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JOINT VENTURES: THEORETICAL AND EMPIRICAL PERSPECTIVES

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This paper compares the perspectives of transaction costs and strategic behavior in explaining the motivation to joint venture. In addition, a theory of joint ventures as an instrument of organizational learning is proposed and developed. Existing studies of joint ventures are examined in light of these theories. Data on the sectoral distribution and stability of joint ventures are presented.

The study of joint ventures has attracted increas- stability. The final section suggests some avenues

alternative to acquisitions, contracting, and internal development, the literature has not been consolidated and analyzed. This article provides a critical review of existing studies and new data in order to establish current theoretical and empirical directions. In particular, a theory of joint ventures as an instrument of organizational learning is proposed. In this view a joint venture is used for the transfer of organizationally embedded knowledge which cannot be easily blueprinted or packaged through licensing or market transactions.

First, it will be argued that most statements on the motivations for joint ventures are reducible to three factors: evasion of small number bargaining, enhancement of competitive positioning (or market power), and mechanisms to transfer organizational knowledge. Second, it will be proposed that the cooperative aspects of joint ventures must be evaluated in the context of the competitive incentives among the partners and the competitive rivalry within the industry.

Three theoretical approaches are especially relevant in explaining the motivations and choice of joint ventures. One approach is derived from the theory of transaction costs as developed by Williamson (1975, 1985). The second approach focuses on strategic motivations and consists of a catalogue of formal and qualitative models describing competitive behavior. Though frequently these approaches are not carefully distinguished from one another, they differ principally, as discussed later, insofar as transaction cost arguments are driven by cost-minimization considerations, whereas strategic motivations are driven by competitive positioning and the impact of such positioning on profitability. A third approach is derived from organizational theories, which have not been fully developed in terms of explaining the choice to joint venture relative to other modes of cooperation.

TRANSACTION COSTS

A transaction cost explanation for joint ventures involves the question of how a firm should organize its boundary activities with other firms

may, however, be optimal if the expected transaction costs of relying on an outside supplier outweigh the production saving.[2]

Because a joint venture straddles the border of two firms, it differs from a contract insofar as cooperation is administered within an organizational hierarchy.[3] It differs from a vertically integrated activity in so far as two firms claim ownership to the residual value and control rights over the use of the assets. An obvious question is why should either firm choose to share ownership? Clearly, the answer lies in the diseconomies of acquisition due to the costs of divesting or managing unrelated activities or the higher costs of internal development. Thus, a necessary condition is that the production cost achieved through internal development or acquisition is significantly higher than external sourcing for *at least one* of the partners.

If vertical (or horizontal) integration is not efficient, then an alternative is the market or contract. As described earlier, a transaction cost explanation for why market transactions are not chosen rests on potential exploitation of one party when assets are dedicated to the relationship

choose how to transact according to the criterion of minimizing the sum of production and transaction costs. Production costs may differ between firms due to the scale of operations, to learning, or to proprietary knowledge. Transaction costs refer to the expenses incurred for writing and enforcing contracts, for haggling over terms and contingent claims, for deviating from optimal kinds of investments in order to increase dependence on a party or to stabilize a relationship, and for administering a transaction.

Williamson posits that the principal feature of high transaction costs between arms length parties

aside integration as economically infeasible and market transactions as too fraught with opportunistic risk, the final comparison is between a joint venture and a long-term contract.

A transaction cost theory must explain what discriminates a joint venture from a contract, and in what transactional situations a joint venture is best suited. Two properties are particularly distinctive: joint ownership (and control) rights and the mutual commitment of resources. The situational characteristics best suited for a joint venture are high *uncertainty* over specifying and monitoring performance, in

is uncertainty over performance which plays a fundamental role in encouraging a joint venture over a contract.

To clarify why uncertainty over peformance makes the properties of joint ownership and mutual contribution particularly valuable, consider first a joint venture designed to supply one of the parties, and second a joint venture serving as a horizontal extension of one or more links of each parent's value-added chain. In the case where the joint venture represents a vertical investment for one party and a horizontal for the other, the venture replaces a supply agreement. In this case the venture is the outcome of the production advantage of the supplier coupled with the transaction cost hazards facing one or both of the parties.

