"Knowledge and learning in strategic alliances: how to learn with cooperation"

AUTHORS	Sergio Janczak
ARTICLE INFO	Sergio Janczak (2008). Knowledge and learning in strategic alliances: how to learn with cooperation. *Problems and Perspectives in Management*, *6*(1)
RELEASED ON	Friday, 18 April 2008
JOURNAL	"Problems and Perspectives in Management"
FOUNDER	LLC "Consulting Publishing Company "Business Perspectives"

NUMBER OF REFERENCES	NUMBER OF FIGURES	NUMBER OF TABLES
0	0	0

Sergio Janczak (Canada)

Knowledge and learning in strategic alliances: how to learn with cooperation

Abstract

The formation of strategic alliances is often motivated by the benefits arising from organizational learning and knowledge transfer among alliance members. In strategic alliances, both strategic similarity and dissimilarity may exist and both may have positive effects on organizational learning and knowledge transfer.

This theoretical paper explores the recent contributions of knowledge management to the study of strategic alliances. The first part justifies the importance of a learning approach of strategic alliances, while the second part analyzes strategic alliances as a setting for inter-organizational learning.

Introduction

Spurred by radical technological and structural changes, by the globalization of markets and by increasing competitive pressures, firms have considered alternative modes of international business operations (Contractor and Lorange, 1988; Tsang, 2002). Alternatively called strategic alliances, business alliances, strategic partnerships, inter-organizational linkages, inter-firm cooperation, cooperative agreements, quasi-integration strategies, cooperative strategies, collective strategies and corporate linkages (Inkpen & Tsang, 2005; Varadarajan and Cunningham, 1995), they may encompass all of the functional areas, or may be limited in scope to a single functional area or value activity (Garette and Dussauge, 2000). Created between non-competitors or competitors, they present an increasing variety and complexity of their organizational forms: joint ventures, license agreements, and research and development partnerships.

Since the early 1980's, international business literature has reflected the academics' growing interest in the study of cooperation through alliances. Research has focused on the determinants of cooperation (Beamish, 1988; Lavie & Rosenkopf, 2006), balancing on the forms of cooperation (Das & Teng, 2000; Lavie & Rosenkopf, 2006; Darr & Kurtzberg, 2000; Baum & Silverman, 2000), on the influences of partners characteristics and initial conditions, such as partners' size, origins and asymmetries (Doz, 1988; Grant & Baden-Fuller, 2004; Harrigan, 1988), on alliance outcomes. Furthermore, managerial aspects of alliances' implementation (Senge, 2003), such as the determination of alliances' structure (Garette and Dussauge, 2000; Grant & Baden-Fuller, 2004), and control mechanisms as well as performance measurement issues (Das & Teng,

2000) have also been explored. Early works on strategic alliances have been frequently realized under transaction-costs, agency or strategic behavior theoretical perspectives. More recently, however, new approaches derived from the resource-dependence theory (Barney, 1991; Grant & Baden-Fuller, 2004), and more particularly, the emergent knowledge-based theoretical framework (Inkpen & Tsang, 2005; Grant, 1996), have been applied to the study of strategic alliances. The present paper explores the recent contributions of this theoretical perspective to the study of strategic alliances. The first part justifies the importance of a learning approach of strategic alliances, while the second part analyzes strategic alliances as a setting for inter-organizational learning.

1. Importance of a learning approach of strategic alliances

The competitive space, in which firms operate, has been dramatically altered in the last decade due to increased complexity and rapid changes (Prahalad and Hamel, 1994). Increased global competition has pervaded most industries, driving them from a maturity to a reconfiguration phase, and changing the logic of alliances' formation (Demers et al., 1997)

1.1. Alliances' logistic in stable environment. In traditional, stable, mature and clearly bounded industries, a few firms seek to expand their leadership through the creation and manipulation of mobility barriers such as scale and scope economies or product differentiation (Das & Kumar, 2007; Demers et al., 1997). These firms dominate through greater integration and control along the value chain (Porter, 1985). They may use cooperative strategies to fill gaps in the company structure, or as short-term tactics and side-bets to co-opt potential rivals. By contrast, smaller firms succeed in exploiting innovations through collaborative agreements that bring them needed resources and reduce the risk of heavy commitments (Demers et al., 1997).

Motives underlying the entry of dominant firms into strategic alliances may best be explained under the transaction costs, resource-dependence and strategic behavior theoretical perspectives:

1) The transaction costs perspective is specifically relevant to explain how firms should organize their boundaries' activities according to the criteria of minimizing the sum of production. They do this by creating new processes, using facilities more effectively; cooperating to develop operating standards, building needed scale, etc. They also seek to minimize transaction costs, such as decreased costs and risks incurred for writing contracts and haggling over terms and contingent claims (Grant & Baden-Fuller, 2004; Kogut, 1998).

2) Resource-dependence theory underlines such motives as improving market and resources access (opening new marketing channels, gaining better channel controls, improving supply links and lower input costs, etc.) (Das & Teng, 2000; Inkpen, 2000).

