



CONTRACT, COOPERATION, AND PERFORMANCE IN INTERNATIONAL JOINT VENTURES

YADONG LUO*

School of Business Administration, University of Miami, Coral Gables, Florida, U.S.A.

This study examines how contract, cooperation, and performance are associated with one another within international joint ventures (IJVs). We argue that contract and cooperation are not substitutes but complements in relation to IJV performance. An IJV contract provides an institutional framework guiding the course of cooperation, while cooperation overcomes the adaptive limits of contracts. Our analysis of 293 IJVs in a dynamic market demonstrates that previous cooperation bolsters contractual adaptability, which in turn nurtures current cooperation between the same partners. We find that contract completeness and cooperation drive IJV performance both independently and interactively. When contracts are more complete, cooperation contributes more to performance. Contract and cooperation differ in their quadratic effects such that the contribution of contract completeness to performance declines as completeness increases but the contribution of cooperation remains linear. Copyright © 2002 John Wiley & Sons, Ltd.

Structure and process of exchange are central concepts in relational contracts (Williamson, 1985), most notably for international joint ventures (IJVs) which involve highly idiosyncratic assets under cross-cultural conditions (Doz, 1996). The *structure* of the exchange is primarily governed by the *contract* that helps obviate moral hazards and attenuate the leeway for opportunism. It establishes the condition for the *process* of the exchange. This process is an evolving mechanism for ensuring reciprocal dependency and strategic flexibility under uncertain conditions, and is largely manifested in interpartner *cooperation* that affects trust building and the success of joint ventures (Buckley and Casson, 1988; Ring and Van de Ven, 1994). Contracts and cooperation are interrelated because a contractual arrangement serves as a framework within which cooperation proceeds.

Key words: contract; cooperation; performance; joint venture

*Correspondence to: Yadong Luo, School of Business Administration, University of Miami, 414, Jenkins Building, Coral Gables, FL 33124, U.S.A.

In contrast to abundant research on interfirm cooperation and its influence on IJV performance, relatively little scholarly attention has been devoted to studying IJV contracts and their relationship with cooperation. Contracts and cooperation are generally studied separately rather than within an integrated framework. There is little evidence about how contracts and cooperation affect each other and how they jointly influence IJV performance. Consequently, it remains unclear how exchange structure (contract) and process (cooperation) relate to each other and how this relationship affects IJV performance. It is important to assess the interaction of contracts and cooperation for a more subtle explanation of the developmental process of IJVs and of the coupling between *ex ante* governance mechanisms and subsequent adaptations.

This study endeavors to address these underdeveloped issues. We argue that: (1) the IJV contract is not unidimensional. Instead, it contains term specificity and contingency adaptability. A complete contract should be such that it simultaneously

obviates opportunism through term specificity and bolsters adaptation through contingency adaptability; (2) contracts and cooperation are neither substitutes nor contradictions in relation to IJV performance. Instead they function as complements and are inseparable in IJV developmental processes. A contract provides an institutional framework that couches cooperation. The contribution of cooperation to IJV performance may be stronger when contractual design is more complete. Past cooperation may influence contractual design, which may in turn influence subsequent cooperation between the same partners; and (3) contract and cooperation are not homogeneous in terms of the quadratic path of their influences on IJV performance. The role of contractual completeness in driving IJV performance may decline as completeness increases. Contrarily, the role of cooperation in stimulating IJV performance may be linear as cooperation increases. Our analysis of 293 IJVs in the People's Republic of China generally supports the above arguments. This analysis is theoretically framed as such that contractual completeness needs transaction cost logic to delineate its importance, which in turn provides an economic foundation for socially embedded, long-term repeated exchanges that require social exchange theories to elucidate cooperation elements.

THEORETICAL DEVELOPMENT

Nature of IJV contract

An IJV contract provides a legally bound, institutional framework in which each party's rights, duties, and responsibilities are codified and the goals, policies, and strategies underlying the anticipated IJV are specified.¹ Every IJV contract has the purpose of facilitating exchange and preventing opportunism. Appropriate contractual arrangements can attenuate the leeway for opportunism,

¹ This article defines a contract as including a main body, appendices, and renewal supplements. In a typical IJV contract, there are four categories of terms: (1) terms of IJV formation such as its goals, capitalization, and forms of contribution, project construction, and composition of board; (2) terms of IJV operations and management such as product development, technological transfer, marketing, human resources management, accounting, and finance; (3) terms of IJV cooperation such as the responsibilities of each party, duties of managers, profit sharing, liabilities for breach of contract, and dispute settlement; and (4) terms concerning IJV termination such as its renewal, alterations, disposal of assets, and joint venture liquidation or dissolution.

prohibit moral hazards in a cooperative relationship, and protect each party's proprietary knowledge (Hackett, 1993). A complete contract reduces the uncertainty faced by organizational decision-makers and the risks stemming from opportunism on the part of one or more contracting parties (Williamson, 1985). It provides a safeguard against *ex post* performance problems by restraining each party's ability to pursue private goals at the expense of common benefits. An incomplete contract may bring about ambiguity, which creates a breeding ground for shirking responsibility and shifting blame, raises the likelihood of conflict, and hinders the ability to coordinate activities, utilize resources, and implement strategies (Goldberg, 1976).

Contractual completeness is not just term specificity (i.e., the extent to which all relevant terms and clauses are specified), nor should every IJV contract maintain the same level of completeness. Previous studies that view contractual completeness and term specificity as equivalent have created a controversy about the role of the contract. For instance, Bernheim and Whinston (1998) suggest that incomplete contracts are optimal in situations where some elements of enforcement are unverifiable. Similarly, Busch and Horstmann (1992) argue that economic agents rarely write contracts that are complete in the Arrow-Debreu sense because boundedly rational parties may not be able to distinguish certain contingencies. By contrast, Shenkar and Zeira (1992) demonstrate that contractual completeness reduces role conflict and role ambiguity for IJV managers, which then enhances IJV performance. Killing (1983) suggests that term specificity protects a partner's strategic resources and reduces operational and financial uncertainties through controlling opportunism and spurring information flow within an IJV.

We suggest that contract completeness is a multidimensional concept, including not only term specificity but also contingency adaptability. In Macneil's (1978) classical, neoclassical, and relational contract scheme, IJV contracts are relational contracts characterized by long durations of interpartner dependency and enormous unanticipated contingencies in an uncertain environment. IJVs often involve highly idiosyncratic assets that give rise to high coordination costs and appropriation concerns. The optimal contract completeness simultaneously requires opportunism mitigation and adaptation promotion. Bounded

rationality, asymmetrical information, and enforceability costs under an unpredictable environment further propel the need for contractual adaptation. According to Williamson (1979), any relational contract seeking the maximum pay-off must delineate both the *substance* and *structure* of the exchange. In order to describe exchange substance, detailed specifications of contractual terms are required. To delineate exchange structure, contingency adaptability must be included because this structure concerns how reciprocal dependency and IJV adaptation proceed within the total period of an exchange.

Contingency adaptability is the extent to which unanticipated contingencies are accounted for and relevant guidelines for handling these contingencies are delineated in an IJV contract. In contracts, contingency adaptability often describes a mutually agreed tolerance zone or excuse doctrine for dealing with unexpected events, or stipulates principles, guidelines, and possible solutions for dealing with conflicts and contingencies. In practice, these guidelines or possible solutions are incorporated in a contract as either independent terms (e.g., procedures for handling important contingencies; guidelines in case of doubt or hazards; approaches for overcoming conflict and handling *force majeure*) or as a part of related clauses in specific areas (e.g., how to handle unanticipated changes in the market, governmental policies, export prices, quota constraints).

