

1993

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Recommended Citation

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Scholarship and Professional Work - Business. Paper 30.
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Alliances and Networks: Cooperative Strategies for Small Businesses

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ABSTRACT

Research on large firms shows that cooperative strategies have the potential to improve performance by helping firms gain access to necessary resources, enter new markets, and spread the risk over several partners. Interviews with thirty-four small business managers show small firms also can profit from using a cooperative network. Highly-allied small businesses entered alliances to gain resources and based their alliances on a distinctive competence. The highly allied businesses grew more rapidly than the less allied firms. Mutual goals and joint decision making were viewed as critical to the high level of satisfaction achieved.

provided are specifically tailored to a small business interested in successfully forming and operating its own network of strategic alliances.

“ . . . long-term cooperative strategy options . . . may be useful for a small firm interested in both independence and the advantages of joint action . . . ”

INTRODUCTION

It's hard being the little guy. Bullies beat up on you all the time. Yet, weak, scrawny kids have learned to fight together to best the bully. Why haven't small businesses adopted the same solution? The small firm can be clobbered if it attempts to go head to head with a huge competitor in a price competitive environment. Yet only a few of them have adopted cooperative strategies to gain power from membership in a network of companies.

Perhaps this has occurred because cooperative strategies previously have been studied almost entirely from the perspective of their usefulness to very large and usually multinational corporations. While Peridis (1990) and D'Souza and McDougall (1989) provided the theoretical rationale for small business alliances, they did not collect information from small firms with experience in cooperative venturing. A major purpose of this study is to replicate previous studies of large firm alliances with a different pool of subjects—small businesses. This is necessary because small businesses are not just smaller versions of big businesses. They have unique needs, problems, and dynamics (Shuman and Seeger 1986). This article describes types of cooperative strategies and a research project that studied the success of small businesses that cooperated in alliances. The conclusions and recommendations

Types of Cooperative Strategies

Markets, hierarchies, and long-term cooperative relationships (clans) have been identified as methods by which firms can acquire resources and conduct business relationships (Williamson 1975; Ouchi 1980). In a market relationship, the price mechanism in a competitive market assures the exchange is equitable. However, the market breaks down and transaction costs increase in situations of high uncertainty, frequent transactions, and long-term relationships necessitating specialized assets and opportunism.

Therefore, activities are brought inside the organization (vertically integrated) and regulated by the hierarchy. Because activities in several stages of production and distribution are now owned by the firm, negotiations among parties such as the marketing and manufacturing departments are more efficient due to the ability of management to control, evaluate, and compensate subordinates' actions. However, hierarchies fail in situations where there are significant internal costs in managing complex relationships and assuring fair performance evaluation and compensation.

Various intermediate forms of control involving long-term cooperative arrangements with competitors, customers, or suppliers form a third set of options. These involve more goal similarity than typical in a market transaction and more flexibility than usual in sole ownership. Contracts, joint ventures, minority equity

investments, and licensing agreements are long-term cooperative strategy options that may be useful for a small firm interested in both independence and the advantages of joint action (Hayes and Wheelwright 1984). Each of these types of alliances is defined in Table 1.

TABLE 1
TYPES OF COOPERATIVE ALLIANCES

Joint Programs/Contracts

These involve a formal agreement between two or more companies that work together in planning and implementing specific activities. They are commonly used to develop technology, spread risks, avoid duplication of effort, and gain resources.

Joint Ventures

A joint venture is a separate, autonomous company formed by contributions from two or more parents. It is useful when permanency, control, resources, or market access is desired.

Minority Equity Investments

Noncontrolling interest in the firm is sold to a partner, usually to secure access to capital, customers, or distribution.

Licensing Agreements

Licensing involves the transfer of industrial property rights (patents, trademarks, etc.) from the owner of the right to a licensee. It is used when old technology is needed in less advanced markets, when resources are needed to develop new products, when R&D investment must be recouped rapidly before obsolescence occurs, or when a firm wants to concentrate on a few key activities.

Variables Associated with High Levels of Alliance Creation

Given the large number of alliance options, why haven't small businesses adopted them more readily? The first objective of this study is to compare the characteristics of small businesses that *do* get very involved in cooperative alliances with firms that *do not* and determine the variables that are associated with high levels of alliance formation. In this section, a review of previous work on variables associated with high alliance levels and the research propositions studied in this project are presented.

