

Learning in Strategic Alliances: An Evolutionary Perspective

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EXECUTIVE SUMMARY

Many firms have come to rely on alliances as strategic necessities for sustaining competitive advantage and creating customer value. Aside from the explicit strategic and operational motives, learning in order to sustain competitive edge in the marketplace serves as a primary motivation for alliance formation. However, learning is an important and a far subtler aspect of strategic alliances. Significant also, alliances evolve over time and metamorphosize as partners learn (Lei, Slocum, and Pitts 1997). Competencies change, and goals are redefined; thus, the potential for learning also changes. Extant strategic alliance literature scarcely addresses this dynamic and interactive aspect.

The basic purpose of this paper is to highlight the importance of understanding the evolutionary perspective of alliance learning. More specifically, it explores alliance learning priorities as the partnership unfolds in five key areas outlined by Doz and Hamel (1998): environment, tasks, process, skills, and goals. In addition, the paper investigates some processes/mechanisms that contribute to alliance learning. This exploration centers around four distinct evolutionary phases that alliances progress through (adopted from the works of Dwyer, Schurr, and Oh 1987, and Wilson 1995): awareness and partner selection, exploration, expansion, and commitment to relationship. Building on previous research, alliance learning priorities are analyzed through a research framework.

The manuscript is organized as follows. The first section reviews extant literature to define the concepts of organizational learning and strategic alliances; the next section discusses the learning dimensions in each evolutionary phase. Finally, some research opportunities are suggested for furthering the extant knowledge.

Background Literature

Organizational learning is defined from a variety of perspectives. In simple terms, however, it refers to “the process by which the organizational knowledge base is developed and shaped” (Shrivastava 1981, p.15). Alliances facilitate organizational learning and are “relatively enduring interfirm cooperative arrangements, involving flows and linkages that utilize resources and/or governance structures from autonomous organizations, for the joint accomplishment of individual goals linked to the corporate mission of each sponsoring firm” (Parkhe 1993, p.794). Alliances are vehicles of opportunity: “the formal structure of an alliance creates a laboratory for learning” (Inkpen 1998, p.224).

Alliance partnerships grow over time, and learning occurs throughout the evolutionary process. However, the dynamics of learning and partner interactions continuously change over the course of time. Initial motivating conditions for exploring partnerships generate adaptive learning capacities in firms, and these lead to greater responsive abilities to meet new conditions encountered at each phase (Doz 1996). Learning capacities accumulated over time permit more efficient and diverse learning as partnerships progress. Partners use various mechanisms to learn individually and mutually as alliances evolve. These include scanning, vicarious means, and a variety of experiential methods, in addition to learning acquired during the birth of the alliance. The following paragraphs give a brief outline of the interactive dynamics inherent in alliance evolution.

Phases of Alliance Evolution and Learning

Phase I. Awareness & Partner Selection: This initial phase recognizes that partnering is essential for gaining competitive advantage. Firms spend considerable effort scouting for compatible partners that can complement resources and build capabilities to explore new business opportunities. Learning is initiated at this stage, but it is by and large unilateral; firms begin to learn the strategic intentions, skills and competencies that potential partners possess. Stress is on learning the external market environment. In addition, firms begin to explore explicit information on skills and goals partners may possess.

Phase II. Exploration: In this phase, partners begin interacting and tentatively start preparing for a long-term alliance by “setting ground rules for future exchanges” (Dwyer, Schurr, and Oh 1987, p.17). Learning is still largely unilateral and experiential; however, elements of mutual learning begin to emerge. Partner’s internal environment becomes an important area of exploration, as do goals. Mutual learning is initiated towards bridging the compatibility gap between partners.

Phases III & IV. Expansion and Commitment to Relationship: These two phases (treated separately in the paper) exhibit many common features. They are characterized by high interdependence, greater trust, and increased investment for mutual benefit. There is also a higher perception of goal congruence and cooperativeness (Dwyer, Schurr, and Oh 1987). Alliance partners “move beyond probing each other, towards enlargement of the kinds of rewards they supply one another” (Scanzoni 1979, p.791). Unilateral learning gives way to mutual learning and mutual capacity building (Hamel 1991), which is particularly evident in Phase IV. The efforts of partners are refocused toward mutual development and acquisition of new skills for the alliance.

Directions for Future Research

This article highlights several related areas that need further investigation. Alliance dissolution is a common occurrence and can happen at any stage of the partnership evolution. Research is needed to understand this process and the learning mechanisms involved. Another area needing further investigation includes evolution and learning imperatives of specific alliance partnerships such as joint ventures and licensing. A third area of interest is “unlearning”. Partners entering into an alliance discard some useful as well as obsolete or unwanted knowledge as they evolve and understand alliance priorities. The dynamics involved in the unlearning process will be an important area of inquiry. It is also important to understand the contributing mechanisms of learning critical to alliance building. This study has made only a small foray into understanding the various mechanisms involved. Besides, no attempt is made in the paper towards operationalizing the concepts. Empirical investigation would certainly contribute to the theory building process.

Conclusion Summary

The paper essentially builds an exploratory framework based on an amalgamation of organizational learning and strategic alliance literatures. It highlights the importance of understanding learning in alliance partnerships from an evolutionary perspective. The research proposes that as alliances progress from awareness through commitment phases, learning priorities change. The paper also explores some of the learning processes that may be employed for acquiring knowledge as the relationship evolves.

