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# Measuring alliance value and risk

## A model approach to prioritizing alliance projects

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**Abstract** Alliances have been the focus of research studies often because they offer an attractive alternative to traditional arrangements. With a global economy, rapid product cycles, capital constraints and advances in technology, no one firm has all the capability to maintain and grow market share. Factors such as these are leading firms to consider different forms of partnerships including alliances. Contemporary alliance research is often segmented by types of arrangements, durations, returns, failures and best practices. Studies that evaluate and rank specific alliance criteria are somewhat limited. To explore specific alliance risk and value variables a study was conducted at a large manufacturing organization with extensive alliance history. A questionnaire was developed and distributed that contained both ordinal and scale rankings of specific alliance value and risk criteria. The aggregate responses were prioritized and a weight was assigned allowing for quantitative assessment for both alliance value and risk. The information was later converted into an alliance value/risk check sheet to be used to rank multiple projects.

### Introduction

The purpose of the paper was to test the importance and prioritize previously researched alliance criteria with executives at one firm who have extensive alliance experience. Prior research has often concentrated on alliance formation best practices, rates of failure and rate of return with little comprehension of the entire process. This study assembled criteria from all phases of alliance management, including formation, operations and evolution and ranked/weighted the criteria based on the respondent's assessments. The output resulted in a management checklist for alliance value and risk that alliance managers could use and/or modify for their specific projects.

The paper explores several aspects of alliance management including the rationale, failure rates and types of alliances. Specific attention is given to alliance critical factors including goals and objectives, complementary fit, involving the right people early, legal contracts, management, control, learning, communication, measurement, culture, relationships, trust, cooperation, evolution and growing alliance capability. Alliance risk and value are also explored in an effort to bundle criteria for each respective category, resulting in an organization of elements to be used in two-by-two matrix comparisons.



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## Alliances

Alliance formations have been increasing at approximately 25 percent per year since 1985 (Harbison and Pekar, 1998; Allio and Pekar, 1994; Mol, 2000). Between 1996 and 1998 alone, 20,000 inter-organizational alliances were formed (Cravens *et al.*, 2000). The research suggests that it is not unusual for a large corporation to have up to 30 alliances in operation compared to nearly zero ten years ago (Cravens *et al.*, 2000). Forecasting for alliance profitability, researchers have suggested that alliance revenues may have the potential to reach US\$40 trillion by 2004 (*CMA Management*, 2000), and could contribute as much as 35 percent towards total corporate revenues by 2002 (Das and Teng, 1999).

Alliance activity is no longer on the periphery of corporate strategy (Gulati *et al.*, 1994). One out of eight executives believe that alliance activities will be a prime vehicle for corporate growth and that they are essential (*CMA Management*, 2000). Drucker (1995) suggested that the greatest change in the way business is being conducted will be through the relationships that are being formed with partnership/networks over ownership. A network can often be superior to a stand-alone firm due to greater diversity of knowledge and talent within it (Dyer and Nobeoka, 2000).

## Rationale

At the most fundamental level, alliances are formed because positive economic results are anticipated (Hagedoorn and Schakenraad, 1994). Clearly, mutual benefit must exist for all parties entering into the arrangement (Frankel and Whipple, 2000). Participants expect to get better payoffs than they would without the alliance (Gulati *et al.*, 1994). Some of the most often cited reasons for alliance formation include risk sharing (Alter and Hage, 1993), access to markets (Kogut, 1988), competitive preempting (Segil, 2000) and fast and flexible ways to access resources (Dyer *et al.*, 2001).

### *Risk sharing*

Many corporate executive officers often believe that growth hinges on new markets and products, and that cost cutting does not lead to prosperity in the long run (Tapsell, 1999). The costs of developing and marketing a new product can be expensive, and failure rates can be as high as 50 percent (Dwyer and Sivadas, 2000), suggesting that sharing the burden with another firm has the advantage of spreading potential risk over more organizations.

### *Markets*

Many restrictions remain which prevent firms from establishing a presence without a local partner. In addition, firms do not always possess local market knowledge in-house and the partnership often serves as a learning opportunity.

### *Competitive preemption*

It is plausible to assume that firms will form alliances in an effort to block a competitor from forming a similar one or as a means to discourage

product/service entry into specific markets where the newly formed alliance would lead. Segil (2000) has suggested that positive earnings may not be forthcoming in these types of arrangements, but dominant positioning may help with establishing or maintaining industry standards and market leadership.

### *Resources*

With all the complexities of a global economy, a firm is not likely to possess all the resource capabilities it requires to stay competitive. It must rely on a network of firms to sustain competitive advantage (Cavusgil *et al.*, 1997).

Innovations are costly and require capital to develop and commercialize new products, making it difficult for a firm to go it alone in every situation (Doz *et al.*, 1989). There is also a shortened product life expectancy, routinely forcing firms to continuously innovate and market products faster than the competition. This can often prevent firms from building their own critical mass of experts for all possible opportunities (Hagedoorn, 1993). By pooling limited resources, firms can co-develop and co-produce products more effectively and efficiently (Oh, 1996).

### **Failure**

The rationale for alliance formation stated earlier represents a few of the many reasons that firms are entering into new types of relationships. On the surface, these rationales are seductive in that they represent a simple solution to a range of strategic dilemmas, but they often end as disappointments (Koza and Lewin, 2000). Important as they are, some researchers assert that they are self-defeating, unstable and transitional only (Beamish and Inkpen, 1997; Das and Teng, 1999; Kogut, 1989).