Environment. Alliances are likely to be chosen when technological change is rapid and the risk of obsolescence is great (Garland and Farmer 1986). Since the learning process, communication channels, and trust necessary in inter-firm relationships are already established, response to change is rapid. Yet the relationship can be dissolved more easily than sole ownership obligations if the environment changes radically or if performance

of a partner deteriorates. Therefore, small firms would be more likely to adopt a network strategy in a changing environment.

Company Resources. The company must have control over some key resource such as a brand it can license (Ocean Pacific), technology, access to information or distribution networks (Lewis Galoob Toys), or managerial skill that can give it power in bargaining with other firms (Garland and Farmer 1986). Small firms must possess some resource that would attract partners.

Research Propositions. Based on this work, it is proposed that small firms facing serious environmental threats will be more likely to be active in strategic alliances. It is also proposed that small firms with a protected product advantage such as a patent would be more involved in alliances since they control a resource a partner may want. Since it is important for small businesses to exploit their strengths thoroughly, it is proposed that highly allied firms will focus on building upon this competitive advantage in their overall strategy and strategic decision process.

Outcomes Obtained by Highly Allied Firms

The second research question centers on the effectiveness of small firm networks. The costs and benefits of alliance participation identified by previous authors are presented in this section. Then propositions are generated regarding benefits and problems small firms might experience.

Benefits. Positive outcomes of cooperative alliances include access to new technology and markets (Osborn and Baughn 1987), streamlining of industry production capacity, reduction in costs, fewer managers needed for growth, flexibility, and spreading risk over a larger number of projects (Lorange and Roos 1987). Other benefits focus on the increased information processing and learning resulting from participation in a network (Farmer and MacMillan 1976). For instance, the trauma of learning a new supplier's products, policies, personnel, and practices is reduced via long-term contracts.

Alliances with competitors often can yield access to new technologies and skills (Hamel, Doz, and Prahalad 1989). Information can be gleaned from specifications, visits to manufacturing sites, and analysis of order patterns that reveal market trends. If a firm can absorb skills from its partner, it can position itself for future growth even if the alliance is dissolved.

For small firms, significant increases in efficiency can be gained through alliances. Peridis (1990) proposes that small firms can achieve economies of scale rapidly by utilizing assets already owned by the partner. Smaller firms can capitalize on the larger partner's resource base, established distribution channels, and market knowledge.

Problems. A networking strategy is not without danger. Negative outcomes include possible loss of

technology, domination by a larger partner, continuous conflicts, and inattention to effective alliance management.

A major concern with alliances is that firms may unwittingly give away market, technical, and manufacturing expertise and consequently erode their long-term competitive advantage (Reich and Mankin 1986). Many firms license their technology, only to have the partner learn from producing the product and then bring out a new, improved product after the alliance is disbanded.

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Small firms may have special challenges in finding amenable network members due to lack of contacts in the industry or international environments.

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Lack of fit with partners' culture and personality can be a particular problem in joint activities between a small and a large firm (Lyles 1987). The decision style, speed of decision making, and number of people involved in decisions may differ greatly between entrepreneurial and bureaucratic firms. The alliance between Metheus, a small electronic-design software firm, and Computervision broke down partially because of differences in goals and policies of the different-sized firms (Levine and Byrne 1986). Small firms with fewer managers and less-developed systems may find it takes an exorbitant amount of time to manage cross-company projects (Peridis 1990).

A firm using cooperative relationships will have to expend time and effort to identify, qualify, and negotiate with potential allies. Detailed analysis of whole companies as well as sensitive negotiations to establish goals and compensation for tasks performed are required. Small firms may have special challenges in finding amenable network members due to lack of contacts in the industry or international environments.

Some problems of joint programs have their roots in the negotiation process by which they are established. Sometimes excessive time and attention is devoted to writing the agreement without practical concerns being raised regarding how to actually run the venture (Levine and Byrne 1986). Other times, managers who have put much effort into developing the agreement neglect supervision of the venture once it gets underway.

Research Propositions. Based on this review, it is proposed that small firms form alliances in order to secure the outcomes of better market access and increased resources. Since alliances often enable access to larger markets, it is proposed that highly allied firms would have a higher growth rate than non-allied firms. The main negative outcomes of the strategy

include conflicts with the other parties and loss of technical knowledge. The next sections describe the research project and the results obtained.

METHODOLOGY

Owners or managers were interviewed by students who were enrolled in a small business course in the Spring of 1989. They received course credit for this activity. The students followed a structured interview format that resulted in a questionnaire being returned for each firm. The students were trained in the administration of the questionnaire. Owners were contacted by telephone, asked to participate, and an interview time was established. Few of the owners contacted refused to be interviewed.

