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**THE ROLE OF ORGANIZATIONAL LEARNING CAPABILITIES IN
STRATEGIC ALLIANCES**

ABSTRACT

Recent studies on strategic alliance show great interest on how firms develop alliance capabilities to achieve alliance success. This study examines the relationship between organizational learning capabilities and alliance performance. The concept of organizational learning capabilities in this study is developed comprising training availability, technical expertise, and alliance experience. It proposes that a greater alliance learning capability is positively related to alliance goal achievement. The research further investigates how the inter- and intra-firm mechanism, the average level of technical expertise and alliance experience, and the gap of technical expertise and alliance experience between the partners impact alliance objectives.

INTRODUCTION

Establishing strategic alliances is becoming a principal strategy for many companies to conserve resources and share risks (Gulati, 1998; Koza & Lewin, 1998; Capaldo, 2007). Companies use strategic alliances as important means to create customer value and enhance competitive advantage. Strategic alliances provide companies with opportunities to leverage and build economies of scale and scope (Dodgson, 1996; Fiol & Lyles, 1985; Capaldo, 2007), gain access to specific markets and new technologies (Bae et al, 2004; Capaldo, 2007), and enhance product development efforts (Appleyard, 1996; Gulati, 1998; Bae et al, 2004).

Recent studies on strategic alliance focus on how firms develop alliance capabilities to achieve alliance success. Alliances are usually viewed as incomplete contracts (Anand & Khanna, 2000) that involve the transfer of know-how between firms. Previous studies have examined how organizations learn from their partners and develop new competencies through strategic alliance (Appleyard, 1996; Choi and Lee, 1997; Dodgson, 1996; Mowery et al, 1996), and how alliances are influenced by the inter-firm heterogeneity (Fiol & Lyles 1985; McEvily & Chakravarthy, 2002). Fiol & Lyles (1985) argue that organizational learning relies on the people and groups acting as the agency for the transferral of associations, meanings, worldviews, and ideologies. Firms can learn to manage inter-firm alliance as experience accumulates (Anand & Khanna, 2000) and they learn new skills by recombining their current capabilities (Kogut & Zander, 1992). Organizational learning is a critical process that dynamically moderates the impact of diversity on alliance longevity and effectiveness (Parkhe, 1991). Prior studies examine organizational learning capabilities at an overall or average level. None of them

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investigate the gap of the learning capabilities that exist between the firms in alliances, and how the gap impacts the alliance performance.

The present study provides an account of both the average and the gap of learning capabilities and their influences on alliance performance. The purpose of this paper is to attempt to answer the following questions regarding organizational learning capabilities in alliances, specifically: (1) Why do different alliances in the same industry have different outcomes? (2) How important are the learning capabilities in strategic alliance? (3) How do organizational learning capabilities influence the attainment of alliance objectives? (4) Which one has stronger effect on alliance performance: the average learning capability of the firms in alliance or the gap of learning capabilities between the firms in alliance? The study contributes to extant alliance and strategic research by examining the importance of organizational learning capabilities in alliance success. Most importantly, it attempts to fill the gap in this field by testing how the differences in organizational learning capabilities between partners influence alliance performance. In this paper, I focus on alliances in dyadic level, that is, alliances include equity and non-equity collaboration between two independent firms. This is because a dyadic alliance is relatively simpler, and is generally less likely to exhibit alliance blocks than in a network or an alliance comprises more than two companies. Examination of the relationships in the dyadic alliance can cause less biases and confusions. However, the results can still reflect the relationships in the networks or alliances consisting by more than two companies.

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The rest of the paper is organized as follows. In next section, I provide a brief review of prior research that has examined the relationship between organizational learning and alliance. I then conceptualize the notion of organizational learning capabilities and develop propositions. Finally, I discuss the limitations as well as possible methodology for the future study.

LITERATURE REVIEW

Organizational learning has been defined as “the development of insights, knowledge, and associations between past actions, the effectiveness of those actions, and future actions (Fiol & Lyles, 1985, p.811).” It is treated as the growing insights and successful restructurings of organizational problems by individuals reflected in the structural elements and outcomes of the organization itself (Simon, 1969).

Organizational learning capabilities in alliance are full of multiple interpretations of the concept. Previous researches on organizational learning capabilities in alliance can be primarily classified into three categories.

First, some researchers believe that firms can develop skills to successfully manage any given task by following deliberate, firm-level processes. Companies can learn and accumulate knowledge relevant to managing that task through training (Grant, 1996). They also can build group support and trust, and the use of semi-structured investigative tasks through training (Clegg et al, 2005). In “learning alliances”, firms can enhance their capabilities and minimize their technological uncertainties by acquiring and exploiting knowledge provided by their own company or from their partners (Grant & Bader-Fuller, 1995). Lane & Lubatikin (1998) demonstrate that firm’s ability to learn

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from another firm depends on company's policies. These policies represent intends of gaining access to new knowledge from the partner firm, and dynamically moderate the impact of diversity on alliance longevity and effectiveness (Parkhe, 1991).