These hazards pose the problem of how an agreement to divide excess profits (sometimes called the problem of 'appropriability') can be stabilized over time. Transaction cost hazards can face either the supplier or the buyer. Such hazards are likely to stem from the uncertainty in a supply contract over whether the downstream party is providing information on market conditions, over whether both parties are sharing new technologies, or over whether the supplier is performing efficiently or with the requisite quality production. Each of these cases poses the issue of whether, in the absence of the capability to specify and monitor performance, a governance mechanism can be designed to provide the incentives to perform.

A joint venture addresses this issue by creating a superior monitoring mechanism and alignment of incentives to reveal information, share technologies, and guarantee peformance. Instrumental in achieving this alignment are the rules of sharing costs and/or profits and the mutual investment in dedicated assets, i.e. assets which are specialized to purchases or sales from a specific firm. Thus, both parties gain or lose by the performance of the venture.

It is by *mutual hostage positions* through joint commitment of financial or real assets that superior alignment of incentives is achieved, and the agreement on the division of profits or costs is stabilized. Non-equity contracts can also be written to provide similar incentives by stipulating complex contingencies and bonding. A joint venture differs by having both parties share in the *ante* the performance requirements or behavior of each party. Instead, the initial commitments and rules of profit-sharing are specified, along with administration procedures for control and evaluation.

A more complex case is whether the joint venture represents a horizontal investment in order to supply both parties or sell in an outside market. The discriminating quality of a mutually horizontal joint venture is that the venture employs assets, such as one party's brand label reputation, which are vulnerable to erosion in their values. This latter aspect is particularly important if the joint venture has potential *externalities* which influence the value of the strategic assets of the parties, such as through a diffusion of technology, the erosion of reputation and brand labels, or the competitive effects on other common lines of business. It is, ironically, the initial complementarity between the parents' assets which both motivates joint cooperation and poses the transactional hazard of negative externalities, either through erosion or imitation of such assets as technology or reputation.

If two parties seek to resolve this dilemma by contracting to a third party, or to each other, the danger is that the agent will underinvest in complementary assets and free-ride the brand label or technological advantage. As a result the contracting party will undersupply, or mark up its price of, the inputs it contributes. A joint venture addresses these issues again by providing a superior alignment of incentives through a mutual dedication of resources along with better monitoring capabilities through ownership control rights. In summary, the critical dimension of a joint venture is its resolution of high levels of *uncertainty* over the behavior of the contracting parties when the assets of one or both parties are specialized to the transaction and the hazards of joint cooperation are outweighed by the higher production or acquisition costs of 100 percent ownership.

STRATEGIC BEHAVIOR

An alternative explanation for the use of joint ventures stems from theories on how strategic behavior influences the competitive positioning of the firm. The motivations to joint venture

There is, however, a third rational explanation for joint ventures which does not rest on either transaction cost or strategic behavior motivations. This explanation views joint ventures as a means by which firms learn or seek to retain their capabilities. In this view, firms consist of a knowledge base, or what McKelvey (1983) calls 'comps', which are not easily diffused across the boundaries of the firm.[8] Joint ventures are, then, a vehicle by which, to use the often-quoted expression of Polanyi (1967), 'tacit knowledge' is transferred. Other forms of transfer, such as through licensing, are ruled out—not because of market failure or high transaction costs as defined by Williamson and others, but rather because the very knowledge being transferred is organizationally embedded.

This perspective is frequently identified with a transaction cost argument, even though the explanatory factors are organizational and cognitive rather than derivatives of opportunism under uncertainty and asset specificity. An example of this confusion is the explanation for joint ventures, commonly embraced as a form of transaction cost theory, that the transfer of know-how in the market place is severely encumbered by the hazards which attend the pricing of information without revealing its contents. Because knowledge can be transferred at—so it is claimed—zero marginal cost, the market fails, as sellers are unwilling to reveal their technology and buyers are unwilling to purchase in the absence of [illegible]

not well understood. More generally, tacitness is an aspect of the capital stock of knowledge within a firm. In this regard there is an important distinction between capital specific to individuals, and for which there may be an external labor market, and capital specific to organizations, or what Nelson and Winter (1982) call skills and routines, respectively. For transactions which are the product of complex organizational routines, the transfer of know-how can be severely impaired unless the organization is itself replicated.[9]

