

# Alliance Capability- A Knowledge Management Approach

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**Abstract:** Firms can enjoy competitive advantage by developing a capability to manage alliances more successfully than others. A knowledge management approach support collaboration, content management, and information sharing of alliance know-how embedded in the firm's alliance experience, are central to its alliance capability and success. In this paper, we understand knowledge management, enterprise alliance, motivation for knowledge-based alliances and knowledge-based alliance capabilities. Finally, a knowledge management integrated model is discussed. The findings of this study have implications for knowledge management practitioners in firms who are responsible for planning and implementing a knowledge management strategy to support the firm's alliances, particularly in the area of the selection of appropriate knowledge tools.

Keyword: Alliance capability, Knowledge management, knowledge-based alliances, Enterprise Alliance

## 1. Introduction

The development of new products and services is frequently attained through technology and knowledge. Partnerships and alliances rather than formally structured equity-based organizations provided the flexibility require responding to changes in the technological environment by short-circuiting the process of internal skill acquisition (Hamel, 1991). The environment of an alliance has added complexity, as the alliance partners are likely to be balancing protecting and sharing their knowledge to maintain their competitive position (Hamel et al., 1989). The competitive advantage of a firm would reside on having a capability to manage alliances better than peers or competitors. Spender (1996) described the firm as an activity system driven by knowledge while others argue that the main role of the firm, and the heart of its competitive capability, is the integration of knowledge (Grant, 1996). Mentzas (2004) argue that the management of organizational knowledge can be a key lever for improving performance, boosting productivity and creativity and facilitating innovation in corporate settings. The commonly used approaches for management knowledge follow one of two perspectives; the process-centric (a primarily people-based approach that treats knowledge management as a social communication process) and a product-centric approach (mostly content-based and focuses on knowledge-related artifacts). We argue that firms can build a alliance

capability and enjoy greater a alliance success by implementing organizational process that facilitate the accumulation and sharing of alliance management known-how embedded in prior and on-going alliance experience.

As access to an alliance partner's knowledge is a key driver for forming the alliance, it is important to understand how alliance are using knowledge management and what influences the knowledge management choices in an alliance. This paper summary the research that I undertook on how firms in competitive strategic alliances apply knowledge management across their alliance in comparison to the knowledge management practice in their firms. The finding may assist practitioners to devise an appropriate knowledge management strategy to support their firm's alliance operations.

## **2. Knowledge Management**

Knowledge assets are the knowledge of markets, products, technologies and organizations, that a business owns or needs to own and which enable its business process to generate profits, and value, etc. Knowledge management is not only managing these knowledge assets, but managing the processes that act upon the assets. These processes include: developing knowledge, preserving knowledge, using knowledge, and sharing knowledge. From an organizational point of view, Barclay and Murray (1997) consider knowledge management as a business activity with two primary aspects. (1) Treating the knowledge component of business activities as explicit concern of business reflected in strategy, policy, and practice at all levels of the organization. (2) Making a direct connection between an organization's intellectual assets – both explicit and tacit – and positive business results.

The key elements of knowledge management are collaboration, content management and information sharing (Duffy, 2001). Collaboration refers to colleagues exchanging ideas and generating new knowledge. Common terms used to describe collaboration include knowledge creation, generation, production, development, use and organizational learning (Duffy, 2001). Content management refers to the management of an organization's internal and external knowledge using information skills and information technology tools. Terms associated with content management include information classification, codification, storage and access, organization and coordination (Apostolou and Mentzas, 1999; Davenport and Prusak, 1998, Denning, 1999). Information sharing refers to ways and means to distribute information and encourage colleagues to share and reuse knowledge in the firm. These activities may be described as knowledge distribution, transfer or sharing (Apostolou and Mentzas, 1999; Davenport and Prusak, 1998, Duffy, 2001, Hauschild, Licht and Stein, 2001).

Common knowledge management practices include: (1) Creating and improving explicit knowledge artifacts and repositories (developing better databases, representations, and visualizations, improving the real-time access to data, information, and knowledge; delivering the right knowledge to the right persons at the right time). (2) Capturing and structuring tacit knowledge as explicit knowledge (creating knowledge communities and networks with electronic tools to capture knowledge and convert tacit knowledge to explicit knowledge). (3) Improving knowledge creation and knowledge flows (developing and improving organizational learning mechanisms; facilitating innovation strategies and processes; facilitating and enhancing knowledge creating conversations/dialogues). (4) Enhancing knowledge management culture and infrastructure (improving participation, motivation, recognition, and rewards to promote knowledge sharing and idea generation; developing knowledge management enabling tools and technologies). (5) Managing knowledge as an asset (identifying, documenting, measuring and assessing intellectual assets; identifying, prioritizing, and evaluating knowledge development and knowledge management efforts; document and more effectively leveraging intellectual property). (6) Improving competitive intelligence and data mining strategies and technologies.

