PARENT FIRM PERFORMANCE ACROSS INTERNATIONAL JOINT VENTURE LIFE-CYCLE STAGES

by

J. J. REUER*

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* Assistant Professor of Strategy and Management at INSEAD, Boulevard de Constance, 77305 Fontainebleau, Cedex, France.

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Jeffrey J. Reuer

Assistant Professor of Strategy and Management
INSEAD
Boulevard de Constance
77305 Fontainebleau Cedex, France
Tel.: (33) 1 60 72 44 73
Fax: (33) 1 60 74 55 00
E-mail: jeffrey.reuer@insead.fr

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Abstract

The benefits that parent firms obtain from investing in international joint ventures

(IJVs) can be reinforced or reduced by the management of later stages of collaboration. For

instance, parent firms may end otherwise attractive IJVs prematurely due to organizational or

competitive difficulties, may seek to correct an initial market entry choice, or may use IJV

termination as an adaptive response to new conditions. This paper presents an analysis of the

shareholder wealth effects of IJV formation and five types of IJV termination for a sample of

215 cross-border ventures. The empirical findings challenge common assumptions in the IJV

literature, contrast prior evidence on the performance implications of market entry and exit

through acquisitions and divestitures, and demonstrate the value of integrating IJV life-cycle

stages in future research.

The total value that a parent firm derives from an international joint venture (IJV) is contingent upon a complex and uncertain series of investment decisions, processes, and events that occur within a broader strategic and environmental context. This temporal sequence is commonly portrayed by a courtship-marriage metaphor or life-cycle concept (e.g., Bartlett & Ghoshal, 1995: 377-379; Harrigan, 1986; Kanter, 1994; Parkhe, 1996; Pfeffer & Nowak, 1976), though it does not have to proceed or be conceptualized in a deterministic fashion. Cooperation can break down; partners may lengthen, curtail, or even skip some stages; collaborative phases might recur as a JV's mandate changes; and a firm developing a portfolio of relationships may need to attend to multiple IJV life-cycle stages simultaneously in different ventures. All this suggests that post-formation stages of collaboration are an important part of a parent firm's collaborative strategy and IJV management, and they can have an important bearing on the total value that an IJV yields. In fact, Doz and Hamel submit that "[m]anaging the alliance relationship over time is usually more important than crafting the initial formal design" (1998: xv).

Depending upon researchers' particular objectives, specific phases of collaboration can be studied in fine-grained or more aggregated terms (e.g., Heide, 1994; Ring & Van de Ven, 1994; Tallman & Shenkar, 1994). For example, Parkhe (1996) differentiates eleven IJV life-cycle stages, and Newburry and Zeira (1997) use the broader categories of pre- and post-incorporation to discuss the unique demands each place on parent firms. Regardless of the exact delineation of collaborative phases, they would encompass the firm's choice of an IJV over alternative governance structures (e.g., a licensing agreement, an acquisition, etc.), selection of a partner, negotiations, and actual operation of the venture. Following the IJV's establishment, the venture may evolve and eventually terminate in many different ways (e.g., Ariño & de la Torre, 1998; Doz, 1996). Scholars using different theoretical perspectives to assess IJV instability have drawn various inferences from venture termination, viewing it

alternatively as an indication of failure, as a correction of the initial market entry decision, or as an adaptive response to changing environmental or firm-specific conditions.

The present study examines parent firm performance outcomes across IJV life-cycle stages by using event study methodology to evaluate the shareholder wealth effects of IJV formation and IJV termination. These investment decisions represent two discrete stages of collaboration at opposite ends of the IJV life-cycle that can have a significant impact on the total value that a parent firm obtains or dissipates from collaboration. Because IJVs can follow different paths at the termination stage, and the mode of termination may affect parent firms' total gains or losses, several different types of IJV termination are considered: (1) the parent firm acquires the IJV, (2) the parent firm sells its equity position in the venture to its partner(s), (3) the parent firm sells its equity stake to an outside party, (4) the parent firm and its partner(s) sell the IJV in its entirety to an outsider, or (5) the parent firms liquidate the venture. In the first case, the parent firm increases its commitment to the business by expanding and internalizing the IJV. The four remaining types of IJV termination involve the parent firm withdrawing from the venture.

Studying the parent firm valuation implications of IJV formation and IJV termination simultaneously is important for at least two reasons. First, the bulk of empirical research on IJVs focuses on specific issues relating to formation,[1] and little is known about IJV termination and how it affects parent firm performance. The need for giving greater research attention to parent firms' post-formation decisions and outcomes is evidenced by the fact that instability is a distinctive feature of IJVs and of concern to partners. This appears to have been the case even years before the current "alliance revolution" (Gomes-Casseres, 1996). From 1955 to 1965, for instance, firms represented in the Harvard Multinational Enterprise Project database withdrew from 103 JVs, and in the subsequent decade the number increased eight-fold (Dymsza, 1988). While it is often problematic to obtain reliable data on aggregate

alliance stocks, flows, and instability, previous studies place the average venture dissolution rate at roughly fifty percent, which is approximately that of mergers and acquisitions in new industries (e.g., Bleeke & Ernst, 1991; Harrigan, 1988; Porter, 1987). Although the exact implications of IJV instability are presently not known, the challenges of managing post-formation IJV dynamics will likely increase as cross-border collaborations grow in number, diversity, and strategic significance.

Second, considering IJV formation and IJV termination simultaneously allows many new issues to be raised, which more integrative research can begin to address. A similar conclusion has been reached on strategy research on corporate diversification and divestment in general: insights may be limited by investigating firms' market entry and exit decisions as independent phenomena in separate studies (Chang, 1996). In the IJV context, for instance, the value firms obtain during early phases of collaboration may be augmented or nullified by the management of subsequent stages. At the same time, some stages may be comparatively more important in driving the total benefits parent firms experience from IJVs (e.g., Doz & Hamel, 1998). It is also plausible that some firms may be more adept at managing certain IJV life-cycle stages than other stages. Likewise, certain capabilities for managing IJVs may be stage-specific, while others may be more broadly applicable. For example, Spekman, Isabella, MacAvoy, and Forbes (1997) suggest that some of the specific skills of alliance managers change in relevance across alliance life-cycle stages (e.g., understanding business fit), while the importance of other skills remains more stable over the alliance life-cycle (e.g., communicating effectively). These issues indicate that the IJV literature needs to examine how phases of collaboration relate to each other and jointly affect firm performance.