In short, alliances are difficult (Anand and Khanna, 2000; Drucker, 1974) and often lead to poor performance (Killing, 1983). One study of inter-organizational alliances formed between 1992 through 1995 suggested a dissolution rate of 60 percent (*The Economist*, 1999). In fact, most research indicates failure rates between 50-80 percent (Das and Teng, 1999; Dyer *et al.*, 2001; Mol, 2000; Park and Ungson, 1997; Parkhe, 1993b). In one study conducted with 323 senior executives over an 18-month period, one researcher found that only 39 percent of alliances met or exceeded corporate expectations (*CMA Management*, 2000). They are, then, fraught with risks and highly unstable (Dyer *et al.*, 2001; Gulati *et al.*, 1994; Gray and Yan, 1994). Arino and Doz (2000) suggest that alliance termination is often the result of several different factors, the first being that many alliances are stillborn. They announce the alliance, yet never get off the ground. Several are called alliances, but actually are joint actions. A more prominent reason for failure is the perception gap between expectations and results. It is important that firms entertaining new alliances avoid "love at first sight" (Ring, 2000) and focus on objectives and how they will be met.

## Types of alliances

Perhaps one of the most confusing areas of alliance management is establishing a definition/understanding that is acknowledged by a majority of academics and practitioners. Anand and Khanna (2000) suggest that alliances are incomplete contracts between firms. Ring and Van De Ven (1992) state that alliances range from arm's length to cross-equity holdings, and Hagedoorn and Schakenraad (1990) divide alliances into several types: joint ventures, exchange agreements, cross-licensing, second sourcing, minority stake and research and development (R&D). Das and Teng (1998) propose joint ventures, minority equity, non-equity, co-production and R&D as alliance forms, and Callahan and MacKenzie (1999), as well as Geringer and Hebert (1991), state that alliances are not joint ventures, which are legally distinct organizations. Hennart (1998) and Pisano (1991) divide alliances into two types: equity (capital contribution) and non-equity (agreement without capital exchange).

For our purposes, we will consider alliances to be a voluntarily initiated cooperative agreement between firms that involves exchange, sharing or co-development, and it can include contributions by partners of capital, technology or firm specific assets (Gulati and Singh, 1998, p. 781).

## Critical factors

### *Goals and objectives*

In any type of arrangement, goals and objectives have to be explored and articulated. Firms need to agree to what the partnership is all about. By determining the goals and objectives, firms can ensure that each partner's desired outcomes have complementary fit and are not adversarial towards one another. Alliance tensions and instabilities have been sown from the start when the alliance partners fail to recognize mismatches in their goals. Not surprisingly, specific goals lead to better performance than vague goals in such situations (Dyer *et al.*, 2001; Lorange and Roos, 1992).

Objectives need to be converted into alliance metrics and should be set by all parties with corresponding feedback mechanisms, incentives, and sanctions while remaining manageable in number, based on results and prioritized. The metrics should include both financial and non-financial measurements (Goold and Quinn, 1990).

### *Complementary fit*

A natural outcome of the identification goal setting process is the increased understanding of the degree of complementary fit between partners. Too much overlap can stir up competition and suggest that the need for allying is unsubstantiated. In a study by Merchant (2000) of 300 joint ventures with significantly overlapping product and market features, increased conflicts and rivalry occurred, neutralizing potentially synergistic asset combinations. On the other hand, too few similarities can often lead to confusion and drift. One author (Doz, 1996) believes that differentiated, but partially overlapping, skill bases, may contribute most to alliance success.

*Involve the right people early*

Sufficient emphasis cannot be placed on the importance of having the people responsible for the alliance involved in the alliance from its conception. If there is not enough consistency from idea to execution, the alliance intent suffers from lack of understanding and delays, due to confusion and misunderstandings. The managers of the alliance need to understand the strategists and the intent of upper management.

*Legal contracts*

Contract specification with regard to alliance management is a much-debated topic. Some feel that contracts laden with safeguards that protect each other from opportunistic behavior, are costly, stifling, and can lead to exiting or suspicion (Chiles and McMackin, 1996; Das and Teng, 1998; Geringer and Hebert, 1989; Ring and Van de Ven, 1994). Others assert that technology transfer and intellectual property assets need to be guarded at any cost (Doz *et al.*, 1989; Geringer and Hebert, 1991).

A study of joint ventures by Cullen *et al.* (1995) found no support for the idea that formal control led to more commitment in alliances. Lyles (1988) even argues that initial legal contracts focused attention on the wrong set of issues and neglected the working aspects of the alliance arrangements. Dussauge and Garette (2000) state that in alliances, one party cannot force the other to accept any particular solution because unending rounds of negotiations may result from simultaneous authority problems.

According to Ring and Van De Ven (1992), four critical areas should be addressed: the level and nature of the risks accepted, the determination of the outcomes and distribution rewards, each party's asset/resource commitment, and the procedures and systems for allocating responsibility, authority and control.

*Management*

Management of the alliance over time is usually more important than crafting the initial formal design (Doz and Hamel, 1998). Regretfully, there is no single, optimal method to manage alliances. No ideal alliance design or governance structure exists (Gulati *et al.*, 1994; Reuer and Zollo, 2000). In fact, our understanding of how to manage alliances is quite limited when compared with other alliance aspects including alliance failure rates (Gulati *et al.*, 1994).

Each alliance agreement has to be crafted based on the unique attributes associated with the project. This entails all sorts of expenses such as legal, communications, records, and mostly the time of highly-paid managers and technical experts diverted from other activities to matters concerning the venture (Harrigan and Newman, 1990). Efficient planning must also be applied to the management of the alliance in order to ensure appropriate administrative value.



