

Relational quality and alliance capacity: A conceptual framework for their influence on alliance performance

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The traditional strategy tracks:

“Managing the firm in unstable competitive environments”

Track (F) Business Strategy

“Successful attackers (new entrants) and defenders (incumbents)”

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“Old Barriers Crumbling, New Barriers Rising”

1 Introduction

In their struggle to adapt successfully to the rapidly changing environment, many companies rely increasingly on external partners to overcome competence limitations, to leverage capabilities and to be flexible while focusing internal resources on core competencies. This applies especially to technology driven industries such as biotechnology or telecommunications. Given the need for a multitude of competences to achieve competitive advantage, the flexibility offered by alliances often proved to be more effective than internal development. As a consequence, both the number of newly established strategic alliances per year (Hegert and Morris, 1988; BoozAllen & Hamilton, 1997, Narula and Hagedoorn, 1999) and the percentage of revenues that comes from alliances (BoozAllen, 1998, 2000) have increased significantly in recent years. However, despite the increasing importance of strategic alliances, scholars and practitioners alike have pointed at their poor track record reporting high failure rates, ranging from 30 to 70 percent (Duijsters, Kok, and Vaandrager, 1998; Park and Ungson, 2001).

Despite these high failure rates, a striking fact is that some firms within and across different industries, sizes and nations, are more successful in their overall alliance activity than others. These considerable fixed firm effects in individual firms' alliance performance cannot be explained by traditional theory (e.g. Porter, 1980), but suggest that cooperative management capabilities can be viewed as a rare, valuable and difficult to imitate resource at the company level, which lead to competitive advantage by enhancing alliance success. For example, Sivadas and Dwyer (2000) show that cooperative competencies positively influence the outcome in internal as well as alliance-based innovation processes. Simonin (1997) and Kale and Singh (1999) found that alliance experience, investments in alliance functions and learning processes lead to collaborative know-how fostering alliance performance. Yet, large parts of the fixed firm effects in individual firms' alliance performance remain unexplained by these factors and little is known about the influence of specialized alliance management functions and tools on alliance performance and its antecedent success factors. So far, empirical evidence on factors fostering alliance performance often remained anecdotal in origin and ambiguous as to how to solve the issue (Park and Ungson, 2001).

This paper is guided by an analysis of the decisive factors influencing alliance performance, thereby building on state of the art findings in both research and practice. We propose that alliance management functions and tools (alliance capacity) as well as success factors (relational quality) are essential in enhancing alliance performance. More importantly, we propose relational quality is an intermediate outcome of a firm's alliance capacity. Finally, the paper will outline some suggestions for an empirical investigation of the topic at large.

2 Research Context

2.1 State of the art in practice

According to recent surveys among top managers from large companies worldwide, managing the alliance activities of firms is a key management issue (Accenture and The Conference Board, 2001; PricewaterhouseCoopers, 2001). Over the last years, the most active companies have started to invest in dedicated alliance functions and tools in order to coordinate, structure and handle various problems occurring within their alliances. However, interviews with practitioners reveal that there is still limited knowledge about which mechanism and structures are the most effective and efficient in guiding alliance formation and management. Overall alliance failure rates remain high and managers are eager to learn about the development and maintenance of distinct alliance competencies that help them optimize alliance performance.

2.2 State of the art in theory

With the spurt in alliance activity occurring since the 80s, many firms find themselves in a constant flux of cooperative agreement and abandonment (Barney, 1997; Doz and Hamel, 1998) in order to get access to the desired resources and achieve sustainable competitive advantage. In traditional management theory, firms were considered to be individual, self-fulfilling units (Williamson, 1975, 1991) that favored going alone over cooperative agreements (Contractor and Lorange, 1988). Consequently, alliances were viewed as separate business cases, leaving performance and success of alliances to be studied primarily from a dyadic perspective (Duijsters, De Man, and Wildeman, 1999). However, to view cooperative agreements as single transactions and separated business cases that are to be studied primarily from a dyadic perspective is an oversimplification (Greenhalgh, 2001). It left scholars incapable of explaining the high failures rates as well as the significant differences in individual firms alliance performance (Duijsters, De Man and Wildeman, 1998).