After a discussion of background literature and the present study's research questions, the details of the empirical analysis appear in a section devoted to research methods. Based on a sample of 215 IJVs involving at least one U.S. parent firm, the empirical evidence shows that

both IJV formation and IJV termination stages of the IJV life-cycle hold out opportunities for parent firms to create value. Further, firms that enhance shareholder wealth when announcing the formation of a venture also tend to fare well upon IJV termination. In fact, this valuation pattern consistent with sequential adaptation is the most common one, though it is by no means dominant. While the literature often emphasizes that IJVs are attractive due to their low switching costs and risks, the findings also reveal that parent firms face difficulties in successfully using IJV termination to alter past IJV formation decisions that were initially not well-received by the market. Moreover, the diversity of parent firms' valuation patterns also suggests that no single inference from IJV termination or theoretical perspective can accommodate the different performance implications of IJV dynamics for parent firms. The paper closes by bringing out the implications of these findings and identifying some avenues for future research.

BACKGROUND LITERATURE AND RESEARCH QUESTIONS

Prior research on the performance implications of alliances generally falls into one of several categories. A number of studies have examined the corporate effects of collaboration by investigating parent firms' share price reactions to venture formation announcements (e.g., Das, Sen, & Sengupta, 1998; Koh & Venkatraman, 1991). Operating under the assumption of stock market efficiency, this method provides an estimate of the corporate cash flow implications of parent firms' individual alliance investment decisions. This work therefore differs from other studies measuring the current performance of the IJV itself (e.g., Chowdhury, 1992; Woodcock, Beamish, & Makino, 1994). Still another approach has been to study the effects of alliances on parent firm survival (Singh & Mitchell, 1996). This is in contrast to the more typical application of longitudinal models to study JV longevity and the determinants of venture survival abroad (e.g., Barkema, Bell, & Pennings, 1996; Li, 1995; Millington & Bayliss, 1997; Park & Ungson, 1997). Finally, other research has considered

parent firm or IJV managers' perceived satisfaction with IJVs (e.g., Geringer & Hebert, 1991).

For the purposes of the present paper, prior research on the shareholder wealth effects of IJV

formation and studies of IJV instability are most relevant.

Empirical research that has examined the parent firm valuation implications of IJV

formation has produced rather mixed findings. Several studies report that firms generally

obtain a positive cumulative abnormal return (CAR) when announcing the formation of an IJV

(e.g., Chen, Hu, & Shieh, 1991; Crutchley, Guo, & Hansen, 1991; Gupta, McGowan, Misra,

& Missirian, 1991; Lummer & McConnell,1990). Other research finds a negative (e.g.,

Chung, Koford, & Lee, 1993; Lee & Wyatt, 1990) or insignificant (e.g., Finnerty, Owers, &

Rogers, 1986; Merchant, 1997) average valuation effect of IJV formation. Parent firms tend

to obtain higher CARs when the venture entails capital market diversification (Lummer &

McConnell, 1990), when the parent firm has less international experience (Hu, Chen, & Shieh,

1992), and when the venture is formed during a period of a strong home country currency

(Crutchley, Guo, & Hansen, 1991). Parent firms' abnormal returns from IJV investments tend

to be worse in the presence of agency hazards arising from dispersed parent firm ownership,

high levels of free cash flow, or an inappropriate capital structure (Wild, 1994).

Related research on IJV instability dating back to the early 1970s has uncovered

numerous sources of venture instability.[2] Franko (1971), for instance, finds that venture

instability rates increase following the parent firm's movement toward a more global strategy,

as reflected by shifts in organizational structure bringing about greater centralization.

Focusing on the control of individual ventures, Killing (1983) observes that shared

management IJVs are more unstable than dominant control IJVs, due in part to parent firms'

inability to manage parent-IJV product flows when control is more evenly balanced between

partners. Other studies find higher instability rates in the developing country setting,

particularly when a foreign government serves as a partner (e.g., Beamish, 1985; Stuckey,

1983). More recently, alliance research has begun to apply dynamic theoretical perspectives and longitudinal modeling approaches to examine many other factors that potentially contribute to venture instability. Examples of destabilizing conditions include the following: changes in industry concentration (Kogut, 1989), competition among partners (Park & Russo, 1996), lack of supporting investments (Li, 1995), prior contractual re-negotiations and the host country's openness (Blodgett, 1992), and cultural distance (Barkema, Bell, & Pennings, 1996), among others.

Whereas event studies of IJV formation focus on the *ex ante* implications of entering IJVs for parent firms, the developing literature on IJV instability is complementary in emphasizing *ex post* changes in ventures, though the latter does not directly consider parent firms' outcomes from collaboration. Thus, one goal of the present study is to extend prior event studies of IJV formation and bridge these two separate streams of research. The first research question is therefore: What are the parent firm valuation effects of IJV formation and different types of IJV termination?

Because IJV instability research focuses on changes in IJVs and the determinants of instability rather than parent firm performance *per se*, drawing out normative conclusions for parent firms requires the use of theoretical inferences. The most common approach in the international business literature is to examine IJV instability and the factors thought to exacerbate or ameliorate it under the assumption that venture longevity is in parent firms' best interests. This approach rests on the notion that the IJV investment was an appropriate governance choice *ex ante*, and post-formation conditions warrant continuation of the business under the IJV arrangement. Thus, this tradition underscores the many implementation challenges firms confront in successfully managing joint ventures. Because parent firms may face *ex post* problems owing to cultural differences, organizational challenges, and competitive difficulties, IJV termination is taken as an indication of failure on the part of parent firms or

the venture itself in overcoming cultural barriers (e.g., Barkema, Bell, & Pennings, 1996), coordinating the business (e.g., Killing, 1983), penetrating a foreign market (e.g., Li, 1995), and so on. The view that such implementation problems are root causes for the termination of otherwise attractive IJV suggests that the market will tend to respond negatively when the firm terminates an IJV which was initially well-received by the market.