Key Words: Organizational Learning, Strategic Alliances, Alliance Evolution.

Learning in Strategic Alliances: An Evolutionary Perspective

More and more firms have resorted to strategic alliance partnerships in recent times as a means of creating customer value. These hybrid, interorganizational structures are becoming essential features for sustaining advantage in today's intensely competitive marketplace. The motives to enter into alliances are compelling and often explicit: gaining access to specific markets or distribution channels, acquiring new technologies, leveraging on economies of scale and scope, and enhancing new product development capabilities (e.g., Parkhe 1991; Varadarajan and Cunningham 1995).

An equally crucial but less recognized factor is the intention to learn from the alliance experience. Learning is a difficult and lengthy endeavor; however, it is a subtle and important aspect of alliances. It has been recognized in literature that learning is strategically relevant and learning skills may provide the greatest long-term benefits to firms (e.g., DeGeus 1988; Stata 1989). Learning provides the key ability to synergistically exploit the capabilities firms bring into an alliance.

Significantly, however, strategic alliances transpire over time: alliance structures evolve through a distinct progression of stages during which the relationships metamorphosize (Lei, Slocum, and Pitts 1997). Successful alliances endure frequent changes in scope, functions, and strategic rationale over a life span (Day 1995). As partners learn during evolution, competencies change, goals get redefined, and the potential for learning from the alliance changes. Firms may adopt various mechanisms and processes to learn from the evolving experience. The dynamics of such learning in alliances is scarcely addressed in the extant literature, which primarily has a deterministic orientation, focusing on alliance initiation factors and outcomes. Therefore, the basic purpose here is to address this issue by investigating the progression in learning priorities as alliances move through a distinct series of phases. Related areas in extant literature are amalgamated to provide the building blocks for a research framework that lays emphasis on investigating key alliance learning variables. Two objectives are set for the paper:

1. The primary goal is to explore the distinct sets of learning requirements as the alliance partnership unfolds. The central issue involves underscoring the importance of learning adaptations occurring throughout the evolutionary process.
2. A second purpose of the paper is to suggest some learning mechanisms that may be employed to bring about the movement of the alliance through various phases of successful evolution.

The evolutionary phases in the alliance relationship are borrowed from the research work of Dwyer, Schurr, and Oh (1987) and Wilson (1995). Doz and Hamel (1998) argue that to initiate the evolutionary cycles of success and growth, partners learn in five key areas: current and future environment, tasks essential for mutual success, process of collaboration, skills, and goals. These form the exploratory dimensions for the framework.

This research contributes to the extant understanding in strategic alliance literature by exploring the dynamic changes that unfold as the alliance evolves. It underscores the importance of various learning processes as the partnership enters different stages over its life span. This could be crucial information for strategic management decisions and resource allocation. Armed with the necessary knowledge to adapt alliance protocols as partners learn individually and jointly during the evolution process, firms can manage the conflicting goals of cooperation and competition more effectively for mutual benefit. In addition, understanding the various mechanisms that contribute towards increasing the learning capability of the alliance helps firms to effectively develop responsive abilities to new sets of internal and external conditions that emerge. In today's competitive and rapidly changing world, adaptation and innovation are critical. Understanding the mechanisms of learning and the critical areas of learning during the alliance formation process will undoubtedly help managers effectively create ways to develop and sustain competitive advantage.

The paper is organized in the following manner. First, a brief review of literature on organizational learning and strategic alliances is provided. The next section explores the learning dimensions in greater detail. It also discusses some of the learning processes and mechanisms employed in alliance formation. The concluding section provides several directions for future research.

BACKGROUND LITERATURE

Organizational Learning

The ability of firms to acquire knowledge and to transform it into a competitive weapon has long been a part of the research agenda. Stata (1989) even predicts that the rate at which individuals and organizations learn may become the only sustainable competitive advantage. As Hamel (1991) says, learning through internalization (acquiring skills to close the gap between partners) and sustainable learning help reapportion the value-creating core competencies in an alliance context, giving partners the ability to match or overtake competition. Learning also reduces the prospect that firms may fall into ‘competency traps’ or the inability to face novel competitive and market situations (Cohen and Levinthal 1990; Levitt and March 1988). Therefore, learning, be it related to technology transfer, acquiring skills, or for improving learning capability (“absorptive capability,” as Cohen and Levinthal coin it), is a critical consideration for firms.

However, the multidisciplinary nature of the subject has resulted in a plethora of conceptualizations of organizational learning. Semantic differences aside, the paper adopts the more predominant process perspective of organizational learning. This perspective views learning as a capability that can be nurtured and developed by firms (e.g., Leonard-Barton 1992; Teece, Pisano, and Shuen 1997) and is better equipped to explicate the learning process in strategic alliances. According to Shrivastava (1981, p. 15): “Organizational learning refers to the process by which the organizational knowledge base is developed and shaped.” Levitt and March (1988) describe organizational learning as occurring through the encoding of inferences from past experiences into routines that include rules, procedures, strategies, technologies and cultures that guide firm behavior. Routines reflect the organizational knowledge base and change in response to organizational experience history.