3) Strategic behavior, on the other hand, highlights how firms transact through alliances to improve their competitive posture vis à vis rivals to build market power (by depriving competitors of raw materials, tying downstream competitors, stabilizing (oligopolistic) competition, reinforcing entry barriers and eroding competitors' positions) (Kogut, 1998).

Collectively, these theoretical approaches suggest that market uncertainty, the search for increased efficiency, resource dependency, competitive posture, and resource heterogeneity drive firms to form alliances (Lyles & Gudergan, 2005).

1.2. Alliances' logic in highly complex and dynamic environment. Strategic alliances have become an increasingly important research focus, and, in turn, valuable insights for alliance activities and performance outcomes have proliferated rapidly over the last decades. A strategic alliance is commonly defined as any voluntarily initiated arrangement among organizations involving either a pooling or a trading of resources in search for competitive advantages and strategic interdependences (Das & Teng, 2000; Inkpen, 1996).

Firms' resources, and more importantly, the "core capabilities" (Das & Teng, 2000), a combination of "core competencies" (Prahalad and Hamel, 1990) and strategic processes may be seen as the most critical source of competitive advantage. Because they are based on knowledge, skills and processes developed over time in a particular organizational context, they are durable, difficult to identify and understand, imperfectly transferable and not easily replicated (Barney, 1991). Sustaining competitive advantage in the long-run, therefore, would depend on the ability to improve at both at lower costs and more rapidly than the competitors' existing competencies (Prahalad and Hamel, 1990) or capabilities. Environmental analysis is, thus, much less important than developing the organizational capabilities to fuel "strategy innovation" (Hamel, 1998). A firm's current distinctive competencies and its organizational capabilities ("managerial ingenuity" in shaping both context and processes) for leveraging, strengthening and diversifying them (Chakravarthy, 1997), should provide the basic direction for strategy.

Strategy formation, therefore, does not result from an annual planning ritual, looking for a defendable position in the existing industry (Porter, 1985) but emerges from a company's understanding of the full range of its core capabilities, its potential synergy, and its deployment and future development.

Strategic alliances may provide firms with a unique opportunity to redefine the game. They allow firms to de-integrate their value chain (Demers et al., 1997) by leveraging, strengthening, and diversifying their competencies with the help of partner. They are indeed the vehicle, by which knowledge is transferred and by which firms learn from each other (Kogut, 1988). A knowledge-based or organizational learning perspective should thus apply reasonably well to explain strategic alliances (Kogut, 1988). In this paper, we use Garvin's (1993) definition of organizational learning as an "organization skilled at creating, acquiring and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights" (p. 80). Accordingly, the next part of my paper will focus on the alliance as a setting for inter-partner learning.

2. Strategic alliances as a setting for inter-partner learning

There are only imperfect external markets for capabilities and value-creation activities (Hamel, 1991), frequently based on tacit knowledge and subjected to considerable uncertainty concerning their characteristics and performance (Mowery, Oxley and Silverman, 1996). Full ownership, however, may not be recommended because in acquiring a whole firm, non distinctive assets must be paid for and substantially larger problems of integration may occur (Hamel, 1991). Indeed, learning via collaboration may be more effective. By combining some characteristics of a market and the control mechanisms associated with a hierarchy (internal organization), alliances can offer a superior means to acquire new capabilities (Kale & Singh (2007) Building firm capabilities through learning: the role of the

alliance learning process in alliance capability and firm-level alliance success, Strategic Management Journal, 28 (10), 981-992). What are then the conditions that facilitate effective or ineffective inter-partner learning?

2.1. Learning through collaboration: from a static to a dynamic perspective. Most researchers in the 1980's and the early 1990's have provided a static view of learning in strategic alliances. They have adopted a deterministic approach where partners' characteristics and initial conditions define alliances' learning outcomes, but they have paid little attention to processes, which may be more important than structures in determining the learning of alliances (Hamel, 1991; Doz, 1996). However, more recently, a few authors (Darr & Kurtzberg, 2000; Lavie & Rosenkopf, 2006) have proposed a dynamic approach to inter-partner learning.