An alternative perspective found in other streams of research is that venture formation may often be a good investment decision by parent firms *ex ante*, but changing conditions *ex post* no longer justify continuation of the IJV in its present form. Examples of some of the changing circumstances that might reasonably prompt IJV termination include shifts in corporate priorities (Bleeke & Ernst, 1991), generation of redeployable resources by the venture (Bureth, Wolff, & Zanfei, 1997), unexpected changes in the venture's demand prospects (Kogut, 1991), changing legal conditions in the host country (Shama, 1995), and interpartner learning (Hamel, 1991; Inkpen & Beamish, 1997). Hence, IJV termination can represent a desirable adaptation for a parent firm, and both initiation and cessation of collaboration may have been appropriate at the time each decision was made. This perspective therefore recognizes that parent firms can use alliances as options or transitional devices (e.g., Kogut, 1991; Mitchell & Singh, 1992) that can be seen as co-evolving with parent firms' strategies and capabilities (e.g., Koza & Lewin, 1998; Nakamura, Shaver, & Yeung, 1996). If parent firms use IJV termination as a means of sequential adaptation as these theories predict, parent firms' abnormal returns from both IJV formation and IJV termination will tend to be positive.

A very different parent firm valuation pattern would arise, however, if parent firms instead use IJV termination to correct the initial market entry decision. The IJV formation decision may in some cases have been a poor one *ex ante* due to the firm's lack of experience in collaboration, inadequate information for assessing the relative costs and benefits of the IJV,

and so on. This view of IJV termination parallels prior findings on the dynamics of market entry and exit through acquisitions and divestitures. Just as firms can use divestiture as a means of reversing acquisitions that may have been poorly conceived, parent firms may also turn to IJV termination to salvage some value from an unattractive IJV. For instance, Gomes-Casseres (1987) interprets the frequent conversion of IJVs into wholly-owned subsidiaries in industries where IJVs are uncommon relative to wholly-owned subsidiaries as indicative of corrective ownership changes. If parent firms can use IJV termination as a corrective mechanism, the shareholder wealth effects of IJV termination will tend to be positive when the market initially responded negatively to the IJV's formation.

Given the different potential valuation patterns for parent firms, and the diverse theoretical perspectives underlying them, the present study also addresses this second research question: How do the parent firm valuation effects of IJV formation and IJV termination relate to each other, and to what degree are the data patterns consistent with sequential adaptation, corrective decisions, inappropriate termination of attractive ventures, or simply poor management? Investigating this question will empirically address the various inferences drawn from IJV termination and the missing links between IJV life-cycle stages and parent firm performance outcomes.

METHODOLOGY

Sample

A sample of U.S. parent firms' IJVs was constructed using Predicast's Funk and Scott (F&S) Index and Lexis-Nexis' company news library. Both of these electronic sources were searched for announcements of IJV formation and IJV termination involving at least one publicly-traded, U.S. parent firm.[3] Either the partner or the venture itself was based outside of the U.S. Locations of IJVs and all parent firms were obtained from Lexis-Nexis' company profiles; Standard and Poors' Register of Corporations, Directors, and Executives; National

Register Publishing's <u>Directory of International Affiliations</u>; the <u>World Trade Centers</u> <u>Association World Business Directory</u>; and Gale Research Inc.'s <u>Worldwide Branch Locations</u> <u>of Multinational Companies</u>.

The sample comprises equity IJVs that terminated during the 1985-1995 timeframe. Other governance structures such as non-equity alliances, mergers, or minority investments were not considered due to their different theoretical characteristics (Hennart, 1988). Prospective IJVs were excluded from the sample if the exact mode of venture termination could not be established, or the mode of termination did not correspond to one of the five types mentioned earlier, *viz.* the U.S. parent firm (1) acquires the IJV, (2) sells out to the partner(s), (3) sells its equity stake in the IJV to an outsider, (4) joins the partner(s) in selling the IJV in its entirety to an outsider, or (5) liquidates the venture. Announcements were excluded from the sample if other disclosures (e.g., acquisitions, divestitures, dividends, litigation, etc.) occurred at the time of the announced IJV formation or termination (McWilliams & Siegel, 1997), or if stock returns data were unavailable.

This search procedure provided a final sample of 215 IJVs that had an average duration of 6.7 years. Table 1 provides additional summary information on the sample. The set of IJVs operated in 39 two-digit SIC industries, and seventy percent of the sampled IJVs came from the manufacturing sector.[4] Partners represented a diverse group of countries, 35 in all, with the five most frequent nations being Japan (i.e., 24.2 %), the U.K. (i.e., 13.0 %), Italy (i.e., 7.9 %), Germany (i.e., 7.0 %), and France (i.e., 6.0 %). A majority of the IJVs ended through an equity reallocation among partners whereby the U.S. parent firm either acquired the IJV (i.e., 39.1 %) or sold its stake in the IJV to its partner(s) (i.e., 43.7 %). In 10.7 percent of the cases, the parent firms liquidated the IJV. It was less common for the IJV to be sold in part (i.e., 3.3 %) or in its entirety (i.e., 3.3 %) to an outside party. The buyout of ventures partially reflected prior control over IJVs; acquiring firms tended to have a higher

pre-termination equity stake in IJVs than withdrawing firms (p<0.001). The average parent

firm was large and internationally-experienced, having $25.1 billion in total assets and

operating foreign subsidiaries in 14.5 countries at the time of IJV termination.[5]

Insert Table 1 About Here

Econometric Technique

Event study methodology was used to measure parent firms' valuation outcomes from

IJV formation and IJV termination. This technique has been widely adopted in international

business and strategic management research due to the emphasis on the corporate performance

implications of firms' individual investment decisions (e.g., Lubatkin & Shrieves, 1986).

However, this method also has a number of shortcomings (e.g., Bromiley, Govekar, &

Marcus, 1988). Most notably in the present context, event study methods are not suitable for

assessing gradual changes (e.g., McWilliams & Siegel, 1997). As such, the focus of the

present study is on two discrete investment decisions at opposite ends of the IJV life-cycle –

IJV formation and IJV termination – rather than on the processes by which some alliances can

evolve over time (e.g., Ariño & de la Torre, 1998; Doz, 1996; Ring & Van de Ven, 1994).