Literature, including areas related to strategic alliances, classifies different typologies of learning processes. Borrowing from disease epidemiology literature, Levitt and March (1988) describe three mechanisms that parallel DiMaggio and Powell’s (1983) classification (in parentheses) of the diffusion of knowledge: 1) broadcasting by a single source (coercive); 2) diffusion of knowledge via contact between entities with different levels of knowledge (mimetic); and 3) two-stage diffusion from within a small group to the rest of the population (normative). Argyris and Schon (1978, 1996) provide another popular typology of learning processes. According to them, a lower form of learning involves “single-loop” learning where organizations learn without questioning the existing “theories-in-use” (a concept similar to routines, mentioned earlier). An advanced form of learning process is “double-loop” learning, where the framework of norms and values, i.e., theories-in-use, are reassessed. A much more comprehensive classification of learning mechanisms is provided by Huber (1991). The list includes such processes and subprocesses as experiential learning, vicarious learning, experience curves, etc. Given this rich knowledge of learning mechanisms and processes, the task is to understand which processes contribute to learning in alliances as they evolve.

Extant literature argues that a major benefit arising out of alliances is the opportunity for learning (e.g., Inkpen 1998). Alliances provide firms the dynamic advantage to develop, cheaply and more quickly, new capabilities beyond inherited ones (Gomes-Casseres 1996). Therefore there is an incentive to partners engaged in joint learning, especially when they have to make decisions in imperfect markets (Mody 1993). The next few paragraphs briefly review strategic alliance literature from a learning perspective.

Strategic Alliances

Alliances are interorganizational cooperative structures formed to achieve strategic objectives of the partnering firms. Formally, they are “relatively enduring interfirm cooperative arrangements, involving flows and linkages that use resources and/or governance structures from autonomous organizations, for the joint accomplishment of individual goals linked to the corporate mission of each sponsoring firm” (Parkhe 1993, p. 794). Alliances span a variety of structures along a continuum: they could be structured as distinct corporate entities or as interorganizational entities, encompassing all of the functional areas or just a single function (Varadarajan and Cunningham 1995). Thorelli (1986) views strategic alliances as interorganizational governance structures that straddle markets and hierarchies. As a whole, the term as used

here represents a generic catch-all for structures that include equity and non-equity alliances, joint ventures, technology alliances, distribution and supply arrangements, manufacturing partnerships and R&D relationships.

Alliances are viewed by partners as vehicles that provide opportunities to learn to enhance their strategies and operations. Kogut (1988) argues, based on organizational theory, that alliances by their inherent long-term partnering/ “melding-of-organizational-structures” nature provide opportunities for partners to transfer embedded knowledge between them. It is this embedded or tacit knowledge within alliances, their culture and the supporting processes that pose a competitive barrier of causal ambiguity and thus means of sustainable advantage (Day 1995). Alliances are like a short-circuit method for acquiring critical tacit knowledge (Hamel 1991). So in a sense, the “alliance creates a laboratory for learning” (Inkpen 1998, p. 224).

Alliance Evolution and Learning

Characteristically, however, alliances are long-term exchange relationships. Learning occurs all along the evolutionary path, and the dynamics of learning and relationship interactions continuously change as the alliance grows. Learning priorities evolve and change with the alliance process, and so do the mechanisms that actually bring about the movement between stages. The different phases of alliance evolution represent an ongoing managerial task of balancing cooperation and compatibility between partners on the one hand and learning/building of new sources of competitive advantage on the other (Lei, Slocum, and Pitts 1997). Unfortunately, however, only a few studies (e.g., Doz 1996; Lei, Slocum, and Pitts 1997) are representative of this view, which marks a major departure from the cross-sectional perspective.

The paper builds on previous research. Beyond acknowledging that learning requirements get readjusted with evolution (e.g., Doz 1996), the paper explores the shifts that occur in learning priorities as alliances mature towards a stable relationship. Each distinct phase in the alliance lifespan is investigated in more detail. By doing so, this research understands the learning priorities critical in that phase for the relationship to endure and unfold. In addition, means and mechanisms for effectively acquiring knowledge and their relevance during various phases of alliance growth are addressed. These are critical learning issues in alliances because not only do they contribute to the evolution of the partnership from one phase to the next, but they also are strategic inputs for managerial decisions and resource allocation. A research framework is developed in the next section to guide the exploration of evolving learning priorities and contributing mechanisms.

PHASES OF ALLIANCE EVOLUTION AND LEARNING

To develop the exploratory framework, it is essential to delineate the scope of alliances. However, the broad array of alliance structures makes it a difficult proposition. Even within an alliance, we can expect mixed motives of competition and collaboration in varying proportions along the evolution path (Inkpen 2000). Assuming a simple two-firm partnership, an alliance could be a net positive experience with partners benefiting from the experience individually and mutually, or a zero-sum game, where one partner gains at the expense of the other (Hamel 1991, Inkpen 2000). In addition, these motives are intertwined and difficult to segregate. However, this discussion framework includes only alliances where there is opportunity for both partners to learn. Therefore, partnerships such as those in licensing arrangements where there is very limited scope for both partners to learn, or arrangements whose basic objective is gaining market power, are excluded from the framework.