### *Control*

Historically, firms have relied on majority ownership or voting control (Geringer and Hebert, 1989). Today, equity positions do not necessarily lead to corresponding control levels (Geringer and Hebert, 1989; Gray and Yan, 1994).

Das and Teng (1996) suggested that some level of equity helps so that partners have mutual hostages, a situation in which one will work harder at resolving differences and reducing the likelihood of opportunistic behavior. Without some level of ownership, it may be difficult to align the interests of potential partners (Das and Teng, 1998). Since there is no hierarchy, because it is an alliance, the minority-equity stake may even be the glue that bonds the partners (Das and Teng, 1998).

In the end, firms may find control issues expensive. Control entails legal support, headcount, on-going measurement and reporting. Over time in alliance situations, firms may need to reduce their reliance on control, in favor of informal mechanisms that are equally effective and more affordable.

### *Learning*

A firm needs to learn from its partner(s) while, at the same time, not open itself up to unintended transfer of knowledge to the partnering firm(s) (Hamel, 1991). If both parties are seeking only a portion of the opposing firm's knowledge, they will work diligently to acquire that portion, and may later find the alliance purpose possibly beginning to erode. This phenomenon is referred to as obsolescence bargaining in which one party acquires, while diminishing the other's value (Vernon, 1977, p. 151). From a competitive viewpoint, a loss of knowledge by one partner may result in the creation of a new or stronger competitor (Inkpen, 2000a). This type of learning activity in alliance management has even been described as a race to learn (Alvarez and Barney, 2000; Beamish and Inkpen, 1997; Hamel, 1991; Lyles and Steensma, 2000). If one subscribes to this theory, learning from a partner is paramount.

Inkpen (2000b) suggests that in alliances, partners must learn to work together and work to learn together. He asserted that the race to learn scenario is a figment of academics' imagination. Learning is important in alliances but generally will not be the primary goal. Knowledge in alliances is often transferred through haphazard exchanges, and most of it is not tacit (salient but difficult to explain/transfer) in nature (Dyer and Nobeoka, 2000). Managers need to understand that they play a vital role in acquiring knowledge, while also defending protected assets. They must understand their partners' strengths and weaknesses, and how all factors fit with the objectives of the alliance (Doz *et al.*, 1989).

### *Communication*

Open and prompt communication among partners is believed to be an indispensable characteristic of trusting relationships (Kanter, 1994). Information in alliance networks should be open and free-flowing after protected information has been clearly identified, with frequent meetings

between the partners' top management to help ascertain proper functioning and to further mutual understanding (Gulati *et al.*, 1994). More information rather than less also reduces uncertainty (Thomas and Trevino, 1993). In an alliance study by Govindarajan and Gupta (2001), alliance communication barriers were ranked second in importance and degree of difficulty to fix. Cultivating trust among members was ranked first. In another study by Thomas and Trevino (1993) in the health care industry, low capacity for processing information was associated with perceived lower alliance success rates.

#### *Measurement*

The analysis of alliance successes suggests that performance evaluation is a critical element (Cravens *et al.*, 2000; Segil, 1998). There is a need to develop criteria that are important and unique to the alliance. It should include information that is both strategic and operational, with proper metrics, and also contain short- and long-term objectives (Goold and Quinn, 1990; Gulati *et al.*, 1994).

Management systems are most effective when four aspects are present: the information generated by the system is important, addressing reoccurring management issues; the process demands frequent and regular attention from operating managers at all levels of the organization; the information is interpreted and discussed during face-to-face meetings of superiors, subordinates and peers; and the process relies on continual challenge and debate of underlying data assumptions and action plans (Simons, 1991).

#### *Culture*

Research shows that, on average, people trust one another more when they share similarities, communicate frequently and operate in a common cultural context that imposes tough sanctions for behaving in an untrustworthy manner (Kramer and Tyler, 1996). Alliance failures have often been attributed to cultural distance, leading to disagreement about objectives, poor communication and partnering opportunities (Dunning and Gugler, 1993).

The convergence hypothesis suggests that people often conform regardless of the culture. Other researchers suggest that some organizational issues are cultural free and can be easily converged, while others remain entirely separate (Kelley *et al.*, 1987). Frankel and Wipple (2000) believe that the largest barriers to alliance success are organizational cultural reengineering issues rather than technical or financial issues. The people costs that arise from both partners attempting to modify peoples' behavior while adopting new practices is expensive and may then be the most costly aspect of alliance management. An interesting finding by Park and Ungson (1997), however, found no empirical support for positive associations between cultural distance and alliance termination, leading some experts to believe that the cultural problems may be overstated.

Before leaving culture, timing needs to be highlighted. Time horizons are different for organizations and the managers within the organizations. Goold and Quinn (1990, p. 45) identify management myopia as a tendency of managers to be motivated by more immediate than distant goals. Another aspect of time is the financial reporting cycles. There is an inherent incompatibility between the time required to bring about fundamental strategic change and many financial planning cycles (Goold and Quinn, 1990). In alliances, there are more decision makers and centers, consequently taking more time to resolve complex and controversial issues while pressures for results are often more short-term (Dussauge and Garette, 2000).

Cultural alliance issues are a specific vein of study requiring more attention than will be provided in this paper. Suffice it to say that organizational culture can often unify the way organizational members process information and react to their environments (Beyer and Trice, 1993). Decision making is definitely influenced by the culture of each parent organization (DeMeyer and Schneider, 1991).