The standard Sharpe-Lintner market model was estimated for a parent firm prior to the

announcement of an IJV formation and the announcement of the venture's termination:

(1) $R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it}.$

R_{it} is the return for firm i on day t, R_{mt} is the return on the market portfolio, and ε_{it} is an

error term assumed to be normally distributed and independent across firms and time. Stock

returns data were obtained for U.S. parent firms from the Center for Research in Security

Prices (CRSP) data files. Estimation intervals for equation (1) vary substantially in length;

examples can be found for time frames as short as 45 days (Madhavan & Prescott, 1995) and

as long as 600 days (e.g., Dodd, Dopuch, Holthausen, & Leftwich, 1984). A tradeoff exists, however, between estimating a model over a longer interval to improve the statistical accuracy of parameters versus estimating a model over a shorter interval close to the announcement date to accommodate unstable parameters. Based on this tradeoff and precedent in the joint venture literature (e.g., Koh & Venkatraman, 1991), the selected estimation period was of intermediate length prior to the announcement date, encompassing trading days $t = -250$ to $t = -50$, where $t = 0$ corresponds to the event date. When multiple announcements were made for an IJV formation or IJV termination, the first announcement was used as the event date.

The firm valuation effects of IJV formation and IJV termination were calculated as deviations of actual returns from forecast returns using the Sharpe-Lintner benchmark (e.g., Beaver, 1981; Brown & Warner, 1980). For trading days surrounding each event date, abnormal returns were derived for the U.S. parent firm as follows:

(2) $AR_{it} = R_{it} - (a_i + b_i R_{mt})$,

where R_{it} is firm i's actual return on day t, and $(a_i + b_i R_{mt})$ is firm i's forecast return on day t. The forecast return is constructed from the actual market return on day t (i.e., R_{mt}) and the firm-specific OLS parameter estimates, a_i and b_i, obtained from equation (1). Firm i's abnormal returns can then be summed over intervals near the announcement date to obtain cumulative abnormal returns (CARs) from IJV formation or IJV termination.

RESULTS

Table 2 presents the overall firm valuation effects of IJV formation.[6] The mean abnormal return on day $t = 0$ is 0.39 percent ($p < 0.05$; Wilcoxon $p < 0.05$), which corresponds to an abnormal dollar return of $9.5 million. A majority of the firms, 56 percent, experienced positive abnormal returns on the event date ($p < 0.10$). Thus, on average, parent firms create shareholder value by entering into IJVs. Mean abnormal returns on other trading days

surrounding the event date are not significantly different from zero at the 0.10 level, and the

mean CAR over trading days t = -1 to t = +1 is 0.42 percent (p<0.15; Wilcoxon n.s.).

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Table 2 also presents findings on the stock market's reactions to termination

announcements for these IJVs. The mean abnormal return on day t = -1 is 0.26 percent

(p<0.10; Wilcoxon p<0.10), which corresponds to $20.7 million. Average abnormal returns

from IJV termination are not significant at the 0.10 level for other trading days in the event

window. The mean CAR from IJV termination is 0.40 percent (p<0.17; Wilcoxon n.s.).

Taken together, these results indicate that the market does not respond negatively to firms'

IJV termination announcements on average, yet evidence for shareholder wealth creation via

IJV termination in general is fairly modest.

While Table 2 presents separately the average abnormal returns from IJV formation

and IJV termination, it is also of interest to understand how the valuation effects of these two

investment decisions relate to each other. The correlation between the CARs from IJV

formation and IJV termination is positive (r = 0.15, p<0.05). Firms obtain a positive mean

CAR of 1.05 percent (p<0.05) when terminating IJVs that the market judged favorably *ex*

ante, and firms fare worse when terminating ventures that yielded negative CARs upon IJV

formation (two-sample p<0.05). Firms were also cross-tabulated into four categories based on

the sign of the CARs from IJV formation and IJV termination. The observations are highly

dispersed across the four categories (i.e., χ^2 = 0.767, 1 d.f., n.s.), and an ANOVA showed

that the IJV's duration and the parent firm's equity stake, total assets, and number of foreign

country locations do not have significant differences in means across the four categories (i.e.,

F = 0.731, 211 d.f., n.s.; F = 1.386, 211 d.f., n.s.; F = 0.517, 209 d.f., n.s.; and F = 1.303, 134

d.f., n.s., respectively). None of these variables are correlated with firms' CARs from IJV formation or IJV termination at the 0.10 level.

To address possible differential valuation outcomes for the IJV termination modes, Table 3 breaks out the mean abnormal returns for each of the five types of IJV termination. The table indicates that parent firms internalizing IJVs obtain a positive mean abnormal return of 0.48 percent on the day prior to the event date (i.e., Type I, $p<0.10$). Positive abnormal returns are also evident for parent firms that sell their equity stake in the IJV to a third party (i.e., Type III, day $t = +1$, 0.93 %, $p<0.10$) and for parent firms that join a partner in selling the IJV in its entirety to a third party (i.e., Type IV, day $t = 0$, 0.43 %, $p<0.01$), yet small sample sizes restrict the interpretability of these results. Negative mean abnormal returns are not apparent for any of the five types of IJV termination.

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The shareholder wealth effects of IJV termination are also presented for two subsamples derived from the sign of the initial market reaction to IJV formation. For the set of firms obtaining positive CARs from IJV formation, the mean abnormal return from IJV internalization on day $t = -1$ is 0.66 percent, and the mean CAR from IJV internalization is 1.45 percent (both $p<0.15$). By contrast, firms that internalize ventures initially judged unfavorably by the market obtain a mean CAR of -0.39 percent (two sample $p<0.10$). Firms often sell out to a partner those IJV investments that were initially not well-received by the market, yet selling firms obtain a negative average abnormal return of -0.53 percent (i.e., day $t = -1$, $p<0.10$), but again the small sample size limits the interpretability of this result.

Table 4 provides mean abnormal returns for firms terminating *ex ante* unattractive IJVs operating either within or outside the parent firm's core business. Firms terminating noncore IJVs that were initially not well-received by the market obtain an average CAR from IJV

termination of -0.90 percent (p<0.05). Firms are more apt to withdraw from noncore IJVs to which the market responded negatively *ex ante*, and the resulting mean abnormal return is -0.49 percent on day t = -2 and -0.48 percent on day t = -1 (both p<0.05). Firms internalizing IJVs in noncore areas similarly obtain a negative mean CAR (p<0.05).

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DISCUSSION

The empirical analysis of the parent firm valuation effects of IJV formation and IJV termination presented in this paper contributes to the IJV literature in several ways and has a number of implications for future research on international collaboration. First, the findings provide evidence that both IJV formation and IJV termination life-cycle stages hold out opportunities for parent firms to create shareholder value. The mean abnormal return from IJV formation is positive, none of the five types of IJV termination yields negative abnormal returns in general, and the CARs from IJV formation and IJV termination are uncorrelated with venture duration. As such, the total benefits that parent firms obtain from IJVs depends upon the management of both stages, with IJV formation decisions being only a single element of a broader collaborative challenge. The positive relationship between the shareholder wealth effects of IJV formation and IJV termination suggests that parent firms' performance consequences from terminating IJVs are generally reinforcing in nature: parent firms that experience positive valuation outcomes upon IJV formation also tend to fare well at the IJV termination stage.