Table 1 provides the normative framework for describing the phases of alliance evolution along which different learning areas/dimensions are investigated. The areas of learning priorities are, as mentioned, borrowed from the work of Doz (1996) and Doz and Hamel (1998). The framework is based on both qualitative and quantitative studies in extant research (e.g., Barkema, Bell, and Pennings 1996; Doz 1996) that include longitudinal case studies, interviews with managers, and surveys. In the discussion that follows, each phase in the alliance development process is described first, followed by an exploration of the learning priorities and processes in that phase. The four distinct phases of evolution and the five learning areas/dimensions that form the exploratory framework are briefly outlined below.

- Phase I. Awareness & Partner Selection: involves recognition by a firm of another as a feasible exchange partner.
- Phase II. Exploration: involves search and trial period in which the purpose of the partnership is established.
- Phase III. Expansion: is a stage of increased mutual interdependence and growth in benefits accrued to the partners.
- Phase IV. Commitment to Relationship: involves mutual pledges of continued interdependence and to the maintenance of the relationship.

TABLE 1
Learning Priorities in Alliance Evolution

<u>Learning Dimensions:</u>	Phases of Evolution:			
	Phase I Awareness and Partner Selection	Phase II Exploration	Phase III Expansion	Phase IV Commitment to Relationship
Environment	External context, including cultural, national context.	External context. Internal: partner corporate culture, management practices.	External context, for new opportunities.	External context, mutually, for new opportunities.
Skill	Explicit knowledge about potential partner skills.	Initiation of transfer of implicit skill knowledge later in the phase.	Transfer of implicit skill knowledge.	New skill development and acquisition for mutual benefit.
Goals	Strategic intentions and initial goals of potential partners.	Partner goals, to seek compatible goals and establish common goals.	Learning to set alliance goals that benefit partners.	Ability to evaluate and revise alliance goals continuously to sustain advantage.
Task	Very little if any.	Initiation of understanding and establishing common alliance tasks.	Ability to establish common partnership tasks.	Ability to revise and reset effective alliance tasks.
Process	Very little if any.	Initiation of the streamlining of processes to perform alliance tasks.	Ability to establish joint alliance processes for mutual benefit.	Learning to revise and reset joint processes for best efficiency and effectiveness.
	Unilateral Learning	Mostly Unilateral. Elements of Mutual Learning	Both Unilateral and Mutual Learning	Predominantly Mutual

Learning Dimensions: (1) The Environment: includes both the external environment, such as markets, competition, government, society, culture, etc., and internal environment, i.e. the strategic context within each partner; (2) The Task: alliance tasks that the partners have to mutually share and perform for the success of the partnership, such as building adequate interactions at multiple levels; (3) The Process: includes decisions and operations necessary to successfully meet the alliance tasks, as well as structures, routines, and activities that are part of the alliance partnership process; (4) The

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Skills: the skills of the partners in the alliance including easy to transfer skills and the more tacit or embedded skills; and (5) The Goals: goals of the allies – the motives and agendas that each partner brings into the alliance relationship.

Alliance relationships unfold as they are subject to series of events and interactions among partners. Learning contributes to adaptive behaviors and structural outcomes that trigger new learning mechanisms – learning occurs in an emergent fashion as the alliance experience generates new learning stimuli (e.g., Nonaka and Johansson 1985; Ring and Van de Ven 1994). The more collective mechanisms and routines are set in place with evolution, the greater the opportunities for new knowledge creation. Higher transparency and receptivity in later stages of partnership, in addition to greater goal congruency, result in more mutual learning opportunities (e.g., Larsson et. al 1998). Borrowing from organizational communications perspective (e.g., Kersten 1986), the dynamics of alliance evolution and learning interactions can be viewed as a sequence of adaptive learning and necessary adjustments in partnering initiatives; each feeds into the other taking the alliance further up the evolutionary path. Successful alliances evolve through learning-reevaluation-readjustment cycles. Each cycle feeds into the next, resulting in an accumulation of knowledge and relentless improvement on the initial alliance conditions (Doz 1996).

Phase I: Awareness & Partner Selection

A crucial step in alliance formation is selection of an appropriate partner. This initial phase in the alliance evolution begins with the recognition that to gain competitive advantage, partnering is essential, and that one or more players could be potential partners. The benefits deriving from synergistically engaging with partners motivates alliance formation. Firms actively spend considerable effort as they scout for compatible partners to complement their own resources and to contribute to developing new capabilities. If the potential partners are unknown entities, firms could evaluate their reputation for performance and trustworthiness, especially as these factors would relate to the proposed alliance (Wilson 1995). It is also likely, as Wilson (1995) suggests, that the potential alliance partners are known to each other and may have engaged in some previous exchanges. The firms may decide to enhance the relationship for achieving some strategic objective. In this early phase, as Dwyer, Schurr, and Oh (1987) note, there could be specifically or generally targeted ‘positioning’ and ‘posturing’ on the part of the potential partners. Essentially, therefore, this phase involves selecting partners with similar values, beliefs, and practices, with whom firms can work effectively, to exploit the resulting synergies (Weitz and Jap 1995).