In this perspective a joint venture is encouraged if neither party owns each other's technology or underlying 'comps', nor understands each other's routines.[10] Or conversely, following Nelson and Winter (1982), a firm may decide to joint venture in order to *retain* the capability (or what they call 'remember-by-doing') of organizing a particular activity while benefitting from the superior production techniques of a partner. Even if a supply agreement were to operate at lower production and transaction costs a firm may choose a more costly joint venture in order to maintain the option, albeit at a cost, to exploit the capability in the future. What drives the choice of joint ventures in this situation is the difference in the value of options to exploit future opportunities across market, contractual, and organizational modes of transacting. Thus, a joint venture is encouraged under two conditions: one or both firms desire to acquire the other's organizational knowhow; or one firm wishes [illegible]

tures as a vehicle by which organizational knowledge is exchanged and imitated—though controlling and delimiting the process can be itself a cause of instability.

EMPIRICAL STUDIES ON JOINT VENTURE MOTIVATIONS

Despite a relatively long history of research on joint ventures there have been only a few empirical studies of their frequency and motivations. In part the paucity of cross-sectional studies on joint ventures has been due to the difficulty of acquiring information. There have been, however, sufficient studies to date to draw a picture of joint venture activity in the United States and, to a lesser extent, overseas for the case of American multinational corporations.

A summary of the broad sectoral findings of a number of studies is given in Table 1. All of the studies rely on the publication *Mergers and Acquisitions*, though a few of the studies had access to the data used for the journal directly from the Bureau of Economics of the Federal Trade Commission.[11] All the studies show a similar concentration of joint ventures in the manufacturing sector. Kogut finds, however, a higher percentage in manufacturing than the rest. Because joint venture activity appears to be cyclical, it is unclear whether his estimates are the result of the chosen period, the smaller sample, or the correction for announced ventures which were never realized. (The other estimates are based on announcements.)

A problem with the above data is that it is difficult to infer trends regarding the propensity to venture without normalizing for the size of the industry and of firms. Boyle (1968) discovered persuasive evidence that larger firms engage more frequently in joint ventures than do smaller firms. Ideally, therefore, the ratio of joint venture sales or assets to industry sales or assets would serve as a measure of intensity which would correct for size effects. Unfortunately, the data required for the calculations of this ratio are not available.

Berg and Friedman (1978a) attempt to normalize their sample by taking a ratio between the number of joint ventures in an industry and the total number of companies. The measure is conceptually faulty, as there is no reason to exclude parents outside of the industry. Moreover, as most publicly available data underreport joint ventures among small firms, the ratio tends to overstate joint venture participation of industries with large firms. On the other hand,

[11] The Pate data are for joint ventures only between American firms; the Kogut data are for joint ventures located only in the United States.

Table 1. Summary of results on the sectoral distribution of joint ventures

	Manufacturing industries	Natural resource development	Services	Other	Source
Pate (1960–68) (n = 520)	53.5	7.9	16.9	21.7	Federal Reserve Bank of Cleveland, FTC, Mergers and Acquisitions
Boyle (1965–66) (n = 275)	66.1	15.3	5.8	12.7	FTC, Mergers and Acquisitions
Duncan (1964–75) (n = 541)	59.1	12.8	20.7	8.1	Bureau of Economics, FTC, Mergers and Acquisitions
Harrigan (pre-1969–84) (n = 880)	54.8	11.7	15.1	18.4	Mergers and Acquisitions, Funk & Scott
Berg and Friedman (1966–70) (n = 1762)	60.4	9.5	N.A.	30.1*	Bureau of Economics, FTC, Mergers and Acquisitions
Kogut (1971–85) (n = 148)	67.1	12.8	11.3	8.7	Questionnaire based on Mergers and Acquisitions (U.S.-based only)

* Includes services

Sources: Pate (1969), Boyle (1968), Duncan and Harrigan, reported in Harrigan (1985), Berg and Friedman (1978a), and author's estimate.

they find that the ratio is correlated at 0.95 with the absolute number of joint ventures in an industry; moreover, their sample is dominated by ventures between two firms from the same industry as the joint venture. Joint venture incidence was especially predominant in mining, petroleum refining and basic chemicals, and low in textiles, paint and agricultural chemicals, specialty non-electric machinery. Electronics and computers were found to have a low ratio of joint ventures to the number of firms but a high absolute number. In general, then, their measure appears to provide a reasonable gauge of joint venture incidence except for a few industries. It is important, therefore, to check results using their measure against other ways of estimating joint venture incidence.