Second, earlier work on this topic suggested that a firm's "absorptive capacity" represents firm's general ability to value, assimilate, and commercialize new, external knowledge (Cohen and Levinthal, 1990). The existing knowledge bases determine a firm's ability to learn from another firm (Lane & Lubatkin, 1998). The technical expertise is found implicitly linked to IT capabilities, which are positively related to firm performance (Melville et al, 2004). From a resource-based view, these knowledge and skills are scarce resources that play important role in developing learning capabilities (Szulanski, 1996). Knowledge development and longevity enhance the performance in alliances (Steensma & Lyles, 2000). Also the level of expertise in implementing technologies, and the ability to use these technologies successfully are found to greatly impact firm's learning capability so as to create value in terms of resources (Zhu & Kraemer, 2002). McEvily & Chakravarthy (2002) argue that technological knowledge represents the level of innovativeness and competitiveness of the company. The higher the level of technological knowledge, the more the company engages in alliances.

Third, some researchers suggest that learning capabilities of a firm tend to develop cumulatively, be path dependent, and build on prior investments in its members' individual absorptive capacity (Cohen & Levinthal, 1990). The ability to learn from a particular alliance is likely to be enhanced by the trials and tribulations of past learning experiences (Anand & Khanna, 2000). Prior experience with a given knowledge base predetermines the level of familiarity and comfort with both information content and

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context, and thus favors the learning of the knowledge (Simonnin, 1999). Different firms have different history, which can lead to a unique set of capabilities to accomplish activities in strategic alliance (Lane & Lubatkin, 1998). Barkema et al. (1997) demonstrate that capacity to work with others can be learned not only from previous international joint ventures, but also from previous domestic joint ventures. Firms that have learnt to learn will continue to do so at an increasing rate. On the other hand, firms that have never invested in learning from different experiences will find it difficult to do so (Cohen & Levinthal, 1990).

I build on this literature to develop the concept of “organizational learning capabilities” which comprise three dimensions: training availability, technical expertise, and alliance experience. These capabilities directly associate with learning, accumulating, and leveraging alliance management know-how to develop a firm’s alliance management skills. That is, the stronger the organizational learning capabilities, the higher the possibility that the alliance will achieve its objectives. This study investigates the inter- and intra-firm mechanism, the average level of learning capability of the alliance, and the learning capability gap between the alliance members impact alliance objectives.

RESEARCH MODEL AND PROPOSITIONS

Organizational learning capability is one of the important organizational capabilities in strategic alliance (Cohen & Levinthal, 1990). The research model investigated in this study is shown in Figure 1, which hypothesized that organizational learning capabilities-training availability, technical expertise, and alliance experience,

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affect the success of alliance goal achievement. Each construct involved in the research model and hypotheses are discussed below.

Insert Figure 1 about here

Achieving alliance objectives

Alliance is a hybrid structure. Researchers differ in opinion when assessing the performance of the alliances. They argue that the degree to which an alliance creates value and transfers it to the partnering companies varies from partner to partner. For example, one may conclude that the alliance has created significant value, and is, therefore, performing well. However, the partnering companies do not capture these benefits, they may consider the alliance a poor performer. To avoid the ambiguities, I use alliance objectives to refer to the strategic alliance performance. Companies always have objectives when they pursuing alliances. Such objectives include strengthening their market position, developing new products, increasing access to markets, increasing their technology base, and reducing costs or risk. Companies evaluate these goals by assessing the performance of strategic alliances. Here I use the goal of specific company in the alliance rather than the overall goals of the alliance to measure alliance objectives. This is because different companies have different perspectives as to the assessment of the overall goals of an alliance. Each company has its own motives for the alliance such as enhancing its competitive positioning or market power and acquiring knowledge and skills from the partner (Kogut, 1988). Companies develop their specific objectives based on these motives. The achievement of these objectives depends on various factors

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including how efficiently companies can handle and facilitate organizational learning (Parkhe, 1991), whether the companies can learn over time how to be a better partner to create value for the partner firms (Anand & Khanna, 2000), and whether the companies can build their “absorptive capacity” to restructure organizational problems, speed capability development, and minimize the technological uncertainties (Lane & Lubation, 1998). This study posits that the strategic alliance objectives of a company are positively associated with the its learning capabilities. That is, the greater the training availability, technical expertise, and alliance experience, the more likely the company will achieve its alliance objectives.