Sample. The sample consisted of 188 Indiana small businesses. By restricting the sample to one geographic setting, the effects of external factors such as taxes, labor costs, etc. were controlled. The firms had to have been in business for at least four years, have under 500 employees, and have gross sales of \$1 million or more. No restrictions were placed on the industry of the sample businesses. Instead, industry effects were controlled by matching high and low alliance pairs of firms on industry and size.

Of the 188 participating firms, only seventeen indicated they were heavily engaged in cooperative venturing. This was measured by asking the respondents to indicate on a scale, the degree to which firm activities were performed through alliances. These highly-allied firms were matched on size and industry with seventeen firms falling closer to the non-allied extreme on the alliance scale.

The sample included two service firms, two construction firms, eight retailers/distributors, sixteen manufacturers, and six firms in the trucking and construction industries. They ranged in size from 10 to 250 employees with a mean of 66 employees. The firms were an average of twenty-two years old. Ten had been in business for 5–10 years, eight for 10–20 years, eight for 20–30 years, one for 30–40 years, four for 40–50 years and three for 50–100 years.

Survey Instrument. To assess the degree of change, respondents rated on a one to five scale, the importance of changes that had occurred in the industry, the general environment, and their strategy. They were also asked to estimate the number of new entrants and new products in their industry.

Strategic choices were evaluated to see how networking fit into the firm's overall strategy. The first question listed three competitive strategies such as "extending current products into new markets by yourself" and six cooperative strategies such as "domestic cooperative alliances to enter new markets." The respondents were asked to what extent they relied on the option to ensure the continued success of their firm. Responses were reported on a five-point Likert scale where 1 = little and 5 = great. An additional question on strategy asked the respondents to rank seven

bases on which they competed. These included image, service, price, technology, quality, low cost, and market segmentation.

To operationalize planning sophistication and the dimensions in strategic decision-making, the two question sets designed by Robinson and Pearce (1983) were utilized. This enabled comparison with previous studies on small business planning and allowed for analysis of the relationship between alliance adoption and both strategy content and strategy process.

Respondents in firms that had engaged in many cooperative ventures were given a second questionnaire to complete. Items on this instrument covered motivations for entering alliances, effectiveness of the strategy, problems that arise in the alliances, the extent of similarity among partners, and beliefs about the reasons the alliance strategy succeeds. (A copy of both survey instruments is available from the first author.)

Data Analysis. The propositions were tested on each measure and item using a matched-pair t-test that compared the mean responses between the groups of high and low alliance firms. Sales growth rate (1988-1987) and mean responses to the second questionnaire items were also calculated. Discriminant analysis was done to identify the variables that most effectively discriminated between the high and low alliance firms.

RESULTS

Differences Between High and Low Alliance Firms

The high and low alliance groups were compared statistically and the results of the comparison are found in Table 2. The two groups were not significantly different in terms of size or age.

The highly allied firms perceived more overall change in the industry environment and more entry of foreign and domestic competition than did the low alliance firms. Low alliance firms felt there had been more new products introduced into their industries. Even though these firms came from the same industries, the fact that they perceived different types and amounts of change in their industry may explain differences in alliance adoption.

Small businesses with many cooperative ventures were significantly more likely to have a patent and exhibited a tendency to compete on technology, while those with few strategic alliances competed significantly more frequently on price. This is supported by the tendency for highly allied firms to make more changes in their product lines and their significantly higher change in production processes. The allied firms developed new products significantly more frequently than the low alliance companies but tended to enter new markets by themselves. Low alliance companies were significantly more oriented to exporting than the highly allied group.

The strategic pattern that emerges for the small businesses with many cooperative alliances is one of responding to changes in the environment by changing

