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BASES OF INTERORGANIZATION COOPERATION: PROPENSITY, POWER AND PERSISTENCE

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Bases of Interorganization Cooperation: Propensity, Power, Persistence

ABSTRACT

Cooperation may enable organizations to attain ends that they cannot achieve alone. However, the cooperating partners must have an unusual mix of 1) propensity, 2) power, and 3) persistence. Joint-ventures are used in this article to elucidate these critical elements in the relationship.

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THE PROPENSITY TO FORM JOINT VENTURES

Many U.S. firms are now formulating domestic joint ventures (or other forms of cooperative strategies). This behavior is surprising because joint ventures have more frequently been used by U.S. firms as a means of entering newly-industrializing nations (Ballon, 1967; Beamish & Lane 1982; Business International, 1965, 1971, and 1972) than as a competitive strategy option in mature, home markets. Investigations into the efficacy of joint ventures (and other forms of cooperative strategies) are especially timely now because governments, like that of the United States, have recently taken a friendlier attitude towards their use (Taylor, 1984; Business Week, 1983; 1984).

Past examinations of joint ventures as a way of structuring innovative economic effort have been limited. Generally the organizations within Boulding's (1956a) 8th-level have been viewed as self- contained enterprises, each seeking its own adaptation to its complex and often hostile environment (Angyal, 1969; Boulding, 1956b, 1981). The concept that organizations seek out partners and design structures for cooperative action has received secondary attention.

Within this rather sparse research, the focus has often been on antitrust issues (Krosin, 1971; Merrifield, 1983; Spence, 1978). The concern in such studies has been more on restraining cooperation than on exploring circumstances where joint effort may be an expeditious way to utilize social resources. Surprisingly, even outside of the competitive business sphere where there is no doctrinaire proscription against cooperation among independent organizations, the studies of joint action are scarce. For instance, R. E. Osgood's (1968) analysis of international alliances has few counterparts in studies of domestic business enterprise.

Two possible approaches to fill this gap are (1) studies that look for patterns in a large number of past cooperative actions, and (2) studies of the inducements and constraints which lead to particular kinds of joint undertakings by individual companies. Both sorts of studies are needed, and both are difficult. This paper concentrates on the second approach. It lays out a framework for analyzing (a) the conditions which are likely to lead two or more companies to form a joint venture, and (b) the resulting design of the venture which will significantly influence its viability. Such an analytical framework is an essential first step to perceiving the internal dynamics of joint ventures.

LITERATURE REVIEW

"Coalition strategies" are defined in this paper as a genre of ways for firms to cooperate. Although the primary emphasis of this paper is upon joint ventures, a robust analysis of this strategy option requires discussion of cooperation alternatives. Other forms of coalition strategies are sketched in the section following the literature review.

"Joint ventures" are partnerships that form an entity (the "child") to pursue some strategic purpose -- like NUMMI, the GM-Toyota venture (Harrigan, 1985b). The child can be incorporated (or not) and may even issue securities as it develops like Dow Corning or Tri-Star Pictures (Berg, Duncan, & Friedman, 1982; Boyle, 1968; Duncan, 1980; Ferguson, 1981; Pate, 1969; Pfeffer & Nowak, 1976).

It is important to recognize that when firms approach the bargaining table that organizations have different strategic objectives (Duncan, 1976; Gamson, 1961; March, 1962; March & Simon, 1958; Pearce & De Nisi, 1983), asymmetric strengths (Inbar, 1972; Riker, 1962), and other important differences (Murray, 1978). These differences will temper firms' choices concerning whether to cooperate (Olson, 1968), which joint venture partners to take (Cyert & March, 1963; Schermerhorn, 1974, 1975, and 1976), which industries to enter using joint ventures, and other dimensions concerning cooperative strategies (Edström, 1975a; Pfeffer & Salancik, 1978). It is important also to recognize which differences will push partners apart (Berg, Duncan, & Friedman, 1982; Berg & Friedman, 1980; Bivens & Lovell, 1966; Franko, 1971; 1975a; Gullander, 1975) and divide their child's loyalties at time when firms should be working together for mutual gain (Berg, Duncan, & Friedman, 1982; Berg & Friedman, 1980; Edström, 1975a; Franko, 1971a; 1971b; Gullander, 1975). These destabilizing differences can undermine the benefits of coalition strategies regardless of the form cooperation will take (Kyland, 1977; Osborne, 1976).