Another strategy to analyze joint ventures is to study one or a few selected industries in depth. Studies of this type have been specifically oriented to testing whether joint ventures increase efficiency or enhance market power. Whereas a finding which shows enhanced market power for all firms in the industry suggests strategic motivations for joint ventures, findings of efficiency are consistent with, but not confirmatory of, a transaction cost hypothesis, since strategic rivalry may reduce costs within any firm attaining a long-run competitive advantage. For this reason it has been easier to test strategic motivation explanations for joint ventures than transaction cost hypotheses.

Previous industry studies have found some support that joint ventures are a form of strategic behavior to increase market power. Fusfeld (1958) found 70 joint ventures in the iron and steel industry, 53 of which were supply agreements among firms within the industry. More strikingly, he found that the joint ventures created two industrial groups, in addition to U.S. Steel. Using a rich data set, Berg and Friedman (1977) tested for the impact of joint ventures on firm rates of return in the chemical industry. Controlling for other variables they found that firms which had engaged in one or more joint ventures earned lower rates of return. Based on this finding they argued that, since most joint ventures in this industry involved some form of technological exchange, upstream ventures did not increase the market power of the participants. On the other hand, as they admit elsewhere (1978a), they cannot reject the hypothesis that failing firms engage in joint ventures in order to stabilize competition.

Stuckey's (1983) investigation of the aluminum and bauxite industry is a particularly valuable contribution because it specifically analyzed whether joint ventures were motivated by transaction cost or strategic motivations. Having examined 64 joint ventures among the six major firms, he found that of 15 possible linkages, eight occurred, that each major had at least one joint venture with another and five had at least two. He also found a high number of joint ventures with new entrants and other industry members. Moreover, while Stuckey noted that many of the joint ventures resulted in more efficiency through achieving optimal scale economies, the ventures between the majors occurred 'in bauxite and alumina production, the stages where coordination on expansion is most vital' (Stuckey, 1983: 201). Hence he concluded that transaction cost explanations appear more relevant to aluminum production, whereas strategic behavior was more prevalent in the upstream stages.

A third strategy is to analyze the within-sample variation across industries among variables to test for the efficiency and market power characteristics of joint ventures by relating their incidence to structural characteristics of the industry or to the characteristics of the parents. Pate (1969: 18) looked at 520 domestic joint ventures during 1960–1968 and found that over 50 percent of the parents belonged to the same two-digit SIC level and 80 percent were either horizontally or vertically related. Similar results were found by Boyle (1968) for 276 domestic ventures, and by Mead (1967) who, after examining 885 bids for oil and gas leases, found only 16 instances where the joint venture partners competed on another tract in the same sale. Thus, the Pate, Boyle, and Mead studies all conclude that joint ventures are motivated by market power objectives.

Pfeffer and Nowak (1976a) investigated more directly the motivation of market power by analyzing transaction patterns across industries and the degree of industry concentration. Out of 166 joint ventures, 55.5 percent were between parents from the same industry. They found that parents from industries which have a high exchange of sales and purchase transactions, and which are technology-intensive, tend to have more joint ventures. Interestingly, they found that joint ventures occur more frequently when

the two parents are from the same industry of intermediate concentration. Since it is beneficial, though difficult, to collude in industries of intermediate concentration, they conclude that joint ventures are used to reduce uncertainty when oligopolistic rivalry is difficult to stabilize. In investigating the relationship between parents and progeny they found that again transaction frequency and technology of the venture industry were significantly related to joint venture incidence at the industry level, though no significant relationship was found for industry concentration.[12]

A second study by Pfeffer and Nowak (1976b) found further that horizontal parent pairings were correlated with concentration of the venture's industry. Both studies are, however, open to the problem that concentration and firm size are likely to be correlated; thus the result may be the outcome of the sampling bias discussed earlier. In fact, Berg and Friedman (1980) show that the correlation between concentration and joint venture incidence disappears when controlling for the size of the parent firms.