2.2. A dynamic framework of inter-partner learning: synthesis. Drawing from the literature on organizational learning, and the principal contributions on inter-organizational learning, the following section presents a framework in Figure 1, which attempts to integrate existing knowledge on strategic alliances as a vehicle for knowledge transfer.
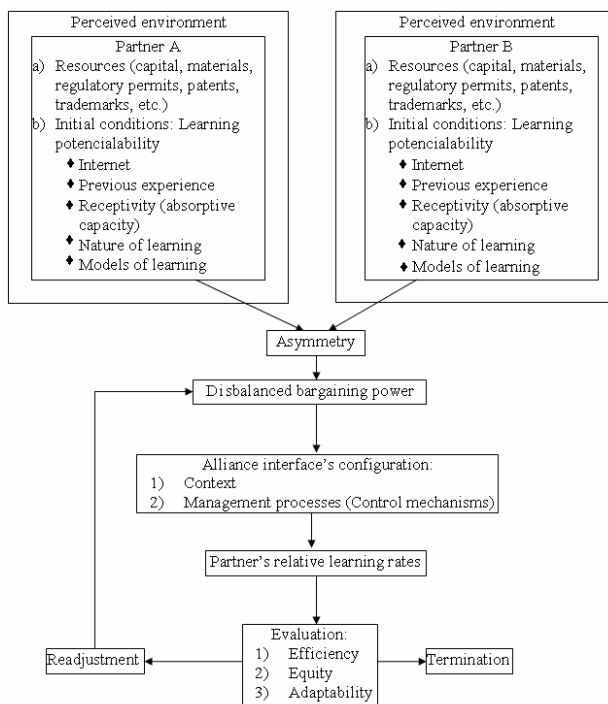
Based on Hamel (1991), Doz and Shuen (1995), Doz (1996), Inkpen (1996), Makhija and Ganesh (1997).

Fig. 1. A dynamic framework of inter-partner learning: synthesis

2.2.1. Initial conditions. First, a set of initial conditions and/or partners' characteristics may be observed. In addition to partners' resources (capital, assets, machinery, regulatory permits, etc.), five

elements that determine whether and how learning takes place have been found.

Partners' intent. Firms should have a clear understanding of their existing core capabilities; both those that are trying to develop through alliances, and those that should prevent from being unintentionally learned (Prahalad and Hamel, 1993; Lorange, 1997). Additionally, the way firms conceive inter-partner learning (whether as a rigorous and permanent discipline, or as a mere temporal device to substitute their partners' competitiveness for their own lack of competitiveness) may be a key factor in the learning process (Hamel, 1991). Khanna, Gulati and Nohria (1998) have proposed that, whether firms merely seek access to their partner's knowledge or whether they strive for internalizing it, depend on their positions in the market. The greater a firm's opportunity to apply what it is learned outside of an alliance, the more it will tend to out-learn its partner. The greater the overlap between a firm scope and an alliance scope, therefore, the less pressure is on learning.

Partners' previous experience. Past experience of a partnership is not determined only by the frequency of collaborative agreements, but also by the intensity, longevity and diversity of types of collaboration. This may give a firm a special know-how about identifying and selecting partners, negotiating the terms and structure of an alliance, monitoring or managing the relationship and terminating it, and thus may facilitate the establishment of initial conditions that promote learning (Simonin, 1997). Additionally, firms with previous experience in diversified collaborative agreements may have developed a greater number of transfer mechanisms between individual and inter-organizational knowledge bases than have firms, which have evolved autonomously (Hamel, 1991). However, experience may sometimes be a "poor teacher" as "...*Learning has its own traps*" (Levinthal and March, 1993, p. 97). The effect of past experience is indirect, mediated by the construct of know-how. It depends on the capacity of partners to internalize and regulate lessons drawn from diverse experiments (Argote et al., 2000).

Partners' receptivity and absorptive capacity. Humility and enthusiasm for learning are seen as key determinants of partners' receptivity (Hamel, 1991).

Absorptive capacity refers to the ability of organizational members to isolate key information, understand its competitive importance, and subsequently, use it (Baughn, Denekamp, Stevens and Osborn, 1997). It is a function of the richness of preexisting individual knowledge structure, also called mental or cognitive maps (Laroche and Nioche, 1994; Calori and Sarnin, 1994), built by associative and

cumulating learning and recorded into memory by established links between pre-existing concepts (Kale & Singh, 2007). A diverse background thus provides greater absorptive capacity, because it ensures that incoming information will be related to what is already known, and it also favors greater creativity by associations and linkages that may have never be considered before (Cohen and Levinthal, 1990). As partners' absorptive capacities depend on their individual members' absorptive capacity, the key issues that will be discussed in the following section are the nature of knowledge required and its formation, and the transfer mechanisms of knowledge within and between organizations.

Nature of knowledge. The nature of knowledge can be represented on a continuum between "explicit" and "tacit" knowledge (Nonaka, 1991; Makhija and Ganesh, 1997). Explicit knowledge (such as product specifications, access to raw materials or distribution channels, patents and licenses, etc.) is formal, systematic, easily codified, communicated and shared. Tacit knowledge (such as manufacturing process, organizational aspect of marketing channels, government relations, etc.) is highly personal, deeply rooted in action, often embedded in organizational processes and a specific context. Successful learning in any firm requires the acquisition and accumulation of both explicit knowledge (or information) and the development of tacit knowledge and understanding (Spender, 2007). The specific support for the appropriate transmission of each knowledge class, in and between organizations, needs to be further explored.