Joint ventures will be increasingly important in the development of new industries, the revitalization of mature industries, the rationalization of firms' portfolios and the enhancement of firms' competitive advantages (Harrigan, 1983; Killing, 1983). Given the accelerating pace of industry evolution and the increasing interdependencies among players within industries like electronics, software, communications, office equipment, precision controls and machine tools, firms must consider all of their options carefully, including cooperative strategies. As national champions within the maturing markets of Japan, the EEC and the U.S. seek new markets to conquer, the challenge of domestic joint ventures becomes even more acute, for these competitors see the greatest payoff in invading each others' markets (Hout, Porter, & Rudden, 1982; Porter, 1980; Harrigan, 1984). One of the most important new uses firms can make of joint ventures is to forge global strategies within mature economies (Davis, 1976). A framework is needed that enables researchers to put these diverse variables into an integrated relationship. Such a framework should recognize the circumstances that lead managers to enter cooperative strategies.

STRATEGY ALTERNATIVES

Coalition strategy ranges from cooperative agreements, through various sorts of joint ventures, to full-scale mergers. In this paper we concentrate on joint ventures because these arrangements highlight the central issues of substantial, continuing cooperation between otherwise independent organizations. Nevertheless, because other degrees of combined action frequently are alternatives to forming a joint venture, they should be briefly identified.

Alternatives Involving No Ownership Control

Cooperative agreements. "Cooperative agreements" will be used in this paper to refer to all <u>non-equity</u> forms of cooperative strategies. The term will provide a generic name for those activities involving an exchange of performances. In cooperative agreements, tasks are performed by partners within their respective, wholly-owned facilities. Partners control the cooperative agreement through contracts which specify product configurations, delivery schedules, price or other terms. (Cooperative agreements, as used herein, also refer to R&D partnerships, cross-licensing and cross-distribution agreements, joint bidding activities and other forms of cooperation where equity is not shared and no child is created.)

Alternatives Involving Partial Ownership

There are two distinct sorts of partial ownership -- (1) a joint venture in which two or more partners create a child, and (2) a minority investment in the equity of an existing firm.

Joint ventures. All the joint ventures discussed in this paper are "operating" joint ventures -- those where partners share decisions and are actively involved in their child's governance. Both equity control and outputs are shared, and there is a presumption that risks will be lower than they would be if the parents pursued their objectives separately.

"Spider's web" joint ventures. "Spider's web" joint ventures link many firms to one pivotal partner (Gullander, 1975). Depending upon the needs of each partner and the sensitivity of information and resources to be exchanged, a domestic firm can forge a variety of patterns for cooperation that keep outsiders at bay while strengthening its own position. The "spider's web" strategy is the opposite of a strategy whereby firms pick the future industry champion early and bet all resources on it to get an "exclusive" joint venture. Powerful firms can form "spider's webs" of joint ventures with themselves at the hub of the web while holding their partners to "exclusive" partnerships with them, alone.

Minority investments. Minority investments do not create a new entity; investors share the equity of an ongoing firm, instead. (Joint ventures where one partner is passive are like minority investments, with the exception that the latter does not create a child.) Minority investments can be a means of fortifying a fledgling supplier or other pioneering firm without acquiring them outright. Such minority investments by larger firms may be the only way for them to obtain the knowledge or access desired from the smaller firm.

Alternatives Involving Full Equity Ownership

Mergers or acquisitions. Some firms will <u>not</u> cooperate (perhaps with good reason) with others in developing new skills, penetrating new markets, or attaining other objectives. The only way the strengths of such firms can be obtained promptly is through acquisition of the entire enterprise.

In other situations, a firm seeking use of the distinctive assets may doubt the ability of the existing owner of those assets to manage them effectively in a long-term cooperative arrangement. Here also the only way to obtain the desired strengths may be through complete acquisition of the firm possessing the assets.

Internal Venturing. In this alternative, managers recognize that entrepreneurial ideas of their employees may not be getting to the marketplace. So, their company creates an internal venturing unit. However, entrepreneurial employees often want <u>equity</u> in the ideas they develop. Thus companies may find they must enter into joint ventures <u>with their employees</u> in order to keep these innovations within the family.

