Strategic alliances with competing firms and shareholder value

Candace E. Ybarra
Chapman University

Thomas A. Turk
Chapman University

ABSTRACT

Competing effectively in dynamic environments requires innovation. Strategic alliances have been proposed as an efficient means to access the resources needed for innovation. Previous research has demonstrated significant positive effects of alliance formation on firm value. We propose, however, that increased transactions costs required to gain commitment to an alliance between direct competitors reduce the value created by such alliances. This results in smaller stock market reactions to the formation of these alliances than for alliances between non-competing firms. Using a sample of 89 high technology alliances, we provide evidence that gains to shareholders involved in alliances among competitors are significantly lower than those involved in non-competitor alliances. These results may suggest that direct-competitor alliances may be an inefficient means for innovating.

Keywords: Strategic alliances, firm value, transaction costs, direct competitors
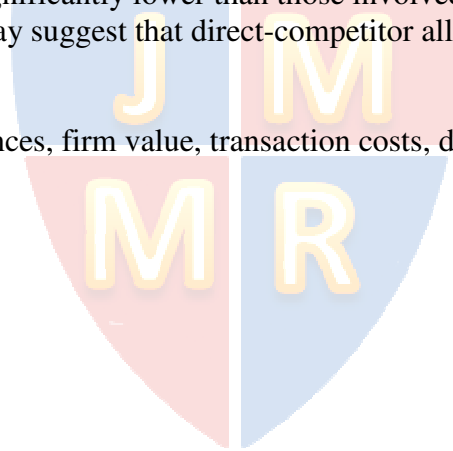
INTRODUCTION

Strategic alliances are strategic actions based on the cooperative activities of two or more otherwise independent firms. Strategic alliances allow firms to acquire or use skills or capabilities they lack while focusing their resources on their core skills and competencies. Increasingly turbulent and competitive business environments are forcing firms to become more efficient, innovative and flexible. Many firms have found that it is difficult to address these changing conditions through either acquisition or internal research and development alone. Thus, it is becoming increasingly important for firms to adopt more flexible structures such as strategic alliances as viable and cost-effective alternatives to internal research and development (Harrigan, 1987, 1988).

Companies are forming alliances with their customers, their suppliers and even their rivals (Doz and Hamel, 1998). Moreover, networks of companies are competing against other networks, changing the distribution of economic power in many industrial sectors and forcing more and more single companies, both large and small, into strategic alliances of their own (Gulati, 1995; Human and Provan, 1997). The reasons for this are clear. Strategic alliances have the potential to allow companies to create new products, reduce costs, penetrate additional markets, preempt competitors, generate more revenue, and, therefore, create value (Chan, Kensinger, Keown, and Martin, 1997; Contractor and Lorange, 1988). In large part this is true because alliances can serve as channels for the transfer of technology and enable other kinds of organizational learning (Anand and Khanna, 2000). They may be even more powerful in strengthening a company's competitive position than traditional mergers and acquisitions, internal development or traditional arms length agreements.

Evidence suggests that an effectively structured and managed alliance can create value for the firm. For example, a study by Coopers and Lybrand showed that firms involved in alliances had 11% higher revenue and a 20% higher growth rate than companies not engaged in alliance activity (Segil, 1998). Executives confirm the value of the alliances their companies are involved with. In a recent survey of U.S. executives, approximately 70% said that their strategic alliances have helped them meet their growth objectives and have the continued potential for lucrative returns (Mergers and Acquisitions, 2005). Several studies have also identified significant, positive stock market reactions to the announcements of formation of strategic alliances (Anand and Khanna, 2000; Chan, Kensinger, Keown and Martin, 1997; Chiou and White; 2005; Gleason, Mathur and Wiggins, 2003; McConnell and Nantel, 1985). These studies indicate that alliances have become important tools for a company in gaining a competitive edge.