While term specificity concerns how specific and detailed the terms are, contingency adaptability involves how to contractually respond to future problems, conflicts, and contingencies. These two dimensions, each capturing different aspects of completeness, may reach high levels when an IJV operates in a promising but volatile market. Intel, for example, signed an IJV contract with the Great Wall Computer Group (China) in which specificity and adaptability were both high because the transaction involves complex, joint technology development and the market is highly uncertain. When a transaction necessitates term specifications to restrain from opportunism and simultaneously requires descriptions of contingency handling to foster IJV adaptation, a relatively complete contract requires both high term specificity and high contingency adaptability. For a specific IJV contract, nevertheless, desired completeness in these two dimensions depends on transactional

needs, which are generally determined by transactional characteristics (e.g., business complexity, technology intensity, knowledge proprietariness, economic exposure, and interpartner dependency) and institutional environments (e.g., legal system completeness, regulatory stringency, and environmental volatility). Examining such determinants is beyond the limits of this study but is itself a critical issue warranting a systematic investigation in the future.

Contract and cooperation

Contracting and cooperation are two central issues in an IJV's developmental process. A contract alone is insufficient to guide IJV evolution and growth. Since IJVs involve repeated interorganizational exchanges that become socially embedded over time, cooperation is an important safeguard mechanism mitigating external and internal hazards and overcoming adaptive limits of contracts (Poppo and Zenger, 2002). The simultaneous use of both contractual and cooperative mechanisms is particularly critical to IJVs in an uncertain environment such as China (Yan and Gray, 1994, 2001). Cooperation is a Pareto-improvement process through mutual forbearance in the allocation of resources, such that one party is made better off and no one is worse off than it would otherwise be (Buckley and Casson, 1988: 32). Without cooperation, contractual terms, no matter how specific, cannot effectively govern IJV operations. Managers cannot predict and contractually resolve every future contingency. When disturbances arise, contracts alone are unable to maintain the continuity of the relationship. Formally specified processes or procedures for adapting to changes help prolong the exchange but do not guarantee continuance or a mutually acceptable resolution. Cooperation hence becomes a necessary complement that overcomes a long-term contract's constraints in adaptation and execution and becomes an important vehicle that nourishes continuity and flexibility when change and conflict arise.

In order to achieve generative and evolutionary processes that make IJVs adaptive, contracts and cooperation should be coupled such that the former provides a framework within which the latter proceeds, while the latter redresses the deficiencies of the former. Economically, cooperation

must be performed within a contractual framework because 'all parties in an IJV have an inalienable *de facto* right to pursue their own interests at the expense of others' (Buckley and Casson, 1988: 34). Sociologically, it is ideal that relational contracts are enforced within a cooperative culture because 'there exist mechanisms within a venture that favor the creation of an "internal" social norm of reciprocity' (Granovetter, 1985: 501).

Research has generally viewed contracts and cooperation as substitutive and even contradictory in certain circumstances. Transaction cost theorists realize that required contract completeness decreases when contracts change from classical (e.g., sales) or neoclassical (e.g., licensing) to relational (e.g., joint venture) (Williamson, 1979). This theory suggests that a joint venture contract is a major *ex ante* governance mechanism and the role of relational norms is only secondary. Social exchange theorists, however, contend that cooperation and its underlying normative behaviors operate as a self-enforcing safeguard that is a more effective and less costly alternative to contractual design (Gulati, 1995; Uzzi, 1997).² Norms of cooperation provide the flexibility to cope with inevitable uncertainties that arise in a long-term exchange. This flexibility helps mitigate exchange hazards under uncertainty and strengthens bilateral commitment to exchange-specific investments (Dyer and Singh, 1998; Liebeskind *et al.*, 1996). This view suggests that ongoing commitment to cooperation is more important than initial contract designs when an interorganizational exchange involves long-term, complex, and uncertain activities. In fact, some argue that contracts may even undermine IJV evolution because contracts may signal distrust and thus propel opportunism (Ghoshal and Moran, 1996).

Departing from these views, we advocate that contracts and cooperation are complements and one cannot substitute the other. A well-designed contract provides a legally bound, institutional

framework guiding the course of cooperation, while cooperation overcomes contractual rigidity and ensures the execution of contractual stipulations. This complementarity emerges due to the coexistence of required opportunism control and adaptation development in the course of IJV growth. Although control over opportunism is realized in large part through contractual descriptions, these descriptions cannot fully obviate opportunism nor facilitate adaptation. A contract's contingency adaptability helps avoid rigidity, but alone it is deficient in ensuring evolving adaptation during an IJV's life span. Social norms complement economic incentives and nurture cooperative behavior.

Since many IJVs are established between firms that have previously cooperated via trade or investment, parties tend to comply with the norm of reciprocity in repeated, long-term cooperative endeavors in pursuit of joint pay-off (Katz and Kahn, 1978; Ouchi, 1980). When they perceive that the transaction meets standards of reciprocity, individuals are likely to help, rather than to injure, those who have helped them. Thus, current behavior is a response to the past behavior of others (Blau, 1964). Cooperation is initiated by the expectation that beneficial behavior will be reciprocated by its receptor because of the receptor's desire to maintain future social exchanges. This would not take place if the individual were known as someone who does not reciprocate (Rubin and Brown, 1975).³ This implies that cooperation in repeated transactions is a longitudinal process linking past, present, and future relationships between the same parties through new contractual arrangements for cooperative projects. We hypothesize below how cooperation and contracts influence each other in this repeated process.

Hypotheses

Previous cooperation before establishing an IJV is expected to affect contractual completeness because contractual design is influenced by the extent to which both parties have known each

² Relational norms can be structural, cognitive, political, and cultural (Uzzi, 1997). Because exchange conditions for IJVs often drive firms toward structurally embedding their relations, this study delimits its focus on structural-based relational norms, which are concerned with how the quality and network architecture of material exchange relationships influence economic activity. Norms do not have to be cooperative; but structurally embedded norms propel firms to be cooperative so as to reduce monitoring and coordination costs (Jones, Hesterly and Borgatti, 1997).

³ This notion has two assumptions. First, the norm of reciprocity is universally present in all cultures. Second, social norms are partly exogenous and partly endogenous to transactions. They are exogenous insofar as the social mechanisms at play are embedded within the broader societal context; they are endogenous to the extent that there exist mechanisms within an IJV that favor reciprocity.

other. According to Gray and Yan (1997), the strength of previous cooperation is determined by the length, quality, and form (e.g., licensing, export, or joint marketing). This study defines previous cooperation by combining the length and quality—that is, the length of previous cooperation weighted by the quality of this cooperation. Previous cooperation for most IJVs in China takes the form of import and export (National Council, 1991). As interactions between partners increase, economic transactions become increasingly entwined with the social relations of the two partners, which, in turn, deters opportunism (Granovetter, 1985). Previous contact between partners leads to the development of specialized skills and routines adapted to the exchange. These include specific knowledge about the structure and operation of the partner organization and the abilities of its personnel (Shenkar and Zeira, 1992). Such skills and routines constitute an investment in specific assets adapted to interpartner cooperation. These are at risk if cooperation breaks down.