In this continuum from cooperative agreements to full ownership, joint ventures occupy a central position. They highlight three inherent viewpoints in all cooperative endeavors -- first, the distinct and private perspectives of the two (or more) cooperating firms, second, the meeting of their minds in forging an agreement, and third, the viewpoint of the newly-created merged activity which must possess a viability of its own that differs from both of its parents. This delicate troika is examined in the next section.

THE JOINT VENTURE FRAMEWORK

Most joint ventures formed today are complex. They face a world with shorter product lives, maturing domestic economies, explosive effects from technological improvements, shifting industry boundaries, and global competition. From parent firms' perspectives when do joint ventures make sense? Which firms are most appropriate as partners? What should they offer the venture? How should each partner's contributions to the joint venture be valued? When are there timing advantages in forging joint ventures? And how will changes in relationships between partners affect the joint venture's fate?

An analytical framework that identifies the primary factors influencing answers to these questions, and perhaps more useful a framework that structures a set of relationships between these factors, is summarized in Figure 1. This framework is dynamic, and discussion of it will progress from (a) a single firm analysis of the pros and cons of entering into a joint venture, through (b) the meshing of two (or more) firms' bargaining positions to form a joint venture, to (c) the interrelationships of the parent firms with their newly created child, and finally to (d) the forces that are likely to precipitate a revision of their design for cooperation.

Insert Figure 1 about here

Overview

The analytical framework has six major components. These will be briefly summarized before considering the more specific factors which underly these components.

(1) Fundamental to an analysis of any joint venture, or prospective one, is assessment of the propensity of firms to seek this particular form of cooperation. Why do firms consider an inevitably complicated arrangement (Pitts & Daniels, 1984) when doing the contemplated activities by themselves would be a much simpler administrative task (Katz & Kahn, 1966)? The answer to this question will be found in some combination of quicker and/or less costly access to desired markets or resources (Duncan, 1976). Much more is involved in strong propensity, however (Bower & Doz, 1979; Janis, 1977; Mazzolini, 1984). As indicated in the boxes on the upper right and left corners of Figure 1, related factors are sacrifices involved, available inputs, urgency, and the like (Bell, et al., 1977). The total impact of cooperating with a partner affects each firm's relative propensity.

This early weighting of pros and cons is a private assessment made by each firm of its own situation (Caplow, 1956; Hannan & Freeman, 1978). It establishes the firm's degree of interest in cooperation and its constraints on what arrangements might be agreeable.

(2) Next comes an evaluation of the mutual attraction of two (or more) specific partners (Siegal & Fouraker, 1960; Telser, 1972). What does each firm want and offer? The primary issues are fit and compatibility. In an operating joint venture, each partner both contributes and

receives. Typically these inputs and outputs are highly individualistic and diverse in nature; consequently finding an attractive fit is much more exacting than just describing the propensity of individual firms to cooperate (Coleman, 1966; Pettigrew, 1973).

Another aspect of the attractiveness of cooperation, also noted in the upper part of Figure 1, is <u>relative bargaining power</u>. Effective cooperative efforts generate results that neither partner acting alone could achieve. But inherently there will be questions about how these results (both good and bad) are divided between the partners. Likewise, questions about how much of what resources each partner contributes, and under what conditions, must be resolved. Bargaining power is a critical factor in finding answers. As will be developed below, bargaining power arises out of relative urgency, available resources, other commitments, possible alternatives, and similar strengths and weaknesses of each partner (Schelling, 1956; Von Newman & Morgenstern, 1944). So, the attractiveness of each potential partner is strongly conditioned by a prediction based on how such power can and will be used in reaching a joint venture agreement -- and subsequently in executing the agreement (MacMillan, 1978; Narayanan & Fahey, 1982). Ironically, potential contributions which make a prospective partner attractive often also increase that firm's relative bargaining power.

(3) The <u>bargaining agreement</u> sets the objectives, the scope, the degrees of freedom, and the constraints of the new joint venture. It is the agreement hammered out by the partners on the basis of their respective propensities to cooperate and bargaining powers. It should represent the intentions of firms after reaching a compromise (Pfeffer & limitations on actions by the newly created venture. (In fact, as

Harrigan (1985) notes, joint venture agreements tend to focus instead upon financial arrangements, valuations of partners' contributions and how to file for "divorce.")