TABLE 2

COMPARISON OF HIGH AND LOW ALLIANCE SMALL BUSINESSES

	High Alliance Means	Low Alliance Means	t value
Firm Characteristics			
Date of Founding	1965	1967	-.32
Number of Employees	76	56	.80
Gross Sales (000)	8597	5586	.74
Growth in Sales (log)	2827	1212	2.22*
No. of Patents	.47	.23	2.22*
Environmental Characteristics			
No. of new competitors (5 yrs)	82	31	1.05
No. of new foreign competitors	7	.08	1.63*
No. of industry product changes	1.45	5.00	-1.64*
No. of changes—gen. env.	2.5	2.3	.33
No. of changes—industry	3.6	2.4	1.61*
Strategies			
Exporting	1.5	1.8	-1.74*
Contracting out	2.5	1.8	1.73*
Compete on image	3.9	3.6	.47
Compete on service	4.0	4.1	-.14
Compete on price	2.6	3.4	-1.69*
Compete on technology	3.2	2.4	1.42
Compete on quality	4.1	4.1	-.12
Enter new markets by self	4.3	3.2	2.48**
Enter new markets by domestic alliances	2.5	2.2	1.30
Enter new markets by foreign alliances	1.2	1.7	-1.48
Develop new products by self	3.4	2.9	1.14
Develop new products by domestic alliances	2.3	2.4	-.18
Develop new products by foreign alliances	1.2	1.4	-.82
Foreign equity investment	1.3	1.5	-.61
Domestic equity investment	1.3	1.2	.25
Changes in Strategy			
Products	.83	.53	1.0
Production processes	1.0	.65	2.07*
Product line	.94	.65	1.32
Total strategy change	1.5	.88	1.4
Planning and Decision Process			
Formality strategic planning	1.6	1.5	.57
Concern with risk assessment	3.1	3.3	-.62
Goal formation	3.4	3.9	-3.87***
Selecting distinctive competencies	3.7	3.1	2.42**
Use of resources	3.6	3.8	-.76
Strategy implementation	3.5	3.3	1.07

*p= .05 **p= .01 ***p= .001

the product line and production processes. Perhaps they are using their resources (patents) in exchange for new technology that will enable them to develop products and enter new markets *on their own*. The firms with few alliances are responding to the perceived increase in new products in their industry by competing on price and exporting, rather than attempting to develop new products. Both groups feel that quality, service, and image are very important elements of their strategies.

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The firms with few alliances . . . compete on price and exporting, rather than attempt to develop new products.

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The two groups also differed in terms of the strategic decision process employed. Selecting distinctive competencies on which to base a strategy was significantly more important for the highly allied group, while goal formulation was emphasized significantly more by the less allied companies. Risk assessment, using resources effectively, and strategy implementation are other aspects of the decision process that were important to both groups. Both groups were similar in terms of the overall formality of their planning.

The variables that distinguish most effectively between high and low alliance firms are presented in Table 3. A discriminant function significant at the .001 level was derived. It correctly classified 89 percent of the cases into high and low alliance groups. Variables on which the two groups of firms most differed include: number of changes in the industry environment, number of patents held, exporting, competing on price, competing on technology, entering new markets by self, total number of changes in strategy, goal formulation, and exploiting a distinctive competence in planning.

TABLE 3

VARIABLES WHICH DISTINGUISHED BETWEEN HIGH AND LOW ALLIANCE FIRMS

Variable	Discriminant Coefficient
Number of patents	.580
Number of changes in industry environment	.456
Exporting strategy	-.473
Competes on price	-.424
Competes on technology	.507
Enters new markets by self	.580
Total strategy changes	.548
Goal formation in decision process	-1.300
Selecting distinctive competencies	.119

Outcomes Obtained by Highly Allied Firms

Descriptive statistics on the highly allied firms' experiences with their alliances are found in Table 4. Benefits expected from alliances fell into three areas—to obtain partner's resources, to expand their market, and to minimize capital demands for growth. High ratings on obtaining technology, partner's skills, scale economies, and low cost production indicated that small businesses, as proposed, used networks to counteract the limitations on resources inherent in a smaller firm. Gaining access to markets was measured by their high ratings of the importance of expanding their product's market and obtaining familiarity with markets as their reasons for using alliances.

TABLE 4

ALLIANCE RATIONALE OF HIGHLY ALLIED FIRMS

Reason for using alliances:

	1=not important	5=very important	Mean
To obtain technology			3.71
To minimize capital demands for growth			3.71
To obtain partner's skills			3.65
To expand your product's market			3.59
To obtain familiarity with markets			3.53
To obtain low cost production			3.41
To achieve scale economies			3.06
To share risks with others			2.94
To use excess capacity			2.88
To reduce labor costs			2.47
To counter political restrictions			2.29
To obtain cheaper raw materials			2.24
To obtain information about your environment			2.13

The effectiveness of cooperative strategies was explored in four ways, the first three are reported in Table 5. First, respondents were asked to indicate the extent various problems had occurred. The means indicate that the firms had experienced very few problems with the alliances. The most significant problems were increased costs and decreased profits. Contrary to the research proposition, conflicts and loss of technology did not appear to have been problems.