Nevertheless, additional evidence indicates that not all alliances achieve their potential to create value for the partners with alliance failure rates remaining high. Failure rates between 40%-70% have been cited in the literature with failure being measured as a premature breakdown of the alliance or financially damaging to one or both parties to the alliance. Previous research examining the stock market reaction to alliance formation provides evidence for this. Das, Sen and Sengupta, (1998), for example, detected significant gains to shareholders for only a subset of the alliances they examined. Additionally, when looking at strategic alliances in the banking industry, Chiou and White (2005) found that there were asymmetric gains between large and small partners

suggesting that not all firms benefit equally from an alliance. Similarly, Kalaignanam, Shankar, and Varadarajan (2007) found asymmetric gains between large and small partners in new product development alliances. Thus, because of the increased use and competitive importance of strategic alliances, it becomes important to identify those factors that may contribute to alliance success or failure.

One factor identified as relating to the success or stability of an alliance is an organization's commitment to the alliance (Mohr and Spekman, 1994). Strategic alliances involve mutual commitment not found in market transactions, but do not pool resources indefinitely as in mergers. Thus, for a strategic alliance to possess advantages over market transactions, strategic partners must make resource commitments to the alliance. Commitment to a strategic alliance is most often discussed in terms of a partner's willingness to exert effort on behalf of the relationship (Mohr and Spekman, 1994). Likewise, it is the belief that the alliance relationship with another is so important as to warrant maximum efforts at maintaining the relationship (Morgan and Hunt, 1994). In short, a committed member is one that works hard to maintain the relationship and cooperates to ensure alliance, not just partner, success. Perhaps unsurprisingly, previous research has found a positive relationship between commitment and the overall performance of the alliance (Young-Ybarra and Wiersema, 2002).

Although commitment, as well as many other alliance phenomena, has been receiving increasing attention in the strategy literature, many previous studies have almost exclusively ignored the nature of the relationship between the participants in terms of whether the partners are direct competitors or non-competitors. In examining strategic alliances, researchers have distinguished alliances by type (e.g. equity joint ventures vs. research and development consortia) but generally not by the relationships between the organizations involved (e.g. direct competitors vs. non-competitors). For example, Gulati (1995) found that those alliance partners that had previous relationships with each other were less likely to use an equity joint venture than those with no previous working relationship. However, there is no clear distinction made regarding the relationship between the partners in terms of competitors or non-competitors.

When examining alliances between direct rivals only, Dussauge, Garrette and Mitchell (2004) found that partners gained at the expense of their partner depending on whether the alliance was a scale alliance (similar resources shared) or link alliance (different resources or competencies shared). However, because the entire sample was alliances between rivals it is unclear whether this would be true when companies from different industries partner. Likewise, other research involving strategic alliances has assumed generalizability across different relationships, failing to distinguish between alliances involving direct competitors and non-competitors.

As more and more rivals share technology and other resources, it becomes important to ascertain whether the benefits that have been found to accrue to alliance participants generally also accrue to those alliance partnerships involving direct rivals. This paper seeks to explore this question.

TRANSACTIONS COSTS, COMPETITIVE RELATIONSHIP, AND FIRM VALUE

Transactions cost theory suggests that firms entering into alliances are potentially vulnerable to the opportunistic behaviors of their partners that impede achieving commitment (Hamel, Doz, and Prahalad, 1989; Reich and Mankin, 1986). Opportunistic behavior is defined here as those conscious deceitful behaviors engaged in by one party to the exchange that are meant to enhance their own position or outcomes, usually at the expense of the other party (Provan, 1993). Williamson (1975) refers to opportunism simply as "self-seeking with guile". These opportunistic actions may take the form of misrepresenting competences, limited commitment of resources to the alliance, holding specific investments by the partner hostage, appropriating private information, or premature exit from the relationship.

Transactions cost theorists propose that costly monitoring mechanisms and incentive systems originate as efficient responses to the problems of cooperation (Williamson, 1975). Partners may seek to erect economic constraints to that opportunistic behavior with the safeguards against the opportunistic behavior varying according to the nature of the exchange and relationship of the parties involved. Transaction cost economists have recognized the proliferation of strategic alliances and suggest that they may be maintained by economic weapons such as hostages and credible commitments to keep opportunistic behavior in check. Specifically, economic controls such as asset specificity, hostages, and reciprocal investments may be used to reduce the potential for opportunism by locking-in partners to a strategic alliance with commitment being in their own economic interest. Each of these controls involves costs to the alliance partners, reduces flexibility, and reduces the value otherwise created by the alliance.