Previous cooperation also fosters a climate of openness that is essential for discussing behavioral problems that may be a barrier to learning (Doz, 1996). Strong cooperation before forming an IJV spurs the transparency and efficiency of interparty information exchange and interpretation (Rubin and Brown, 1975). This history also helps each party better appreciate the partner firm's business strategy, organizational strength, and management style (Tallman and Shenkar, 1994). A high level of conflict and opportunism is hence less likely to occur. Under these circumstances, two parties may focus on a few key areas that are important to both parties rather than on all the issues in a standard IJV contract, thus reducing term specificity. Parkhe (1993) observed that the presence of prior cooperation between two firms limited their expectation of opportunistic behavior in a new IJV and, as a result, lowered the level of contractual specificity employed for new ventures. By the same token, two parties that have cooperated earlier tend to be more collaborative in adapting to unanticipated environmental hazards. In order to jointly gain greater rents from cooperation and adaptation, they are likely to keep a contract's contingency adaptability at a high level. Gulati (1995) and Larson (1992) suggest that past cooperation breeds trust, which in turn heightens the probability of situational flexibility in an IJV contract. Thus:

Hypothesis 1a: Previous cooperation will have a negative effect on term specificity in an IJV contract.

Hypothesis 1b: Previous cooperation will have a positive effect on contingency adaptability in an IJV contract.

Contractual completeness can affect subsequent cooperation because it provides a binding structure within which cooperation performs. This framework can foster or block cooperation during IJV evolution, depending on how a contract is specified. Even though the parties may be confident in one another's trustworthiness, trust developed at the interpersonal level is still conditioned by the legal contract; no one relies exclusively upon trust during IJV evolution. Using appropriate contractual safeguards to reduce conflicts and preserve relationships is of paramount importance in relational contracts involving repetitious transactions and commitment of idiosyncratic assets. Explicitly specifying terms furnishes a clear framework that defines each party's rights, duties, and the principles and procedures of cooperation. Well-specified contracts narrow the domain and severity of risk to which an exchange is exposed and thereby encourage subsequent cooperation (Poppe and Zenger, 2002). High term specificity is thus likely to have a favorable influence on cooperation.

Similarly, a contract's contingency adaptability may trigger future adaptation that is conducive to better cooperation and interpartner learning (Doz, 1996). Through this contingency adaptability, an IJV contract provides customized approaches and contingency procedures for dealing with necessary adaptations. Managers of cooperative ventures encounter two types of uncertainty: (1) uncertainty regarding the future environment and (2) uncertainty over whether the parties will be able to rely on trust to counter the problems of adverse selection and moral hazards. In the course of cooperation, IJV parties can reduce the threats from uncertain environmental conditions through increased contingency adaptability and reduce the threats from adverse selection and moral hazards through increased term specificity. Cooperation is bolstered when these hazards are attenuated. Thus:

Hypothesis 2a: Term specificity in an IJV contract will have a positive effect on cooperation.

Hypothesis 2b: Contingency adaptability in an IJV contract will have a positive effect on cooperation.

We said earlier that contracts and cooperation are inseparable in the sense that the former provides an institutional framework for the latter while the latter offers a stimulating mechanism for executing the former. It will thus be interesting to see whether the complementarity between contracts and cooperation has a productive, synergetic effect on IJV performance (defined as objective measures such as sales and profitability). In a setting where hazards are severe, the combination of formal and informal safeguards may deliver greater exchange pay-offs than contractual or relational governance in isolation (Poppo and Zenger, 2002). Because additional benefits are likely to emerge from an appropriate configuration between contractual design and ongoing cooperation, we propose that this complementarity will lead to better IJV performance. The substance and structure of an IJV contract do not frequently change (unless the venture is substantially restructured), but cooperation always evolves within the boundaries of contractual descriptions (Fayerweather and Kapoor, 1976). We conjecture that contract completeness serves as an *ex ante* framework governing ongoing cooperation and facilitates the contribution of cooperation to IJV performance. That is, cooperation may have a stronger positive influence on performance when contracts are more complete.⁴

Cooperation is not automatic because it is not in the interest of each player to behave cooperatively if there are no guarantees that the other player will reciprocate (Gibbons, 1992). Individual behavior leading to a maximum joint pay-off does not necessarily result in the maximum individual pay-off. If both partners try to maximize their own pay-off, then neither individual nor joint pay-offs will reach a maximum. The value of cooperation can be maximized by altering the incentive structure such that the behavior maximizing individual pay-offs also maximizes joint pay-offs (Parkhe, 1993). Term specificity provides an *ex ante* system ensuring interfirm reciprocity and an obligatory framework

restraining private incentive seeking. It also makes one party's behavior more observable to the other, thus escalating trust-building and reciprocal forbearance. Cooperation tends to be more effective and efficient when IJV parties are clear regarding their respective rights, benefits, and responsibilities and the plans, policies, and strategies of the joint ventures. Because the need for cooperation arises where interdependence and conflict are simultaneously present, contingency adaptability facilitates conflict resolution in a volatile environment, along with the growth of a network through a dynamic cyclical process. Thus:

Hypothesis 3a: There will be a stronger positive relationship between cooperation and performance when term specificity in an IJV contract is higher.

Hypothesis 3b: There will be a stronger positive relationship between cooperation and performance when contingency adaptability in an IJV contract is higher.

While proposing a complementary link between contracts and cooperation, we note that contracts and cooperation are different exogenous variables affecting IJV performance, and each has unique properties in fostering interorganizational exchange and thus in stimulating IJV performance. Contract completeness is important; but its relationship to IJV performance is unlikely to remain linear. The positive effects of term specificity and contingency adaptability on IJV performance are likely to decrease as specificity and adaptability are increased. Quantitatively, there might be an inflection point in the positive linkage between contract and performance, after which the contribution of the contract to performance decreases as the contract becomes more complete. Overly codified terms may not necessarily be conducive to IJV performance because they are likely to impede organizational adaptation and strategic flexibility in response to long-range dynamic environments. Although two parties can renew an initial IJV contract in this situation, this renewal often creates reorganizing costs, alters the equitable structure, and leads to IJV instability (Gray and Yan, 1997). Meanwhile, overly elastic principles lubricate opportunism or simply contribute nothing to performance. In fact, including too many contingencies as well as guidelines for handling contingencies in an IJV contract is likely to deter one

⁴ The other direction of complementarity may also exist: cooperation fosters contract *execution*, thus accentuating the influence of contracts on performance. Since this study emphasizes the completeness of contractual design, we leave the execution effect to future research.

party's motivation for cooperation and commitment and temper the building of trust (Al-Najjar, 1995).

In contrast, cooperation is expected to sustain its influence on IJV performance as it increases. This linear quadratic relationship exists because cooperation is a proxy for commitment, trust, and synergy. Previous studies have demonstrated that cooperation is positively and linearly associated with these variables that enhance IJV performance (Axelrod, 1984; Gulati, 1995; Parkhe, 1993). Social exchange theorists hold that continuous cooperation will lead to both parties being continuously better off and that increased cooperation will lead to both parties benefiting more from such cooperation (Blau, 1964; Katz and Kahn, 1978). In a Confucian cultural setting where informal networks are viewed as critical to business partnerships, cooperation is initiated because of the expectation that it will be reciprocated in the future. A party who rewards another obligates this party to return the favor. A receptor who fails to make this return will lose social status. This reciprocity sustains continued benefits from ongoing cooperation. Thus:

Hypothesis 4a: The positive influence of term specificity and contingency adaptability on IJV performance will decline as they continue to increase.