#### *Relationships*

Relationships are not separate from the items mentioned before; however, they require special attention because they are often overlooked as casual in nature, and not necessarily as critical to alliance management. Often, people start out with an institutional role in alliances before they can move more toward personal relationships (Ring and Van de Ven, 1994). Sense making between individuals can only come about when parties are reaching levels of understanding that are often recognized after informal relationships begin. As personal relationships develop, they often replace the formal relationships and other substitutions occur such as less dependence on the legal contracts, leading to greater levels of trust and cooperation (Ring and Van de Ven, 1994). Positive relationship management can often contribute to an alliance project by having the right emphasis placed on personal interaction, often leading to stronger commitment. However, it requires appropriate investment in relationship matters such as travel, expenses, time and other items that are hard to secure funding for, often because it is difficult to place a value on relationship value and those that manage the budget will tend to discount what they cannot see, touch or measure (Nanda and Williamson, 1995).

#### *Trust*

In the inter-firm relationship, trust is essential for the development of enduring partnerships (Cullen *et al.*, 1996). In a study by Kanter (1994) of 37 companies from 11 countries, he found trust to be a key element of alliance success. It is important to note that trust in this context is not a naïve belief in honesty, but rather the reduced probability of violations of agreements (Bromiley and Cummings, 1993, p. 10). Trust is a check on opportunistic behavior (Ford, 1984) and a reduction of uncertainty (Das and Teng, 1998). Gray and Yan (1994) and



Thorelli (1986) state that inter-partner trust is critical to success and can often supplant contractual arrangements.

#### *Cooperation/commitment/coordination*

The more experiences a firm has in alliance management, the greater competency it can develop in alliance cooperation and coordination (Cavusgil *et al.*, 1997). Competitive advantage lies in successful collaborations. Non-equity alliances also have few command structures and require remarkable trust and coordination to offset the lack of incentive systems, authority and standard operating systems (Gulati and Singh, 1998).

Cooperation can be an input or an output. If it is an input, initial conditions need to be established. If it is an output, trust is probably present. Commitment also factors into cooperation by changing managers' views so that they focus on completing the project (Buckley and Casson, 1988). Cooperation is said to have two dimensions: veracity – being truthful, and commitment – making the effort (Arino, 1997).

Scholars often cite a lack of cooperation and opportunistic behavior of partners as causes for the relatively high rate of failure for alliances (Das and Teng, 1998).

Cooperation also has its limits. Companies must share only what is necessary and defend against competitive compromise (Doz *et al.*, 1989). For cooperation to succeed, each partner must contribute something distinctive (basic research, product development skills, manufacturing capacity, market access, etc.). The challenge, then, is to share enough skills to create advantage while preventing the wholesale transfer of core skills to the partner (Doz *et al.*, 1989).

#### *Evolution*

Virtually all alliances will evolve in ways that the alliance partners did not predict when the alliance was formed (Inkpen, 2000b). Successful alliances were seen to evolve through a sequence of learning-reevaluation-readjustment cycles over time where the initial conditions faded (Doz, 1996; Inkpen, 1999). In a study by Reuer and Zollo (2000), it was noted that within the biotechnology industry, 40 percent experienced changes to the contract, board or monitoring mechanisms. Koza and Lewin (2000) also suggest that it is only natural that alliances evolve over time and that they develop their own directions and identities.

#### *Growing alliance capability*

Firm alliance capabilities are gaining attention as a valued asset. Firms such as Hewlett-Packard and Corning have been touted as firms with strong alliance capabilities accomplished through summits, training, business case development, virtual meetings, and benchmarking. Lotus Corporation also has 35 rules of thumb to manage each phase of the alliance from formation to termination (Dyer *et al.*, 2001).

### Alliance risk and value

Risk and value require special focus because they aid the firm in identifying alliance appropriateness (Bleackley and Devlin, 1988). Alliances need to be classified as high-risk strategies (Das and Teng, 1999). Organizations often take on alliance risk because they want to reduce risk in other areas. As mentioned earlier, new product development annual failure rates are estimated to be 50 percent. Having a partner helps spread the investment, marketing expenditures and other uncertain elements in such situations (Dwyer and Sivadas, 2000).

There are two types of alliance risk: relational and performance (Cravens *et al.*, 2000). Relational risk is the risk of opportunistic behavior of one of the partners having negative impacts on the other (Cravens *et al.*, 2000, p. 531). Performance risk is the probability that an alliance may fail even when partners commit themselves fully to the alliance (Das and Teng, 1996).

Das and Teng (1999) provide criteria for relational and performance risk. Relational elements include:

- protecting firm resources while gaining access to new partner resources;
- contractual control;
- managerial control;
- specificity of work share;
- extent of communication;
- alliance fit or tightness of fit; and
- cooperation and competition.

Performance risk includes:

- association with parent strategic vision;
- the degree to which agreements can be modified;
- likelihood of losing investments (often non-recoverable);
- exit provisions;
- controls;
- new learning applications;
- compatible objectives; and
- short- and long-term orientations.

Similarly, Pan and Tse (2000) divide alliance risk into contextual and transactional components. Contextual, which represents uncertainty in the market, includes: political, ownership/control, price control, local content and transference problems. Transactional refers to risk associated with the arrangement, including not meeting established project objectives and returns.

Equally important is the perceived value of an alliance. For value to be present each partner must contribute something distinctive that adds value

(Doz *et al.*, 1989). Anand and Khanna (2000) suggest several alliance measures including: complementary skills between partners, type of alliance (more advantageous for R&D over marketing alliances due to learning opportunities), change in stock prices, the firm's prior experience with alliances; ability to transfer tacit knowledge, ability to manage relationships; alliance capability (firm's ability to manage successful alliances), and the level of ambiguity facing partners. Value should also include a measure of contribution to net income that is averaged over the life of the alliance.