Modes of learning. The literature on learning has been heavily influenced by the computer as a model, adopting an information-processing perspective. This perspective has conceived the learning process as a linear sequence separate from affect, history and context, where thoughts precede actions and formulation of actions precede their implementation. However, thought (formulation) and action (implementation) usually do not occur sequentially, but simultaneously (Weick, 1984), producing a perpetual, dynamic, ongoing, cognitive transformation stimulated by the continuous interaction between man and his environment, and based on dialectical relation between action and thought. The "learning process" thus encompasses both the ability to do (act) or *know how* and the ability to conceptualize (think) or *know-why* (Kim, 1993). It may rather be conceived as a "circular perpetual process" (Weick, 1979) guided by the individual mental models (cognitive maps), which in turn are changed by the learning process (Kim, 1993). Drawing from Kim (1993), Nonaka (1991, 1994), Inkpen (1997), and

Tiemessen et al. (1997), the circular learning process may be divided into four steps:

1) The first step consists of intuiting, the creation of tacit knowledge (Tiemessen et al., 1997), the conversion of tacit to explicit knowledge through co-practice, observation and imitation (Nonaka, 1991), which individuals assimilate through concrete experience (Kim, 1993).

2) However, unless they start to reflect on their experience (assess; Kim, 1993), to give meaning to events, behavior and data (interpret; Tiemessen et al., 1997), or to make explicit their tacit knowledge (articulate or externalize; Nonaka, 1991, 1994), they have no systematic communicable insight of what they are doing.

3) Once tacit knowledge is made explicit, new concepts may be formed and associated with existing knowledge stored in mental maps (design or conceptualize; Kim, 1993). Individual pieces of explicit knowledge are combined (Nonaka, 1994) or integrated (Tiemessen et al., 1997), into a new whole.

4) As new constructs are experienced and tested (Kim, 1993), they are internalized, broadening and extending tacit knowledge (Nonaka, 1994), and may be incorporated (institutionalized) in the organizational knowledge base (Tiemessen et al., 1997) which in turn influences individual behavior.

Nonaka (1994), Inkpen (1997) and Tiemessen et al. (1997) maintain that each of these steps occurs at different levels: intuiting or socialization at an individual level; interpreting or externalization at the group level; combination (integrating) and internationalization (institutionalization) at the organization level. Additionally, Tiemessen and al (1997) conceptualize the learning process as a linear process with two feedback loops (assimilation and impact of learning).

In contrast with the opinions of the previous authors, all four steps appear to occur at the individual level in an ongoing circular process. However, it may be thought that one step (and its associated transfer mechanisms) may predominate at each level of management (Fig. 2). For example, combining (or integrating) will be a crucial step at the middle managers' level, whereas internalization or institutionalization of an organizational schemata reflected in organizational systems and routines will be dominant at the top management level. Organizational schemata, also called "shared mental models" (Kim, 1993), "paradigme stratégique" (Laroche and Nioche, 1994), "dominant general management logic", "shared mental maps" (Prahalad and Bettis,1986), "organizational knowledge structures"

(Lyles and Schwenk, 1992), contain a core set of knowledge (about the firm's central purpose and goals) and a peripheral set (about sub-goals and the necessary steps, or means, to achieve those goals) (Lyles and Schwenk, 1992).

In tightly coupled organizations, learning may be compared to a top-down information processing model where managers create basic concepts (combination or integration), and break them down hierarchically, so they can be implemented (internalization or institutionalization) (Nonaka, 1994). In hierarchical organizations (such as Mintzberg's bureaucratic machine), knowledge is restricted to what can be objectively generated and communicated (Shrivastava, 1983); in this case, combination and internalization, both based on explicit knowledge, predominate. Knowledge is preferably transferred through abduction (lateral extension through the use of metaphors) and crystallization (rules and directives) (Nonaka, 1994; Grant, 1996) (Fig. 2). Such organizations are particularly efficient and effective in exploiting successful explorations of others in a stable environment (Levinthal and March, 1993). However, because of their greater rigidity, these organizations do not easily adapt to rapid changes.

On the other hand, loosely coupled organizations engage a broad base of organizational members in the process of amplifying organizational knowledge structures. By creating space for improvisation (experience), and interpretation, as new opportunities emerge (Hamel and Prahalad, 1993), these organizations allow the complete realization of the knowledge circular process (Fig. 2) at all levels. Because managers usually know only a fraction of what their subordinates know, hierarchy is inefficient (Grant, 1996). In non hierarchical and "heterarchical" self-organizations, the N-forms, characterized by temporary cross functional and cross-layers teams and horizontal communications networks, are indispensable to foster knowledge exploration and generation (Hedlund, 1994; Nonaka, 1994). In such organizations, the main influence of a general manager lies in his role as "*shaper of an organization's context*" (Ghoshal and Bartlett, 1994) and the processes by which "*members **continually learn** and **experiment**, think **systemically, question** their assumptions and mental models, engage in meaningful **dialogue** and **create visions** that **energize** actions*" (Barrett, 1995, emphasis added).