Several authors have noted that the risk of opportunism and the difficulty in gaining commitment may be greatest when alliance partners are competitors. Hamel (1991), for example, has suggested that the rivalry between direct competitors may be the greatest deterrent to the alignment of strategic interests and commitment to the relationship. Deeds and Hill (1999) examine the risk of opportunistic behavior in research alliances and find that partners often take information learned from their partner and use that information to more effectively compete against their partner. Hamel and others (Lei and Slocum, 1992) suggest that direct competitors may have different motives, or intent, in forming the alliance. Hamel, Doz, and Prahalad (1989) assert that there is a high likelihood that partners in an alliance will benefit unequally and these asymmetric benefits are particularly problematic when alliances are between direct competitors. They contend that alliances between rivals can result in the loss of proprietary technology, lead to increased dependence of one partner on the other, or a strengthening of one partner's competitive advantage at the expense of their one-time partner. Likewise, in a game-theoretic analysis, Wilfred and Staelin (2010) found that where there is an increase in inter-alliance competition, partners will decrease their investment in the focal alliance but increase their investment in competition outside the scope of the alliance.

Consequently, alliance partners involved with their direct competitors may be less interested in the longevity of the alliance and more interested in what can be learned and internalized from their partner. In this case, the opportunistic partner may structure the

relationship for ease of exit with less binding commitments of non-recoverable assets and less dependence. Since opportunistic actions that undermine the position of a direct competitor provide greater benefit than opportunistic actions at the expense of a non-competing firm, the risk of opportunism in alliances between competitors may be higher (Narulo and Santangelo, 2009; and Oxley and Sampson, 2004). As a result of the increased potential for opportunistic behavior monitoring costs may be substantially higher for direct-competitor alliances. Barney and Hansen (1994) support this contention when they argue that when the potential for opportunistic behavior by one party is high, partners may need to utilize governance devices that impose severe costs on the relationship. These costs, they argue, will limit the potential of the alliance in leading to a competitive advantage.

We propose that the cost of gaining the commitment critical to a successful strategic alliance is higher when the alliance partners are competitors than when they are not. As the cost of managing the alliance is higher, this reduces the gain shareholders would otherwise earn. Therefore, we hypothesize that:

Hypothesis 1: Gains to shareholders of firms engaged in alliances with direct competitors will be lower than those of firms engaged in alliances with non-competitors.

METHODS

To test the hypothesis described above we rely on the sample of high technology strategic alliances developed in Young-Ybarra and Wiersema (1999). Their sample included 162 high technology strategic alliances announced during the 1992-1996 period. By focusing on IT alliances, this study uses a relatively homogeneous sample. This controls for other external factors that might affect the stock market reaction to the alliance announcement. Inclusion in the sample required that:
    1) one or more of the partners be U.S.-based;
    2) the alliance involved research in the area of information technology; and
    3) that the alliance was either a joint development agreement --two or more firms working together on new technology or products--or a joint research pact --the joint undertaking of research projects with shared resources.

In order to estimate returns to shareholders from alliances, this study adds the requirement for sample inclusion that the firm be publicly traded. Of the 162 firms in their sample, 89 of the firms were publicly traded and had sufficient stock return data to be included in this study. Thus, our final sample size was 89 firms participating in high technology alliances.

Of the 89 firms in the sample, 49 were involved in alliances with direct competitors and 40 were involved in alliances with firms with which they did not directly compete. We defined direct competitors as alliance partners who are in the same primary business (e.g. two computer disk drive companies) whereas non-competitors are those companies in which the partners operate in different (although perhaps related) industries (e.g. a software developer and a hard drive manufacturer). The competitive relationship was determined by examining the primary SIC code and verifying directly the extent of involvement within the industry. SIC codes sometimes define industries broadly and can

group firms that do not compete directly into the same industry.   By verifying directly the extent of involvement within the industry we were able to assure that firms with the same primary SIC codes were indeed direct competitors.