Hypothesis 4b: The positive influence of cooperation on IJV performance will be sustained as cooperation continues to increase.

RESEARCH METHODS

Background

China has been remarkably successful in attracting FDI, primarily through the establishment of IJVs. Since 1979, when China opened up, through the end of 2000, about 400,000 foreign-funded enterprises (of these, 65% were IJVs) representing U.S. \$330 billion FDI had actually been invested, accounting for about half of worldwide FDI in developing countries and representing the second largest FDI in the world, surpassed only by the United States. China's dynamic and complex environment offers a rich setting for investigating IJV performance from the perspective of governance and cooperation.

It has been a widespread perception that the role of contract in China is limited because obligations often derive from personal relationships and because the nation's legal regime is weak. This study, however, challenges this perception in one particular organizational setting—IJVs. China's legal regime governing IJVs is much stronger than governing domestic businesses (National Council, 1991). The foreign economic contract law enacted in 1986 offers strict provisions on contract formation, enforcement, breach, assignment, alteration, and termination. Compared to pure local Chinese firms, Chinese partners cooperating with foreign companies tend to have more international business experience and know better the role of commercial contracts in refraining opportunism, overcoming conflicts, and facilitating exchanges, thus attaching greater importance to IJV contracts. They know that relationship-based approaches cannot apply to transactions with foreign businesses and that abiding by IJV contract by both parties is critical to IJV success. Our field studies and interviews confirmed that Chinese firms tend to be much more serious in preparing and enforcing IJV contracts than in handling commercial contracts with other Chinese firms.

Data

Data for this study originated from two sources: data on contract, cooperation, and some control variables were from surveys conducted in China in 1997, while those on IJV performance were from archives. Guided by theoretical considerations and field interviews, a survey questionnaire was developed in English, translated into Chinese, and subjected to a back-translation procedure. Both versions were initially cross-checked by three international business professors in China. The questionnaire was then pretested for instrument validity with 28 IJV managers representing 14 IJVs (paired respondents from each venture) in Jiangsu Province. We interviewed these managers, asking them to respond to the items about contracts and cooperation within their respective IJVs. Their reported results revealed a high internal consistency in these items between the two respondents from each venture (Guttman split-half $R > 0.86$). These managers were also asked to identify any ambiguities in terms, concepts, or issues revealed in the draft. Some minor changes of wording were made based on their feedback.

Sample firms were identified mainly from the *List of Foreign-Invested Enterprises in China* published by China's State Statistical Bureau in 1994 and the *Directory of Foreign-Invested Enterprises* compiled by the Ministry of Foreign Trade and Economic Cooperation (MOFTEC), China. Only equity manufacturing joint ventures fall within the scope of this study. We sent each questionnaire to general or deputy general managers of a random sample of 800 IJVs via our independent contractor (a professor in international business), with a focus on such provinces as Jiangsu, Zhejiang, Shanghai, and Shangdong. We focus on these provinces because they are leading regions attracting FDI (accounting for about 35% of the nation's total) and our independent contractor is more familiar with FDI situations in these provinces. National Council (1991) reports that most of top IJV managers in China have participated in contract negotiations. Our cover letter explained the concepts of contracts and cooperation, illustrated major items in a typical IJV contract, and asked that a responding general or deputy general manager in the IJV only reply if he or she had actively taken part in the IJV contract negotiations.⁵

After three rounds of follow-up reminders and omitting 17 responses in which the informants did not participate in IJV contract negotiations, 293 useful questionnaires were received, representing a 36.63 percent response rate. Of them, 92 were from Jiangsu, 77 from Zhejiang, 69 from Shanghai, and 55 from Shangdong. Among total respondents, 98 were foreign expatriates and 195 were local nationals. The involved industries focused on technological or capital intensive sectors such as electronics (77), telecommunications (54), medical equipment (31), electric equipment (28), machine building (25), pharmaceutical and chemical products (23), and others (55). Foreign parent firms were originated from the United States (44), Hong Kong (41), Japan (34), Germany (27), the United Kingdom (25), Singapore (23), Taiwan (20), Italy (17), and others (62). The average number of employees and the amount of total investment by all parties are \$687 million and \$14.6 million, respectively.

⁵ This requirement is unlikely to bias sample firms toward newer ventures. Most IJVs in China are relatively young and managers who participated in contract negotiations normally stay in the ventures in various capacities. Contract negotiations also include renewal or amendment negotiations in which senior managers often participate during subsequent operations. We checked the nonresponse bias and did not find the age difference between the responding and nonresponding firms.

To check the measurement validity associated with selective recall of some retrospective information such as contract and previous cooperation (Golden, 1992), we randomly selected 44 senior managers representing 22 IJVs (two managers from each) in the Jiangsu province (identified from code numbers we had stamped on each questionnaire). We interviewed semistructurally these managers 2 weeks after the questionnaires were received. We asked them to orally respond to questions raised in the questionnaire. The results exhibited a high consistency between their reports and the answers in the questionnaire (Pearson correlation ≥ 0.79) and between the two respondents from each firm (Guttman split-half $R > 0.80$). Furthermore, we sent the questionnaires in early 1999 to 36 IJVs in Shanghai that had responded in the early round. We asked that the questionnaire be completed by a senior manager other than the one who participated in the early round. The correlation analysis of 28 responses exhibited a strong consistency in retrospective survey items between two different informants in each IJV (Pearson correlation ≥ 0.75).

Using the database on CD-ROM created by the Computer Center at MOFTEC, we also checked the nonresponse bias. From this source, we were able to obtain archival data concerning some IJV characteristics (e.g., total investment, foreign equity, duration, registered capital, age, sales, and profit for both responding and nonresponding sample IJVs). The mean difference between the responding and nonresponding companies along these characteristics was tested using an unpaired *t*-test. The results demonstrated that all *t*-statistics were nonsignificant.

Measurement

Contract

Term specificity is defined as the mean of responses, on a 5-point Likert scale, assessing the degree to which an IJV contract (i.e., original main body and appendices as well as renewal supplements, if any) specifies relevant terms and clauses concerning the following: (1) how to set up the joint venture; (2) how to operate and manage the joint venture; (3) how to cooperate and resolve conflict between partners; and (4) how to terminate the joint venture. Under each of these categories, we listed detailed terms and clauses as suggested in

the sample IJV contract prepared by the MOFTEC. We asked each informant to assess contract completeness, benchmarking with the IJV industry's standard regarding the desired level of this completeness. To measure contingency adaptability, we computed the mean of responses to the extent to which: (a) term specification is adaptive for issues that are particularly vulnerable to an uncertain environment or resource availability; (b) the contract has specified major principles or guidelines for handling unanticipated contingencies as they arise; and (c) the contract has provided alternative solutions for responding to various contingencies that are likely to arise. Our factor analysis (using Varimax rotation) validated that the underlying patterns of these items were condensed into two factors, namely term specificity (loadings for above items 1–4 were 0.82, 0.88, 0.82, and 0.84 respectively) and contingency adaptability (loadings for above items a–c were 0.95, 0.90, and 0.91 respectively).⁶ Internal consistency of these two variables was confirmed by a high Cronbach's alpha (0.71 and 0.77 respectively).