Learning at this stage is by and large unilateral since typically interactions do not commence until the next phase. Companies begin to learn about strategic intentions, skills and competencies that potential partners possess and will likely bring into the alliance. Learning the environment of the alliance partnership begins in earnest (Doz 1996). The environment consists of markets, competition, governments, society, and culture that are external to the alliance in addition to the internal strategic context of the alliance partners. Most learning (mainly one-party learning) relates to the external environment. Specific to the immediate learning task during this phase are the societal, cultural and national context; the last could encompass differences in government policies, national industry structure and institutions if it is a global alliance (Parkhe 1991). Most firms experience large uncertainties when operating internationally due to the cultural complexities or ‘psychic distance’ resulting in a significant foreign expansion barrier (Barkema, Bell, and Pennings 1996). In such alliances, therefore, “learning amounts to reducing the psychic distance between the home and host country by expanding knowledge of local conditions” (Barkema, Bell, and Pennings 1996, p.153).

Learning the partner’s skills “allows the partners to cooperate more closely in performing the alliance tasks as their respective skill bases converge” (Doz 1996, p.69). However, since the alliance is still not initiated at this stage, learning the tacit skills or even the exchange of easily transferable explicit skills does not typically take place. This does not preclude understanding the ‘list’ of skills firms possess and could bring into the alliance for mutual benefit.

Goals and motives of partners form another dimension of learning. Understanding the motives of the potential partners for entering the alliance forms the initial basis for partnership compatibility decisions. Learning in areas such as the cooperation process and alliance tasks, however, does not happen until the alliance process actually becomes functional.

Evidently this early phase of alliance formation initiates learning on several key dimensions, which will set the pre-conditions for the alliance to successfully evolve. The stress is on learning the environmental aspects of the partnership, and more specifically, the external environment. Learning the skills and goals of potential partners on a unilateral basis is also initiated in this phase, though it may not be as extensive.

Processes: In the awareness and partner selection phase, alliance partners learn unilaterally through various mechanisms. There is a conscious attempt to absorb as much explicit knowledge as possible regarding potential partners in areas such as technologies, products and services, skills, and management practices (e.g., Huber 1991). This ‘corporate intelligence gathering’ is a form of vicarious learning that borrows knowledge from other sources, including what is available in the public domain. Huber (1991) mentions scanning or “relatively wide-ranging sensing of the organization’s external environment” (p. 97) as an organizational learning process. The initial phase involves extensive scanning of the potential alliance environment including societal culture, government policies, markets and competition, and to some extent, corporate culture of the potential partner. A global alliance situation calls for even more rigorous scanning given the myriad factors that complicate the business context. Acquiring knowledge through direct experience, i.e. experiential learning, is another mechanism frequently used early in the alliance formation. For example, in the global alliance context, organizations could initiate formal training programs for members. Cross-cultural training is a common experiential learning mechanism employed by firms to train members to manage cultural diversities inherent in global strategic alliances (Parkhe 1991).

Phase II: Exploration

This phase of evolution marks the beginning of interaction between partners. There is a tentative attempt to lay the groundwork for a lasting relationship in the form of norm adoption for mutual conduct and “setting the ground rules for future exchanges” (Dwyer, Schurr, and Oh 1987, p.17). Partners define the legal framework for, and the purpose of, the alliance. Despite its relatively superficial nature, informal communication exchange commences (Altman and Taylor 1973; Clark and Mills 1979). However, the relationship is still very fragile, with minimal investment and interdependence, leaving a very easy outlet for quick dissolution (Dwyer, Schurr, and Oh 1987). Trial interactions occur infrequently, and as Dwyer, Schurr, and Oh (1987) mention, partners assess each other’s obligations to the alliance and the benefits that accrue. Firms bargain for redistribution of obligations and benefits once they have made the assessment. They hint their preferences and evidence interest in each other’s goals (Pruitt 1981; Leigh and Rethans 1984; Dwyer, Schurr, and Oh 1987). Besides the pre-alliance norms, partners also establish new norms as trust building measures. In addition, they start building a common culture to speed up the social bonding process, critical for achieving mutual goals (Wilson 1995). Firms follow universal protocol for polite interactions and conflict avoidance. Essentially, the exploration phase involves seeking a common ground for the alliance partners “to build social bonds and a trusting relationship” (Wilson 1995, p. 341).

Learning in this phase is still to a large extent unilateral, but as the alliance evolves, elements of mutual learning also show up, particularly as the alliance nears the next phase. The partnership environment takes up a large part of the learning process. There is also a subtle shift in the learning priorities within this dimension. Though societal culture and national context may still be important, learning each other’s corporate culture, strategic direction, and management practices, in other words, the internal environmental context, becomes a priority. This is particularly necessary to design mutual coping mechanisms for the successful functioning of the alliance. For example, developing an understanding of each other’s mode of thinking and behaving is necessary to remove ethnocentric arrogance or cultural naiveté (Parkhe 1991). “Corporate culture has a circular relationship with learning in that it creates and reinforces learning and is created by learning; as such it influences ongoing learning and adaptation within and between alliance partners” (Parkhe 1991, p.589).

Learning the strategic goal asymmetries between partners becomes important to ensure that the alliance is not jeopardized by the changed competing strategies. Through learning, partners understand each other’s goals. With this comes revision, readjustment, and refocusing of individual goals that are now more compatible. After the initial exploration of partner skills, and areas of complementarity, skill exchange process starts, fuelled by increase in trust between partners. If the partners differ on skill emphasis, mutual learning occurs to bridge the compatibility gap.