Training availability

According to Bradford and Florin (2003), training availability refers to quantity of education available technology adopters or users. Training usually focuses on providing a process through which company can solve its own problems. It focuses on the process of ‘empowering’, ‘developing’, ‘supporting’ and ‘removing obstacles (Clegg et al. 2005).’ Clegg et al. further argue that training can involve a number of key attributes, including facilitation, participation, questioning, feedback, identification, and implementation of measureable improvements, which relies on the building of group support and trust, and the use of semi-structured investigative tasks. Training availability is also identified by Ravichandran and Lertwongsatien (2005) as necessary in a firm using IT to improve core competencies. Ravichandran and Lertwongsatien examined training availability from a resource-based view and indicated that it can influence the external partner’s quality, which will impact the final outcome. One study found that

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investment in training is positively associated with the level of knowledge acquisition from the foreign parent firm (Thuc Anh et al, 2006).

A training policy within a firm sets out individual's right to training. It is a key factor influencing alliance performance. Without a policy to guide organizational thinking, decisions about strategic alliance can be haphazard and impede efforts to implement. Providing financial and other resources to support the acquisition and sharing of the information within the firm can build a learning capability to help organization overcoming barriers in knowledge transfer (Simonin, 1999). Training within a firm can make sure that all employees understand and implement the alliance policy well. It also facilitates group learning with a view to provide employees with opportunities to apply their newly gained knowledge and skills. However, although companies share some knowledge and information, they need to protect the core competence in order to maintain their sustained competitive advantages. Consequently, training employees to identify and protect proprietary information is critical in strategic alliance. This training must clearly outline to the relevant employees what knowledge and skills must share with the partner, what may share with the partner, and what must never share with the partner. Investment in training is important for knowledge transfer, and is found positively associated with the performance in alliance (Contractor, 1980; Thuc Anh et al., 2006).

Training between companies in the alliance is also expected positively associated with the alliance success. Firms are motivated to form alliance for various reasons, namely, new product development and market power increase (Gulati, 1998; Kogut, 1988). Accessing and transferring knowledge is an increasingly important motivating

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factor in alliances (Hamel, 1991). Steensma & Lyles (2000) analogize the relationship between firms in alliance to a teacher/student relationship, and argue that the transfer of know-how depends on the willingness and ability of the teacher and provide the student with necessary training. This inter-firm training enhances the knowledge transfer, and helps firms to create competitive advantages in home and foreign markets (Child and Faulkner, 1998; Hamel, 1991). Thus, this inter-firm training availability reflects the ability of alliance partners to identify, absorb, and transfer knowledge through collaboration, which is critical to achieving the overall alliance objectives. Thus, the following propositions can be postulated:

Proposition 1a. Intra-firm training availability is positively associated with achieving alliance objectives.

Proposition 1b. Inter-firm training availability is positively associated with achieving alliance objectives.

Technical expertise

Technical expertise refers to the skills to create capabilities, such as front-office customer services and back-office systems integration. These skills determine a firm's overall business success (Zhu & Kraemer, 2002). From resource-based perspective, expertise is a resource that is difficult to acquire and complex to imitate. Therefore, whether the business can create value in terms of resources depends on level of expertise in implementing technologies, and its ability to use these technologies successfully (Melville et al. 2004; Bharadwaj, 2000; Zhu, 2004). Studies found that firms with high level of technical expertise can be expected to master the technical aspects of business

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and achieve business contribution to firm performance more completely than firms with lower level of technical expertise (Zhu, 2004; Chung et al., 2006). In an alliance where the degree of complexity is high, technical expertise can improve the coordination among partners and increase the visibility of information flow, and thus leads to higher level of alliance performance.

This study posits that the overall average level of technical expertise is positively related to performance. Companies in alliance share knowledge to accomplish their goal. Kale & Singh (2007) discovered the importance of connecting people who had the expertise of handling alliances with managers who required it. Firms can rotate technical expertise across company boundary so that the ‘tacit’ alliance wisdom of these veterans is shared through their interpersonal interaction with others who work with them. The enhancement of technical expertise can help companies to reduce both development costs and development time (Bharadwaj, 2000), improve the operational efficiencies (Melville et al., 2004), and create capabilities (Zhu & Kraemer, 2002). This would results in a higher level of accomplishment and better opportunities.

The gap in the level of technical expertise between the companies in alliance could also play an important role. The gap is a stimulus that enables the company with lower level of technical expertise to learn fast. The larger the gap, the more efforts the both companies will put to remedy it. Hence, the better working platform will be created for collaboration. Further, the company that has less technical expertise can take the advantages to share the information and skills, which save time and cost to improve its learning capabilities, and thus influence the performance in alliance. The propositions that follow are:

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Proposition 2a. The average technical expertise is positively associated with achieving alliance objectives.