As a second measure of effectiveness, managers were asked to compare their results from using alliances to results from proceeding alone. They felt that alliances were most effective in obtaining technological and marketing advantages. Scale economies in manufacturing and high profits were secured as easily by staying alone as by entering alliances.

As a third method of exploring perceived alliance effectiveness, managers were asked to rate the importance of various partner-related conditions to alliance success. The variables associated with effectiveness include sharing goals, values, and decision-making. When the partners were each able to achieve goals through a process

that gave opportunities for contribution and consideration to both, an effective alliance resulted.

There were not enough firms in the sample that reported net income to assess the profitability of the alliance strategy. However, the small businesses with many cooperative alliances grew significantly more rapidly than did the others. This result was evident if growth was calculated in gross dollars, percentage change, or as the log of sales. Since there was such high variation in dollar amounts and percentages, the logarithmic calculation was used to reduce the effect of a few very large numbers. These results are shown in Table 2 under Firm Characteristics.

TABLE 5
ALLIANCE EFFECTIVENESS AND PROBLEMS
OF HIGHLY ALLIED FIRMS

Extent to which you have had these problems in alliances:

	<i>1=little</i>	<i>5=great</i>	Mean
Decreased profits			3.18
Increased costs			3.00
Slow or delayed decision making			2.53
Lowered expectations of performance			2.47
Conflicting "secondary agendas"			2.31
Personality conflicts			2.29
Conflict over the original agreements			2.24
Mistrust of partner firms			2.12
Lost technological knowledge regarding products			2.06
Lost competitive or market position			2.06
Incompetence of partner firms			2.00
Lost technological knowledge of process innovations			1.82
Cultural misunderstandings			1.82

Effectiveness of alliances compared to doing projects by self:

	<i>1=very ineffective</i>	<i>5=very effective</i>	
Technologically			3.71
Marketing/Sales			3.71
Manufacturing			3.18
Financially			3.00

Extent that partners share:

	<i>1=strongly disagree</i>	<i>5=strongly agree</i>	
Common goals			4.29
Joint strategic decision-making regarding the alliance			3.77
Similar business values			3.65
Similar backgrounds of executives			3.12
Similar corporate cultures			3.00
Employees serving on the same outside boards			2.40

DISCUSSION

Conclusions. Evidence from these small businesses indicates that forming a network can be effective. Even though profits were not as high as expected, managers felt that alliances were very effective in order to secure technology, market skills, and capital that enabled long-term growth.

The more highly allied firms tended to develop their strategy around a patented product and then build upon it as a way to respond to a high level of perceived industry and competitive change. Firms with few alliances were more oriented to price competition and exporting, perhaps to counteract the introduction of new products into their markets.

These conclusions are very tentative because of the small number of firms that engaged in extensive alliances. Less than 10 percent of the sample of 188 small businesses had adopted this strategy. This limits the reliability of the statistical techniques used. Further research on a larger group of network companies could extend and refine these findings.

The encouraging news is that small firms that had formed alliances were quite satisfied that the strategy had enabled them to reach specific and limited goals without sacrificing their independence. As a tactic in an overall technology-based differentiation strategy, it had yielded growth in sales despite some perceived limitations in the profit levels achieved.

Recommendations. Finding the right partner in a strategic alliance is just as important as doing so in a marriage (Ohmac 1989). While your major aim may be to identify partners with resources you need, equal attention must be paid to finding someone you trust. Assessment of partner resources must be supplemented with assessments of management style, values, and overall strategy so that potential conflicts may be avoided.

Small firms considering alliances ought to proceed carefully. The following rules for forming successful alliances have been suggested by Kraar (1989) and Hamel et al. (1989):

1. Don't rush into it. Take the time to study the deal thoroughly.
2. Make sure both partners will get something important from the deal.
3. Don't micromanage. You must stay out of your partner's domain.
4. Be honest and open in your dealings with your partner.
5. Tell your partner only what it needs to know.
6. Don't make harmony the main measure of success.
7. Learn from your partner.

The results from this study indicate additional suggestions for small businesses considering alliances. The small firm should develop a competitive advantage that is attractive to partners. Then the alliance strategy must be integrated into the firm's overall strategy. Alliances can be used selectively to obtain

resources that are lacking—capital, technology, production capacity, or market access. However, once the firm has learned and grown from its alliances, it may choose to use these added capabilities to proceed on its own. By targeting specific benefits to be obtained from alliances and other benefits to be achieved through independent moves, overall success is enhanced. Using alliances in this way positions the small firm for long-term growth, independence, and effectiveness.

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