Personnel and information exchange through various means, though rudimentary, highlight each other's organizational processes. From this point, the alliance embarks upon streamlining of processes to create maximum value for every partner. Partners start recognizing "how their differences in structure, processes, action routines, and the like may need to be overcome, or even constructively combined, to make cooperation more efficient" (Doz 1996, p.69). However, the task of the alliance at this exploration phase is still not clearly defined since extensive learning has to occur in order to design mutual tasks that can be successfully performed. This is because the partners bring very different skills into the alliance, and high information asymmetry usually exists between them (Doz 1996). Essentially, the exploration phase emphasizes learning in the areas of the internal and external environments of the alliance, partner goals, and to a lesser extent, the partner's embedded skills.

Processes: As partners explore ways to install the necessary mechanisms to function as an alliance, learning needs expand and various learning processes are called into operation. Congenital learning (Huber 1991) happens as the alliance is given a formal structure. Institutionalized practices and procedures, and contextual knowledge from the two partners, are inherited by the alliance. There is more opportunity for partners to engage in scanning mechanisms to learn about the external context, just as each partner scans the internal context of the other. There emerges (towards the end of the phase) a systematic effort by the partners to vicariously learn deeply embedded knowledge such as skills, processes and routines. Learning the explicit partner knowledge continues in this stage, which can be formalized when the alliance is formed. Technology sharing, for example, is formalized, which at this stage provides access to mostly explicit knowledge (Inkpen 1998). Experiential learning can take the shape of self-appraisals by partners. Each firm generates information about necessary adaptations and ways to implement them; this information is then exchanged within and between partners (Huber 1991). Experiential learning can also involve mutual training towards the institution of an intermediate corporate culture for the alliance (Parkhe 1991). Firms explore ways for innovation to create new value-addition opportunities (March 1991). As part of their experiential learning, partner firms also learn "to learn," or acquire the ability to improve their absorptive capacity (Levitt and March 1988).

Phase III: Expansion

This phase is characterized by higher levels of interdependence, investment and technology sharing between partners. Partners adapt processes and products/services to accommodate each other and solidify the relationship. A new, revised set of informal rules is adopted to create a governing structure for the alliance (Wilson 1995). There is increased risk-taking as a result of mutual satisfaction and greater trust. The high dissolution costs, coupled with positive outcomes at this stage of evolution, result in higher perceptions of goal congruence and cooperativeness (Dwyer, Schurr, and Oh 1987). This spawns increased interactions that go beyond the call of partnership protocol. The alliance partners, in effect, "move beyond probing each other, towards enlargement of the kinds of rewards they supply one another" (Scanzoni 1979, p.791). A wider range of problems are discussed, and at a much deeper level (Meill and Duck 1986). Loyalty results from satisfaction with the partnership and is reflected in the consistently significant mutual inputs to the association. Reciprocal investments are made, and each partner's resources are more advantageously accessed and leveraged for both business expansion and value creation purposes. This could mean joint innovations and new solutions to problems (Weitz and Jap 1995). The agenda in the expansion phase is to resolve conflicts and adapt strategies, armed with a better knowledge of each other's competencies and goals.

Learning is partly mutual as partners share common perceptions and goals and work toward successfully sustaining the alliance by bridging expectation gaps (Doz and Hamel 1998). Unilateral learning is also prominent as partners still engage in internalizing the other's embedded knowledge and skills. Cumulated absorptive capacity of the partners and the alliance itself opens opportunities for new learning.

Barriers that were more pronounced in the beginning, such as the external environmental aspects of society, nation and culture, and the internal aspects of corporate cultures, such as alliance partner's management practices, are considerably lowered with learning. In the case of global alliances, Barkema, Bell, and Pennings (1996) suggest that with advanced internationalization, the role of cultural barriers and related learning may become less prominent. Learning however takes

on a new form and is more dyadic/mutual in nature as alliance partners jointly aim to access new markets and/or create new opportunities (Doz and Hamel 1998).

The case study by Doz (1996) indicates that initially the differentiated tasks of alliance partners prevented the understanding of interdependent tasks and joint sense making. As he mentions, “discrepant organizational routines also contributed to the slow and ineffective responses to the need for coordination” (p.70). Learning helps partners overcome these inadequacies to evolve joint tasks and work routines that bring efficiencies to the alliance functioning. Discussing the commitment and balanced equity perceptions of partners, and the potential of the alliance to create value, Doz and Hamel (1998) argue that “positive reevaluation leads to important revisions in shared expectations, tasks, governance, and interfaces” (p.170). The tasks that were considered important initially are revised with learning, and partners successfully learn to recognize partnership tasks. They also learn how to perform those tasks jointly and with higher efficiencies. The increased bandwidth of inter-partner communication facilitates joint task learning (Doz and Hamel 1998). To be more effective in their joint tasks, understanding the alliance processes is a prerequisite so that, as tasks evolve and get modified with time, partners adapt their alliance processes also.

