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The control design and performance in international joint ventures: a dynamic evolution perspective

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Abstract

This paper investigates the dynamic relationship between the control design and performance across eight international joint ventures (IJVs) operating in China. We find that the control design of an IJV tends to evolve along a continuum toward independence and better performance from a shared management type, through a dominant parent type, to an independent type. During the evolution process, IJV performance becomes a motivating force to stimulate the evolution of the control design. Implications for research and practice are discussed. © 2001 Elsevier Science Ltd. All rights reserved.

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1. Introduction

With increasing globalization of markets and competition, international joint ventures (IJVs) have widely been recognized as a viable strategic choice for companies to acquire managerial and technological skills, develop markets and share risks. IJVs represent a voluntary cooperative relationship in which the participating firms are exposed to the risk of opportunism. Thus, how to design an appropriate control structure to reduce the risk becomes a critical factor affecting IJV survival and success (Killing, 1983; Kumar & Seth, 1998; Mjoen & Tallman, 1997; Parkhe, 1993;

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Yan & Gray, 1994). An appropriate control structure allows the partner firms to integrate the IJV's activities with their overall strategies and activities (Gullander, 1976) and protects against the loss of the venture's competitive advantage to the partner or other competitors (Geringer & Hebert, 1989; Hamel, 1991). Prior research has indicated that IJVs are transitional organizations with dynamic natures (Franko, 1971; Harrigan, 1986). Although several factors that affect IJV reconfiguration have been identified in previous studies (Gomes-Casseres, 1987; Hamel, Doz, & Prahalad, 1989; Inkpen & Beamish, 1997), how the control design of IJVs evolves over time remains unclear. In particular, as Parkhe (1993) noted, the interactive linkage between the control design evolution and IJV performance has not been systematically and empirically investigated, which remains a critical omission in the development of a complete theory of IJVs.

To fill this research gap in the IJV literature, this study considers the cases of eight IJVs operating in China and attempts to investigate how the IJV control structure evolves over time and, in particular, what the role of IJV performance is in this evolution process. The remainder of this paper is organized as follows. First, we present the research background on the IJV control design and the relationship between control design evolution and performance. Then, we discuss the research methodology and present the results of the comparative case studies. The paper concludes with a discussion of the implications of the results and with suggestions for future research directions.

2. Research background

2.1. IJV control design and its evolution

Previous studies on IJV control can be divided into different streams. The first research stream on IJV control looks at partner firms' equity share in the IJV as the indicator of partners' control over the IJV (Blodgett, 1991; Buckley & Casson, 1988; Hennart, 1988). The argument is that equity ownership in the IJV determines the composition of the board of directors and the partner with the dominant equity share has the ability to exercise more control. As Blodgett (1991) noted, equity ownership is the ultimate means of control, owing to the fact that more equity shares give a partner more voting power. Several researchers have argued, however, that equity ownership and control are two conceptually different constructs and equity share is but one input to the process of defining control of the IJV (Mjoen & Tallman, 1997; Yan & Gray, 1994).

The second stream focuses upon partner firms' control over specific operational activities of the IJV. Geringer and Hebert (1989, p. 236) suggested that exercising control over an IJV's specific activities "helps protect the firm from premature exposure of its strategy, technological core or other proprietary components to outside groups". Schaan (1983) found that some IJV partner firms tend to target specific areas of control rather than seek overall control. By controlling some specific areas,

a partner firm may manage effective applications of its resources even with a smaller share of the overall equity (Mjoen & Tallman, 1997).

The third stream focuses upon strategic control over the IJV. Killing (1983), for example, classified IJV control structure into three categories according to which partner is the main decision-maker in the IJVs: dominant parent IJVs (where only one partner firm is heavily involved in decision making while the others are silent), shared management IJVs (where both partner firms actively make strategic decisions), and independent IJVs (where the IJVs' management has substantial decision power while none of the partner firms are actively involved in decision making). This classification has been adopted and validated by several studies (Beamish, 1984; Lecraw, 1984; Yan & Gray, 1994). Other researchers (e.g., Yoshino & Rangan, 1995) suggested that the parent may exercise managerial control through having one's own staff members in key posts in the IJV and having regular meetings to prevent sudden complications in operations.

Besides these formal controls, informal control mechanisms such as trust have also been recognized in the literature. In the IJV context, trust is the mutual confidence among the partners that none of them will exploit the others' vulnerabilities (Das & Teng, 1998; Madhok, 1995). Butler and Carney (1983) noted the importance of trust in managing joint ventures. Madhok (1995) argued that trust-centered and ownership-centered approaches are supplementary to the objective of flexibility and efficiency in the conduct of a joint venture. Interpartner trust may reduce the costs inherent in shared ownership and improve coordination efficiencies, thus facilitating the continued benevolent exchange. Yan and Gray (1994) found that the presence of mutual trust in the IJV decoupled the relationship between partner firms' relative control and the extent that they achieved their objectives in the IJV.