If the bargaining agreement captures the "meeting of minds" in partners' negotiations, it could serve a dual purpose. First, it defines the nature of the agreed-upon cooperation between the partners. (Of course, the reality of that cooperation will be established by subsequent behavior patterns. Nevertheless, the agreement is useful as a statement of intent and as a guide in resolving subsequent conflicts which may emerge.) Second, the agreement is, in effect, the charter for the new entity which has been authorized.

(4) Figure 1 shows the new operating unit -- which we shall call the "child" -- separately from the bargaining agreement. This is done to emphasize that a new entity has been created. The child has a life, strategic mission, and character of its own, just as do the firms (parents) which created it. The viability of the entire cooperative effort in a particular target market depends upon the effectiveness of this child. That is where innovative action on behalf of the partners takes place. The activities of the child will invent new products, open new markets, provide logistic support, or whatever the assigned mission (the motivation for cooperating) may be.

Studies of operating joint ventures will be superficial unless they treat the child as a separate organization.

(5) A further vital feature of the analytical framework is the direct feedback loops between the child and each of its parents. Formal agreements regarding inputs and outputs are only a start in explaining these interrelationships. If, for example, the child is manufacturing

products to be sold by a parent, almost daily exchange of information is essential. Many other give-and-take relationships are common, depending upon the relatedness of the child's target market to that of its parents. Informal communication links between partners -- as well as between parent and child -- are essential if the full benefits of the cooperative character of operating joint ventures are to be realized.

Rarely can organization planners anticipate the exact way cooperation will unfold. New problems and opportunities arise at least as fast as old ones recede. Normally, many of these shifts between parent and child are dealt with incrementally. Adjustments are made on the spot, and they get recognized in the formal agreement, if at all, as a *fait accompli*. In other words, the feedback loops help to make the relationship between the child and its parents dynamic. One good way to keep these communication channels open is to provide liaison persons who perform a role similar to the "gatekeepers" that Tushman (1977) observed in R&D departments.

(6) The framework adds, at the bottom of Figure 1, a further critical feature -- the recognition that change in every joint venture design will occur (probably sooner rather than later). The needs and strengths of each parent in its major activities are subject to continual change, and these shifts often enhance or diminish that parent's interest in the joint venture's activities. The child, likewise, faces dynamic competitive forces in its target market, and these changes affect its ability to satisfy the desires of its parents. As a result of the many forces that modify the proclivities and capabilities of all three of the key actors in the joint venture to attain the venture's purpose, the initial design soon becomes less than optimum for at least one actor.

When the rather delicate initial balance is upset, agitation to modify the bargaining agreement starts. Of course, the relative bargaining power has also changed, and this complicates the revision process. Perhaps a new basis for cooperation can be found. More likely, one partner acquires the interest of the other and the cooperation mode is abandoned (or one firm takes a passive role in the joint venture's activities and decisions).

Although this final point suggests that joint ventures are an unstable form of enterprise, a conclusion to shy away from them does not necessarily follow. A discontinued joint venture may serve a useful role even though it has lasted only a few years -- or a few months.

Factors Influencing Propensity

The framework just described provides a structure for identifying and relating a wide array of elements that affect joint ventures. For the framework to serve as an analytical guide, however, several aspects of it need further discussion. The concept of propensity to form a joint venture, in particular, and its relation to bargaining power call for further examination.

When a firm makes its private assessment of its potential benefits and costs of cooperating, several different perspectives are involved (Raser, 1969; Schelling, 1960). Five of these perspectives, or factors, which frequently carry weight are listed on Figure 1.

No. 1 -- Benefits of cooperation. Typically, any firm considering a joint venture wants access to a particular resource -- for instance, a specific distribution channel, use of a patent, employees with unusual knowledge and capabilities, an efficient manufacturing plant, perhaps even the glamour of a familiar brand name. Moreover, the firm is reluctant to try to develop the desired resource by itself. Doing so may take too long -- competitors will be miles ahead. The risks of developing the resource alone may be very high; the resource may be unique -- as in the example of a location at an airport, friendship with the Governor, a basic patent -- and present owners may be unwilling to sell or lease their competitive advantage. The minimum size of efficient facilities may far exceed the firm's needs, thus sharing becomes necessary. The costs of going it alone may may be prohibitive. For any one or combination of such reasons, firms may think that cooperating with another firm is the quickest and easiest way to fill the needs and exploit the opportunities they envision.