Cooperation

Cooperation is measured by the mean of the responses, on a 5-point Likert scale, to the degree of interparty cooperation in the following nine areas: (1) cooperation in deciding strategic objectives and goals for the IJV; (2) being ready to give in on an issue to enable the IJV to achieve its goals, as stated in the contract; (3) reaching a consensus in making strategic decisions; (4) cooperation in distribution and execution of authority; (5) cooperation in establishing managerial rules and policies for IJV activities; (6) mutual consultation concerning strategic issues under uncertain conditions; (7) cooperation in functional domains such as production, research and development, purchasing, marketing, human resources, and budgeting; (8) cooperation in selecting the senior management of the IJV; and (9) cooperation in implementing

new plans for the production mix, R&D, or new market entry. The unidimensionality and reliability of this construct were validated by the strong communality estimates found from the exploratory factor analysis (0.86–0.94) and from the high Cronbach's alpha coefficient (0.69).

Performance

In order to avoid the threat from common method variance, this study uses archival data to measure IJV performance, including sales level (total domestic and export sales/total assets) and return on investment (ROI: profit/total investment). The data for these two performance measures were obtained from the aforementioned database developed by the Computer Center at MOFTEC. We use the average of these two performance measures between 1997 and 1998 to test performance implications of the contract and cooperation. Chandler and Hanks (1993) found that these objective measures correlate with subjective measures with a high degree of reliability and content validity for joint ventures.

Other variables

Using survey information, *previous cooperation* is measured by the number of years that the two parties have cooperated through trade or investment before forming a focal IJV, weighted by the quality of previous cooperation (the informant's degree of satisfaction, on a 5-point scale, with this previous cooperation). As previous cooperation is not the only factor affecting contractual completeness, we controlled for investment size (total amount of investment by all parties, in \$ million), expected IJV duration (number of years as stipulated in the contract under the duration clause), equity distribution (percent owned by foreign parent), and cultural distance in testing Hypothesis 1. We obtained information about the first three control variables from the MOFTEC database. Cultural distance was included because negotiators with different cultural backgrounds could have varying negotiation behaviors and contract interpretations (Graham, 1985). Since Hofstede's dataset (1984) did not include mainland China and his sample firms might not represent our sample, we measured cultural distance by directly asking the respondents to assess this distance between their foreign and Chinese parent firms on a 5-point Likert scale.

⁶ To further diagnose the content (convergent) validity of contractual completeness, we performed a covariance structure analysis using a structural equation modeling technique. The path coefficients for the two dimensions of contractual completeness were significant at the 0.001 level in relation to overall contractual completeness (a 7-point scale item in the questionnaire measuring an informant's assessment of the overall completeness of the IJV contract). This suggests that the model cannot be expected to improve by dropping any of the contractual completeness dimensions.

The above control variables are also included in examining current cooperation (Hypothesis 2) and performance implications of contracts and cooperation (Hypotheses 3 and 4). We further included the length of operations and industrial sales growth as two additional control variables in examining Hypotheses 2–4. The sales growth of an IJV's industry was obtained from the *China Statistical Yearbook*. Since cooperation and performance may be shaped by goal congruity between partners, we also included goal congruity as a control variable. When strategic goals set for IJV operations by parents are incongruent, partners may be less cooperative (Parkhe, 1993) and will experience more difficulties in implementing resource complementarity (Hill and Hellriegel, 1994), thus making an IJV less stable or profitable (Inkpen and Beamish, 1997). Each respondent was asked to assess, on a 5-point scale, the overall congruity of strategic goals about IJV development and operations between the foreign and Chinese partners. The content validity of this variable was validated by a covariance structure analysis that observed a significant path correlation ($p < 0.001$) between this congruity and the mean of specific goal differences (inverse coded) between parent firms (profitability, risk reduction, local market expansion, and knowledge sharing). Table 1 presents descriptive statistics and a Pearson correlation between all related variables.

ANALYSIS AND RESULTS

We performed two standardized regressions to examine whether previous cooperation shapes contractual design and whether contractual design shapes current cooperation (Table 2). The multicollinearity threat in Table 2 was shown to be nonexistent, as evident by low VIF values (1.01–1.13 for Model 1 and 1.03–2.68 for Model 2). The univariate normality assumption for every variable in these models was checked by a modified Kolmogorov–Smirnov test. Except for expected IJV duration, all variables in the two models demonstrated normal distribution (0.04–0.07, $p > 0.10$). IJV duration was transformed by taking its logarithm, then also showed normality after transformation. The Levene test was also performed to check the threat of heteroscedasticity. The results ($p > 0.10$ for predictor variables in Models 1 and

2) showed no pattern of increasing or decreasing residuals, hence confirming the assumption of homoscedasticity.

As shown in Table 2, previous cooperation before forming an IJV is significantly and positively associated with contingency adaptability ($p < 0.001$, Model 1b) but not with term specificity (Model 1a), after controlling for all other related variables. Model 2b further suggests that current cooperation is positively influenced by contingency adaptability ($p < 0.05$). This indicates that previous cooperation before forming an IJV drives a contract's contingency adaptability, which in turn heightens cooperation during IJV operations. A hierarchical F -test further shows that the inclusion of contract variables significantly increases the model power predicting present cooperation ($F = 7.23$, $p < 0.01$). This suggests that previous cooperation does not have a main effect on current cooperation (Model 2a) but is indirectly linked to the latter through contractual adaptability. Two parties already familiar to each other through previous cooperation tend to be more adaptive and flexible in response to environmental hazards when they structure contractual terms. This adaptive orientation further boosts future cooperation.

Term specificity, however, does not negatively link up with previous cooperation nor is it positively associated with current cooperation. Rather, it depends on such transactional factors as investment size, expected duration, and cultural distance (Model 1a). These results support Hypotheses 1b and 2b but not Hypotheses 1a and 2a. The result implies that term specificity does not depend on interparty familiarity. Two previously cooperating parties may still come up with a highly specified contract if the transaction requires it. Likewise, cooperation might not rely on term specificity due to the possibility that the role of this specificity is limited in guiding long-term cooperation. Table 2 also displays that anticipated IJV duration has a critical impact on contractual completeness ($p < 0.001$). It is positive in relation to contingency adaptability but negative in relation to term specificity. This suggests that IJV parties emphasize higher contingency adaptability and lower term specificity when they anticipate longer cooperation. According to Model 2, cooperation is enhanced along with the length of IJV operations ($p < 0.01$), industrial sales growth ($p < 0.10$), and goal congruity ($p < 0.05$).

Table 1. Descriptive statistics and Pearson correlation matrix ($N = 293$)

Variables	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12
1 Sales	0.89	0.65												
2 ROI	0.14	0.15	0.59***											
3 Term specificity	3.07	1.06	0.45***	0.42***										
4 Contingency adaptability	3.51	1.03	0.33***	0.35***	0.26***									
5 Cooperation	2.78	0.53	0.22**	0.24***	-0.11	0.26***								
6 Previous cooperation	3.46	0.90	0.10	0.07	-0.14	0.29***	0.10							
7 Investment size	14.60	4.71	0.14*	0.19**	0.22**	0.20**	-0.06	0.03						
8 JI V duration	24.60	3.54	0.10	0.09	0.16*	0.19**	0.04	-0.03	0.02					
9 Foreign equity	0.48	0.33	0.07	0.17*	0.02	0.11	-0.22***	0.10	-0.10	-0.20**				
10 Cultural distance	2.61	0.58	-0.19**	-0.16*	-0.23***	-0.04	-0.02	0.02	-0.27**	0.01	0.05			
11 Length of operations	8.68	1.45	0.27***	0.29***	0.02	-0.03	0.06	-0.05	0.09	0.07	0.10	-0.07		
12 Industry growth	14.6	4.65	0.15*	0.20**	0.14*	0.08	0.14*	-0.04	0.10	-0.04	0.02	-0.15*	-0.09	
13 Goal congruity	3.35	1.90	0.16*	0.19**	0.04	0.20**	0.04	0.09	0.04	-0.08	-0.01	-0.07	-0.05	0.05