Shared experiences and dialogue are the two transfer mechanisms by which socialization and externalization respectively occurs (Fig. 2); they represent the vital processes of organizational transformation. Through conversations, people may be exposed to a variety of perspectives, and discover new levels of

insights leading to substantive changes in behavior (Isaacs, 1993).

Although loose ties may favor organizational knowledge creation, they may also lead to the extreme of Mintzberg's (1990) grass roots model of organizational learning, a process of "*literally **unintended order**… **driven by external forces** or needs rather than the conscious thoughts of any actors*" (p. 152, emphasis added). Individuals may learn, but learning may be so fragmented, decentralized and messy that it may stay local and may never lead to organizational learning.

In summary, three conditions may be necessary to foster organizational knowledge creation and exploitation:

1) A clear focus on integrating an organization's consistent competitive efforts and the guidelines for the kinds of capabilities the firm wants to develop.

2) Appropriate organizational processes or knowledge transfer mechanisms allowing a two-way exchange between individual and organizational mental models through interactions.

3) An organizational context that fosters initiative and cooperation, and favors the possibility to challenge individual and organizational norms and assumptions, and incorporate disagreements and alternative interpretations of how to carry out the firm's mission.

Depending on how these three conditions are met, different learning modes may be encountered. Firms' cultural, institutional and organizational differences are thus likely to impact how they learn from their partner (Doz and Shuen, 1995).
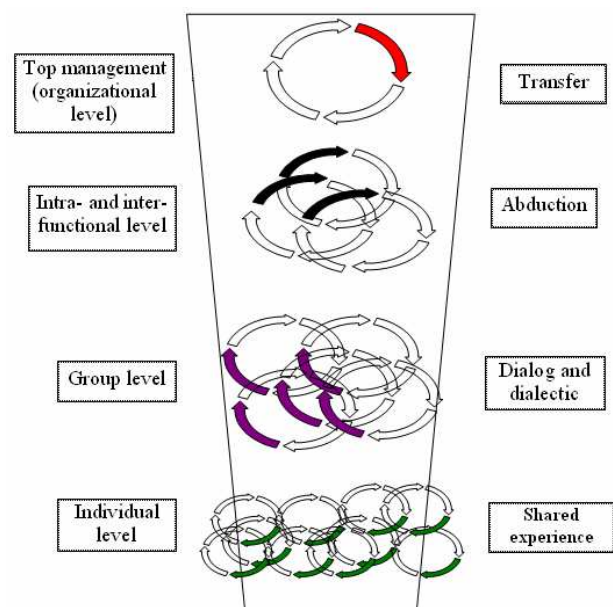

Fig. 2. Dominant steps of the learning process and transfer mechanisms at different levels

2.2.2. Asymmetry and bargaining power. The perceived difference of each partner's endowment of intangible factors and tangible factors, create the partners' asymmetry, the basis of the partners' bargaining power and the starting point for the negotiations over the alliance's configuration. However, the power vested in the initial formal agreement will promptly erode if one partner learns more rapidly than the other does (Hamel, 1991). Indeed, the partners' intent, previous experience, receptivity and absorptive capacity, and the nature of learning and the modes of learning all have a direct effect on the potential learning ability and quality, which may be, in the longterm, the principal determinant of competitiveness.

Steensma et al. (2004) offer an alternative explanation with regards to the negative relationship between power asymmetry in the dyad and the resulting instability of the alliance. Viewing the above phenomenon from the power disadvantaged organization, Steensma et al. (2004) add that specific actions which firms with the lower power in the dyad may execute to overcome their power disadvantage maybe viewed negatively by the more powerful firm affecting the resulting exchange negatively. The high power asymmetry is also negatively correlated to degree of conflict resolution between the partners (Casciaro & Piskorski, 2005). Power asymmetry affects information flow between the partners, negatively affecting the negotiation process necessary for resolution of any conflict that may arise during the alliance operations.

2.2.3 Configuration of alliances: interface building. The partners' asymmetry and the differences in bargaining power are not necessarily detrimental to the partnership's success. But the interface between partners has to be built in order to reach a satisfactory balance in perceived bargaining power (Mikhaji and Ganesh, 1997) and "*managed so as to exploit that asymmetry rather than suffer from it*" (Doz and Shuen, 1995). Indeed, learning is critically dependent on the permeability of the collaborative interface ("membrane") (Hamel, 1991), which depends on the inter-organizational context, which in turn facilitates the "knowledge management processes" (id., 1996; Tiemessen et al., 1997).

Various conditions are thought to promote a favorable context (climate) for knowledge creation (Nonaka, 1994; Inkpen, 1996, 1997; Tiemessen et al., 1997): flexible learning objectives, top management commitment, a climate of trust, creative chaos, tolerance for redundancy (information overlap across functions) and the absence of pressure on short-term performance.