Chan *et al.* (1997) and McConnell and Nantell (1985) found positive associations between alliance announcements and returns. However, others have seen mixed, none or negative correlation between alliance announcement and returns (Inkpen, 2000a; Koh and Venkatraman, 1991; Merchant and Schendel, 2000; Ring, 2000). This particular alliance value measure has often been debated and, therefore, will be excluded here.

Anand and Khanna (2000) did note positive correlation between firm success and number of arrangements, especially for those who had at least four prior arrangements. Thomas and Trevino (1993) support the finding that a firm's history and behavior with prior alliances is a critical element in firm alliance process building.

### Research design

A large manufacturing organization was selected due to the global expanse of the firm and the researcher's access to a large number of individuals who have substantial global and alliance-specific experience.

An instrument was developed with a target group of managers at the firm and later was administered to select executives through face-to-face interviews (25), telephone (nine) and facsimile response (five).

The selected group was a convenience sample of individuals from multiple disciplines who have had at least one year of alliance related work experience. The participants included key alliance executives as well as line directors and managers familiar with alliance work from legal, manufacturing, design and engineering, sales, purchasing, planning, communications, R&D, finance, and information systems. Initially, 35 participants were identified. Additional names were recommended for inclusion raising the sample size to 45. In the end, 39 individuals participated in the interview and questionnaire process. Six were unable to participate due to workload issues. The participants were from North America (28), Asia (seven), Europe (three) and South America (one).

The functional breakdown was as follows:

- finance (five);
- executives in Asia and Europe supporting the alliance relationships (five);
- planning (four);
- purchasing (three);

- sales (three);
- engineering (seven);
- R&D and technology (two);
- manufacturing (two);
- communication (two);
- legal (two);
- human resources (two);
- project lead for several alliance co-development projects (one); and
- information systems (one).

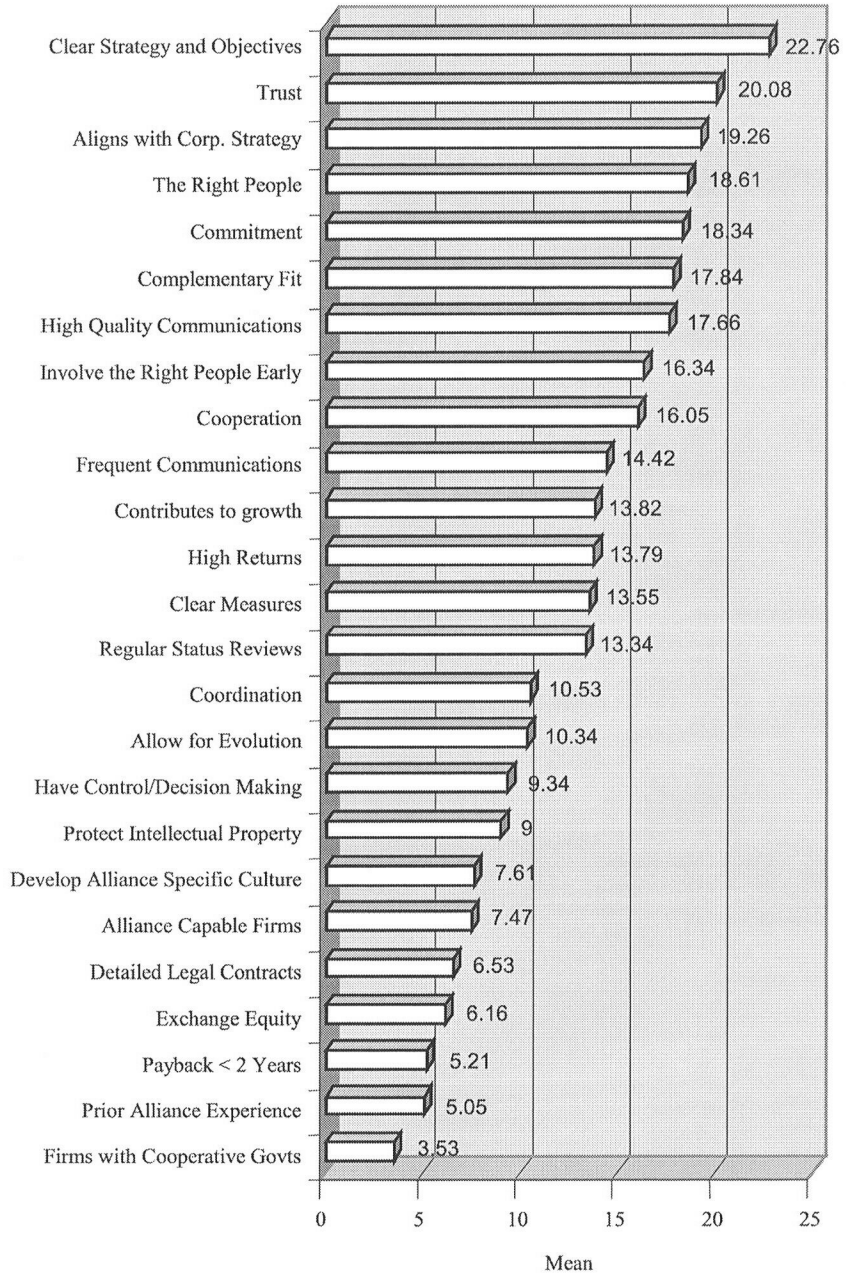
On average, the subjects had participated in five to six alliance-related projects (modal response greater than seven projects), had approximately four to six years experience in alliance-related work (modal response greater than ten years) and felt that their partnering capabilities (skill required to work with other firms with differing business and national cultures) were fairly skilled (modal response the same). Alliance experience in years averaged at four to six years, however, 19 respondents, representing half the sample, indicated having over ten years experience in alliance-related work. This statistic is significant, because it is difficult to find contributors with such experience/longevity in the field of alliance management.