Cooperation among persons may be prompted by a desire for sociability; cooperating per se has its own attractions for people. For most firms, however, we hypothesize that cooperation such as sharing in a joint venture is a means to an end, and that the end is directly associated with other activities of the firm.

No. 2 -- Resources offered. The counterpart of attracting a needed resource via joint venture is providing an offsetting inducement to the supplying firm. Accordingly, any firm contemplating a joint venture must ask itself, "What can we bring to the party?" Each firm has strengths in some function(s) -- in marketing, production, engineering, personnel, etc. -- and these can be evaluated in terms of their respective attractiveness to other firms. While exceptional capability will suggest itself, even ordinary competence in a particular geographic location or as it can be adapted to a special segment of a market might appeal to an outsider. A further consideration is whether the skill or capability is being fully absorbed by existing activities, or whether under-utilization of facilities exists. Perhaps an existing patent, distribution channel, or data bank could be applied to an operation that is quite distinct from a firm's ongoing activities. A virtue of joint ventures is that often they make use of a resource which hitherto has been left dormant because it was not coupled with the necessary handmaiden.

No. 3 -- Costs of cooperating. Being a partner in a joint venture entails financial expenses of the conventional sort -- legal fees, costs of communication and records, and other sorts of overhead. More costly is the time of high-paid managers and technical experts diverted from other activities to matters concerning the joint venture. The capital investment to create the venture may earn very modest returns initially (if it breaks even at all during the early years of cooperation).

The primary costs of joint ventures, however, are of a different sort. These include opportunity costs, damage to firms' competitive advantage and strategic inflexibility. Opportunity costs -- the opportunities foregone or actions that were not taken because commitments were made to the joint venture may be high. Also, uniqueness may be sacrificed, for instance no longer being the only firm offering supersonic transportation. Sharing the uses of a little-known technology with a joint venture usually increases the number of "leaks" and speeds up diffusion of the know-how to outsiders. Markets grow more volatile as more competitors learn about the hitherto-unknown approach to serving customer needs. Indeed, a joint venture may serve as a stepping stone for the establishment of future competitors. Such costs as these, although not recorded in the accounting records, must be carefully weighed. They are indelibly stamped in the minds of managers who eschew cooperative strategies (Harrigan, 1985a).

No. 4 -- Other alternatives. The importance attached to forming a particular joint venture with particular partners depends, in part, on the availability of other ways to obtain the desired resources and to employ under-utilized existing resources. For instance, if a toy manufacturer could continue to use wholesalers to distribute its products in California, it would be less interested in setting up a new distributorship as a joint venture than it would be if no wholesaler were available. Alternatives reduce dependence on one course of action (Shubik, 1959). Indeed, firms often incur extra expense just to keep alternatives available.

No. 5 -- Need to cooperate. Still another perspective is the centrality of the desired resource to the operations (and aspirations) of the firm. An enlarged, dependable source of bauxite, for example, might be crucial to the expansion strategy of an aluminum firm. In this circumstance, a joint venture to open a bauxite deposit would have high strategic significance to the firm. By contrast, the possibility of using some of the firm's geologists to explore a coal deposit would be peripheral; a joint venture of this sort might be of interest if the geologists were not fully occupied with the search for bauxite, but it would have a relatively low strategic importance to an aluminum firm under normal circumstances.

Centrality, as the concept is used here, has three sources. One relates to the necessity of the resource for the firm's plans to proceed -- for instance, without jet fuel the planes will not fly. As noted above, the pressures of necessity are moderated by the availability of alternative sources. The timing or urgency of undertaking the venture's activities is a second aspect; the resource may be needed immediately or it may be part of a plan affecting parents' activities five years hence (Porter & Spence, 1982). A longer planning horizon opens more possibilities of finding alternatives, but some market opportunities must be exploited immediately, or firms will suffer an insurmountable competitive disadvantage relative to firms that entered early (Scherer, 1965). Third, centrality relates to the number of activities that are interdependent with the resource in question. A new product, for example, will affect many departments whereas a brand name acquired through a joint venture has little impact on a parent's ongoing activities, except in marketing.