As international strategy and business scholars interpret research in the area and conduct future research on IJVs, these findings are important in several respects. They underscore the value of integrating IJV life-cycle stages rather than treating them as independent phenomena. The results also show that IJV instability may often not be

detrimental to parent firms, an assumption that is often explicit or implicit in IJV studies. The finding that parent firms using IJVs as transitional mechanisms can create shareholder value at both the IJV formation and IJV termination stages suggests that IJV longevity can often be an inappropriate indicator of the effectiveness of a firm's international collaborative strategy.

Second, the valuation patterns reported here also reveal the complexity of the relationships between IJV life-cycle stages and the performance implications for parent firms. For instance, while most parent firms enhance value at both IJV formation and termination stages, many parent firms created shareholder wealth upon IJV formation only to dissipate value when terminating the venture (i.e., 22.3 %). This result points to the difficulties researchers face in drawing simple inferences from IJV instability *per se* without investigating the specific circumstances surrounding a venture's termination or directly assessing the parent firms' performance outcomes. Further, this finding indicates the importance of post-formation implementation activities and is consistent with the emphasis placed on the many competitive and organizational challenges collaborators face and the risks associated with unintended or premature termination (e.g., Barkema, Shenkar, Vermeulen, & Bell, 1997; Parkhe, 1991).

The findings also suggest that no single theoretical perspective is likely to explain the diverse valuation implications of IJV dynamics for parent firms. However, future research might extend this study by investigating sources of parent firms' valuation outcomes from IJV formation and termination and assessing the relative explanatory power of theoretical perspectives such as real options theory, transaction cost analysis, and organizational learning models, among others. For instance, contingencies potentially influencing parent firms' benefits from using IJVs in a transitional fashion as part of the firm's sequential adaptation include environmental shocks (Kogut, 1991), resolution of information asymmetry (Balakrishnan & Koza, 1993), knowledge appropriation (Hamel, 1991), shifts in corporate

intents (Bleeke & Ernst, 1991), and generation of redeployable assets (Bureth, Wolff, & Zanfei, 1995).

Third, the present evidence for IJVs reveals interesting similarities as well as differences with prior findings on alternative corporate investments such as acquisitions and divestitures. For instance, the result that IJV formation yields positive abnormal returns on average is in accord with recent findings for bidders engaging in international acquisitions (e.g., Markides & Ittner, 1994; c.f., Doukas & Travlos, 1988). However, in contrast to previous findings on the value selling firms derive from divestitures (e.g., Black & Grundfest, 1988; Klein, 1986), IJV sell-offs to a partner do not yield valuation gains in general. Prior research on divestitures reports that firms are more likely to divest unrelated acquisitions, and the market reaction to the divestiture of *ex ante* unattractive acquisitions is strong and positive (Kaplan & Weisbach, 1992). The present results, however, indicate that parent firms face difficulties in using IJV termination as a means of successfully altering IJV formation decisions judged negatively by the market: the average valuation impact of terminating *ex ante* unattractive IJVs is negative when the firm sold out to a partner or the IJV operated in a noncore business. One explanation for this difference is that IJV termination is a negotiated outcome subject to joint control, bargaining power shifts, and the absence of a competitive bidding market. While the literature tends to emphasize the flexibility and low switching costs of IJVs (e.g., Hennart, Kim, & Zeng, 1998), this hold-up problem appears to be an important risk of collaboration that firms need to recognize (see also Bleeke and Ernst, 1995). The similarities and differences between the present study's findings and those in prior studies on other corporate investment decisions highlight the value of distinguishing organizational forms when considering the dynamics and implications of market entry and exit.

Some of the limitations of the present study also provide opportunities to extend the analysis in new directions. For instance, although the present paper's international focus

reflects the significance of IJVs in parent firms' corporate strategies and the fact that much of the literature on joint venture instability has been developed in the IB field, from Franko's (1971) early research on the topic to the more recent revival of this stream of work in the 1990s, similar research could also be conducted in a domestic setting. Future research could take up other generalizability issues by examining non-U.S. parent firms, the division of value among collaborators, on-going IJVs, and alternative types of alliances.

It is also worth noting that while the event study methodology employed in this study offers several advantages – including accommodating parent firms' differential outcomes from a given IJV, isolating the corporate effects of an investment decision, and facilitating comparisons with related research and alternative investments – it is also limiting in some important respects. For instance, this analysis focuses on the parent firm valuation implications of two discrete stages at opposite ends of the IJV life-cycle. Additional, complementary research is needed to examine other phases of IJV evolution, more incremental changes in IJVs that might restore a collaboration's equilibrium or hasten its termination, and the changing micro-level features and performance of the IJV itself (c.f., Alford, Healy, & Hwa, 1998). Research in directions such as these might clarify phases of IJV evolution, address the substantive links and spillovers between phases of collaboration (e.g., alliance capabilities, partner trust, HR issues, etc.), and identify appropriate trajectories for different parent firms. The present study illustrates the value of, and the need for, more integrative research on IJV dynamics and the implications for parent firms.

ENDNOTES

[1] Studies on IJV formation issues are many and have been reviewed elsewhere (e.g., Contractor & Lorange, 1988; Kogut, 1988; Parkhe, 1993). Examples include research on firms' collaborative motives (e.g., Glaister & Buckley, 1996), partner selection criteria (e.g., Geringer, 1991), and partner negotiations (e.g., Brouthers & Bamossy, 1997), among others.

[2] "IJV instability" has been defined by authors in different ways, and the term often captures multiple IJV evolutionary outcomes, including changes in equity allocations in on-going ventures, IJV reorganization, and different types of IJV termination (e.g., Blodgett, 1992; Franko, 1971; Killing, 1983; Reynolds, 1979).

[3] In eight ventures in the final sample, both parent firms were publicly-traded, U.S. firms. Because abnormal returns for firms in the same venture may not be independent, one parent firm was randomly selected from each venture for analysis (McConnell & Nantell, 1985).