### **3. Enterprise Alliance**

Alliances make possible the conduct of cooperative between firms and create opportunities for participating benefits from their involvement in an alliance. Strategic alliances and business network can provide organizations with the capability and flexibility to compete with the world (Killen et al., 2002). Hiroshi and Junichi (2004) argue that strategic alliances are classified according to the relationships between the resources exchanged (Symmetrical versus asymmetrical) and between the alliance partners who exchange such resources (horizontal versus vertical). This form of collaboration has been defined as a partnership amongst firms that work together to achieve some strategic objective (Harrigan, 1988, Killing, 1983). Alliances are generally thought to include two or more firms united to pursue at set of agree-upon goals (Yoshino and Rangan, 1995); contributing complementary, firm-specific capabilities; involved in a range of interdependent activities in which limited control is exercised by parties who remain independent subsequent to the formation of the alliance and share in its risks and benefits (Yoshino and Rangan, 1995). Russ and Camp (1997) suggest a variety of governance structure for strategic alliances: equity, technology alliances, R & D alliances, joint ventures, licensing agreements, distribution and supply agreements, and technical exchanges. Hoffmann and Schlosser (2001) propose the formation of flexible alliances with complementary resources and some need for control. The dynamics of competitive

advantage in strategic alliances cause firms to harness alliance capabilities, routines and procedures to facilitate knowledge-based innovation and expertise by transferring intangible assets, and erecting barriers to prevent imitation (Moore and Birkinshaw, 1998).

Alliances also offer participating firm's three distinct types' benefits. The appropriation and application of knowledge through collaborative relationships positively influences all three. First, additional economic rents can be made possible through increased market power (Glaister and Buckley, 1996; Gomes-Casseres, 1994), additional sales, and more rapid growth. Allies can collude against common rival or reduce competition by co-opting competitors as allies (Buckley and Casson, 1988). Additional revenues can also be generated by alliance activity. Second, alliances make it possible for a firm to reduce or control its costs. One source of cost reductions is the achievement of the economies of scale or scope, realized through shared production, marketing or research (Oliver, 1990). Alliances can reduce risks when firms need to spread the costs of innovation or other capital-intensive activities (Glaister and Buckley, 1996). Third, most important to knowledge-based enterprises, alliances permit organizations to improve their odds of survival. Through participation in an alliance, an organization can appropriate institutional linkages (Galaskiewicz, 1985) or partner-held technological assets, or acquire legitimacy or status (Stuart, 2000) that mitigates organizational mortality. Firms can achieve added control over critical interdependencies in uncertain environments by environment (Nohria and Garcia-point, 1991) by coordinating their use of accessible resource to improve their competitiveness through the enhancement of products, improve access to markets, and increased sales.

### **3.1 Knowledge-based alliance capabilities**

Our examination of the literature suggests there are five capabilities that matter most: the ability to develop and sustain valuable resources; absorptive capability; combinative capability; experience with alliances; and appropriate design for knowledge exchange.

(1) Resource: Firms must be endowed with assets that partners value and are fit for use (Das and Teng, 2000). All firms have assets of some type. Those assets which are valued most by partners will be those that are hard to trade in markets, are rooted in developmental processes that are causally ambiguous, and have the potential either on their own or in combination to yield competitive advantage. (2) Absorptive capability: Absorptive capability was defined as a firm's ability to recognize the value of external knowledge, assimilate it, and apply it to commercial ends (Cohen and Levinthal, 1990). The absorptive capacity of firm can be augmented through

activity. Absorptive capacity also affects the ability of the partnered firms to learn. The ability of a firm to learn from another firm is jointly determined by the relative characteristics of the two firms. Absorptive capacity affects the ability of a firm to internalize knowledge obtained from its partner or generated in concert with the partner. Grant (1996) identified three factors that affected knowledge absorption capability: the efficiency of integration, scope of integration and flexibility of integration. (3) Combinative capability: Kogut and Zander (1992) define combinative capability as the ability of a firm to synthesize and apply current and acquired knowledge to generate new applications from an extension of the existing knowledge base. The concept of combinative capability by partitioning extended it into three constituent elements. One element was called systems capabilities, and comprised the firm's conceptual infrastructure for integrating explicit knowledge. The second element was called coordination capabilities, and was proposed to enhance knowledge absorption through the structuring of relations between members of a group. The final element was called socialization capabilities. (4) Experience: alliance experience is known to enlarge the value that firms derive from subsequent alliance engagements. Anand and Khanna (2000) concluded that this type of experience was evidence of the organizational learning, and appeared to be associated most with ventures formed for the purpose of research and development, and production. (5) Firm design: The design of a firm will contribute to its performance in a knowledge-sharing context. Teece (2000) held that successful firms that were dependent on knowledge exchange and management reflected several characteristics that unsuccessful firms did not. Successful firms had an entrepreneurial orientation, with a strong bias to action; they exhibited dynamic capabilities especially in the areas of flexibility and responsiveness to market opportunities (Teece, 1998).