A number of studies have tried to analyze motivations by looking at the effect of joint ventures upon the profitability of the parents. McConnell and Nantell (1985) analyzed stock returns by an event study of 210 firms listed on the American and New York Stock Exchanges which entered into 136 joint ventures between 1972 and 1979. They found a significant and positive impact on the stock values of the parent firms, with an average increase of just less than 5 million dollars in equity value. Arguing that joint ventures were motivated by synergies, they concluded that the similarities in their findings to those for merger activity imply that both are carried out largely for efficiency reasons. Given, however, that they did not attempt to test further if the positive gains are related to measures of market power, their conclusion is unwarranted, especially given the evidence, as discussed earlier, that joint ventures are frequently used between parent firms in interdependent industries.

[12] It is hard to evaluate the results of this paper because the authors move back and forth from multiple regression to bivariate and partial correlations without stating why one test is preferred, and report in one place concentration as significant even though it only tested at 0.15 (Pfeffer and Nowak, 1976: 415).

Berg and Friedman (1981) tested more explicitly the relationship between industry rates of industry returns, joint venture incidence, and potential market power. Their sample consisted of over 300 ventures (mostly at the three-digit level) and was divided into joint ventures which are and are not formed for knowledge-acquisition. Controlling for other variables, and correcting for autocorrelation in the data, they found that industry rates of return were negatively related to knowledge-acquisition joint ventures and positively related to non-knowledge-acquisition ventures. They conclude on this basis that knowledge-acquisition ventures do not enhance the market power of the firm, for the benefits of market coordination would be immediate whereas the payoff to R&D is long-term. No control was made for structural variables, such as concentration, to test for other market power effects. Their results are also consistent with the view that joint ventures are likely to be chosen to transfer organizational knowledge, as opposed to achieving market power.

In an important study, Duncan (1982) partitioned his sample as to whether the parents are from the same three-digit SIC industry and to whether the joint venture and the parents are from the same industry. He finds that, at the three-digit level, ventures with parents from different industries are more prevalent (73 percent of the sample). Thus, Duncan concludes that Pfeffer and Nowak's inference of market power for parent pairings at the two-digit level is not robust at a lower level of industry aggregation. Since two-digit SIC classifications are too broad to infer collusive motivations when parent firms are related at this level of aggregation, Duncan's findings are to be preferred over those of Pfeffer and Nowak. In addition, he found that non-horizontal pairings between parents or between parents and the venture are negatively related to industry rates of returns. However, Duncan did find support for higher industry rates of return when there is a horizontal relationship between the parents, suggesting that market power objectives may be the objective for these cases.

In summary, studies to date show that there is evidence both for a market power and efficiency argument for joint venture motivations. The Berg and Friedman (1981) study also provides support for the use of joint ventures as instruments for the transfer of organizational knowledge as

opposed to means by which to enhance market power. However, these results must be taken as preliminary. None of the studies explicitly tested the effect of horizontal joint ventures between two firms from the same industry on firm rates of return.[13] Finally, whereas evidence of market power supports the strategic behavior perspective, the evidence of efficiency is consistent with, but not confirmatory of a transaction cost explanation. Future work should analyze directly the joint effect of joint ventures and industry structural characteristics on the valuation of the firm and specify more rigorous tests of transaction cost theories.

INTERNATIONAL JOINT VENTURES

Because the subject of how a foreign firm enters a country has been central in the literature on the international activities of the multinational enterprise, there is a longer history of studies on joint ventures in the field of international business. These studies are especially important because, unlike the domestic studies, a few have investigated the choice of joint ventures among other alternatives for entry. Many of these studies have examined the use of joint ventures as a response to governmental regulations, especially in developing countries, through an analysis of a few cases (Tomlinson, 1970; Friedman and Kalmanoff, 1961). Though the case studies are of unquestionable interest, we focus primarily upon studies statistically analyzing entry decisions.