[4] The firm valuation effects of IJV formation and IJV termination (i.e., $CAR_{-1,1}$) were compared for manufacturing and non-manufacturing ventures and found to be statistically the same (i.e., t = .55, t = .96, respectively). Mean venture durations also did not differ across these two classes of IJVs (t = 1.10).

[5] Data on firm size were obtained from the Compustat database. Data on foreign subsidiaries were available for a subset of the sampled parent firms (N = 138) from National Register Publishing's Directory of International Affiliations.

[6] Abnormal returns are presented for trading days in the interval t∈[-2, 2]. Inspection of abnormal returns before day t = -2 and after day t = +2 revealed no evidence of significant prior or delayed effects.

REFERENCES

Alford, A., Healy, P., & Hwa, N. K. 1998. The performance of international joint ventures: A study of the merchant banking industry in Singapore. Journal of Corporate Finance, 4: 31-52.

Ariño, A., & de la Torre, 1998. Learning from failure: Towards an evolutionary model of collaborative ventures. Organization Science, 9: 306-325.

Balakrishnan, S., & Koza, M. P. 1993. Information asymmetry, adverse selection, and joint ventures. Journal of Economic Behavior and Organization, 20: 99-117.

Barkema, H. G., Bell, J. H. J., & Pennings, J. M. 1996. Foreign entry, cultural barriers, and learning. Strategic Management Journal, 17: 151-166.

Barkema, H. G., Shenkar, O., Vermeulen, F., & Bell, J. H. J. 1997. Working abroad, working with others: How firms learn to operate international joint ventures. Academy of Management Journal, 40: 426-442.

Bartlett, C. A., & Ghoshal, S. 1995. Transnational management (Second Edition). Chicago, IL: Irwin.

Beamish, P. W. 1985. The characteristics of joint ventures in developed and developing countries. Columbia Journal of World Business, 20: 13-19.

Beaver, W. H. 1981. Econometric properties of alternative security return methods. Journal of Accounting Research, 19: 163-184.

Black, B. S., & Grundfest, J. A. 1988. Shareholder gains from takeovers and restructurings between 1981 and 1986: $162 billion is a lot of money. Journal of Applied Corporate Finance, 1: 5-15.

Bleeke, J., & Ernst, D. 1991. The way to win in cross-border alliances. Harvard Business Review, 69: 127-135.

Bleeke, J., & Ernst, D. 1995. Is your strategic alliance really a sale? Harvard Business Review, 73: 97-105.

Blodgett, L. L. 1992. Factors in the instability of international joint ventures: An event history analysis. Strategic Management Journal, 13: 475-491.

Bromiley, P., Govekar, M., & Marcus, A. 1988. On using event-study methods in strategic management research. Technovation, 8: 25-42.

Brouthers, K. D., & Bamossy, G. J. 1997. The role of key stakeholders in international joint venture negotiations: Case studies from Eastern Europe. Journal of International Business Studies, 28: 285-308.

Brown, S. J., & Warner, J. B. 1980. Measuring security price performance. Journal of Financial Economics, 8: 205-258.

Bureth, A., Wolff, S., & Zanfei, A. 1997. The two faces of learning by cooperating: The evolution and stability of inter-firm agreements in the European electronics industry. Journal of Economic Behavior and Organization, 32: 519-537.

Chang, S. J. 1996. An evolutionary perspective on diversification and corporate restructuring: Entry, exit, and economic performance during 1981-1989. Strategic Management Journal, 17: 587-612.

Chen, H., Hu, M. Y., & Shieh, J. C. P. 1991. The wealth effect of international joint ventures: The case of U. S. investment in China. Financial Management, 20: 31-41.

Chowdhury, J. 1992. Performance of international joint ventures and wholly owned foreign subsidiaries: A comparative perspective. Management International Review, 32: 115-133.

Chung, I. Y., Koford, K. J., & Lee, I. 1993. Stock market views of corporate multinationalism: Some evidence from announcements of international joint ventures. Quarterly Review of Economics and Finance, 33: 275-293.

Contractor, F. J., & Lorange, P. 1988. Cooperative strategies in international business. Lexington, MA: D. C. Heath.

Crutchley, C. E., Guo, E., & Hansen, R. S. 1991. Stockholder benefits from Japanese-U.S. joint ventures. Financial Management, 20: 22-30.

Das, S., Sen, P., & Sengupta, S. 1998. Impact of strategic alliances on firm valuation. Academy of Management Journal, 41: 27-41.

Directory of International Affiliations. New Providence, NJ: National Register Publishing. Various years.

Dodd, P., Dopuch, N., Holthausen, R., & Leftwich, R. W. 1984. Qualified audit opinions and stock prices: Information content, announcement dates, and concurrent disclosures. Journal of Accounting and Economics, 6: 3-38.

Doukas, J., & Travlos, N. G. 1988. The effect of corporate multinationalism on shareholders' wealth: Evidence from international acquisitions. Journal of Finance, 43: 1161-1175.

Doz, Y. L. 1996. The evolution of cooperation in strategic alliances: Initial conditions or learning processes? Strategic Management Journal, 17 (Summer Special Issue): 55-84.

Doz, Y. L., & Hamel, G. 1998. Alliance advantage: The art of creating value through partnering. Boston, MA: Harvard Business School Press.

Dymsza, W. A. 1988. Successes and failures of joint ventures in developing countries: Lessons from experience. In Contractor, F. J., & Lorange, P. (Eds.), Cooperative strategies in international business: 403-424. Lexington, MA: D. C. Heath.

Finnerty, J. E., Owers, J. E., & Rogers, R. C. 1986. The valuation impact of joint ventures. Management International Review, 26: 14-26.

Franko, L. G. 1971. Joint venture survival in multinational corporations. New York, NY: Praeger Publishers.

Geringer, J. M. 1991. Strategic determinants of partner selection criteria in international joint ventures. Journal of International Business Studies, 22: 41-62.

Geringer, J. M., & Hebert, L. 1991. Measuring performance of international joint ventures. Journal of International Business Studies, 22: 249-263.

Glaister, K. W., & Buckley, P. J. 1996. Strategic motives for international alliance formation. Journal of Management Studies, 33: 301-332.

Gomes-Casseres, B. 1987. Joint venture instability: Is it a problem? Columbia Journal of World Business, 22: 97-102.

Gomes-Casseres, B. 1996. The alliance revolution: The new shape of business rivalry. Cambridge, MA: Harvard University Press.