We measured the stock market reaction to the strategic alliance announcement using the standard event study methodology (Dodd and Warner, 1983) used widely in strategic management and financial economics research. This methodology involves adjusting the observed returns to the firm on the days surrounding an event for the expected or "normal" returns of the firm. The resulting abnormal return (AR) is compounded throughout the event period to calculate the cumulative abnormal return (CAR), the estimate of the return to shareholders associated with the event.

Specifically, we estimated the abnormal return to firm j on day t, AR_{jt}, as:

$$AR_{jt} = R_{jt} - (a_j - b_j R_{mt});$$

where a_j and b_j are estimated for each firm from a regression of their daily returns on R_m, the return of a value-weighted market index.

This market model regression was estimated for a 200 day period ending 11 days before the strategic alliance announcement. The cumulative abnormal return for each firm was computed by compounding the AR over a two day period beginning the day before the strategic alliance was announced in the *Wall Street Journal*. Data on the daily stock returns for the firms in the sample and the market portfolio were obtained from the CRSP data files. We also reviewed each announcement for confounding information, such as dividend announcements, during the event period. None of the firms in our sample had reported potentially confounding announcements or events. This technique is consistent with previous studies on strategic alliances (Anand and Khanna, 2000; Chan, Kensinger, Keown and Martin, 1997; Das, Sen and Sengupta, 1998; Gleason, Mathur and Wiggins, 2003; Kale, Dyer and Singh, 2002; Koh and Venkatraman, 1991; McConnell and Nantel, 1985; Merchant and Schendel, 2000).

Researchers have used a variety of alliance performance indicators in addition to CARs.   Several have relied on surveys of top managers, for example, to assess alliance success (Beamish, 1984; Anderson and Narus, 1990; Tuchi 1996). Research has been shown, however, that stock market measures of alliance performance are correlate highly with management estimates of long term alliance success (Kale, Dyer and Singh, 2002).

RESULTS

Table 1 (Appendix) presents the Cumulative Abnormal Residuals (CARs) for the sample as a whole, and for alliances among competitors and for non-competitor alliances separately. For the sample as a whole, CARs associated with the announcement of a strategic alliance averaged 1.11% (z=3.84, p<.01). These returns are statistically significant and consistent with recent studies on strategic alliances (Anad and Khanna, 2000; Chan, Kensinger, Keown and Martin, 1997; Das, Sen and Sengupta, 1998; Gleason, Mathur and Wiggins, 2003; Kale, Dyer and Singh, 2002; McConnell and Nantel, 1985). McConnell and Nantel (1985) estimated abnormal returns form alliance at .74% in their study, for example, while Chan, Kensinger, Keown and Martin (1997) found alliance announcements to create abnormal returns averaging .82%.

For firms announcing alliances involving competitors, CARs averaged a statistically insignificant .16% (z=.17). Only 38.8% of these firms earned positive abnormal returns. Firms announcing alliances involving non-competitors earned statistically significant abnormal averaging 2.27% (z=5.55, p<.01). A statistically significant 80% of these firms earned positive abnormal returns (t=4.76, p<.01). The difference between the average abnormal returns for alliances with competing firms and alliances with non-competing firms was 2.11%. Consistent with our hypothesis this difference is statistically significant (t=2.94, p<.01).

DISCUSSION

The results summarized above provide evidence that firms announcing strategic alliances with competitors earned significantly lower abnormal returns for shareholders than firms announcing alliances with firms with which they do not directly compete. These results suggest that the costs and benefits of strategic alliances perceived by investors depend on the relationship between the firms forming the alliance. We propose that this differential gain in value is explained in part by the greater risk of opportunism among competitors in an alliance than among non-competitor alliance partners. This risk of opportunism implies that greater investments in monitoring and bonding may be required to gain cooperation among competitors than firms not competing directly. As we extend this research project we will examine directly the impact of investments in monitoring and bonding on the market reaction to strategic alliances involving competitors and non-competitors.