Lately, scholars have begun to underline the importance of firm-specific resources as a source of inimitable and thus sustainable competitive advantage (e.g. Wernerfelt, 1984; Dierickx and Cool, 1989; Peteraf, 1993). As opposed to the view of firms being subject to deterministic environmental forces (Porter, 1980), the resource-based theory suggests that firms' unique assets and internal resources determine firm performance. From this viewpoint, alliance management competencies are a firm specific resource, which helps companies to raise the performance of all its alliances, thus, fostering overall firm performance. Superior alliance management know-

how is likely to create competitive advantage (Spekman, Isabella and MacAvoy, 2000; Doz and Hamel, 1998) by supporting performance of each alliance in the entire alliance portfolio of a company, rather than managing alliances individually.

3 Alliance definition and alliance evaluation approach

3.1 Definition of Strategic Alliances

In the context of this research, the focus is exclusively on alliances where partners intend to combine organizational resources and capabilities and strive for mutual benefits in search of a combined and sustained competitive advantage. Typically, this excludes both spot market arrangement like e.g. commodity suppliers or licensing (Teece, 1992; Parkhe, 1993), and mergers and acquisitions, which are entirely integrative agreements.

3.2 Alliance performance

Triggered by the high failure rates, alliance performance assessment is one of the most challenging issues for alliance practitioners and researchers. Early empirical performance measures mostly relied on alliance survival or duration as well as financial performance (see for a critical review Gulati, 1998; for an overview Park and Ungson, 2001). More recent approaches directly relate outcome measurements to the strategic goals of the alliance partners, thereby assessing achievement of objectives by individual partners (e.g. Kale and Singh, 1999; Kale, Singh, and Perlmutter, 2000; Jap, 2001). Since, with the latter approach, each partner can evaluate the performance of an alliance differently, still others used the alliance per se as unit of analysis and measured performance in terms of e.g. new products developed, product innovativeness or combined indices of profitability and qualitative measures (e.g. Parkhe, 1993; Kotabe and Swan, 1995; Deeds and Hill, 1996). Although the assessment of individual objectives achieved is limited to one partner's evaluation, in this paper, we adopt and extend this approach. We view alliance performance as individual objectives achieved, measured over all strategic alliances in a firm's portfolio.

Reviewing various analyses of alliance performance, it becomes apparent that most research has been devoted to identifying the 'magical' ingredients, which lead to alliance success in terms of predecessors and processes influencing performance. Nevertheless, integration of these factors and exploration of their relationship to alliance tools and functions as antecedent conditions are missing. Scholars have paid little attention as to how firms can outperform competitors in their alliance activities (Takeishi, 2001). We suggest that, to achieve superior performance, companies need to focus on the development of relational quality during the whole alliance process, which can be supported by investing in a distinct alliance capacity.

4 Relational quality and alliance performance

4.1 Theoretical and empirical background

Researchers from various disciplines have devoted considerable effort in identifying factors, which influence alliance performance. Their investigations are mainly led by two complementary theoretical perspectives often applied together in conceptual investigation and empirical research (e.g. Parkhe, 1993; Mohr and Spekman, 1994; Doz, 1996, Young-Ybarra and Wiersema, 1999; Cullen, Johnson, and Sakano, 2000; Das and Teng, 2000; Kale, Singh, and Perlmutter, 2000): (1) Economic theories like transaction cost, agency theory, resource based view or game theoretic approaches have accounted for the structural side of alliances by determining favorable conditions, resource configurations and contingency approaches for the design and structure of alliances, (2) Theories from the social science are used to explain patterns of social interaction and exchange like trust and commitment, which occur within the process of allying. Summarizing these findings, companies involved in alliances need to pay attention to the following aspects in alliance management to foster performance:

1) Complementary resources: Complementary resources, which are synergy sensitive, rare, valuable, and difficult to imitate create a sustainable value proposition and decrease competitive tendencies in the alliance (Das and Teng, 1998; Dyer and Singh, 1998; Sivadas and Dwyer, 2000; Park and Ungson, 2001). Moreover, their specialization for and dedication to a specific alliance increases the likelihood of success (Parkhe, 1993). **2) Compatibility:** Compatible partners in terms of culture, structures and other similarities are likely to adapt faster to each other and procedural conflicts occur less than with completely different partners (e.g. Doz, 1996; Dyer and Singh, 1998; Kale, Singh and Perlmutter, 2000). However, recent research suggests that even cultural sensitivity and consciousness about differences foster performance (Johnson et al., 1996). **3) Coordination structures and routines:** High levels of coordination provide clarity and certainty about roles and procedures for decision-making and clearly determine the scope of input of each partner (Mohr and Spekman, 1994; Sivadas and Dwyer, 2000). This eases management in the ambiguous authority structure of an alliance, secures responsiveness, allows managing moving targets, thereby enhancing the effectiveness and efficiency of alliance processes. **4) Trust:** Mutual trust is the confidence of partners that the other will behave in a predictable manner without acting against the partner. This applies to the capability to fulfill competence obligations (credibility trust) as well as to the partners' beliefs that the other will act in interest of the alliance without opportunistic