Knowledge management processes, which are defined by Tiemessen et al. (1997) as "*the way in which knowledge resources flow into, through and out of the structure*" (p. 372), may also be called knowledge transfer mechanisms. This process of knowledge transfer is similar to Makhija and Ganesh's (1997) control mechanisms, viewed as the activities that help create connections between partners' employees, and thus, enhance their interactions. The choice of the appropriate knowledge transfer mechanism (management processes or control mechanisms) depends on the nature of knowledge sought (Makhija and Ganesh, 1997). Based on Thompson (1967), Contractor and Lorange (1988) and Makhija and Ganesh (1997), some propositions may be made about the more adequate inter-organizational structures and processes to be used for a given type of knowledge acquisition (Table 1).

Table 1. Proposed relations between types of knowledge, the nature of learning, forms of learning, and the extent of interdependencies and control mechanisms in strategic alliances

Codifiability of knowledge	Low "Tacit knowledge"		High "Explicit knowledge"
Nature of learning	High order learning Double loop learning		Low-order learning Single-loop learning
Focus	The longer run is a central concern and focus is on flexibility		The shorter run is a central concern and focus is on the reduction of uncertainty
Uncertainty	At the greatest level		Reduced to the minimum
Need for communication and costs	High		Low
Form and extent of interorganizational dependence	Reciprocal Sequential Pooled High Moderate Low Negligible Equity Non equity Management/ Franchise, know-how Buy-back agreements Joint-venture arrangements marketing agreements Licensing, patent Technical training/ Start-up assistance		
Alliances' structure			
Coordination	Mutual adjustment	Plan	Standardization
Control mechanisms	Informal control: Informal meetings, transfer of management, rituals, traditions and ceremonies, networking, etc.	Supervision, performance evaluation, Teams and task forces, organized contacts	Formal control: Contracts, Formal authority relationships, standardized procedures and rules.

Note: Based on Thompson (1967), Makhija and Ganesh (1997), Contractor and Lorange (1988).

The transfer of explicit knowledge, as a result of repetition and routines, implies a low-order learning (Lyles & Gudergan, 2005) that may be separated from the individual who possesses it (Nonaka, 1991), and easily communicated and codified in legal contractual arrangements. Learning is thus characterized by a situation presenting more stability and certainty where pooled interdependence, a standardized mode of coordination, few communication channels (Thomson, 1967) and formal control mechanisms (Makhija and Ganesh, 1997) may be more relevant. Inter-organizational dependence is low, allowing the use of cooperative arrangements such as buy-back contracts, technical assistance, and patent license and franchising (Contractor and Lorange, 1988).

In contrast, the transfer of tacit knowledge, largely embedded in individual and organizational processes, is consistent with the properties of high-order learning, which often requires a new frame of reference, unlearning, and re-framing past success programs and developing new approaches to situations and problems (Lyles & Gudergan, 2005). This type of knowledge transfer is highly uncertain and ambiguous, such that, reciprocal interdependence, coordination by mutual adjustment (Thompson, 1967) and informal control mechanisms (Makhija and Ganesh, 1997) may be more effective. Because of high inter-organizational dependence, the exploration of equity joint ventures or non-equity arrangements, research partnership and development/co-production may be favored (Contractor and Lorange, 1988). Kogut (1988) has also proposed that equity joint-venture may be a more effective vehicle for the transfer of tacit knowledge, which has been supported by Mowery, Oxley and Silverman's (1996) empirical results.

Conclusion

Today's dynamic environment requires firms to go beyond functioning routines, problem-solving and random innovation, and instead, to focus on search and creativity, and on imagining new possibilities and different ways to look at the world. A firm's current distinctive competencies and its organizational capabilities for leveraging, strengthening and diversifying those competencies should provide the basic direction for "strategy innovation". Accordingly, international strategic alliances may provide firms with a unique opportunity to leverage, strengthen, and diversify their competencies with the help of partners. Successful learning outcomes would depend on how initial conditions (partners' intent, previous experience, receptivity or absorptive capacity, modes of learning and nature of learning) and the configuration's interface would affect each partner's relative rate of learning and its impact on the evolution of the collaborative agreement. Some propositions have to be made by drawing relations between the nature of knowledge to be transferred, inter-partner interdependence, and organizational structure and knowledge management processes (or transfer mechanisms).

However, strategic alliances are not only a vehicle by which knowledge is transferred; they may also represent an important potential for knowledge creation through joint activities. Tiemessen et al. (1997) have briefly developed the concept of knowledge "transformation" and knowledge "harvesting" (retrieving knowledge that has already been created) in strategic alliances. More work should be done in exploring the specific organizational processes and context necessary, not only for the successful transfer of knowledge, but also for successful transformation and harvesting of knowledge in strategic alliances.