Our theory has focused on the increased costs of managing alliances among competitors relative to the costs of managing alliances among non-competing firms. In principle, if alliances that are more expensive to manage also provide greater benefits, these alliances could provide the same or greater value than alliances that are less costly to manage. Many potential benefits to alliances have been proposed in the literature including risk sharing, cost sharing, scale economies, market power, access to specialized resources, collusion, learning, and options on new market opportunities. An examination of those categories of benefits suggests that benefits to alliances among competitors are likely to be the same or lower than for alliances among non-competing firms.

Potential cost sharing and risk sharing benefits from alliances, for example, can be obtained to a similar degree regardless of the competitive relationship of the alliance partners. Researchers have failed to demonstrate any benefit to shareholders from increasing market power or collusion in the context of mergers (Eckbo, 1983). There is no theory to suggest market power would be of greater benefit in the context of alliances among competitors than it is in acquisitions by competitors.

Learning and temporary access to specialized resources is most valuable when the alliance partners have different knowledge and resources. Given that direct competitors likely possess similar resource sets, learning and access to specialized resources would generally be most valuable in alliances among non-competing firms. Similarly, the value of an option on new market opportunities may be lower in the context of competing firms than in alliances among non-competing firms since competing firms have access to more similar such opportunities. Future research could usefully measure the benefits of

alliances across different competitive relationships among the partners to assess this issue more directly.

CONCLUSION

Strategic alliances have been widely viewed as an effective and efficient alternative to acquisitions and internal development in dynamic markets. They provide immediate and temporary access to the complementary resources needed to compete in markets demanding innovation. The results of this study suggest that only some alliances offer this potential benefit in a sufficiently cost effective manner to benefit shareholders. Future research on alliances will need to delve further into the circumstances under which strategic alliances can be an efficient means for balancing the need for innovation with the demand for financial performance.

REFERENCES

Amaldoss, W. and R. Staelin (2010). Cross-Function and Same-Function Alliances: How Does Alliance Structure Affect the Behavior of Partnering Firms? *Management Science*, 56 (2), 302-317.

Anand, B., and T. Khanna (2000). Do firms learn to create value? The case of alliances. *Strategic Management Journal*, 21, 295-315.

Barney, J. and M. Hansen (1994). Trustworthiness as a source of competitive advantage. Strategic Management Journal, 15,175-190.

Chan, S., J. Kensinger, A. Keown, and J. Martin (1997). Do strategic alliances create value? J*ournal of Financial Economics*, 46, 199-221.

Chiou, I. and L.J. White (2005). Measuring the value of strategic alliances in the wake of a financial implosion: Evidence from Japan's financial services sector. *Journal of Banking and Finance*, 29, 2455-2473.

Contractor, F. and P. Lorange (1988). Why should firms cooperate? The strategy and economics basis for cooperative ventures. In Contractor, F. and Lorange, P. (Eds.), *Cooperative Strategies in International Business: Joint Ventures and Technology Transfers Between Firms*, 3-28. New York: Lexington Books.

Das, S., P. Sen, and S. Sengupta (1998). Impact of strategic alliances on firm valuation. *Academy of Management Journal,* 41(1), 27-41.

Deeds, D.L. and C.W.L. Hill (1999). An examination of opportunistic action within research alliances: Evidence from the biotechnology industry. *Journal of Business Venturing,* 14(2):141-163.

Dodd, P. and J. Warner (1983). On corporate governance: A study of proxy contests. *Journal of Financial Economics,* 13, 401-438.

Doz, Y and G. Hamel (1998). *Alliance Advantage.* Boston, MA: Harvard Business School Press.

Dussauge, P., B. Garrette and W. Mitchell (2004). Asymmetric performance: The market share impact of scale and link alliances in the global auto industry. *Strategic Management Journal*, 25, 701-711.

Eckbo, B.E. (1983). Horizontal mergers, collusion, and shareholder wealth. *Journal of Financial Economics*, 11, 241-273.