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Table 2. Contract and cooperation relations: standardized regression^a ($N = 293$)

Variables	Model 1		Model 2	
	Term specificity (a)	Contingency adaptability (b)	Present cooperation (a)	Present cooperation (b)
<i>Independent variables</i>				
Previous cooperation	-0.04 (0.05)	0.36 (0.07)***	0.07 (0.05)	0.02 (0.04)
Term specificity				-0.07 (0.04)
Contingency adaptability				0.23 (0.05)**
<i>Control variables</i>				
Investment size	0.11 (0.31)†	-0.06 (0.22)	0.08 (0.17)	0.06 (0.18)
IJV expected duration	-0.35 (0.07)***	0.60 (0.05)***	-0.04 (0.06)	-0.06 (0.06)
Foreign equity	0.01 (0.19)	-0.04 (0.13)	-0.19 (0.10)**	-0.22 (0.10)**
Cultural distance	-0.19 (0.11)**	0.06 (0.08)	-0.03 (0.06)	-0.02 (0.06)
Length of operations			0.16 (0.27)*	0.17 (0.30)**
Industry growth			0.11 (0.03)	0.14 (0.03)†
Goal congruity			0.21 (0.03)*	0.22 (0.03)*
Model <i>F</i>	12.31	39.25	5.92	7.87
<i>p</i> <	0.001	0.001	0.001	0.001
Adjusted <i>R</i> ²	0.24	0.48	0.18	0.22
ΔAdjusted <i>R</i> ²				0.04
Hierarchical <i>F</i> ^b				7.23**

^a The entries in the table are the standardized β_s with standard errors in parentheses.

^b $F = (\Delta R^2/\Delta k)(N - k_2 - 1)/(1 - R_2^2)$, where k is the number of predictors and N the total sample size. † $p < 0.10$;

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

We applied multiple moderated regressions to test how contracts and cooperation influence performance individually and interactively (Table 3). We found that cooperation has a significant main effect on sales ($p < 0.01$, Model 1, Table 3) and ROI ($p < 0.01$, Model 5, Table 3). Additional regression analyses after removing multicollinearity between independent variables (contract and cooperation)⁷ (Models 2 and 6, Table 3) demonstrate that term specificity and contingency adaptability also have a main effect on IJV performance ($p < 0.05$ or lower). These models indicate that the two contract completeness variables exert a significant impact on sales ($p < 0.05$ or lower) and on ROI ($p < 0.01$ or lower). Including these two variables significantly increases the predicting power of Model 2 ($\Delta R^2 = 0.09$, $F = 20.47$, $p < 0.001$) and Model 6 ($\Delta R^2 = 0.09$, $F = 20.80$,

$p < 0.001$) in explaining variance of IJV performance. Overall, these results suggest that contract completeness and cooperation both have a main effect on performance.

Models 4 and 8 in Table 3 report the results about interactive effects between contracts and cooperation (Hypothesis 3) after centering the predictor variables around the mean (i.e., $cu_i = u_i - \bar{u}_i$; see Aiken and West, 1991: Chapter 2). This centering technique is necessary to remove the multicollinearity between the independent variables and the interaction terms containing these independent variables. It is found that the interactions between term specificity and cooperation ($x1 * x2$) and between contingency adaptability and cooperation ($x1 * x3$) are significantly and positively associated with sales and ROI (at least $p < 0.05$). Since contracts provide *ex ante* frameworks within which cooperation proceeds, this finding suggests that there will be a stronger relationship between cooperation and performance if a contract is more complete (i.e., higher levels of term specificity and contingency adaptability). We also plotted the interactions, that is, slopes of the regressions of sales or ROI on cooperation conditional on values (the mean, one standard

⁷ This multicollinearity was removed by computing *z*-value of each independent variable [$Z(x_i) = (x_i - \text{mean of } x_i)/S.D.(x_i)$] and using these *z*-values to test Models 2 and 6. By comparing Models 1 and 2 and comparing Models 5 and 6, we found the changes of variance for each independent variable were very small, suggesting no multicollinearity threat after the above efforts. This was further confirmed by low VIF values (1.21–2.23).

Table 3. Performance implications of contract and cooperation: multiple moderated regression^a ($N = 293$)

Variables	Sales				ROI			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
<i>Intercept</i>								
Cooperation (x_1)	-15.2 (14.3)	-21.2 (16.8)	-20.7 (15.5)	-21.6 (17.4)	-11.3 (12.6)	-25.7 (19.9)	-15.8 (17.6)	-27.8 (21.3)
Term specificity (x_2)	0.21 (0.07)**	0.13 (0.06)*	0.25 (0.14)*	0.30 (0.16)*	0.28 (0.07)**	0.11 (0.06)*	0.18 (0.08)*	0.33 (0.18)*
Contingency adaptability (x_3)	0.16 (0.03)***	0.15 (0.15)	0.57 (0.17)***	0.13 (0.03)***	0.22 (0.06)*	0.11 (0.14)	0.18 (0.17)	0.49 (0.18)***
x_1^2	0.12 (0.05)*	0.12 (0.17)	0.28 (0.17)†					0.35 (0.19)†
x_2^2		0.08 (0.08)					-0.04 (0.07)	
x_3^2		-0.07 (0.03)*				-0.09 (0.02)***		
		-0.06 (0.03)*				-0.07 (0.03)*		
<i>Interaction terms</i>								
$x_1^* \times x_2$			0.20 (0.08)*				0.26 (0.09)***	
$x_1^* \times x_3$			0.17 (0.07)*				0.19 (0.07)*	
<i>Control variables</i>								
Investment size	0.16 (0.13)	0.18 (0.13)	0.19 (0.13)	0.18 (0.13)	0.13 (0.12)	0.16 (0.13)	0.11 (0.12)	0.21 (0.13)†
IJV duration	-0.03 (0.05)	-0.02 (0.05)	-0.05 (0.05)	-0.07 (0.05)	-0.06 (0.05)	-0.06 (0.05)	-0.08 (0.05)	-0.04 (0.05)
Foreign equity	0.05 (0.11)	0.03 (0.10)	0.06 (0.10)	0.04 (0.10)	0.08 (0.10)	0.05 (0.10)	0.07 (0.09)	0.04 (0.09)
Cultural distance	-0.05 (0.06)	-0.07 (0.06)	-0.06 (0.06)	-0.06 (0.06)	-0.01 (0.05)	-0.02 (0.06)	0.04 (0.06)	-0.03 (0.06)
Length of operations	0.55 (0.17)*	0.67 (0.18)***	0.76 (0.18)***	0.79 (0.18)***	0.47 (0.17)***	0.56 (0.19)***	0.41 (0.18)*	0.53 (0.19)***
Industry growth	0.08 (0.03)**	0.07 (0.03)*	0.08 (0.03)*	0.07 (0.03)*	0.04 (0.03)	0.03 (0.03)	0.04 (0.03)	0.02 (0.03)
Goal congruity	0.06 (0.02)**	0.05 (0.02)*	0.05 (0.02)*	0.04 (0.02)*	0.05 (0.02)*	0.04 (0.02)*	0.05 (0.02)*	0.05 (0.02)*
Model <i>F</i>	13.20***	21.98***	17.86***	19.44***	11.14***	20.36***	25.33***	20.54***
Adjusted R^2	0.29	0.38	0.43	0.43	0.30	0.39	0.50	0.44
Δ Adjusted R^2		0.09	0.05	0.05	0.09	0.09	0.11	0.05
Hierarchical <i>F</i>		20.47***	8.16***	12.28***		20.80***	20.46***	12.5***

^a The entries in the table are unstandardized regression coefficients (β) with standard errors in parentheses. † $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

deviation below the mean, and one standard deviation above the mean) of term specificity or contingency adaptability). The result confirms that cooperation contributes more to performance measures (higher slope coefficients) when values of contract variables are higher. Hypotheses 3a and 3b are supported.