#### **4. Motivation for knowledge-based alliances**

There are six motivations for knowledge-based alliances:

(1) **Knowledge as a resource:** A dominant motivation behind the formulation of interorganizational exchange is to gain access to valuable partner-held resources. Cook (1977) argues that resource as any valuable activity, service or commodity. Knowledge is one such resource (Westney, 1988; Kogut, 1988; Grant, 1996, Inkpen and Dinur, 1998). For example, if a firm is deficient in a particular knowledge domain, and possession of that knowledge is deemed essential to competitive advantage, the resource dependency theory holds that firm will take purposive action to acquire that needed knowledge. (2) **Knowledge uses:** Inkpen and Dinur (1998) stated that knowledge of use to a firm involved in one of the inter-firm relationships, a strategic alliance, could be one of three types. First, firms were motivated to secure

knowledge that could be used to design and manage future interorganizational relationship (Lyles, 1988). Second, a collaborative relation may generate knowledge that pertains to a focal partner's strategy, operations, and core product line. Third, firms may seek partner knowledge without wishing to internalize it. (3) **Generate new knowledge:** Firms are also motivated to collaborate to generate new knowledge. Such knowledge will contribute to the competitive advantage of each partner. Firms are known to be knowledge-integrating institutions (Grant, 1996). Conner and Prahalad (1996) proposed that the essence of the resource based view was the conceptualization of the firm in terms of its knowledge assets. The generation of knowledge through the pooling of joint assets, know-how and expertise (Teece, 1992) can be seen as a race by allied partners against their rivals as well as against time. Thus, actions taken by firms in certain settings can be interpreted as a combinative action intended to improve the competitive standings of both partners based on the accelerated development and repatriation of knowledge. Other scholars have noted that interorganizational relationships served to share the costs with others of exploration and exploitation (March, 1991), not only to increase the productivity of existing capabilities, but to discover new wealth creation modes (Power, et al., 1996). (4) **Protecting assets:** Nelson and Winter (1982) stated that firms to prevent the deterioration of their stock of knowledge by exploring new avenues for its use. Das and Teng (2000) indicated that while in a collaborative relationship, a firm relationships only temporarily the resources under its control, meaning they remain available for future internal deployment. (5) **Blocking rivals:** It has also been suggested that a focal firm may be motivated to engage in an interfirm relationship to prevent the partner firm from forming an alliance with the focal firm's rival. By taking action to prevent a potentially harmful combination of value assets held by a prospective partner with those held by a rival, the focal firm neutralizes a competitive threat (Barringer and Harrison, 2000). (6) **Access to networks:** Firms are likely to form alliances to gain access to networks. Networks are formed when member firms are linked through mutually recognized direct ties that signify the presence of an exchange relationship, and through indirect ties that may allow for the flow of resources which are known to create options for firms on future alliances partners (Gulati, 1995). Knowledge networks or teams such as groups of colleagues are brought together to work on project or to solve problems (Apostolu and Mentzas, 1999).

Knowledge alliances make possible the conduct of cooperative activity between firms and create opportunities for participating companies to appropriate benefits from their involvement in an alliance. Therefore, there should have knowledge management integrated model to support knowledge alliances.

## **5. Knowledge Management Integrated Model to support enterprise alliances**

Knowledge management tools support collaboration, content management and information sharing. Common knowledge management practices include:

Knowledge networks or teams such as groups of colleagues that are brought together to work on project or to solve problems. Knowledge webs where colleagues from different functional areas or offices of an organization assist one another on an as needs basis. Knowledge mapping tools to locate and evaluate knowledge sources that are available to a firm, which includes structuring and organizing information according to a knowledge tree or thesaurus.