behavior (e.g. Dyer and Singh, 1998; Young-Ybarra and Wiersema, 1999; Cullen, Johnson and Sakano, 2000). **5) Commitment:** From a calculative point of view commitment means that the partners are willing to invest resources in the alliance in expectation of a reasonable cost-benefit relation. From an attitudinal perspective, commitment implies that partners have a high psychological identification with the relationship and contribute a high level of importance and willingness to care and nurture the relation (e.g. Mohr and Spekman, 1994; Cullen, Johnson and Sakano, 2000). **6) Transparency:** Transparency refers to the volume and content of information provided to the alliance partner. It encompasses formal and informal procedures by which either information lines are fueled or the alliance partner is enabled to recognize and monitor the partners' decisions, actions and behavior related to the alliance (Parkhe, 1993; Mohr and Spekman, 1994; Sivadas and Dwyer, 2000).

4.2 Performance impact of relational quality

In taking a comprehensive perspective, the described characteristics can be viewed as different quality dimensions, which need to be actively managed by the partners. Although one might argue that mutual development lies in the responsibility of both partners, prior research on the influence of unilateral action suggests that one partner alone is able to influence the quality dimensions via selection processes and start reciprocal development cycles via unilateral behavior (e.g. Parkhe, 1993; Shamdasani and Sheth, 1995; Cullen, Johnson and Sakano, 2000).

So far, the influence of quality dimensions on alliance performance has only been investigated in scattered studies leaving unexplored their combined influence on alliance performance. We suggest that their combination has a stronger influence on alliance performance than individual factors alone because of the following reasons: First, past research suggests that several of the dimensions influence each other in either positive or negative ways. Especially the higher order constructs derived from social exchange theory are inclined in virtuous or vicious cycles of self-enforcement (Ring and Van de Ven, 1994; Gulati, 1998), which lead to either better or worse development of performance paths over the alliance lifecycle. Second, although different characteristics are likely to substitute for each other (e.g. Gulati, 1998), researchers have argued that for the overall performance of the alliance at least a minimum level of all qualities needs to be present. Cullen, Johnson, and Sakano (2000) argue that without a certain level of trust and commitment even the most promising relationship from an economic point of view is most likely to fail. Likewise, a convincing business proposition missing or inappropriate coordination procedures may lead to perceptions of process and outcome discrepancies (Kumar and Nti, 1998), which defect the alliance. Because the different dimensions of relational quality are intervened in reciprocal development cycles of enforcement or deterrence, the absence of one criterion creates interruptions that are difficult to cure and may lead to alliance failure in the end. Eventually, we propose:

Proposition 1: High levels of relational quality are positively related to high levels of alliance performance.

5 Alliance capacity and alliance performance

5.1 Theoretical and empirical background

The former paragraph discussed the importance of dimensions of relational quality for alliance performance. In addition this, firms can use a specialized alliance capacity, which consists of institutionalized managerial mechanisms that aid in managing alliances (Kale and Singh, 1999) in order to optimize alliance performance.

Over the years, firms have accumulated experience and started to invest in functions and tools that support dissemination of experience with alliances throughout the company. From a knowledge based perspective (Nonaka and Takeuchi, 1995, Grant, 1996) and theories of organizational learning (Senge, 1990), various researchers have investigated the relationship between experience levels, learning in alliance management achieved, investments in specialized tools and functions and alliance performance (Draulans, De Man and Volberda, 1999; Kale and Singh, 1999, De Man, Duijsters, and Vasudevan, 2001). In most cases, the level of experience is related to the firm's number of alliances or the amount of tools and functions a firm has put in place. So far, some evidence has been found for the positive relationship between alliance capacity and alliance performance (Kale and Singh, 1999). However, an in depth investigation of the various instruments used in practice and their effectiveness and efficiency with respect to alliance performance is missing.