Gleason, K., I. Mathur, and R. Wiggins (2003). Evidence on value creation in the financial services industries through the use of joint ventures and strategic alliances. *The Financial Review*, 38, 213-235.

Gulati, R. (1995). Does familiarity breed trust? The implications of repeated ties for contractual choice in alliances. *Academy of Management Journal*, 38, 85-112.

Hamel, G. (1991). Competition for competence and interpartner learning within international strategic alliances. *Strategic Management Journal*, 12, 83-103.

Hamel, G., Y. Doz and C.K. Prahalad (1989). Collaborate with your competitors and win. *Harvard Business Review*, 67(1): 133-139.

Harrigan, K. (1987). Joint ventures: A mechanism for creating strategic change. In A. Pettigrew (Ed.), *The Management of Strategic Change*, 195-230. Oxford: Basil Blackwell.

Harrigan, K. (1988). Joint ventures and competitive strategy. *Strategic Management Journal*, 9, 141-158.

Human, S. and K. Provan (1997). An emergent theory of structure and outcomes in small-firm strategic manufacturing networks. *Academy of Management Journal,* 40 (2), 368-403.

Kalaignanam, K., V. Shankar and R. Varadarajan (2007). Asymmetric New Product Development Alliances: Win-Win or Win-Lose Partnerships? *Management Science*, 53 (3), 357-374.

Kale, P., J. Dyer and H. Singh (2002). Alliance capability, stock market response, and long-term alliance success: The role of the alliance function. *Strategic Management Journal*, 23, 747-767.

Kogut, B. (1989). The stability of joint ventures: Reciprocity and competitive rivalry. *The Journal of Industrial Economics*, 38, 183-199.

Koh, J. and N. Venkatraman, 1991. Joint venture formations and stock market reactions: an assessment in the information technology sector. *Academy of Management Journal* 34, 869-892.

Lei, D. and J. Slocum (1992). Global strategy, competence building and strategic alliances. *California Management Review,* 81-97.

McConnell, J. and T. Nantell (1985). Common stock returns and corporate combinations: The case of joint ventures. *Journal of Finance,* 40, 519-536.

Merchant,, H. and D. Schendel, 2000. How do international joint ventures create shareholder value? *Strategic Management Journal* 21, 723-738.

Mohr, J. and R. Spekman (1994). Characteristics of partnership success: partnership attributes, communication, behavior and conflict resolution techniques. *Strategic Management Journal*, 15, 135-152.

Morgan, R. and S. Hunt (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58, 20-38.

Oxley, J. E. & Sampson, R. C. (2004). The scope and governance of international R&D alliances. *Strategic Management Journal*, 25 723-750.

Narula, R. & Santangelo, G. (2009). Location, collocation and R&D alliances in the European ICT industry. *Research Policy*, 38: 393-403.

Reich, R. and E. Mankin (1986). Joint ventures with Japan give away our future. *Harvard Business Review*, 64, 77-86.

Segil, L (1998). Strategic alliances for the 21st century. *Strategy and Leadership,* 26, 12-16.

Williamson, O. (1975). *Markets and Hierarchies: Analysis and Antitrust Implications*. New York: Free Press.

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(4), 439-459.

Young-Ybarra, C. (2002). The Determinants of Commitment to a Strategic Alliance: Proposing and Testing a Structural Model. *Structural Equation Modeling Journal.*

APPENDIX

Table 1

A Comparison of Cumulative Abnormal Returns to Firms Announcing Alliances with Direct Competitors and those Announcing Alliances with Non-Direct Competitor Firms

	N	CAR	Z	% Positive	t^a
All Firms	89	1.11%	3.84***	57.3%	1.40
Direct Competitor Alliances	49	.16%	.17	38.8%	-1.61
Non-Direct Competitors Alliances	40	2.27%	5.55***	80.0%	4 .76***
Sub-Group Difference:					
Student t		2.94***			

[a] $t = (P-.5)/[(PQ/N)^{1/2}]$, where P= the percentage of CARs greater than 0, Q = 1-P, and N = the number of firms in the sample.

*   p<.1
**   P<.05
***   P<.01