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Corporate venture capital and the balance of risks and rewards for portfolio companies

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ABSTRACT

This paper contributes to the literature on corporate venture capital (CVC) by examining the management of CVC investments from the perspective of the investee firm. We focus on the trade-off between social interactions and relationship safeguards and examine their effects on the twin relationship outcomes of learning benefits and risks. The model is tested using data collected from CEOs of U.S. technology-based new firms receiving CVC funding. Complementarities between the investee firm and its CVC investor are positively related to the level of social interaction and negatively related to the use of different types of relationship safeguards by the investee firm. The use of safeguards is further negatively related to both realized relationship risks and social interaction. Social interaction is positively related to realized learning benefits. These findings highlight the fine balance that the investee firm has to strike between openness and self protection in a CVC relationship. Implications for future research and current practice are discussed.

1. Executive summary

Corporate venture capitalists (CVCs) are often able to offer different and more wide-ranging support for their portfolio firms compared to independent venture capitalists (Maula et al., 2005). However, because corporate investors commonly have direct business interests in the domains in which their portfolio firms operate, the young firms' relationships with CVC investors can involve trade-offs between openness and self protection. Our study examined these trade-offs and their effects on the risks and rewards of the relationship.

Researchers have primarily studied CVC investments either from the perspective of the corporate investor (i.e. ‘how can corporate investors derive maximum benefits from their portfolio firms?’) or they have focused on explaining how value-added from CVC differs from that offered by ‘classic’ venture capitalists. This body of research has identified many strategic benefits that established, and often highly innovative, corporations can derive from investments in technology-based new firms (TBNFs). Yet, researchers have also recognized that corporations' ability to use CVC investments strategically is sometimes limited. Potentially, the most interesting (and valuable) new ventures may avoid CVC relationships for fear that the parent corporations may learn too much about the entrepreneurs' proprietary knowledge. On the other hand, researchers have also recognized that entrepreneurial firms are most likely to accept CVC investments when they need access to scarce and critical resources in order to grow rapidly; and when they are also confident that they are able to protect themselves from a partner's attempts to misappropriate their own unique knowledge.

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Such insights have highlighted the need to focus on the structure and conduct of CVC–investee firm 'dyads.' In order to understand how potential benefits can be balanced against the risks of misappropriation, recent research has started to assign greater weight to the commercial interests of the entrepreneurial investee firm over the traditional viewpoint of the established corporation (Katila et al., 2008). In so doing, contemporary analyses are now less naïve *as to the costs* as well as the benefits of collaboration with large and powerful corporations. Thus, the net benefits of a CVC tie to the entrepreneurial firm are not treated as axiomatic because of this potential risk of predatory conduct by the corporation. However, neither is it assumed that small firm predation will invariably occur in the relationship given the competencies and experience of many TBNF management teams.

Although research on CVC has advanced to a stage at which there is a greater understanding of the circumstances when entrepreneurs will choose to "swim with sharks,"[3] there is still little research examining *how best* this may be accomplished without being eaten. Prior research has examined the conditions under which ties are formed between entrepreneurial ventures and corporate investors (Dushnitsky, 2004; Katila et al., 2008). Yet, it is silent about how necessary 'checks and balances' evolve. Accordingly, how these trade-offs are managed is the focus of this study.

In this paper, we examine how the CVC–investee firm relationship influences the management of risks and rewards from CVC investments. We take the perspective of the portfolio or investee firms which in our study are technology-based new firms (TBNFs). Building on learning literature and agency theory, we develop a model predicting the impact of complementarities (i.e. whether the deployment of the resources of one party enhances the marginal effectiveness of the resources of the other party (Bendersky, 2003; Milgrom and Roberts, 1992) on both social interaction and the employment of safeguards by the investee firm. Our model further quantifies the effectiveness of safeguards on the risks of the corporation misappropriating the young firm's IP assets. Finally, we look at the degree of social interaction between the entrepreneurial young firm and the CVC and demonstrate how this affects the learning opportunities of the young firm.

The model developed in our paper is tested using data collected from CEOs of CVC funded, U.S. technology-based start-ups. It employs structural equation modeling. The model and the associated hypotheses receive good support from the empirical data. Complementarities between the entrepreneurial investee firm and its CVC investor are positively related to the social interaction between them and negatively related to the use of different types of relationship safeguards by the new venture. The use of safeguards is negatively related to both realized relationship risks and social interaction. Social interaction is positively related to realized learning benefits.

For entrepreneurs, our findings indicate the critical need to distinguish between true *complementarity*, on the one hand, and *relatedness*, on the other, when choosing corporate investors. Complementarity exists when the resources of one party directly enhance the effectiveness of the resources of the other party. Relatedness, on the other hand, concerns the commonality of firm functions and may signal potential overlap or even substitutability between the two parties' resources. Determining the degree of complementarity and relatedness is crucial in determining whether or not a relationship should be started and how it should subsequently be managed. Besides this important initial condition, the findings indicate that social interaction between the CVC and the investee firm's management significantly (and positively) influences the latter's ability to learn from the corporate investor. The study also shows that relationship risks can be partially mitigated by the entrepreneurial venture using various safeguards such as limiting CVC ownership of its stock, restricting the allocation of board seats to CVC investors, and/or accepting CVC investors only in the later stages of the investee firm's development. However, these safeguards come at a cost. The reduction in social interaction and trust resulting from employing these safeguards also reduces learning benefits for the investee firm. A central reason for the collaboration between the young enterprise and the established corporation is therefore diminished. These trade-offs call for transparent and sensitive management of the ongoing CVC–investee firm relationship from both corporate and entrepreneurial participants.

2. Introduction

The tension between the simultaneous needs for both cooperation and control is inherent in most collaborative relationships between firms (Das and Teng, 2000; Kale et al., 2000; Khanna et al., 1998; White, 2005). This tension is particularly characteristic of knowledge-intensive relationships, where the reciprocal and staged nature of knowledge disclosures creates considerable scope for free-riding (Dyer and Singh, 1998; Human and Provan, 1997). Open and frequent interactions are required in inter-firm relationships so as to facilitate the integration of valuable resources (Inkpen and Tsang, 2004). However, misplaced or naïve openness may result in the misappropriation of valuable knowledge and resources by an opportunistic partner (Das and Teng, 1998; Katila et al., 2008). The overt use of safeguards will not necessarily help as such precautions can send a signal of mistrust which may prompt the withholding of resources and closer social interaction (Ghoshal and Moran, 1996; Lui and Ngo, 2004). At worst, the use of safeguards may set off a 'learning race' in which only one partner can win (Khanna et al., 1998; Larsson et al., 1998).

The above dilemma is particularly pertinent for growth oriented, technology-based new firms (TBNFs) whose rapid growth is often dependent on access to external resources (Jarillo, 1989; Stinchcombe, 1965) including venture capital (Hellmann and Puri, 2002; Sapienza, 1992). However, this risk capital option is not always sufficient as the resource needs of TBNFs typically extend beyond early-stage financing and managerial expertise. An alternative, complementary source of resources is provided by industrial corporations, which have become important VC investors in their own right (Gompers and Lerner, 1998; Maula and Murray, 2002). In addition to finance, corporate investors are often able to provide access to valuable strategic resources

[3] The imagery of the shark used by Katila et al. (2008) is interesting. Sharks are predators at the top of their food chain. Earlier uses of metaphors in Entrepreneurship studies are more likely to describe corporations as lumbering, slow and clumsy rather than swift and deadly. Hence the popular use of giants, elephants or dinosaurs (Block and MacMillan, 1993; Gerstner, 2005; Kanter, 1989).