5.2 Performance impact of alliance capacity

Based on the kind and number of alliances formed, different levels of alliance activity (Anand and Khanna, 2000) can be used to categorize the use of tools and functions that make up an alliance capacity. Draulans, De Man, and Volberda (1999) identify three levels, each referring to a typical level of alliance management. The first can be referred to as the ad hoc level. At this level, firms are in a situation that one or several alliances demand corporate attention. The firm has limited experience in preparing for inter-firm activities as well as in the actual implementation of the alliance. In-house knowledge consists mainly of general, non-specific contractual and organizational know-how related to partner selection. Useful tools are basic checklists to select partners and monitor the alliance and allow for ad hoc management (see table 1). As a result, the firms will often encounter restricted success with their strategic cooperative movements.

At the second level, a firm's alliance portfolio starts to comprise an increasing amount of inter-firm activities. Firms start to create standard procedures to manage alliances and often experience greater success in the established alliances. Standardization of alliance procedures decreases the risks involved in allying at this level and facilitates inter-firm learning. Moreover, it is at this particular level that firms will start to build specific alliance knowledge. An obvious disadvantage is that it resides in the minds of a small number of specialists situated at the corporate level. This may prohibit sufficient dissimulation of alliance knowledge to the employees in need.

Table 1 Levels of alliance management

	Level 1: Ad hoc	Level 2: Skills	Level 3: Institutionalized
Number of alliances	Small	Reasonable	Large
Importance	Operational	High for certain units or divisions	Strategic for the entire company
Geographical reach	Regional/national	Starting with internationalization	International
Management tools (cumulative examples per level)	-Legal knowledge -Checklists for partner selection & monitoring -Evaluation of individual alliances	-Best practices -Alliance specialist -Cultural trainings	-Partner program -Alliance department -Alliance knowledge dispersed via trainings -Alliance database

Source: (Adapted from) Draulans, De Man, Volberda, 1999.

At the third level, strategic alliances have become a top management priority. No longer are alliances of operational or business unit concern. This level requires alliances to be thoroughly embedded in business strategy, reflecting the highest level of alliance capacity. It is critical to install the right functions and tools to simultaneously manage a large number of alliances in an appropriate fashion. The essential characteristic of this level is that the firm is consciously dispersing its alliance experience and knowledge throughout the firm through dedicated investments. In this way, alliance knowledge no longer reside with a small number of professionals. To this end, it applies various tools, for instance alliance trainings and alliance programs. An important function is the creation of an alliance department, which can coordinate and structure alliance knowledge dissemination to those in need. Based on these arguments, we make the following proposition:

Proposition 2: The overall level of alliance capacity positively influences alliance performance.

6 An integrated model for alliance performance

To date, researchers have either investigated the effects of single factors of relational quality on alliance performance or the effects of alliance capacity on alliance performance. Surprisingly, the link between alliance capacity and relational quality has not been drawn so far. Researchers on alliance capacity have overlooked the effect on the intermediate outcome while researchers on relational quality have neglected to consider the antecedent factors. Obviously, companies, which invested in their alliance capacity, do so in expectation of improvement of overall alliance performance. Nevertheless, different tools and functions are implemented because they are positively influencing the relational qualities in a direct way. This practical evidence suggests that there are multifaceted positive relations between alliance capacity and relational quality.

1) As argued by the resource-based view, a favorable configuration of resources is the basis for sustainable competitive advantage. Different alliances need different resource configurations; hence, they should build on the complementarity of the partner's resources. Standard partner selection processes are aimed at identifying the most suitable resource configuration and partner as to the desired capabilities (Geringer, 1991). Simonin (1997) states that partner-searching know-how, which can be captured by standard processes of partner selection and assessment, define a critical component of alliance capacity. Eventually, these processes are to some extent designed to secure the complementarity of the resources brought to the alliance.

2) Compatibility refers to the level of similarity between partners as well as the sensitivity with which a company accounts and manages differences between partners in terms of culture, coordination mechanisms and structure. Because a high degree of compatibility facilitates alliance management (Johnson et al., 1996), not only the assessment of the resource contribution, but also the assessment of partner characteristics is mostly included in standard partner selection processes. Likewise, cultural trainings or country-specific alliance policies are geared to foster awareness and sensitivity to these differences. As a result, we expect a positive influence of these tools on relational quality.