Gupta, A., McGowan, Jr., C. B., Misra, L., & Missirian, A. 1991. Gains from corporate multinationalism: Evidence from the China experience. The Financial Review, 26: 387-407.

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

Harrigan, K. R. 1986. Managing for joint venture success. Lexington, MA: Lexington Books.

Harrigan, K. R. 1988. Strategic alliances and partner asymmetries in international business. In Contractor, F. J., & Lorange, P. (Eds.), Cooperative strategies in international business: 205-226. Lexington, MA: Lexington Books.

Heide, J. B. 1994. Interorganizational governance in marketing channels. Journal of Marketing, 58: 71-85.

Hennart, J.-F. 1988. A transaction cost theory of equity joint ventures. Strategic Management Journal, 9: 361-374.

Hennart, J.-F., Kim, D.-J., & Zeng, M. 1998. The impact of joint venture status on the longevity of Japanese stakes in U.S. manufacturing affiliates. Organization Science, 9: 382-395.

Hu, M. Y., Chen, H., & Shieh, J. C. 1992. Impact of U.S.-China joint ventures on stockholders' wealth by degree of international involvement. Management International Review, 32: 135-149.

Inkpen, A. C., & Beamish, P. W. 1997. Knowledge, bargaining power, and the instability of international joint ventures. Academy of Management Review, 22: 177-202.

Kanter, R. M. 1994. Collaborative advantage: The art of alliances. Harvard Business Review, 72: 96-108.

Kaplan, S. N., & Weisbach, M. S. 1992. The success of acquisitions: Evidence from divestitures. Journal of Finance, 47: 107-138.

Killing, J. 1983. Strategies for joint venture success. New York, NY: Praeger Publishers.

Klein, A. 1986. The timing and substance of divestiture announcements: Individual, simultaneous, and cumulative effects. Journal of Finance, 41: 685-696.

Kogut, B. 1988. Joint ventures: Theoretical and empirical perspectives. Strategic Management Journal, 9: 319-332.

Kogut, B. 1989. The stability of joint ventures: Reciprocity and competitive rivalry. Journal of Industrial Economics, 38: 183-198.

Kogut, B. 1991. Joint ventures and the option to expand and acquire. Management Science, 37: 19-33.

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

Koza, M. P., & Lewin, A. Y. 1998. The co-evolution of strategic alliances. Organization Science, 9: 255-264.

Lee, I., & Wyatt, S. B. 1990. The effects of international joint ventures on shareholder wealth. The Financial Review, 25: 641-649.

Li, J. 1995. Foreign entry and survival: Effects of strategic choices on performance in international markets. Strategic Management Journal, 16: 333-351.

Lubatkin, M, & Shrieves, R. E. 1986. Towards reconciliation of market performance measures to strategic management research. Academy of Management Review, 11: 497-512.

Lummer, S. L., & McConnell, J. J. 1990. Stock valuation effects of international joint ventures. In Rhee, S. G., & Chang, R. P. (Eds.), Pacific basin capital market research: 531-546. North-Holland: Elsevier Science Publishers B. V.

Madhavan, R., & Prescott, J. E. 1995. Market value impact of joint ventures: The effect of industry information-processing load. Academy of Management Journal, 38: 900-915.

Markides, C. C., & Ittner, C. D. 1994. Shareholder benefits from corporate international diversification: Evidence from U.S. international acquisitions. Journal of International Business Studies, 25: 343-366.

McConnell, J. J., & Nantell, T. J. 1985. Corporate combinations and common stock returns: The case of joint ventures. Journal of Finance, 40: 519-536.

McWilliams, A., & Siegel, D. 1997. Event studies in management research: Theoretical and empirical issues. Academy of Management Journal, 40: 626-657.

Merchant, H. 1997. International joint venture performance of firms in the nonmanufacturing sector. In Beamish, P. W., & Killing, J. P. (Eds.), Cooperative strategies: North American perspectives: 428-456. San Francisco, CA: New Lexington Press.

Millington, A. I., & Bayliss, B. T. 1997. Instability of market penetration joint ventures: A study of U.K. joint ventures in the European Union. International Business Review, 6: 1-17.

Mitchell, W., & Singh, K. 1992. Incumbents' use of pre-entry alliances before expansion into new technical subfields of an industry. Journal of Economic Behavior and Organization, 18: 347-372.

Nakamura, M., Shaver, J. M., Yeung, B. 1996. An empirical investigation of joint venture dynamics: Evidence from U.S.-Japan joint ventures. International Journal of Industrial Organization, 14: 521-541.

Newburry, W., & Zeira, Y. 1997. Generic differences between equity international joint ventures (EIJVs), international acquisitions (IAs) and international greenfield investments (IGIs): Implications for parent companies. Journal of World Business, 32: 87-102.

Park, S. H., & Russo, M. V. 1996. When competition eclipses cooperation: An event history analysis of joint venture failure. Management Science, 42: 875-890.

Park, S., H., & Ungson, G. R. 1997. The effect of national culture, organizational complementarity, and economic motivation on joint venture dissolution. Academy of Management Journal, 40: 279-307.

Parkhe, A. 1991. Interfirm diversity, organizational learning, and longevity in global strategic alliances. Journal of International Business Studies, 22: 579-601.

Parkhe, A. 1993. "Messy" research, methodological predispositions, and theory development in international joint ventures. Academy of Management Review, 18: 227-268.

Parkhe, A. 1996. International joint ventures. In Punnett, B. J., & Shenkar, O. (Eds.), Handbook for international management research: 429-459. Cambridge, MA: Blackwell.

Pfeffer, J., & Nowak, P. 1976. Joint ventures and interorganizational interdependence. Administrative Science Quarterly, 21: 398-418.

Porter, M. E. 1987. From competitive advantage to corporate strategy. Harvard Business Review, 65: 43-59.

Register of Corporations, Directors, and Executives. New York, NY: Standard and Poors. Various years.

Reynolds, J. I. 1979. India-American joint ventures: Business policy relationships. Washington, DC: University Press of America.

Ring, P. S., & Van de Ven, A. H. 1994. Developmental processes of cooperative interorganizational relationships. Academy of Management Review, 19: 90-118.

Shama, A. 1995. Entry strategies of U.S. firms to the Newly Independent States, Baltic States, and Eastern European Countries. California Management Review, 37: 90-109.