Models 3 and 7 in Table 3 illustrate the quadratic effects of contracts and cooperation in relation to performance (Hypothesis 4). Term specificity (x_2) and contingency adaptability (x_3) both reveal a significantly negative quadratic effect on sales ($p < 0.05$) and ROI ($p < 0.05$ or lower). The effect from cooperation (x_1), however, is non-significant. This evidence suggests that the contribution of contract completeness to IJV performance declines as completeness continues to increase. In order to see whether this declining effect remained positive or became negative, we took the first-order derivative of the regression results and performed the plot analysis. We found that the positive effects of contract completeness variables on performance outcomes decrease and are nonlinear but remain positive as completeness increases. The positive influence of cooperation on performance, however, is not abated. That is, it remains linear as cooperation progresses. These results lend support to Hypotheses 4a and 4b.

CONCLUSION AND IMPLICATIONS

The exploratory character of this study demands a brief discussion of its main findings, contributions, and some further directions for future research. Using IJVs in the People's Republic of China as our empirical setting, we find that there is a systematic relationship between contracts, cooperation, and performance. Previous cooperation before forming an IJV facilitates contingency adaptability in an IJV contract, which nurtures current cooperation between the same partners during IJV operations. Contingency adaptability and term specificity together constitute contract completeness and stimulate IJV performance. Contract completeness and cooperation drive IJV performance both independently and interactively. When term specificity and contingency adaptability are higher, there will be a stronger positive relationship between cooperation and performance. Moreover, the positive influence of cooperation

on performance remains linear as cooperation progressively increases, whereas the contribution of contract completeness to IJV performance declines as completeness is enhanced.

These outcomes provide several insights into contract, cooperation, and performance in IJVs. First, this study demonstrates that the completeness of relational contracts, such as those used for IJVs, should include both term specificity and contingency adaptability. To the best of our knowledge, this study is among the first systematic attempts to provide dual dimensions for the concept of contract completeness. This helps clarify some of the controversy over the role of contract completeness and advances our understanding of the structure of exchange. Previous controversies largely stemmed from viewing contract completeness as a single dimension (i.e., term specificity). This single dimension fails to solve the contractual dilemma between favoring adaptability and preventing opportunism. We hold that contract completeness concerns not only term specificity but also contingency adaptability (i.e., the degree to which guidelines and possible solutions for handling various unanticipated contingencies are incorporated in the contract). They jointly mitigate opportunism, govern interpartner cooperation, and promote IJV adaptation. Both the convergent and discriminant aspects of the contract completeness construct have been validated.

Second, this study is one of the few endeavors articulating the quadratic implications of contracts and cooperation in relation to performance. Although earlier studies have rendered useful insights into contracts and cooperation in IJVs, there still remains cause for concern about whether their contributions to IJV performance remain constant or decline as the levels of contract completeness or cooperation increase. According to our analysis, the contribution of cooperation to performance does not decrease but rather remains linear as cooperation continues to increase. By contrast, the favorable influence of contract completeness on performance abates as completeness increases. This implies that there exists an optimal point of contract completeness, after which its contribution to performance declines. In practice, overly specific terms may bring up rigidity while overly adaptive guidelines may increase enforceability costs or plant the seeds for opportunism and conflict.

Third, we document that contracts and cooperation not only each have a main effect on IJV performance but also significantly interact with each other, and their complementarity stimulates IJV performance. Individual main effects confirm the importance of both process (cooperation) and structural (contract) parameters in determining IJV performance such as sales and profit. Earlier studies either separated them out in addressing their respective influences on performance or treated them as supplements or even contradictions. This study joins Popo and Zenger (2002), whose study also concludes the complementarity between contracts and relational norms. They demonstrate that managers accompany their increasingly customized contracts with increased levels of relational governance (and vice versa) when they deal with outside domestic clients and that the interdependence between contractual complexity and relational governance underlies their ability to generate improvements in exchange performance. This study suggests that within a cross-cultural joint venture in a foreign environment, contract completeness and cooperation are complements in such a manner that the former provides a legally bound institutional framework in which cooperation proceeds, while the latter mitigates the adaptive limits of contracts. We exhibit that subsequent cooperation is nourished along with a contract's contingency adaptability, which itself is heightened with a longer history of previous cooperation before forming an IJV. We report that contract completeness moderates the relationship between cooperation and performance. Cooperation has a stronger influence on IJV sales and profit when the contractual framework within which cooperation performs is more complete.

These findings confirm the importance of integrating transaction cost economics with sociological perspectives in addressing the structure and process of interorganizational exchange. The significance of mutual influence between contracts and cooperation requires a united framework, encompassing economic and sociological views. Contractual structure needs transaction cost logic to delineate its importance, which then furnishes an efficient and equitable economic foundation for long-term reciprocal exchanges embedded within a social context. IJV pay-offs can only be maximized when opportunism is controlled through the incentive structure and internal reciprocity is created through social norms. Within

a Chinese/Confucian culture, it is not surprising to see that repeated economic exchanges become socially embedded over time. What is interesting is that socially embedded relational governance does matter within an IJV in which foreign managers (mostly with individualist culture) and Chinese managers (with collectivist culture) work together. We find that an economically based mechanism (contracts) is important but this importance diminishes in relation to IJV performance. In contrast, a socially embedded mechanism (cooperation) sustains its linear and significant contribution to IJV performance. Social embeddedness thus applies in a cross-cultural and interorganizational setting and its impact on economic exchanges in this setting is sustained.

Managers should realize the importance of configurations between contracts and cooperation in the process of IJV development. Without contracts, cooperation will lack an institutional framework to proceed. Without cooperation, contracts cannot encourage long-term evolutions of IJVs. Because environmental hazards and transactional risks in foreign emerging markets are abnormally high, managers should also realize that incorporating term specificity and situational flexibility in an IJV contract is necessary for controlling opportunism and bolstering IJV adaptation. Contingency adaptability does not necessarily contradict or reduce the importance of term specificity, as they each describe idiosyncratic attributes of contract completeness. For example, IJV parties can arrange one or several special clauses stipulating solutions for dealing with conflicts, or they can write a sub-clause under a major term describing the guidelines for handling changes in governmental policies. In an IJV contract between Gillette and Shanghai Razor Blade Factory, for example, both parties included a special term, namely, *market orientation flexibility*, which spells out that if the local market demand for razor blade declines, the IJV will shift market and production emphasis from local to export.