3) Given the complexity of alliances as an organizational form, sound coordination and structure can help to govern the alliance in the right way (Doz and Hamel, 1998). To ensure cost minimization in the alliance and appropriate assignment and execution of tasks and responsibilities, firms can use different functions and tools. An alliance department, a vice-president of alliances or a gatekeeper can aid in realizing these factors and optimize the value of the alliance by creating a system of close relationships, both intra- and inter-organizational

(Madhok and Tallman, 1998). To determine whether the potential partner will be capable of executing its tasks and responsibilities (Medcof, 1997), a partner program can be a helpful tool.

4) Mutual trust is a product of investments in numerous interactions between partners (Ring and Van de Ven, 1994; Cullen, Johnson and Sakano, 2000). Despite the initial trust needed to start preliminary negotiations, the development of either benevolent and credibility trust builds on the accumulation of interactions, which are judged to be efficient and appropriate by the partners (Ring and Van de Ven, 1994). Since the amount of interaction and the provision of valuable information to judge the partner's action are crucial, alliance capacity tools like joint business planning, joint evaluation sessions or a shared Intranet, which provide possibilities for congruent sense-making, are quiet likely to influence the company's ability to raise trust in the partner.

5) The willingness to ensure that agreed upon decisions are implemented and verified is an essential characteristic of a high degree of commitment. Consequently, getting people, groups or organizations to focus and commit to a common goal is a pathway to competitive advantage (Greenhalgh, 2001). Moreover, Parkhe (1993) found that the commitment of non-recoverable investments is positively related to performance. To clarify contributions and benefits (Doz and Hamel, 1998), firms can use alliance metrics and joint evaluation techniques. Likewise, from an internal perspective, if a firm uses clear performance measures, to which it commits via rewards and bonuses for its managers, the degree of commitment shown will be enhanced.

6) Transparency is important for the assessment of competencies, the efficient execution of tasks and the potential to enable the alliance counterpart to evaluate and judge the partner behavior in the alliance (Ring and Van de Ven, 1994, Jap, 2001). Management functions and tools, which increase process and outcome transparency through information and communication flows or even signaling behavior, are important safeguards for achieving relational quality. Thus, we suggest that management tools like joint planning and evaluation sessions, access to a partner's Intranet or use of a gatekeeper positively influence the level of relational quality built.

Based on these arguments, the following propositions can be derived:

Proposition 3: The level of alliance capacity of a company is positively related to relational quality built by the company in its alliances.

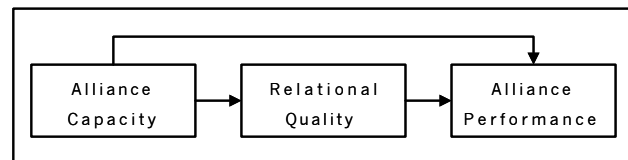


Figure 1: Complete model

7 Further research process and concluding remarks

Concerning the further research process, an empirical valuation will be conducted supporting or falsifying the integrated model as well as the named propositions. The methodology suggests a qualitative as well as quantitative approach using both case studies and a survey. We will cooperate with companies, investigating, which tools and functions are actually used and how they relate to the alliance portfolio performance and the development of relational qualities from a single company's point of view. In parallel, operationalizations for the constructs used will be either adapted from existing literature or newly developed. Discussion with practitioners will be used to establish face validity. The next step will consist of a survey drawing upon the case study results, thereby assessing the model on a larger empirical basis. Furthermore, the data will be used to identify the most effective and efficient management tools to support the management of an alliance portfolio.

Once that interdependence is comprehended, managerial advice, which actions to take to develop a superior alliance capacity and relational quality can be derived. First, the results are useful for developing an empirically grounded assessment tool of alliance competencies, including metrics for all relevant aspects which are either of a structural or behavioral nature. Second, based on the effectiveness and efficiency of different functions and tools for the alliance process, they serve as a guideline. It will help to determine what investments in management functions and tools can best be made to support the capability development process for alliance management. In doing so, companies will strengthen their ability to compete in constantly restructured, high-velocity industries.

Finally, in terms of subsequent research, the presented integrated approach will foremost serve the resource-based view of alliance management capabilities. The approach strives to understand which structural management functions and tools are useful to support different relational qualities of the firm and how they relate to the performance of an alliance portfolio. Moreover, transferring the findings to other management processes, the introduced approach to investigate development and maintenance of managerial capabilities might be used for other theories based on the resource-based view. The research question to answer would be: How can critical management capabilities, in terms of their structural as well as behavioral dimension, be captured and developed on an organizational rather than individual level?