The influence of centrality to a particular firm's propensity to form a joint venture will vary sharply as Figure 2 indicates. For a small research firm with a critical need to sell its only

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Insert Figure 2 about here

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practical product through another firm's marketing channels, centrality will be high, and the small firm will have a propensity to cooperate that differs greatly from IBM's propensity to join up with a new firm in writing computer software. The benefits, resources offered, costs of cooperating, available alternatives, and need to cooperate all affect the net desire for action -- which may range from mere willingness to perhaps desperation.

Relative Bargaining Power

All cooperation involves bargaining power and negotiations in the sense of reaching a consensus on who will contribute what inputs and how the outcomes will be shared (Luce, 1957). (Even when generosity rather than selfishness dominates the decision of persons to cooperate, agreement on who does the dirty work must be negotiated.) As the preceding discussion of propensity indicates, when firms cooperate in a joint venture each partner can view the combined effort from several perspectives (Pettigrew, 1977). Their respective evaluations are not symmetrical (Fouraker & Siegal, 1963). Each prospective action evokes a different bundle of pros and cons for each partner, and bargaining over the design of such action takes place until a plan is devised which is acceptable (if not optimal) to each partner (Nash, 1950).

Power enters into this process because each firm can extend or withhold, to some degree, inputs which are attractive to its partner (Bacharach & Lawler, 1980; Pfeffer, 1977, 1981). And when a firm is in a position to contribute or withhold an especially attractive input, it can insist that the partner agree to an action which is unattractive in some respects to that partner (Hambrick, 1981).

The analytical framework shown in Figure 1 assumes that firms considering joint ventures will use their bargaining power in negotiating a bargaining agreement. We are not asserting that firms will take shortsighted, narrowly conceived positions by exercising all immediate powers they may possess. Rather, partners are more likely to be interested in the long-run growth of the new venture under consideration and to seek arrangements that contribute to its viability and strength (Hickson, et al., 1971; Kriger, 1983; Mintzberg, 1979). Nevertheless, such a design for the new venture will reflect the bargaining power identified in the preceding paragraphs.

Several aspects of relative bargaining power in joint venture warrant specific attention.

(1) Bargaining power is based on the fit, or the interplay, between the elements of propensity in two specific firms (Nierenberg, 1968). It is only when one firm wants something which another firm can dispense or withhold that power arises (Jemison, 1981). Bargaining power is situation-specific in that it arises in a one-to-one relationship in a particular setting (Quinn, 1977).

(2) The five perspectives already discussed in the preceding section on propensity can also be used to analyze bargaining power. Table 1 illustrates this relationship between propensity and power by listing several hypotheses about factors contributing to propensity and the relative power of a partner. An analyst can make a good assessment of the relative power of two firms to the extent that he/she knows the propensity of each firm to form joint ventures along these five dimensions.

Insert Table 1 about here

(3) However, the private assessment of propensity and the analysis of relative bargaining power differ in at least two respects. (a) Some factors in the private assessments will drop out of consideration in the bargaining power analysis because they are not concerns of both firms. Similarly, other factors will rise in significance because attractiveness and control are of interest to one or both firms. (b) Data availability

is a tactical issue in bargaining power. Firm A may not know Firm B's position on several dimensions and/or may misinterpret what it does know. Likewise, Firm B may have limited intelligence about Firm A. Indeed, part of this scarcity of data or even misinformation may be deliberate (Akerlof, 1973). In such situations the perceptions about power are fully as important as actual power.

(4) Firms -- and an industry or national cultures -- vary in the way they use bargaining power. Often power is not discussed openly; flaunting of power may be considered bad taste (Yavitz & Newman, 1982). Likewise, firms may be reluctant to use power in one situation because doing so will make other potential partners unwilling to enter future cooperative arrangements. Such restraints on the use of power are widely acknowledged in international politics -- for example, limited use of U.S. military power in Latin America.

In summary, careful analysis of relative bargaining power -- real and perceived -- is important to an understanding of firms' propensities to form cooperative strategies. Bargaining power has an impact on the form of cooperative strategy firms embrace, how their venture is managed among them, and how the venture will later be revised.