### Procedures

Face-to-face interviews were conducted with two researchers present. In addition, the quantitative survey was administered at the time of the interviews. Respondents ranked 25 alliance value statements and 32 risk statements that were generated from the literature review associated with the alliance management discipline. The greatest value and greatest alliance risk statement had the ranking of one. Higher ordinal values (double digits) were considered of less value or risk. Following completion of the interviews, the ordinal responses were inverted so that the highest value had the highest integer rating (a response of one for value became 25 and a response of one for risk became 32). All alliance statements earned a value based on a composite score. Each item was then divided by the number of respondents in an effort to identify mean values. The items were then ordered from highest value/risk mean to lowest. In addition, each respondent was asked to rate each statement from one to five with five being most valuable and/or most risky. Those responses were compared with the ordinal rankings to check for consistency in response (Figure 1).

All information was loaded into the Microsoft Excel™ and SPSS™ software systems. Open-ended comments were retyped into a Microsoft Word™ document and grouped by question type.

The results of the findings were used to create a model for alliance risk and value. The subsequent steps included taking the findings and developing the



**Figure 1.**  
Ordinal value responses  
in order of most  
important to least  
(continued)



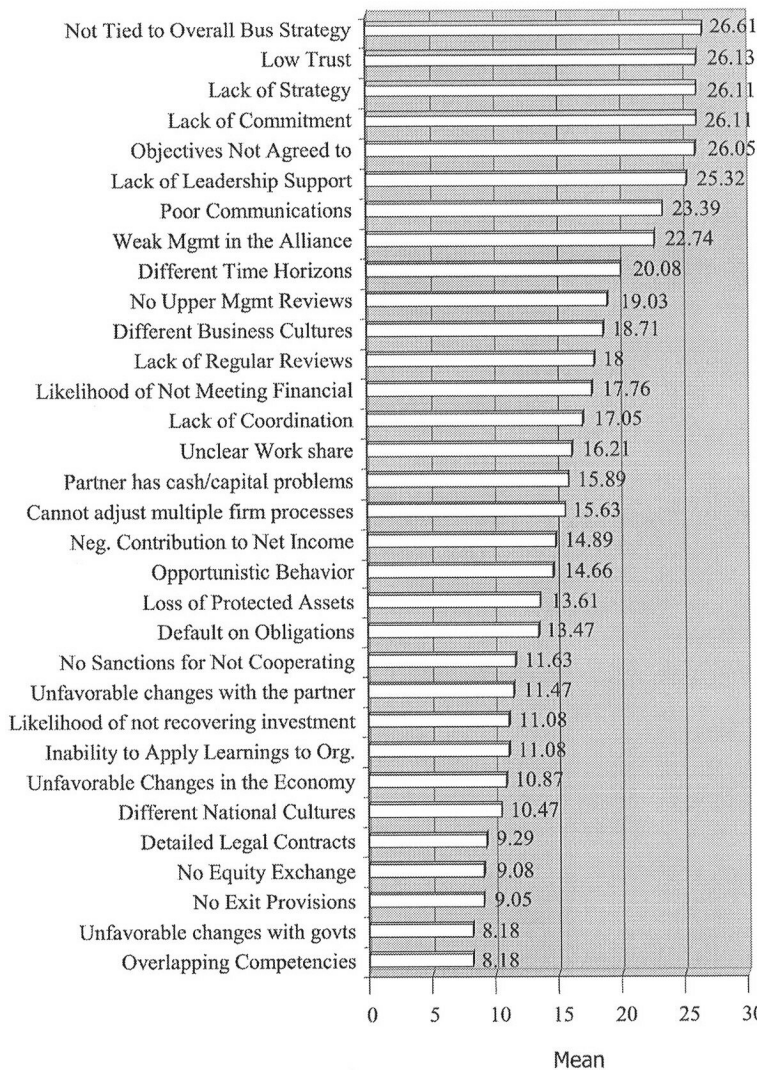
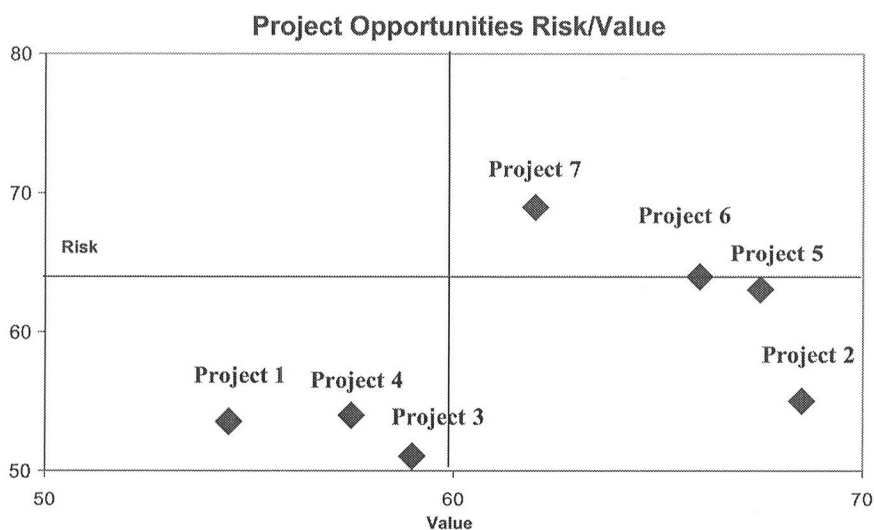


Figure 1.

alliance value and risk weights for each item, which were later plotted in a two-by-two plot that allowed for comparison between projects based on their responses (Figure 2).