Singh, K., & Mitchell, W. 1996. Precarious collaboration: Business survival after partners shut down or form new partnerships. Strategic Management Journal, 17 (Summer Special Issue): 99-116.

Spekman, R. E., Isabella, L. A., MacAvoy, T. C., & Forbes, T. M. 1997. Alliance and partnership strategies: A guide to managing successful alliances. ICEDR.

Stuckey, J. A. 1983. Vertical integration and joint ventures in the aluminum industry. Cambridge, MA: Harvard University Press.

Tallman, S., & Shenkar, O. 1994. A managerial decision model of international cooperative venture formation. Journal of International Business Studies, 25: 91-113.

Wild, K. L. 1994. Management incentives and the valuation of international joint venture formation. Paper presented at the annual meetings of the Academy of International Business, Boston, MA.

Woodcock, C. P., Beamish, P. W., & Makino, S. 1994. Ownership-based entry mode strategies and international performance. Journal of International Business Studies, 25: 253-273.

World Trade Centers Association World Business Directory. 1994. Detroit, MI: Gale Research Inc.

Worldwide Branch Locations of Multinational Companies. 1994. Detroit, MI: Gale Research Inc.

TABLE 1

Descriptive Statistics and Sample Characteristics[a]

IJV Sector	Frequency (%)	
Mining	5	(2.3)
Construction	1	(0.5)
Manufacturing	150	(69.8)
Transportation	3	(1.4)
Communications	6	(2.8)
Public Utilities	4	(1.9)
Wholesale Trade	14	(6.5)
Retail Trade	7	(3.3)
Finance, Insurance, and Real Estate	15	(7.0)
Services	10	(4.7)
Total	215	(100)

Variable	Mean	Std. Dev.	Minimum	Maximum
IJV Duration (years)	6.68	4.99	1.00	39.00
Equity Stake (%)	48.62	9.74	10.00	80.00
Total Assets ($ million)	25,053	52,913	6.37	446,374
Number of Foreign Country Locations	14.49	12.07	0	52.00

[a]IJV duration is measured in whole years. Equity stake, total assets, and number of foreign country locations are calculated for the U.S. parent firm at year-end prior to the venture's termination.

TABLE 2
Average Shareholder Wealth Effects
of IJV Formation and IJV Termination[b]

Event Day (t)	Mean Abnormal Return (%), AR_t	Mean Cumulative AR (%), $CAR_{-2,t}$	Percent with Positive ARs
IJV Formations			
-2	-0.069	-0.069	48.372
-1	-0.048	-0.117	44.651
0	0.390*	0.273	55.814
1	0.082	0.355	47.907
2	-0.124	0.231	47.907
IJV Terminations			
-2	-0.100	-0.100	44.651
-1	0.263†	0.163	51.163
0	0.006	0.169	48.837
1	0.132	0.301	46.977
2	0.029	0.330	50.698

[b]$N = 215$. † $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

TABLE 3
Mean Abnormal Returns from IJV Termination
by IJV Termination Type and *Ex Ante* Market Evaluations[c]

Event	IJV Termination Mode				
Day (t)	I	II	III	IV	V
Full Sample (N = 215)					
-2	-0.223	-0.590	0.164	-0.333	0.171
-1	0.477†	0.093	0.864	-1.084	0.398
0	0.076	-0.117	-0.494	0.431**	0.281
1	0.088	0.276	0.926†	-0.770	-0.263
2	0.075	0.091	0.388	-0.112	-0.457
CAR$_{-1,1}$	0.641	0.252	1.296	-1.423	0.416
N	84	94	7	7	23
***Ex Ante* Attractive IJVs (N = 109)**					
-2	-0.244	0.246	0.721	1.331†	0.663
-1	0.660	0.026	2.620	-0.292	0.467
0	0.278	0.332	-1.679	0.217*	0.753
1	0.515	0.339	0.862	0.020	-0.421
2	0.108	0.472	0.728	0.978	-0.425
CAR$_{-1,1}$	1.453	0.697	1.803	-0.055	0.799
N	47	45	3	2	12
***Ex Ante* Unattractive IJVs (N = 106)**					
-2	-0.195	-0.339	-0.254	-0.999	-0.365
-1	0.246	0.155	-0.454	-1.400	0.322
0	-0.181	-0.530†	0.396	0.517*	-0.234
1	-0.455	0.218	0.933	-1.086	-0.091
2	0.034	-0.258	0.132	-0.549	-0.493†
CAR$_{-1,1}$	-0.390	-0.157	0.916	-1.970	-0.003
N	37	49	4	5	11

[c]Key to the IJV termination types: I - firm acquires the IJV from partner(s), II - firm sells its equity stake to partner(s), III - firm sells its equity stake to an outside party, IV - firm and partner(s) sell the IJV in its entirety to an outside party, and V - firms liquidate the IJV. Ventures are classified as *ex ante* attractive or unattractive based on the sign of the firm's CAR$_{-1,1}$ from IJV formation. † $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

TABLE 4
Mean Abnormal Returns from Terminating *Ex Ante* Unattractive IJVs:
Firm Valuation Effects by IJV Termination Mode and Business Relatedness[d]

| Event | Parent-IJV Business Relatedness | |
Day (t)	Related	Unrelated
All *Ex Ante* Unattractive IJVs (N = 106)		
-2	-0.221	-0.408*
-1	0.589†	-0.320*
0	-0.174	-0.400*
1	0.029	-0.180
2	-0.238	-0.128
$CAR_{-1,1}$	0.441	-0.900*
N	50	56
Internalization of *Ex Ante* Unattractive IJVs (N = 37)		
-2	-0.208	-0.175
-1	0.340	0.108
0	0.289	-0.872*
1	-0.238	-0.772
2	-0.163	0.322
$CAR_{-1,1}$	0.392	-1.537*
N	22	15
Withdrawal from *Ex Ante* Unattractive IJVs (N = 69)		
-2	-0.230	-0.493*
-1	0.781†	-0.476*
0	-0.539	-0.227
1	0.238	0.037
2	-0.297†	-0.292
$CAR_{-1,1}$	0.480	-0.667
N	28	41

[d]Related ventures operated in the same 2-digit SIC as the parent firm, and unrelated IJVs operated in other industries. Venture internalization involves acquisition of the IJV by the parent firm, and IJV withdrawal represents the other four types of IJV termination. Ventures are classified as *ex ante* unattractive based on a negative $CAR_{-1,1}$ from IJV formation. † $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.