The focus in the early stages of expansion is on learning the partner-skills because of its contribution to establishing the alliance framework. However, as the alliance matures, partner-skill learning becomes less prominent, and efforts are channeled toward mutual development and acquisition of new skills. Developing the capability to set mutual alliance goals receives more attention. Generally, at this advanced phase of alliance evolution, mutual learning activity becomes an important learning priority. This occurs as partners build confidence and trust in each other and in the alliance’s effectiveness in achieving desired goals.

Processes: In the expansion phase, more elements of mutual learning processes emerge. With greater socialization, information exchange, and mutual investment, the alliance learns to “exploit” as part of its adaptation process. Routines are institutionalized at this stage (Crossan, Lane and White 1999); this involves “the process of embedding learning that has occurred by individuals and groups” (p. 525). Exploitation, (or more commonly, experience curves), a form of experiential learning, involves tapping into cumulative experience to improve productivity (e.g., Levitt and March 1988). The advantage of being in an alliance lies in reduced likelihood of falling into competency traps that could exclude adoption of superior activities for creating value. Alliance partners also engage in exploration, searching for new opportunities to create value for their stakeholders and to increase trust and commitment within the alliance. Vicarious learning of the ‘invisible assets’ (Itami 1987) or the tacit knowledge of partners is a dominant mechanism in this phase as partners take advantage of close interactions, observation, personnel transfer, and trust. The alliance partners also routinely scan the external environment, more often mutually, for information about opportunities and changes in the market (e.g., Fahey, King, and Narayanan 1981). Performance monitoring mechanisms are formally put in place to continuously evaluate effectiveness of activities in achieving alliance goals (Huber 1991). Mutual self-appraisal mechanisms for better adaptation become institutionalized. Self-appraisal processes take the form of re-examining the governing values and routines and establishing new frames of reference (Huber 1991). Argyris (1983) terms this advanced experiential form of learning as double-loop learning.

Phase IV: Commitment to Relationship

This phase denotes the most advanced state in the alliance relationship. Dwyer, Schurr, and Oh (1987) note that at this stage, “significant economic, communication, and/or emotional resources may be exchanged (p. 19).” Structural bonds create barriers to such an extent that it may be very difficult to terminate the relationship at this point (Wilson 1995). Boundaries between the partners have very little significance. Wilson (1995) argues that at this stage of evolution, trust, performance, and satisfaction from the alliance experience have become so much embedded as to need very little attention from the partners. Common norms and values are so well established that the relationship is institutionalized and a stable atmosphere prevails (Wilson 1995). Commonality of purpose, mutual learning processes, multiple levels of personal and emotional relationships, and psychological contracts instead of formal legal ones are all clearly evident in this phase (Weitz and Jap 1995). The distinguishing feature in this phase, as Dwyer, Schurr, and Oh (1987) mention, is that “parties purposefully engage resources to *maintain* the relationship” (p. 19).

Learning progresses from unilateral knowledge-gathering to mutual capacity-building (Hamel 1991). Increasing the absorptive capacity of the alliance, developing novel solutions to problems, and innovating competitive advantages make mutual learning more important, particularly from the standpoint of maintaining the relationship. Meanwhile, internal aspects of corporate culture and alliance partner's management practices become an even less important domain for learning. In this phase, partners are well aware of each other and have established common values and practices. However, the external context may still be providing learning opportunities as alliance partners jointly aim to access new markets and/or create new opportunities for mutual benefit. Similar to Phase III, partners learn to establish and revise joint tasks, work routines, and processes, but in a much broader set of domains. The difference lies in the scope and degree of involvement of the partners. Similarly, mutual learning for developing or acquiring new skills in order to continuously create superior value is evidenced in this phase. Partners focus on learning to most effectively commingle the available skills (Doz and Hamel 1998). Learning the partner's goals may be important to some degree as there is always the threat of termination of the relationship. However, typically it is less of a priority compared to establishing mutually beneficial goals as trust levels are very high and the ability of the alliance to achieve the desired goals is no longer in doubt.

Processes: Learning mechanisms evident during expansion typically continue into the commitment phase. However, there are subtle changes. For example, partners are less likely to continue to engage in vicarious learning of each other's skills and other embedded knowledge. Because of high levels of mutual investments and trust and the strong structural bonds, the alliance continually engages in exploitation and exploration to ensure its survival. There is less scanning of the internal context but more external scanning to seek new opportunities or become aware of emerging threats. The alliance is continually engaged in vicarious learning of extant and emerging technologies in the market that could provide competitive advantage. There is also an ongoing process of enhancing absorptive capacities, both individually and at the alliance level.

CONCLUSION

Summary and Implication

Alliances have become vehicles that provide firms the much-needed leverage to compete effectively in the global marketplace. While alliances are a means toward value creation that neither partner could create venturing alone, the crucial aspect that is relevant to the discussion is the tools and processes of value creation. The renewed interest in organizational learning as a strategic resource, and in viewing organizational knowledge management as key to sustainable competitive advantage, has generated a new dimension for the academic and practitioner interest in alliances.