Proposition 2b. The gap in technical expertise between the companies is positively associated with achieving alliance objectives.

Alliance experience

Alliance experience is defined by Heimeriks and Duysters (2007) “as the lessons learned, as well as the know-how generated through a firm’s former alliances. (p.29)” Studies on alliance experience have focused on repeated engagements in strategic alliances (Rotthaemel & Deeds, 2006), and repeated partnering with the same partner over time (Zollo et al. 2002; Goerzen, 2006). Many studies found a positive relationship between alliance experience and alliance performance (Anand & Khanna, 2000; Kogut & Zander, 1992; Cohen & Levinthal, 1990; Kale & Singh, 2006). Lack of experience are said to be critical cause for alliance failure (Kleiner & Roth, 1987; Lei & Slocum, 1992).

Repeated engagements in strategic alliances allow firms to create codified procedures, policies, routines, and tacit knowledge with respect to the entire range of alliance management (Rothaerel et al., 2006). The repeated engagements in alliance establish a robust basis for alliance cooperation because companies can find similarities from their experience for the new situation. The collective understanding of the firms is expected to emerge through the tacitly updated and refined alliance capabilities, which enable them to improve their performance and finally achieve their alliance goal (Chang et al.2008). Another aspect of alliance experience is repeated partnerships. Forming an alliance with the old partner can reduce the risks of opportunistic behavior within

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alliances since both parties have built trust between each other (Gulati, 1995, Marsden, 1981). Such trust helps companies become familiar with each others' processes, systems, and routines. This reduces transaction costs and improves alliance integration, leading to an overall positive influence on corporation performance (Goerzen, 2007). The average alliance experience reflects the companies' abilities in partner selection (Anand & Khanna, 2000; Kogut & Zander, 1992; Barkema et al. 1997), alliance formation (Simonnin, 1999; Pisano, 1988), and alliance termination (Kale & Singh, 2006; Shenkar & Yan, 2002). The experience also enables firms to better understand the critical processes and issues in alliance management. This experience enhances "firms' abilities to recognize the value of new information, assimilate it, and apply it to commercial end (Coherm & Levinthal, 1990, p.128)."

In addition to the average alliance experience, the gap of the experience between the two companies in the alliance is also expected be critical. If there is a gap, the company with less alliance experience is expected to possess the relevant tacit know-how to fill in the gaps. This interplay between different firms can develop the firm-specific capabilities (Helfat & Peteraf, 2003). However, previous studies show that if the experience gap between partners is too great, learning becomes almost impossible (Hamel, 1991). This argument is similar to Grant's (1996, p.116) conclusion that "if the individuals have entirely separate knowledge bases, then integration cannot occur beyond the most primitive level." Thus, the following propositions can be postulated:

Proposition 3a. The average alliance experience is positively associated with achieving alliance objectives.

Proposition s 3b. The gap in alliance experience between partners has a

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curvilinear relationship with achieving alliance objectives.

CONCLUSIONS AND LIMITATIONS

The existing study on strategic alliances did a lot research on how organizations learn from their partners through alliance, how firms are influenced in alliance, and how alliances are influenced by the inter-firm heterogeneity. Organizational learning capability is viewed as a very important element that impacts the success of implementation of strategic alliance by many researchers (Fiol & Lyles, 1985; Kogut & Zander, 1992; Parkhe, 1991). However, all of these studies examine organizational learning capability at an overall or average level. Literature has not investigate the gap of the learning capabilities that exist between the firms in alliances, and how these gap impacts the alliance performance.

This paper develops “organization learning capabilities” as a concept comprising three dimensions: training availability, technical expertise, and alliance experience. Also, this study investigates how the inter- and intra-firm mechanism, the average level of learning capability of the alliance, and the learning capability gap between the alliance members impact alliance objectives.

This study contributes to extant alliance and strategic research by examining the importance of organizational learning capabilities in alliance success. Most importantly, it attempts to fill the gap in this field by examining how the differences in organizational learning capabilities between partners influence alliance performance. The paper helps managers and researchers to understand that why different alliances in the same industry have different outcomes. Organizational learning capabilities are very critical and could

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influence the attainment of alliance objectives. To ensure the success of strategic alliance, organizations should address not only the average learning capability of the firm in alliance but also the gap of learning capabilities between the firms in alliance.

However, this paper only provides the testable propositions. Consequently, further research is needed to examine whether these propositions are valid. Clearly, there are some limitations. First, the dimensions of organizational learning capabilities are summarized from the literature. They need to be empirically tested to decide whether they can exist as variables impact alliance objectives. Second, the dimensions identified in the model may not complete. There may be some other factors need to be included.

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Figure 1. The research model

