false promises that cannot be fulfilled with its own capability	.83	
	3. Eluding its responsibilities and duties in economic relations according to contracts or agreements	.85	
	4. Always unilaterally taking actions that are in its own best interests without discussing them with partners	.70	
	5. Always trying to appropriate the outcome of a cooperation relationship	.88	
	6. Always starting up conflicts towards the launched contracts or agreements	.89	
<b><i>Low legitimacy</i></b>	(the method of measuring each item is depicted in pg. 20-21)		.92
Time 1	Lack of historical ties*	.88	
	Lack of intended ties	.92	
	Lack of awareness ties	.85	
<b><i>Information unverifiability</i></b>			.89
Time 1 (reverse coded)	1. To what extent do you think the information in your operation environment can be fully and publicly obtained in a timely fashion*	.82	
	2. To what extent do you think information that is publicly available in your operation environment is accurate and reliable	.73	
	3. To what extent do you think information that is publicly available in your operation environment is easy to comprehend and describe	.88	
	4. To what extent do you think information that is publicly available in your operation environment is easy to analyze and verify	.78	
<b><i>Institutional inefficacy</i></b>	In your observation over the past three years:		.90
Time 1 (reverse coded)	1. How complete or consummate is the business or commercial law that China has enacted that affect your business	.82	
	2. How strict and impartial has China's national judicial system (courts, tribunals and procuratorial departments) enforced the laws that affect your business	.89	
	3. How strict and impartial is China's judicial system (courts, tribunals and procuratorial departments) at the local level (province, city, and county) enforced the laws that affect your business	.92	
	4. How complete is the development of the legal service sectors that affect your business	.80	
<b><i>Use of personal ties &amp; networks</i></b>	To what extent you use your personal ties with managers in the following stakeholders in the operation in your organization:		.92
Time 2	1. Customers*	.86	
	2. Suppliers	.79	
	3. Counterparts in same business	.91	
	4. Investors	.93	

**TABLE 6**  
**MEASUREMENT MODEL RESULTS**

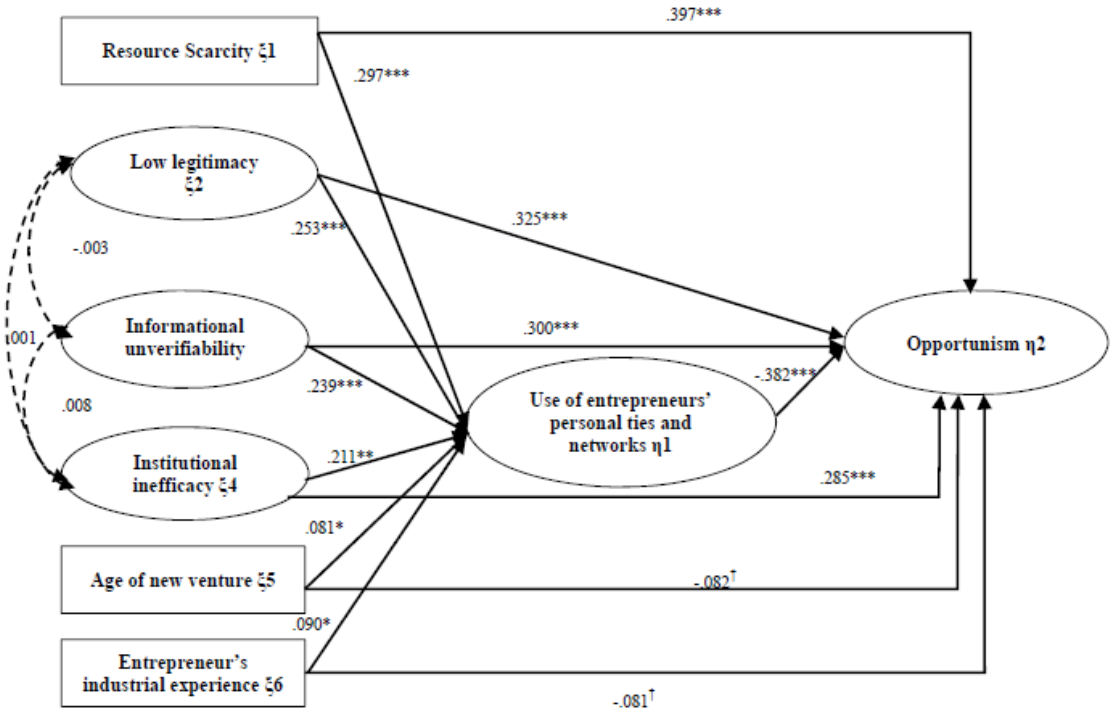
	<b>Number of Items</b>	<b>AVE</b>	1	2	3	4	5	6	7	8
<i>Resource scarcity</i>	1	/	1.00							
<i>Low legitimacy</i>	3	.846	.04	1.00						
<i>Information unverifiability</i>	4	.872	-.01	.05	1.00					
<i>Institutional inefficacy</i>	4	.825	.03	.04	.02	1.00				
<i>New venture age</i>	1	/	-.03	-.02	.01	.02	1.00			
<i>Entrepreneur's industrial experience</i>	1	/	.02	.05	.01	.01	.06	1.00		
<i>Use of personal ties &amp; networks</i>	4	.884	.30	.25	.58	.26	.08	.11	1.00	
<i>Opportunism</i>	6	.801	.34	.16	.03	.17	-.15	-.09	-.02	1.00



**FIGURE 6**  
**THEORETICAL FRAMEWORK**



**FIGURE 7**  
**STRUCTURAL MODEL RESULTS**



CHAPTER 5  
CONCLUSION

This dissertation work mainly focuses on shedding light on the following question that has remained largely understudied in the extant strategic and organizational research: *To what extent can top managers' personal ties and networks actually contribute to their firms?* I anatomized this grand question into three logically consequent managerial decisions: (1) “*When*”—when will top managers choose to use their personal ties and networks in their firms; (2) “*How*”—will top managers use their managerial ties and networks to serve the best interest of their firms or to satisfy their self-interests; and (3) “*So what*”—how would the decision of using managerial ties and networks to benefit their firms influence other decisions of the firms. I theoretically developed these three managerial decisions and empirically tested them.

Together as a doctoral dissertation, these three studies contribute to prior managerial network and managerial social capital research by specifically anatomizing the “micro-macro links” between managerial ties and networks as managers' personal endowments and their instrumental value to the focal firms as economic organizations (c.f., Li et al., 2008; Peng & Luo, 2000), and therefore help to answer the to date understudied question: *to what extent can firms actually benefit from the managerial ties and networks of their top managers.* As discussed earlier, management and organizational scholars so far have almost exclusively treated the favorable implications of managerial ties and networks for firms in a taken-for-grant way, barely attempting to open the black box of the actual process through which the value of these personal endowments of managers can be realized at the organizational level. By systematically anatomizing the potential relationship between the micro and the macro end of such “micro-macro link” into three logically consequent questions (i.e., *which ties and*

*networks would be in use, to what extent would they be used in value-creating ways for the focal firms, and what would be the opportunity costs of their favorable performance implications*), and drawing on the insight of behavioral decision making theories to fill these blanks by closely examining managers' personal decision making processes, these studies provide an exploratory theoretical framework that can be used by future studies to determine the practical value of managers' personal ties and networks to their organizations, complementing the extant managerial network and managerial social capital research by developing an "inner" perspective to examine the "micro-macro links".

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