8 References

- Accenture, The Conference Board (2001). 'The CEO Challenge: Top marketplace and management issues 2001', www.accenture.com/xdoc/en/ideas/RR-_1286_ACC_ES.pdf. Accessed 18.12.2001.
- Anand, B. and T. Khanna (2000). 'Do firms learn to create value? The case of alliances', *Strategic Management Journal*, **21**, pp. 295 – 315.
- Barney, J. B. (1997). *'Gaining and sustaining competitive advantage'*, Boston, MA: Addison-Wesley.
- Booz Allen & Hamilton (1997). *'Cross boarder alliances in the age of collaboration'*, Booz Allen & Hamilton: Los Angeles.
- Booz Allen & Hamilton (1998). *'Institutionalizing alliance skills: Secrets of repeatable success'*, Booz Allen & Hamilton: Los Angeles.
- Contractor, F. J. and P. Lorange (1988). 'Why should firms cooperate? The strategy and economics basis for cooperative ventures', in P. Contractor and FJ. Lorange (eds). *Cooperative strategies in international business*. Lexington, MA: Lexington Books, pp. 3 – 30.
- Cullen, J. B., J. L. Johnson and T. Sakano (2000). 'Success through commitment and trust: The soft side of strategic alliance formation', *Journal of World Business*, **35**, pp. 223 – 241.
- Das, T.K. and B. Teng (2000). 'A resource-based theory of strategic alliance formation', *Journal of Management*, **26**, pp. 31 – 61.
- Das, T.K. and B. Teng (1998). 'Resource and risk management in strategic alliances making process', *Journal of Management*, **24**, pp. 21 – 42.
- De Man, A. P., G. Duysters and A. Vasudevan (2001) (eds). *The allied enterprise, Global strategies for corporate collaboration*, Imperial College Press: London.
- Deeds, D. L. and C. W. L. Hill (1996). 'Strategic alliances and the rate of new product development: An empirical study of entrepreneurial biotechnology firms', *Journal of Business Venturing*, **11**, pp. 41 – 55.
- Dierickx, I. And K. Cool (1989). 'Asset Stock Accumulation and Sustainability of Competitive Advantage', *Management Science*, **35**, pp. 1504-1511.
- Doz, Y. L. and G. Hamel (1998). *'Alliance advantage'*, Boston, MA: Harvard Business School Press.
- Doz, Y. L. (1996). 'The evolution of cooperation in strategic alliances: Initial conditions or learning processes', *Strategic Management Journal*, **17**, pp. 55 – 83.
- Draulans, J., A. P. De Man and H. W. Volberda (1999). 'Alliantievaardigheid: Een Bron van Concurrentievoordeel', *Holland/Belgium Management Review*, **63** (January), pp. 52-59.
- Duysters, G. M., A. P. De Man and L. Wildeman (1999). 'A network approach to alliance management', *European Management Journal*, **17**, pp. 182-187.
- Duysters, G. M., G. Kok and M. Vaandrager (1999). 'Crafting strategic technology partnerships', *R&D Management*, **29**, pp. 343-351.
- Dyer, J. H. and H. Singh (1998). 'The relational view: Cooperative strategy and sources of inter-organizational competitive advantage', *Academy of Management Review*, **23**, pp. 660 – 679.
- Geringer, J. M. (1991). 'Strategic determinants of partner selection criteria in international joint ventures', *Journal of International Business Studies*, First Quarter, pp. 41-62.
- Grant, R. M. (1996). 'Prospering in dynamically competitive environments: organizational capabilities as knowledge integration', *Organization Science*, **7**, pp. 375 – 387.
- Greenhalgh, L. (2001). *'Managing Strategic Relationships'*, New York: The Free Press.
- Gulati, R. (1998). 'Alliances and networks', *Strategic Management Journal*, **19**, pp. 293 – 317.
- Hergert, M. and D. Morris (1988). 'Trends in international collaborative agreements', in: F. Contractor and P. Lorange (eds). *Cooperative strategies in international business*, Lexington, MA: Lexington Books, pp. 99-109.
- Jap, S. (2001). 'Pie sharing" in complex collaboration contexts', *Journal of Marketing Research*, **38**, pp. 86 – 99.
- Johnson, J.L., J. B. Cullen, T. Sakano and H. Takenouchi (1996). 'Setting the stage for trust and strategic integration in Japanese-U.S. cooperative alliances', *Journal of International Business Studies*, **27**, pp. 981 – 1004.