- Capturing and structuring tacit knowledge as explicit knowledge (creating knowledge communities and networks with electronic tools to capture knowledge and convert tacit knowledge to explicit knowledge)
- Creating and improving explicit knowledge artifacts and repositories (developing better data bases, representations, and visualization; improving the real-time access to data, information, and knowledge; delivering the right knowledge to the right persons at the right time).
- Enhancing knowledge management culture and infrastructure (improving participation, motivation, recognition, and rewards to promote knowledge sharing and idea generation; developing knowledge management enabling tools and technologies).
- Improving knowledge creation and knowledge flows (developing and improving organizational learning mechanisms; facilitating innovation strategies and processes; facilitating and enhancing knowledge creating conversations/dialogues).
- Managing knowledge as an assets (identifying, mapping, analyzing and assessing the relevant knowledge landscape; identifying, documenting, measuring and assessing intellectual assets; identifying, prioritizing, and evaluation knowledge development and knowledge management efforts; documenting and more effectively leveraging intellectual property).
- Improving competitive intelligence and data mining strategies and technologies.

Figure 1 integrated knowledge management model and shows how these elements fit together. This model moves beyond the basic ideas of vision/strategy, leadership, measurement and analysis, resources and infrastructure, structure and process to elaborate what is entailed in each of these areas and to provide a visualization of knowledge management model. The model in figure 1 focuses on actual tangible elements approach to enterprise knowledge management. These tangible elements include:

- (1) Specified knowledge goals, objectives, Priorities
- (2) Transformation plans to transition “as is” to “to be”
- (3) An articulated knowledge landscape
- (4) Measures and assessments of the state of knowledge and the knowledge management system.
- (5) Knowledge leaders, advocates, activists, and facilitators (these persons will be assigned to various communities of practice, knowledge communities, innovation initiatives and projects; they will be in charge of developing and maintaining knowledge networks; they will be responsible for further articulating of knowledge landscape and for measuring and assessing the state of knowledge and the knowledge system).
- (6) Knowledge –oriented IT, AI, and communication technologies (CT).
- (7) Tacit knowledge assets as represented by actual human beings (internal staff and external collaborators) and established processes to facilitate interactions between them.
- (8) Explicit knowledge assets are represented by enterprise information systems, enterprise knowledge systems, databases, IP, and other knowledge artifacts.
- (9) Competitive intelligence and benchmarking activities.
- (10) Communities of practice, knowledge communities, and the knowledge partnerships and alliances comprising knowledge network.
- (11) Intra- and inter-organizational competencies.
- (12) R & D and innovation programs, initiatives and projects.
- (13) Knowledge management outcomes, including smart, knowledge-infused processes; knowledge-infused products and services; creative business concepts; critical knowledge systems; and work systems embedded within knowledge system.
- (14) Firm’s motivation for knowledge-based alliances.
- (15) Knowledge alliance capabilities

It is these tangible components of knowledge management that give rise to important intangible attributes – such as the level, range, and depth of tacit knowledge, individual competencies, inter- and inter organizational competencies, a knowledge-orient culture, knowledge leadership, knowledge socialization, internalization, and externalization. Focusing on the tangible components helps knowledge management becomes a reality as opposed to a vague concept that is difficult to grasp and put in practice.

## **6. Performance**

There are two general approaches to evaluating alliance performance so

characterized – counts of knowledge-based outputs and longevity. Conventionally, managers may prefer to assess knowledge outcomes in terms of outputs such as patents, patents, new product, or new collaborative relationship should be considered as well. Given that alliance experience positively influences knowledge-creation alliance outcomes, it reasons that firms involved with long-lived alliances are also likely to be those that report good performance.

A firm that has just exited an unsatisfactory alliance may be reluctant to enter another one even if the characteristics of the new prospective partner are substantially different. Instability is thereby associated with poor performance. However, survival is a different construct than instability. It refers to continuance or termination of venture and is described as venture survival. Kogut (1989) stated that dissolution of an alliance was usually indicative of a business failure or the inability of partners to solve conflicts. When parents have qualitative motives for forming a joint venture, than the subjective assessment of venture performance by parent firms is appropriate with one such measure being longevity. In fact, longevity and survival correct highly with subjective performance measures (Parkhe, 1991). Thus it seems reasonable that in most instances, two firms engaged in an alliance will strive to maintain it so long as it is producing satisfactory results. In instances where a venture was formed to facilitate knowledge transfer with a specific goal in mind, termination can indicate the successful achievement of the partners' aims (Kogut , 1989).

Integrated knowledge management mode focuses on actual tangible elements approach to enterprise knowledge management. It will reduce business failure or the inability and venture survival, and two firms engaged in an alliance will strive to maintain it so long as it is producing satisfactory results.