Though, theoretically, there has been significant work in understanding entry decisions as a question of minimizing transaction costs, most studies have empirically investigated the strategic motivation hypothesis. Stopford and Wells (1972) conducted the earliest statistical analysis of the foreign entry decision for 155 American multinational corporations. They found that the use of joint ventures relative to wholly owned subsidiaries declined as the importance of technology and, especially, marketing and product standardization increased. Moreover, joint ventures were particularly prevalent in extractive industries. Of particular interest is their finding that if the entry entailed a product diversification, joint ventures were more likely, ostensibly for the reasons of acquiring local expertise in new areas.

Fagre and Wells (1982) tested to see if the value of a firm's intangible assets influenced its ability to bargain with governments to acquire control, and found that the greater the technological, marketing expense, need for intra-firm coordination, and product diversity, the greater the control (i.e. equity share) of the multinational corporation. The authors explained the positive relationship of product diversity to the preference for wholly owned subsidiaries—among other factors, the superior capability of the multinational corporation to manage multi-product subsidiaries, an argument which suggests a possible contradiction of the earlier Stopford and Wells finding on the need for local cooperation in new product entry. Another interpretation of their results is that multinational corporations will only transfer important resources if they attain control. That indeed the equity percentage reflects an outcome of a negotiation is supported by Gomes-Casseres (1985), who estimated that if constraints were to be removed, equity percentage of joint ventures would stabilize at wholly owned.

Despite a few studies on the choice of acquisition or wholly owned subsidiaries, only two studies to date have analyzed statistically the selection of joint ventures against other alternative entry modes. Caves and Mehra (1986) analyzed the acquisition and greenfield (i.e. start-up investments) entry decisions of 138 foreign firms into the United States. Using joint ventures as a control they found that joint ventures and acquisitions served as subsitute, rather than as complementary, modes of entry, when controlling for other variables.[14]

Kogut and Singh (1986) analyzed explicitly the choice of acquisitions and joint ventures, focusing on country patterns.[15] They hypothesized that

[13] Berg and Friedman (1981) and Duncan (1982) employed industry rates of return, which can be argued to be a good measure of the public good characteristic of collusion but is a poor measure of the efficiency implications of joint ventures and for competitive rivalry within industry.

[14] It is unclear from the data whether this is the result of treating only greenfield as wholly-owned or jointly controlled.

[15] Franko (1976) had shown that Europeans have a higher frequency for the use of joint ventures than American firms, and Wilson (1980) had found strong country patterns in his greenfield and acquisition study. Edstrom (1976) analyzed only Swedish joint ventures and acquisition.

entry could be influenced by the cultural characteristics of a firm's country or origin in relation to the United States because of the difficulty of managing the post-acquisition process. In part, if cultural distance effects were to be found, it could be concluded that foreign firms respond to the *perceived* transactional costs of entry. They found that acquisitions were positively related to the size of the foreign firm and negatively related to the size of the American firm and cultural distance between the United States and the country of origin.

Another line of research has been to investigate the use of joint ventures when there is high need for intra-firm coordination across borders. If there are frequent intra-firm transfers of resources and potential export conflict, Franko (1971) found that joint ventures are more unstable, and Stopford and Wells (1972) found they are used less often. Hladik (1985) analyzed this indirectly by testing the determinants of whether an overseas venture would entail either R&D or export responsibilities. She found that a number of environmental variables (size of the market, technical competence of the partner, technological resources of the host country) were positively related to R&D ventures, whereas scale economies in R&D and the American firm's technological intensity were negatively related. In the case of exports she found that a joint venture was more likely to be allowed to export if the product was outside of, or peripheral to, the parent's product line.

The studies on international joint ventures have, in summary, found:

1. Equity share is influenced by the strategic importance of the R&D or marketing expenditures and product diversity (Stopford and Wells, 1972; Fagre and Wells, 1982).
2. The choice to enter by a joint venture is considered against other alternatives, and is influenced by the size of the targeted firm relative to that of the foreign firm, by the characteristics of the industry, and by the cultural characteristics of the foreign and home countries (Caves and Mehra, 1986; Kogut and Singh, 1986).
3. The responsibilities assigned to the joint venture are influenced by the capabilities of the foreign country and of both partners, in addition to possible conflict between the subsidiary and the foreign partner (Stopford and Wells, 1972; Hladik, 1985).