Stimuli for Change

In addition to the closer look at propensity and power presented in the two preceding sections, a third component of the analytical framework also warrants amplification -- the recurring pressures for change. (See the lower box of Figure 1.) Joint ventures are inherently unstable. The forces that promoted cooperation are often fickle; even the success of a joint venture may encourage a parent to undertake by itself activities previously assigned to the child.

Parents' initiative. At the time a joint venture is formed, each parent has its own strategic mission. The joint venture usually contributes in some way toward the achievement of that mission. But missions change. Environmental shifts, competitive pressures, or stakeholder demands may force a redirection. And with its revised mission the parent finds the child less, or perhaps more, important.

The attractiveness of a child may change for other reasons. The specific outputs received form the child may not fully match the parents' needs. Perhaps the parent has learned the technology of the child (Ewing, 1981), or has by now built its brand recognition among distributors and consumers so that the child's marketing strength is no longer vital. Or, substitutes for the child's outputs may emerge, as in the example of new Taiwan sources of printed circuits used in automatic controls. For these or similar reasons the child can become dispensable or even unwanted (Edström, 1975b).

As a parent's dependence on a child rises or declines, relative bargaining power between the parents shifts. The formerly anxious, compliant partner becomes indifferent instead. Also the uncommitted resources of a particular parent grow or shrink with the passage of time, and this affects its ability to fund the child's activities. Changes in parents' respective abilities to deliver resources needed for the child to succeed in its target market also affect their respective abilities to bargain for a new alignment with the other parent and the child. These potential reasons for changed attitudes and behaviors by either or both parents are noted by numbers 13, 14, and 15 on Figure 1.

Child's initiative. The child's posture, like its parents, vacillates. The industry where the child operates probably will be beset with technological change, new competitors, capacity shifts, government regulations, and similar destabilizing influences. Customer needs will change as competition evolves. In such markets, a vigorous child cannot remain static. By adjusting to the new needs and opportunities of its target market, the child may strengthen its position in its respective industry.

In responding to these industry opportunities and threats, the child almost inevitably creates strains with its parents. The process of keeping up with, or ahead of, its competitors calls for different and probably more inputs over time, and the outputs with which the child serves its evolving marketplace are likely to change. Only by sheer luck will actions that are optimum for the child neatly fit the evolving needs and resources of each parent as they move in their respective orbits. And this divergence raises a vital question of how much independence will the child be allowed over time.

Related to the degree of independent action that a child is permitted to take is the pattern of parent-child coordination. Both dependence and independence have to be mediated. Joint ventures of the sort focused on in this article are based on two-way flows (between parent and child) of information and technological know-how, of products or services, of people to be trained, of marketing effort, of managerial personnel, as well as financial assistance and payments. Such exchanges require both formal and informal coordination. With at least three separate enterprises involved -- two parents and a child -- there will naturally be some jockeying for priorities, protection of "our turf," jealousies if one department expands at the expense of another, and the like. These coordination problems are complicated by the kind of changes noted in this section. As needs and power shift attitudes about cooperating also shift, former adaptation patterns no longer work smoothly. Points 16 to 19 in Figure 1 call attention to forces causing a child to initiate a revision of the bargaining agreement.

Cumulative instability. Because operating joint ventures require cooperation among three distinct enterprises, each responding to different pressures for change, a triple source of instability exists. Usually the subject of the cooperative activity is far from trivial, at least for one or two members of the troika. So, a push for readjustment by any one actor tends to precipitate strain throughout the entire arrangement.

As in single organizations, "converging" adjustments probably will be made for a period of time, and some inertia to continue the existing structure will build up (Romanelli & Tushman, 1985). However, when any one of the three players wants to renegotiate, a full-scale "reorientation" -- with changes in strategy, policy, organization, and key executives -- is likely to occur (Tushman & Newman, 1985).

Nature of change. The new relationships that are likely to emerge after an upheaval has been triggered will reflect the new propensities and relative powers of the partners at this later date. Whether a revamped joint venture emerges will depend upon the factors already discussed in relation to the original joint venture. (See top of Figure 1; the analysis has now gone full circle.) As already noted, mutual attractiveness or "fit" leading to a joint venture is hard to find; so the odds run against a reconstituted joint venture. Instead, a new form evolves. The child may be absorbed by one parent or perhaps spun off as an independent company.