The major goal of this study was to examine the complex relationships among contracts, cooperation, and performance in IJVs. We saw this as central to a better understanding of the role of contracts and cooperation in stimulating IJV growth. What this study did not address is environmental contingencies that might affect contractual completeness, cooperation, and IJV performance. This is an area particularly worthy of

investigation. Contingencies such as governmental interference, legal system development, and variability of laws and policies may be exogenous and beyond organizational control. Although using one country setting helps control for these macro-environmental factors, these factors may affect each IJV's contractual completeness, cooperation, and performance unequally as each IJV project has varying economic exposure to environmental hazards. Another major limitation of this study lies in its cross-sectional design and lack of longitudinal insights. Although we made several efforts to ensure the validity of retrospective responses, an evolutionary nature of cooperation and contractual adjustment ideally requires longitudinal investigation. The third limitation rests in single informant responses to contracts and cooperation. Using separated sources of data to measure them is warranted to enhance the robustness and reliability of the results. Finally, this study is limited by the setting of China. China is unique in many ways such as its legal systems, business culture, and regulatory environment. A cross-national setting could increase the generalizability of major findings and offer richer insights into cross-cultural differences in contractual design and cooperative behaviors. Within this setting, we emphasized only IJVs and did not examine the roles of contracts and cooperation in other organizational settings. For instance, we do not know how contracts shape business success in other types of transactions in this country. We leave these issues as important agenda for future research.

ACKNOWLEDGEMENTS

The author would like to thank Professor Edward J. Zajac and anonymous SMJ reviewers for their thoughtful comments.

REFERENCES

- Aiken LS, West SG. 1991. *Multiple Regression: Testing and Interpreting Interactions*. Sage: Newbury Park, CA.
- Al-Najjar NI. 1995. Incomplete contract and the governance of complex contractual relationships. *AEA Papers and Proceedings* **85**(2): 432–436.
- Axelrod R. 1984. *The Evolution of Cooperation*. Basic Books: New York.
- Bernheim BD, Whinston MD. 1998. Incomplete contracts and strategic ambiguity. *American Economic Review* **88**(4): 902–932.
- Blau PM. 1964. *Exchange and Power in Social Life*. John Wiley: New York.
- Buckley P, Casson M. 1988. The theory of cooperation in international business. In *Cooperative Strategies in International Business*, Contractor F, Lorange P (eds). Lexington Books: Toronto; 31–34.
- Busch LA, Horstmann I. 1992. Endogenous incomplete contracts. University of Waterloo and University of Western Ontario mimeo.
- Chandler GN, Hanks SH. 1993. Measuring the performance of emerging business: a validation study. *Journal of Business Venturing* **8**: 391–408.
- Doz YL. 1996. The evolution of cooperation in strategic alliances: initial conditions or learning processes? *Strategic Management Journal*, Special Issue Summer **17**: 55–83.
- Dyer JH, Singh H. 1998. The relational view: cooperative strategy and sources of interorganizational competitive advantage. *Academy of Management Review* **23**(4): 660–679.
- Fayerweather J, Kapoor A. 1976. *Strategy and Negotiation for the International Corporation*. Ballinger: Cambridge, MA.
- Ghoshal S, Moran P. 1996. Bad for practice: a critique of the transaction cost theory. *Academy of Management Review* **21**: 13–47.
- Gibbons R. 1992. *Game Theory for Applied Economists*. Princeton University Press: Princeton, NJ.
- Goldberg VP. 1976. Toward an expanded economic theory of contract. *Journal of Economic Issues* **10**(1): 45–61.
- Golden BR. 1992. The past is the past—or is it? The use of retrospective accounts as indicators of past strategy. *Academy of Management Journal* **35**: 848–860.
- Graham J. 1985. The influence of culture on the process of business negotiations: an exploratory study. *Journal of International Business Studies* **16**(1): 81–94.
- Granovetter M. 1985. Economic action and social structure: a theory of embeddedness. *American Journal of Sociology* **91**: 481–510.
- Gray B, Yan A. 1997. Formation and evolution of international joint ventures. In *Cooperative Strategies: Asian Pacific Perspectives*, Beamish PW, Killing JP (eds). New Lexington Press: San Francisco, CA; 57–88.
- Gulati R. 1995. Does familiarity breed trust? The implications of repeated ties for contractual choice in alliances. *Academy of Management Journal* **38**(1): 85–112.
- Hackett SC. 1993. Incomplete contracting: a laboratory experimental analysis. *Economic Inquiry* **31**: 274–297.
- Hill RC, Hellriegel D. 1994. Critical contingencies in joint venture management: some lessons from managers. *Organization Science* **5**(4): 594–608.
- Hofstede G. 1984. Cultural dimensions in management and planning. *Asia Pacific Journal of Management* January: 81–99.

- Inkpen AC, Beamish PW. 1997. Knowledge, bargaining power, and the instability of international joint ventures. *Academy of Management Review* **22**(1): 177–202.
- Jones C, Hesterly WS, Borgatti SP. 1997. A general theory of network governance: exchange conditions and social mechanisms. *Academy of Management Review* **22**(4): 911–945.
- Katz D, Kahn RL. 1978. *The Social Psychology of Organization*. John Wiley: New York.
- Killing JP. 1983. *Strategies for Joint Venture Success*. Praeger: New York.
- Larson A. 1992. Network dyads in entrepreneurial settings: a study of the governance of exchange relationships. *Administrative Science Quarterly* **37**: 76–104.
- Liebeskind JP, Oliver AL, Zucker L, Brewer M. 1996. Social networks, learning and flexibility: sourcing scientific knowledge in new biotechnology firms. *Organization Science* **7**(4): 428–443.
- Macneil IR. 1978. Contracts: adjustment of long-term economic relations under classical, neoclassical, and relational contract law. *Northwestern University Law Review* **72**: 854–905.
- National Council of US-China Business. 1991. Special report of U.S. investment in China. Department of Commerce: Washington, DC.
- Ouchi WG. 1980. Markets, bureaucracies, and clans. *Administrative Science Quarterly* **25**: 124–141.
- Parkhe A. 1993. Strategic alliance structuring: a game theoretic and transaction cost examination of interfirm cooperation. *Academy of Management Journal* **36**: 794–829.
- Poppo L, Zenger T. 2002. Do formal contracts and relational governance function as substitutes or complements? *Strategic Management Journal* **23**(8): 707–725.
- Ring PS, Van de Ven AH. 1994. Developmental processes of cooperative interorganizational relationships. *Academy of Management Review* **19**: 90–118.
- Rubin JZ, Brown BR. 1975. *The Social Psychology of Bargaining and Negotiation*. Academic Press: New York.
- Shenkar O, Zeira Y. 1992. Role conflict and role ambiguity of chief executive officers in international joint ventures. *Journal of International Business Studies* **23**(1): 55–75.
- Tallman S, Shenkar O. 1994. A managerial decision model of international cooperative venture formation. *Journal of International Business Studies* **25**: 91–114.
- Uzzi B. 1997. Social structure and competition in interfirm networks: the paradox of embeddedness. *Administrative Science Quarterly* **42**(1): 35–67.
- Williamson OE. 1979. Transaction-cost economics: the governance of contractual relations. *Journal of Law and Economics* **22**: 233–261.
- Williamson OE. 1985. *The Economic Institutions of Capitalism*. Free Press: New York.
- Yan A, Gray B. 1994. Bargaining power, management control, and performance in United States-China joint ventures: a comparative case study. *Academy of Management Journal* **37**: 1478–1517.
- Yan A, Gray B. 2001. Antecedents and effects of parent control in international joint ventures. *Journal of Management Studies* **38**(3): 393–416.