A DIGRESSION ON JOINT VENTURE INSTABILITY

The international business literature has also addressed the issue of instability. Beamish (1985) has recently summarized the findings of several studies regarding instability. My own findings have been added, and are given along with his summary in Table 2. Some care must be given in comparing the studies. Several authors have

Table 2. Summary of results on instability of joint ventures

Sample size	Development level of country	Unstable* (%)	Unsatisfactory
1100	Primarily developed (DC)—Franko (1971)	24.1†	NA
36	Developed (DC)—Killing (1982, 1983)	30‡	36
168	Mixed (DC and LDC)—Janger (1980)	NA	37
60	Mixed (DC and LDC)—Stuckey (1983)	42‡	NA
66	Developing—Beamish (1985)	45‡	61
52	Developing—Reynolds (1984)	50	NA
149	United States—Kogut	46.3†	NA

* Franko defined a joint venture as unstable where the holdings of the MNE crossed the 50 percent or 95 percent ownership lines, the interests of the MNE were sold, or the venture was liquidated.
† Includes dissolutions and acquisitions. If major reorganizations added, instability is 28.3 percent and 51.7 percent for the Franko and Kogut samples, respectively.
‡ Includes major reorganizations
Source: Table is adapted (with alterations) from Beamish (1985). Calculations of Kogut are from unpublished data.

defined instability in terms of attitudinal data; others have looked at the dissolution of the venture; and still others have looked at dissolution, acquisition, or any change in ownership. A more complex obstacle to making a comparison is that one of the most potent causes of instability is the age of the venture; there is no correction for age differences of the ventures in the table.

Nevertheless, the table is of interest in providing some idea of the significance of instability. Based on this table, Beamish concluded that

dominant control and satisfactory performance. Beamish (1984, 1985) qualifies Killing's conclusion by finding that foreign majority ownership is not common in LDCs, and that shared control reveals better performance.[17]

One problem with the above studies is the failure to correct for the age distribution of the ventures. Using a hazard rate methodology, Kogut (1987) looked at the influence of cooperative and competitive incentives on instability while incorporating the age distribution directly into

countries are significantly higher, even after correcting for the higher incidence of joint ventures with governments in LDCs which show the greatest rates of instability. The data from the study by Kogut (1987) show instability rates for domestic and international joint ventures in the United States to be roughly equivalent to those for LDCs in Beamish's study. At this time, therefore, it is premature to conclude whether joint venture instability varies across regions, especially in the absence of correcting for age.

Several explanations for joint venture termination have been offered. One destabilizing source is conflict between the parents and the joint venture. Stopford and Wells (1972), Franko (1971), and Holton (1981) discuss the trade-off

of the industry, the cooperative incentives among the partners, and the degree of competitive rivalry influenced stability.

A final way to examine instability among joint ventures is to analyze changes in the environment of strategy. It stands to reason that if the incidence of joint venture is related to industry characteristics or strategies, then changes in the values of these parameters should affect survival rates. Franko (1971) examined instability of foreign ventures of American firms in terms of changes in strategy, as proxied by changes in the organizational structure of the firm. He found higher instability for organizations which had divided divisions into world regional areas. Since firms organized along areas tend towards product

knowhow motivations. Less difficult, but still formidable, will be the analysis of joint venture formation and stability in terms of the strategies of the parents. It is not surprising, therefore, that more headway has been made into the relationship of joint ventures to industry characteristics.

It should be expected that the theories and their derived hypotheses will fare differently depending on contextual factors and the type of research questions being pursued. A transaction cost explanation should fit reasonably well the choice of how to cooperate when the transaction has little effect on downstream competition. Strategic behavior explanations certainly provide a more informative framework for the investigation of how joint ventures affect the competitive position of the firm. Organizational learning should apply reasonably well to explain ventures in industries undergoing rapid structural change, whether due to emergent technologies which affect industry boundaries or the entry of new (and perhaps foreign) firms.[18]

There is the danger, however, that more profound reasons for the use of joint ventures may be obscured by focusing only on theoretical explanations for joint ventures at the cost of this sense, joint ventures are a means by which large corporations increase their organizational control through ties to smaller firms and to each other. In the need to develop a better understanding of the choice of joint ventures against other alternatives of transacting or effecting strategies, it would be a mistake to ignore the larger question of the role of joint ventures in the evolution of national institutional structures and international oligopolies.

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