- Kale, P. and H. Singh (1999). 'Alliance capability and success: A knowledge-based approach', Working paper, Wharton School, University of Pennsylvania.
- Kale, P., H. Singh and H. Perlmutter (2000). 'Learning and protection of proprietary assets in strategic alliances: Building relational capital', *Strategic Management Journal*, **21**, pp. 217 – 237.
- Kotabe, M. and S. K. Swan (1995). 'The role of strategic alliances in high-technology new product development', *Strategic Management Journal*, **16**, pp. 621 – 636.
- Kumar, R. and K. O. Nti (1998). 'Differential learning and interaction in alliance dynamics: A process and outcome discrepancy model', *Organization Science*, **9**, pp. 356 – 368.
- Madhok, A. and S. B. Tallman (1998). 'Resources, transactions and rents: Managing value through interfirm collaborative relationships', *Organization Science*, **9**, pp. 326-339.
- Medcof, J.W. (1997). 'Why too many alliances end in divorce', *Long Range Planning*, **30**, pp. 718-732.
- Mohr, J. and R. Spekman (1994). 'Characteristics of partnership success: Partnership attributes, communication behavior and conflict resolution', *Strategic Management Journal*, **15**, pp. 135 – 152.
- Narula, R. and J. Hagedoorn (1999). 'Innovation through strategic alliances: Moving towards international partnerships and contractual agreements', *Technovation*, **19**, pp. 283 – 294.
- Nonaka, S. and N. Takeuchi (1995). *The knowledge creating company*, New York: Oxford University Press.
- Park, S. H. and G. R. Ungson (2001). 'Interfirm rivalry and managerial complexity: A conceptual framework of alliance failure', *Organization Science*, **12**, pp. 37 – 53.
- Parkhe, A. (1993). 'Strategic alliance structuring, a game theoretic and transaction cost examination of interfirm cooperation'. *Academy of Management Journal*, **36**, pp. 794 – 829.
- Peteraf, M. (1993). 'The Cornerstones of Competitive Advantage: A Resource-Based View', *Strategic Management Journal*, **14**, pp. 179-191.
- Porter, M.E. (1980). *Competitive Strategy*, New York, NY: The Free Press.
- PricewaterhouseCoopers (2001). 'PricewaterhouseCoopers Technology Barometer News Release', www.barometersurveys.com/pr/te010214.pdf. Accessed 10.11.2001.
- Ring, P.S. and A. H. Van de Ven (1994). 'Developmental processes of cooperative inter-organizational relationships', *Academy of Management Review*, **19**, pp. 90 – 118.
- Senge, P. (1990). *The fifth discipline*, New York, NY: Doubleday.
- Shamdasani, P.N. and J. N. Sheth (1995). 'An experimental approach to investigating satisfaction and continuity in marketing alliances', *European Journal of Marketing*, **29**, pp. 6 – 23.
- Simonin, B. L. (1997). 'The importance of collaborative know-how: An empirical test of the learning organization'. *Academy of Management Journal*, **40**, pp. 1150 – 1175.
- Sivadas, E. and R. F. Dwyer (2000). 'An examination of organizational factors influencing new product development in internal and alliance-based processes', *Journal of Marketing*, **64**, pp. 31 – 40.
- Spekman, R. E., L. A. Isabella and T. C. MacAvoy (2000). *Alliance competence*, New York, NY: John Wiley & Sons.
- Teece, D. J. (1992). 'Competition, cooperation, and innovation: Arrangements for regimes of rapid technological progress', *Journal of Economic Behavior and Organization*, **18**, pp. 1 – 25.
- Takeishi A. 2001. Bridging Inter- and Intra-Firm Boundaries: Management of Supplier Involvement in Automobile Product Development, *Strategic Management Journal*, **22**: 403-433.
- Wernerfelt, B. (1984). 'A Resource-Based View of the Firm', *Strategic Management Journal*, **5**, pp. 171-180.
- Williamson, O. E. (1975). *Markets and hierarchies: Analysis and antitrust implications*, New York: Free Press.
- Williamson, O. E. (1991). 'Comparative Economic Organization: The analysis of Discrete Structural Alternatives', *Administrative Science Quarterly*, **36**, pp. 269-296.
- Young-Ybarra, C. and M. Wiersema (1999). 'Strategic flexibility in information technology alliances: The influence of transaction cost economics and social exchange theory', *Organization Science*, **10**, pp. 439 – 460.