To be more specific, each alliance value item and the associated means were grouped into clusters derived by the researcher to help organize like items so that the final users of the model would be able to assess items in logical groups. The sections included business strategy and alignment, control, relationship, management, revenue and returns and alliance capability. Once the items were grouped, a new mean for the group had to be calculated based on the total group mean compared to the total mean for all value responses. Items within



**Figure 2.**  
Sample alliance project  
prioritization

groups were added together and divided by the total mean for value to determine the percentage or weight for the group. For example, the group business strategy and alignment contained three items: clear strategy (mean 22.76), complementary fit (mean 17.84) and alignment with corporate strategy (mean 19.26). Added together, the total was 59.86 or 19 percent of the adjusted mean total for value (313.10). Next, the means within the group were adjusted to reflect their importance or weight within the group. Clear strategy represented 38 percent of the weight, while complementary fit (30 percent) and alignment with corporate strategy (32 percent) rounded out the balance. This step was repeated for the items and their associated groupings for value.

For risk, the same groups were named with differing weights for business strategy and alignment (30 percent), control (9 percent), relationship (24 percent), management (24 percent), revenue and returns (11 percent) and alliance capability (2 percent). Similar to value, the weights reflected the respondents' responses to risk importance for each of the items within the categories.

The ordinal mean top ten value responses in order of importance were: clear strategy and objectives (22.76), trust (20.08), alignment with corporate strategy (19.26), having the right people in the alliance (18.61), commitment (18.34), complementary fit (17.84), quality/honest communications (17.66), involving the right people early (16.34), cooperation (16.05) and frequent communications (14.42). Very low responses noted were: working with firms with cooperative governments (3.53), having prior alliance experience (5.05) and payback of the project within two years (5.21). The highest possible mean would be a value of 25.

For risk, the top ten risk items ranked in order of importance were: project/alliance not tied to overall business strategy (26.61), low trust levels (26.13),



lack of project strategy (26.11), lack of commitment (26.11), objectives not being agreed to (26.05), lack of leadership support (25.32), poor communications (23.39), weak management in the alliance (22.74), different time horizons (20.08) and no upper management reviews (19.03). The risk items, in large part, reflected the inverse of the value responses, meaning that statements reversed from negative positions "there is low trust" to "there is high trust" have association, which should be expected. The highest possible mean for risk was 32.

The initial survey or check sheet was piloted with one of the functional organizations that had several alliance projects under consideration. After extensive interviews with the functional managers, it was agreed that some of the values required adjustment to account for project returns. The open-ended interview responses were revisited and several adjustments were made to align the check sheets with the specific functional priorities (Figures 3 and 4).

### Conclusion

Firms are beginning to understand what nations have always known in that living in a complex, uncertain world with many opponents, it is best not to go it alone (Ohmae, 1989). In addition, the management task is far more complex and global than it was 20 years ago (Freidheim, 1998). Globalization often mandates alliances, making alliance strategy an important business function to maintain and grow position (Ohmae, 1989).

The findings from this research effort indicate that in order to succeed in alliance related work it is necessary to ensure that the following are in place: clear strategy and objectives (a predominant finding here), high trust levels, alignment with corporate strategy, involvement of the right people and having them involved early, commitment, assurance that each firm is bringing something needed and/or unique that the other desires, and planning for open and frequent communications at the onset of the project were identified by the respondents who placed these items as the most important factors in alliance work.

Respondents also felt that firms should not be lured into an alliance relationship on possibilities that have no bearings. Value must be identified and project metrics must be in place. In addition, it is important to keep the strengths and contributions in focus and to understand that the balance will change and that firms will have to respond to those shifts (Bleeke and Ernst, 1995).

Significance was present for a number of variables for alliance value including having prior alliance experience and strong partnering capabilities, planning for alliance evolution and R&D opportunities, years of experience and having the right people involved, trust and quality communications, having legal contracts and protecting intellectual property, having the right people involved and R&D opportunities, allowing for alliance evolution and having prior alliance experience. From these results, themes emerge that center on experience, the right people, planning for evolution, quality communications in

Items and Major Headings	% within grouped items	% for total Group	Risk Rank					Value
			1	2	3	4	5	
<b>Business Strategy and Alignment</b>		<b>10</b>						
All firms involved have a clear strategy regarding the relationship and projects	20							
All firms involved have complementary skill sets to create additional value	60							
The opportunities being explored fit with the corporate strategies for all the firms	20							
<b>Control</b>		<b>5</b>						
We have or plan to have detailed legal documents for the projects we have agreed to work on	35							
We have ensured that we can influence and make decisions that stick	30							
We have or plan to have provisions to protect against loss of intellectual property	35							
<b>Relationship</b>		<b>10</b>						
This project is a win-win for all parties involved	55							
We have or plan to put the right people in the right jobs and so have our partners	15							
We have developed a trusting relationship with our partners	15							
Cooperation and commitment will be/are in place for the projects	15							
<b>Management</b>		<b>10</b>						
We have or plan to have frequent and high quality communications	28							
We have or plan to have jointly developed clear measurable metrics	20							
We have or plan to have regular reviews, including metric reporting	18							
We have accounted for the likelihood of the project evolving into unplanned areas	17							
Coordination has been addressed and will be/is in place	17							
<b>Contributions</b>		<b>60</b>						
Each partner is contributing a unique strength	5							
The project will contribute to growth	13							
This project will provide valuable learnings/knowledge to some or all parties	5							
This project supports fast-to-market initiatives	5							
This project will lead to the development of new commercially viable technologies	10							
This project will provide for market access and distribution opportunities	5							
This project will result in long-term savings including economies of scale and cost avoidance	10							
This project will reduce new product development risk through risk sharing amongst the partners	5							
This project supports appropriate capital outlays by all partners involved	5							
This project has no substantial financial return but is considered important to the relationship	5							
This project supports efficient use of resources/skills (eliminate cross-firm redundancies)	7							
Payback will be within a reasonable timeframe	5							
We anticipate positive returns from the project	20							
<b>Alliance capability</b>		<b>5</b>						
We plan on developing an alliance specific culture with our partners (no one firm dominates)	39							
All the firms involved have prior alliance experience	22							
Our firm and our partners are working to enhance alliance awareness within our organizations	39							