We hypothesize that for domestic joint ventures there will be relatively few independent spin-offs because: (a) The activities of domestic joint ventures are often closely tied to central strategic thrust of at least one of the parents centrality; that parent will strongly prefer to retain any know-how, market position, patents, or the like, rather than allow such resources to fall into the hands of a potential competitor; (b) in Williamson's (1975) terms, the subjects covered in most operating joint ventures usually entail uncertainty and trust, and therefore are better suited to "hierarchies" than to "markets"; and (c) geographically, it is feasible for a parent to absorb the activities of its domestic child. For foreign joint ventures, if the local parent is a government, a spin-off is more likely. Coordination within a single company hierarchy is difficult when distance, culture, and national politics intervene.

CONCLUSION

A joint venture involves a whole array of factors which influence close, continuing cooperation between independent organizations. In addition to being complex, the phenomenon is dynamic; joint ventures are formed to secure resources which the parents cannot develop alone, but with the passage of time both the benefits and costs of cooperation shift. Thus, an analysis of joint ventures raises provocative issues about cooperation to attain innovative benefits.

The analytical framework described in this article not only flags key factors involved in the formation, management, and revamping of joint ventures. It also suggests relationships among the factors as they interact in various stages of development. Further research is needed to see how this approach may contribute to our understanding of interorganization cooperation in different contexts.

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Figure 1
Partner-to-Partner Relationships Creating a Joint Venture

Firm A

Weightings of Factors Leading Firm A to Cooperate with Firm B and Sources of Firm A's Relative Bargaining Power
1. Cooperation benefits
2. Resources offered
3. Costs of cooperating
4. Alternatives to JV
5. Need to cooperate

Partner-to-Partner Relationship

Firm B

Weightings of Factors Leading Firm B to Cooperate with Firm A, and Sources of Firm B's Relative Bargaining Power
1. Cooperation Benefits
2. Resources offered
3. Costs of cooperating
4. Alternatives to JV
5. Need to Cooperate

The Bargaining Agreement (7) defines (8) Joint Venture's Domain

Parent-Child Relationship

Parent-Child Relationship

8. Joint Venture ("the Child")
9. Outputs
10. Inputs
11. Control Mechanisms
12. Duration or stability of the Agreement

Child's Competitive Environment

Change Stimuli
The (12) Stability of the (8) Joint Venture (and timing of changes in the (7) Bargaining Agreement defining it) depends upon
13. Changes in Parents' Strategic Mission
14. Changes in Importance of Child to Each Parent
15. Changes in Parent's Relative Bargaining Power
16. Changes in the Child's Industry (and Success Requirements Therein)
17. Effectiveness of Child's Competitive Strategy
18. Changes in Child's Need for Autonomous Activities
19. Changes in Patterns of Parent-Child Coordination Needed for Competitive Success

Figure 2

Effect of Centrality on Propensity for Joint Venture

Opportunity Cost to obtain expected benefits-----	Value of Expected Benefits: Significant Aid to Centrality	Value of Expected Benefits: Peripheral to Centrality
Detracts from, or risks, existing centrality	Caution - full examination (Use power to build protection; consider manager)	No interest • B makes minority investment in A
Uses by-product of existing activities	Aggressive Pursuit	Side benefits must be high (Low continuing commitment)

Table 1

Illustrations of the Use of Bargaining Power to Formulate Hypotheses about the Stance of Two Firms Considering a Joint Venture

Position of Firms	Hypothesized Action	
Firm A needs new technology for next generation of products Firm B has proprietary know-how related to needed technology, but no contact with the new market	Firm A is established in target market	Firm A will cooperate Firm B will cooperate
	Firm A is weak in target market	Firm A will cooperate Firm B will not venture
	Firm A is strongly entrenched in a narrow segment of target market	Firm A will not venture Firm B will cooperate
Firm B has recently developed a new product that is successful in its traditional market. Now Firm B wants entree into a different highly volatile target market	Firm A is only unaffiliated seller in the target market	Firm A will cooperate Firm B will cooperate
	Firm B several other potential venture partners for entering target market	Firm A will cooperate Firm B will drive a hard bargain with Firm A or another seller
	Firm B is affiliated with Firm A's major customer	Firm A *must* cooperate Firm B *will* cooperate
	Firm B has resources to become major competitor of Firm A in target market -- and a record of successfully invading new markets	Firm A will not venture Firm B will cooperate only on its own terms