## **7. Conclusion**

The finding of this study have implications for knowledge management practitioners in firms that are responsible for planning and implementing a knowledge management strategy to support their firm's alliances, particularly in the area of the selection appropriate knowledge management tools to support the alliance. For alliances, this also needs to draw on the key principals for alliances success that is that the alliance should have a clear strategic purpose. It focuses on collaborative tools that bring colleagues together, such as opportunities for knowledge networks from various firms to meet and work together face to face. With content management tools, such as shared databases on intranet to share relevant client information and information sharing on important client and industry developments that affect the alliance.

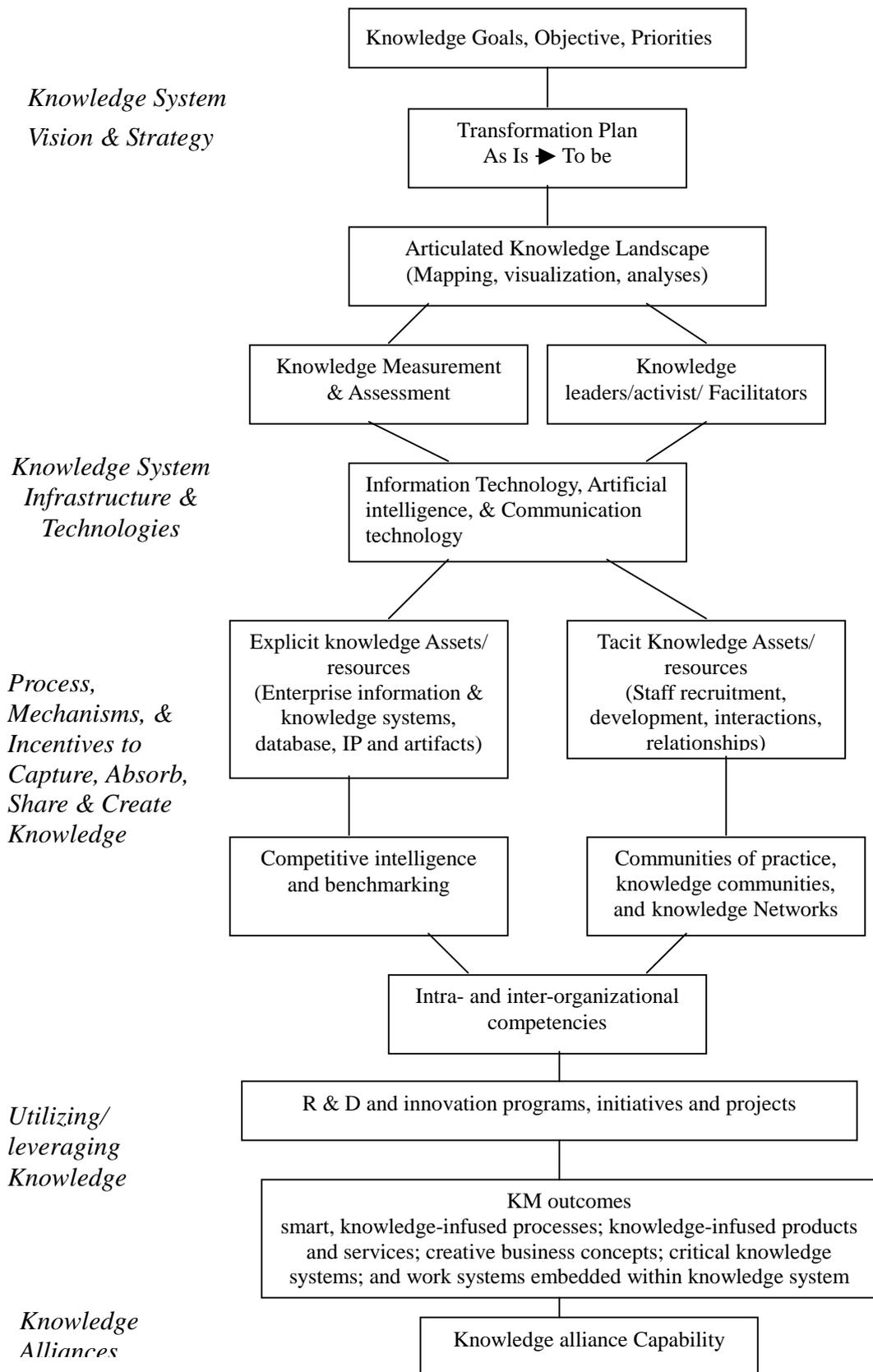


Figure 1 Integrated knowledge management Model: Components and linkage

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