**Figure 3.**  
Alliance value check sheet

support of developing trust while securing intellectual property and other assets. Additional testing is required to substantiate inference from the value correlations due to the low correlations at approximately 0.50 to 0.70.

For risk, significance was found for: not meeting financial objectives and not meeting profit/income objectives, cash flow problems and loss of assets, different business cultures and learnings not being applied, economic concerns and default on obligations, no exit provisions and economic problems. Relationships emerged between economic changes and their effect on obligations, exit provisions and changes at the firm. In addition,





Items and Major Headings	% within grouped items	% for total Group	Risk Rank					Value
			1	2	3	4	5	
<b>Business Strategy and Alignment</b>		11						
The alliance activity is not tied to the overall corporate strategy for one or all firms	29							
Partner's cash flow and ability to raise capital is in question	12							
Lack of agreed upon objectives	16							
Lack of strategic understanding exists	19							
There are changes at one or more of the firms involved	9							
There are changes with the government that will effect the effort	8							
There are unfavorable changes in the economy	7							
<b>Control</b>		27						
There are no sanctions for not cooperating	40							
There are no exit provisions	20							
There is likelihood of default on obligations	40							
<b>Relationship</b>		23						
There are low trust levels	27							
There is a lack of commitment	25							
Opportunistic behavior is present in the project	13							
Time horizons are very different for the firms involved in the alliance	17							
There are different business cultures present in the alliance	12							
There are different national cultures present in the alliance	6							
<b>Management</b>		24						
The project will require substantial resource commitment	35							
There will be few alliance "health checks" and regular reviews	10							
Poor and infrequent communications could result	20							
We may/are finding it difficult to mesh different processes and decision making	5							
There is/could be a lack of coordination	10							
Weak management and an absence of leadership could take place	10							
There are unclear roles and responsibilities	10							
<b>Revenue and Returns</b>		13						
There is a likelihood of not meeting financials	25							
There is a likelihood of not recovering initial investment	15							
It will take a long time before the project is operational	15							
There is a loss of revenue generating assets or key personnel	10							
The project will require substantial financial commitment	20							
We anticipate little or no financial returns	15							
<b>Alliance capability</b>		2						
There is an inability to apply learnings to the organization	100							

Figure 4.  
Alliance risk check sheet

business cultures and inability to apply learnings indicated correlation with one another. Much like value, additional testing and validation is required to substantiate the information based on correlations averaging 0.50 to 0.60.

### Limitations

The information gathered from the study reflects the opinion of experts at one firm and from one side of the alliance process. In addition, their opinions were weighted somewhat with current issues and concerns that came out during the interview sessions, such as recent cancellations and postponements of existing projects and deteriorating financials for some of the partnering firms involved. It is possible that their views might change over time, based on shifts in the external and internal environments, so the instrument results may reflect only the current state and may require adjustments for changes at a later date.



It is also important to note that the survey itself was difficult. Ranking 25 and 32 items can be confusing, diluting and can sometimes lead to ordering problems.

Finally, the sample size of 39 is small (large for finding experts in this field), but could make the study results somewhat unstable as compared to research with larger groups.

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### **Implications for research**

Alliances are redefining how corporations work. Firms are removing impermeable walls and learning to be more collegial, more sharing, flexible and more diplomatic (Freidheim, 1998). As a result, there is a need to provide practical tools to establish and operate alliance related projects at multiple firms so collaboration can be successful with reduced negative outcomes.

Alliance practitioners need to utilize a number of tools prior to entering into an alliance. They should start with rigorous due diligence regarding the project value, risk and the relative health of the firms participating. A quantitative and qualitative assessment is essential. The check sheets in this project are samples of the types of elements that should be included in the study. Modification of the check sheets to suit the project (weight and priority) should take place with upper management and the team to ensure everyone is valuing specific criteria the same. Differences within the firm can be as problematic as differences between firms. Practitioners should also be wary of existing publications that have short lists of key alliance steps. Too often they address only a portion of the alliance experience and overlook the difficulty of ongoing management and the evolutionary aspects. Where possible, seek out case studies that follow the alliance from conception to termination and extract the triggers and mechanisms that made the alliance work/fail.

The purpose of this paper was to identify critical alliance criteria from previous research and to prioritize the elements based on the opinion of executives in the field of alliance management with extensive alliance management backgrounds. In addition, alliance value and risk check sheets were created to assist alliance managers in project work as they embark on new alliance opportunities. Research methodology included interviews and rank order prioritization of alliance value and risk criteria. Clear strategy and objectives in place was a predominant finding in the study along with trust and alignment with corporate objectives. Not meeting financial objectives was identified as high risk along with cash flow problems and default on obligations. The overall findings are best illustrated in the rank order mean weight charts included in Figure 1.

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