Alliances are pooling mechanisms commingling diverse unique skills and capabilities, and thus are able to create potentially powerful learning opportunities for firms. In fact, learning opportunities create 'learning organizations' that are able to increase their absorptive capacities and to assimilate new ideas easily to remain competitive. Extensive literature has built up in the alliance and organizational learning areas in the last decade. However, very few articles have dealt with alliances from an evolutionary perspective, and even fewer on the accompanying dynamics of learning. The current research has attempted to build on the previous work in this area. Its main contribution lies in the exploration of the dynamic aspect of alliance formation, including the inherent mechanisms and partner learning behaviors that characterize each critical phase of the evolutionary process.

As alliances mature, the initial partnering conditions and motivations change, making it imperative to reevaluate and readjust learning priorities. It is this very dynamic, interactive aspect that determines the successful maturing of the partnership and whether or not it rises to the highest levels of cooperative collaboration. This research proposes that as partnerships progress from the awareness through to the commitment phases, critical learning areas, such as environment and skills show subtle shifts in content. The priorities for learning in each dimension also change as partners keep continuously learning to bridge capability gaps and evolve joint mechanisms for mutual benefit. Unilateral learning mechanisms gradually give way to mutual learning as the alliance succeeds in removing various barriers for cooperation. The paper also adds to this integrative model by exploring several processes that might facilitate learning as alliances mature.

This research provides management with some insights into the learning aspects of strategic alliances. The evolutionary perspective brings into focus the nature of learning and knowledge management imperatives so that partners in alliance contexts can actively manage the knowledge acquisition process. This, in turn, allows them to exploit opportunities to the maximum extent in realizing tangible and substantial performance improvements. Partnering firms will be able to allocate scarce resources to critical learning areas and train the right personnel, particularly at the interface functions to further the alliance benefits. Various learning processes contribute to the successful movement of the alliance through the relationship stages. Understanding the learning processes and the areas of learning that are best learned through application of a particular mechanism at each stage helps develop, reevaluate, and revise role definitions much more effectively. This facilitates both the streamlining of operations and task-setting activities and the strategic commitment of resources. The measures may drastically reduce conflicts and build trust, benefiting the alliance as a whole.

Research Directions

There are several important areas of interest not explored in this conceptual paper. For example, it has stopped short of investigating the alliance dissolution process. Though dissolution is a common occurrence, very little literature support is available on the disengagement process. Dissolution can occur at any phase of evolution of the alliance partnership. Further research is needed to shed light on this important phase. The interesting question will be whether, as former partners disentangle from the alliance and probably seek new partners, “unlearning” (discussed in the next paragraph) happens and to what extent and on what dimensions this occurs.

Organizations discard knowledge, a process that is called unlearning (Hedberg 1981). Interpreting Huber’s (1991) argument in the alliance context, the development of structural bonds between alliance partners inherently involves some of the parental knowledge not being available to the alliance. Besides, alliance partners could intentionally discard redundant and obsolete knowledge and behaviors to learn more useful knowledge. In the global context, for example, alliance partners undergo acculturation to shed cultural misconceptions. Research is needed to understand the motivating factors for unlearning and the mechanisms partners use to facilitate unlearning as the alliance evolves. Exploring the dynamics of unlearning may provide critical insights on trust building and commitment between alliance partners. This information could then be used to help strengthen cooperation.

The research explores learning in strategic alliances at a generic level. Since a strategic alliance is a broad rubric encompassing a wide variety of relationships, further research is needed to understand evolution and learning in specific partnerships. For example, international joint ventures and licensing arrangements may have very different evolutionary emphasis and learning necessities. In addition, the perspective adopted in much of the extant literature and in this paper regarding global alliances, is largely that of the firm entering into alliance with a host country partner. Further research is needed to clearly distinguish the learning perspectives of each partner in the dyadic exchange process.

Key motivating factors for learning at each stage vary depending on the strategic and contextual priorities that are constantly reevaluated and revised. Further research is needed to shed light on the interactions between motivating factors and learning priorities, and the mechanisms deployed for effective learning. In addition, various structural mechanisms and inter-firm factors may influence learning. Alliances are inherently inter-firm relationships. Therefore, factors such as extent of decentralization of decision making or integration of functions within and between partners, information exchange, partner influence strategies, cooperative norms between partners, exchange of personnel, extent of collaboration, mechanisms for conflict resolution, acculturation processes (in global alliances), and trust do influence alliance learning. However, since these characteristics also evolve, further research is needed to understand the interplay between the partnering mechanisms and learning opportunities along the evolutionary path.

As alliances begin collective or mutual learning, interorganizational routines and joint activities are setup and reevaluated. The collective environment, work rules and roles, and options are modified with evolution (Astley and Van de Ven 1983). Mutual learning opportunities are enhanced with greater collaboration characterized by higher transparency and receptivity (Larsson et. al 1998). However, it is not clear if the same learning mechanisms employed in unilateral learning are employed in mutual learning or in the different phases of evolution. It is also not evident in extant literature what

coping mechanisms partners evolve to accommodate and refine conflicting perspectives and learning interpretations. The topic provides an interesting opportunity for investigation.

An obvious limitation of this work is its conceptual nature. In fact, very little empirical work has been done in this area. Further research is needed, specifically empirical studies, for inductive theory building purposes and to link learning to performance metrics. Overall, the research objective here has been to stimulate further exploration in this dynamic field. This is particularly so in view of the evolving nature of strategic alliances and the often difficult learning path firms take to acquire embedded knowledge that leads to lasting competitive advantage.

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