References

1. Argote, L., P. Ingram, J.M. Levine, R.L. Moreland (2000) Knowledge transfer in organizations: learning from the experience of others, Organization Behavior and Human Decision Processes, 82 (1): 1-8.
2. Barney, J. (1991) Form resources and sustained competitive advantage. Journal of Management, 1: 99-120.
3. Barrett, F.J. (1995) Creating appreciative learning cultures, Organizational Dynamics, 24(2): 36-49.
4. Baum, J.A.C., Calabrese, T., & Silverman, B.S. (2000) Don't do it alone: Alliance network composition and startup's performance, Strategic Management Journal, 21: 267-294.
5. Baughn, C.C., J.G. Denekamp, J.H. Stevens, R.N. Osborn (1997) Protecting intellectual capital in international alliances. Journal of World Business, 21 (2): 103-117.
6. Beamish, P.W. (1988) Multinational Joint Ventures in Developing Countries, Routledge. London and New York.145.
7. Calori R., G. Johnson, P. Sarnin (1994) Ceos' cognitive maps and the scope of the organization, Strategic Management Journal. 15 (6): 435-457.
8. Casciaro, T., Piskorski J. (2005) Power imbalance, mutual dependence, and constraint absorption: A closer look at resource dependence theory, Administrative Science Quarterly 50, 167-199
9. Chakravarthy, B. (1997) A new strategy framework for coping with turbulence, Sloan Management Review. 38 (2): 69-82.
10. Cohen, W.M., D.A. Levinthal (1990) Absorptive capacity: A new perspective on learning and innovation, Administrative Science Quarterly, 35: 128-152.

11. Contractor, F.J., P. Lorange (1988) Why should firms cooperate? The strategy and economic basis for cooperative ventures, Cooperative Strategies in International Business, Contractor F.J. and P. Lorange, Lexington Books.
12. Das, T.K., & Kumar, R. (2007) Learning dynamics in the alliance development process. Management Decision, 45 (4), 684-707.
13. Darr, E.D., & Kurtzberg, T.R. (2000) An investigation of partner similarity dimensions on knowledge transfer, Organizational Behavior and Human Decision Processes, 82: 28-44.
14. Demers C., T. Hafsi, J. Jorgensen, R. Molz (1997) Industry dynamics and cooperative strategy. In Cooperative Strategies, North American Perspectives, San Francisco: New Lexington Press.
15. Doz, Y.L. (1988) Technology partnership between larger and smaller firms: some critical issues. In Cooperative Strategies in International Business, Contractor F.J. and P. Lorange, Lexington Books.
16. Doz, Y.L. (1996) The evolution of cooperation in strategic alliances: Initial conditions or learning processes, Strategic Management Journal, 17: 55-83.
17. Doz, Y.L., A. Schuen (1995) From intent to outcomes: The evolution and governance of interfirm partnerships, Insead Working Paper Series, p. 43.
18. Doz, Y.L., G. Hamel (1995) The use of alliances in implementing technology strategies, Insead Working Paper Series, p. 41.
19. Garrette, B., P. Dussauge (2000) Alliances versus acquisitions: Choosing the right option, European Management Journal, 18 (1): 63-69.
20. Garvin, D.A. (1993) Building a learning organization, Harvard Business Review, July-Aug: 78-91.
21. Ghoshal S., C.A. Bartlett (1994) Linking organizational context and managerial action: The dimensions of quality management, Strategic Management Journal, 15: 91-112.
22. Grant, R.M., & C. Baden-Fuller (2004) A knowledge accessing theory of strategic alliances, Journal of Management Studies, 41: 61-84.
23. Grant, R.M. (1996) Toward a knowledge-based theory of the firm, Strategic Management Journal, 17, Winter (Special Issue): 109-122.
24. Hamel, G. (1991) Competition for competence and inter-partner learning with international strategic alliances, Strategic Management Journal, 12: 83-103.
25. Hamel, G. (1998) Strategy innovation and the quest for value, Sloan Management Review, 39 (2): 7-14.
26. Hamel, G., Prahalad C.K. (1989) Strategy intent, Harvard Business Review, 67 (3): 63-76.
27. Hamel, G., Prahalad C.K. (1993) Strategy as stretch and leverage, Harvard Business Review, 71 (2): 75-84.
28. Harrigan, K.R. (1988) Strategic alliances and partner asymmetries. In Cooperative Strategies in International Business, Contractor F.J. and P. Lorange, Lexington Books.
29. Hedlund, G (1994) A model of knowledge management and the N-form corporation, Strategic Management Journal, 15: 73-90.
30. Inkpen (1997) An examination of knowledge management in international joint-ventures. In Cooperative Strategies, North American Perspectives, San Francisco: New Lexington Press.
31. Inkpen, A.C., & E.W.K. Tsang (2005) Social capital, networks, and knowledge transfer, Academy of Management Review, 30: 146-165.
32. Inkpen, A.C., M.M. Crossan (1995) Believing is seeing: Joint ventures and organizational learning, Journal of Management Studies, 32 (5): 595-618.
33. Inkpen, A.C. (1996) Creating knowledge through collaboration, California Management Review, 39 (1): 123-140.
34. Isaacs, W.N. (1993) Dialogue, collective thinking and organizational learning, Organizational Dynamics, 22: 24-39.
35. Jarillo, J.C. (1988) On strategic networks, Strategic Management Journal, 9: 31-41.
36. Khanna, T., R. Gulati R., N. Nohria (1998) The dynamics of learning in alliances: Competition, cooperation and relative scope, Strategic Management Journal, 19: 193-210.
37. Kim, D.H. (1993) The link between individual and organizational learning, Sloan Management Review, 37-50.
38. Kogut, B. (1988) Joint-ventures: theoretical and empirical perspectives, Strategic Management Journal, 9: 319-332.
39. Laroche, H., J.O. Nioche (1994) L'approche cognitive de la stratégie, Revue Française de Gestion, 99: 64-78.
40. Lavie, D. & L. Rosenkopf (2006) Balancing exploration and exploitation in alliance formation. Academy of Management Journal, 49 (4): 797-818.
41. Levinthal, D.A., J.G. March (1993) The myopia of learning, Strategic Management Journal, 14: 95-112.
42. Lyles M.A., J.E. Salk (1997) Knowledge acquisition from foreign parents in international joint ventures, an empirical examination in the Hungarian context, Cooperative Strategies, European Perspectives, San Francisco: New Lexington Books.
43. Lyles, M. and Gudergan, S. (2005) Learning and knowledge development in alliances, in Reuer, J. and Shenkar, O. (2005) (Eds), Handbook of Strategic Alliances, Sage, New York, NY.
44. Lyles, M.A., C.R. Schwenk (1992) Top management, strategy and organizational knowledge structures, Journal of Management Studies, 29 (2):155-174.
45. Makhija, M V., & U. Ganesh, (1997) The relationship between control and partner learning in learning-related joint ventures, Organization Science, 8 (5): 508-527.
46. Mintzberg, H. (1990) The learning school: Strategy formation as an emergent process. In J.M. Frederickson (Ed.), Perspectives on Strategic Management, Harper and Row, 146-159.

47. Mowery, D.C, J.E. Oxley, B.S. Silverman (1996) Strategic alliances and interfirm knowledge transfer, Strategic Management Journal, 17 (Winter Special Issue): 77-91.
48. Nonaka, I. (1991) The knowledge-creating company, Harvard Business Review, November-December, 96-104.
49. Nonaka, I. (1994) A dynamic theory of organizational knowledge creation, Organization Science, 5 (1): 14-37.
50. Porter, M.E. (1980) Competitive Strategy, New York: Free Press.
51. Porter, M.E. (1985) Competitive Advantage, New York: Free Press.
52. Prahalad, C.K., G. Hamel (1990) The core competence of the corporation, Harvard Business Review, May-June, 79-91.
53. Prahalad, C.K., G. Hamel (1994) Strategy as a field of study: why search for a new paradigm, Strategic Management Journal, 15: 5-16.
54. Prahalad, C.K., R.A. Bettis (1986) The dominant logic, a new linkage between diversity and performance, Strategic Management Journal, 7 (6): 485-501.
55. Root, F.R. (1988) Some taxonomies of international cooperative arrangements. In Cooperative Strategies in International Business, Contractor F.J. and P. Lorange, Lexington Books.
56. Senge, P.M. (2003) Taking personal change seriously: The impact of organizational learning on management practice, The Academy of Management Executive, 17: 47-50.
57. Shrivastava, P. (1983) A typology of organizational learning systems, Journal of Management Studies, 20 (1): 7-28.
58. Spender, J.C. (2007) Data, meaning and practice: how the knowledge-based view can clarify technology's relationship with organisations. International Journal of Technology Management, 38 (1/2), 178-195.
59. Steensma, H., Barden, J., Dhanaraj, C., Lyles, M. (2004) The influence of power, learning and conflict on internalization of joint ventures, Academy of Management Proceedings, 1: 1-6.
60. Strategor (1988) Le portefeuille stratégique. In Stratégie, Structure, Décision, Identité, Paris, Intereditions, 115-138.
61. Thompson, D.D. (1967) Organizations in Actions: Social Sciences Bases of Administrative Theory, Mcgraw-Hill, New York.
62. Thorelli, H.B. (1986) Networks: Between markets and hierarchies, Strategic Management Journal, 7 (1): 37-51.
63. Tiemessen, I., H.W. Lane, M.M. Crossan, A.C. Inkpen (1997) Knowledge management in joint-ventures. In Cooperative Strategies, North American Perspectives, San Francisco: New Lexington Press.
64. Tsang E.W.K. (2002) Acquiring knowledge by foreign partners from international joint ventures in a transition economy: Learning-by-doing and learning myopia. Strategic Management Journal, 23 (9): 835-854.
65. Varadarajan, P.R., M.H. Cunningham (1995) Strategic alliances: A synthesis of conceptual foundations, Journal of the Academy of Marketing Science, 23 (4): 282-296.
66. Weick K.E. (1979) Cognitive processes in organizations. In B.M Staw (Dir.), Research in Organizational Behaviour, Greenwich, Connecticut, JAI Press. 1: 41-74.