In this study, we focus on partner firms' formal strategic control over IJVs. As Mjoen and Tallman (1997) argued, control seems to be a direct managerial function closely related to strategic direction rather than ownership. Strategic control over an IJV may ensure the most effective use of strategic resources shared by partner firms and the IJV and it may prevent leakage of proprietary knowledge. Specifically, Demirbag and Mirza (1996) suggested that, in developing countries (e.g., China, the current research context) where local partners depend heavily on foreign partners' expertise and knowledge, the partners' influence on the IJVs' strategy formulation and implementation is a better measure of control than the partners' equity share in a joint venture.

Harrigan (1986, p. 34) noted that "changes will occur in every venture's design because managers rarely can anticipate exactly how their agreement to cooperate will evolve". Resource dependence and organizational learning perspectives help explain why IJV control design changes over time. The resource dependence perspective (Pfeffer & Salancik, 1978) states that an organization depends on other organizations for critical resources and the organization attempts to manage its dependencies on others in order to acquire more autonomy and freedom. From this perspective, an IJV could be described as an organizational form in which partner firms pool their resources to meet some targets that they cannot achieve alone. The resources that the partners pool will give them power bases by which they can exert control

over the IJV (Butler & Sohod, 1995). Thus, an IJV's control structure will change as one partner's dependence on the other partner's resources changes over time. For example, Blodgett (1992) found that as the host government removes its restrictive policies on foreign direct investment, IJV ownership structure tends to change. Similarly, Yan and Gray (1994) found that unexpected changes in the local government's policies can change the resource dependence pattern and shift the partners' relative bargaining power, which in turn changes the IJV's control structure.

From the organizational learning perspective, an IJV can be described as a race to learn (Hamel, 1991; Inkpen & Beamish, 1997). Interpartner learning can shift the relative bargaining power between the partners and make the original control structure obsolete (Hamel, 1991). Reallocation of control becomes necessary because interpartner learning can reduce one partner's dependence on the other partner's knowledge (Inkpen & Beamish, 1997). When interpartner learning is particularly unbalanced, the faster learner tends to leave the IJV because the "price" for cooperation has been raised over time (Hamel, 1991). The competitive aspect of interpartner learning in an IJV is more severe when the ratio of the partner firms' private to common benefits is high (Khanna, Gulati, & Nohria, 1998). A partner firm's private benefits are "those that a firm can earn unilaterally by picking up skills from its partner and applying them to its own operations" while common benefits are "those that accrue to each partner in an alliance from the collective application of the learning that both firms go through . . ." (Khanna et al., 1998, p. 195). As the ratio of common to private benefit rises, a partner firm's incentive to compete becomes attenuated.

Although these theoretical perspectives and related empirical studies have helped us understand *why* an IJV's control structure evolves over time, few studies (e.g., Killing, 1983) have focused upon the question of *how* an IJV's control structure evolves over time. The current study is interested in addressing whether there is a general trend in the evolution of the IJV control structure.

2.2. *The evolution of IJV control design and performance*

Previous studies have paid considerable attention to the relationship between IJV control and performance. However, empirical findings on the control–performance relationship are not consistent in the IJV literature. In a sample of 37 IJVs from developed countries, Killing found that the 13 dominant parent IJVs and 4 independent IJVs outperformed the 20 shared management firms in terms of perceived success by the IJV managers. The essential underlying argument is that shared management IJVs involve more management difficulties and bargaining costs because both partner firms play active roles in the decision making. As Killing (1983, p. 23) further noted, "the more equally the parents share the management of a venture, the worse it will perform". In a sample of IJVs in five developing Asian countries, Lecraw (1984) investigated the relationship between parent control and performance from the perspective of multinational corporations (MNCs) and found that the success rate was low when overall control was roughly divided between the MNC and the local parents.

However, other studies have produced contradictory findings. Beamish (1984) utilized Killing's design and performance measures on 12 IJVs in less developed Caribbean countries. He found that dominant control by foreign firms is negatively related to IJV performance while dominant control by local firms and shared control are not. Yan and Gray (1994) argued that the interpartner relationship in the IJV is embedded in divergent and competitive self-interests and objectives. The opportunism is more damaging if it is engaged by any one of the partner firms than if it is solely engaged by the IJV. They found that partner firms' relative control in the IJV predicts the extent that they achieve their objectives. In particular, among four IJV cases operating in China, they found that shared management IJVs demonstrated better performance than dominant and independent ones.

Prior research on the control–performance relationship has been dominated by a static approach. We believe that a dynamic perspective may help us understand the complex nature of the control–performance relationship. Several studies have focused on how IJV performance affects IJV reconfiguration. Killing (1983) observed that the partner firms might loose or strengthen control over the IJV as a response to the IJV's on-going performance. When an IJV has superior performance, the partners tend to lose control since the IJV's management team has proven its expertise. Yan (1999) proposed that undesirable performance prompts structural instability because poor performance implies that at least one of the partner firms failed to achieve its objectives, thus creating stimuli for changing the existing structure. On the other hand, it is argued that IJVs have the potential to develop strategies of their own and to make autonomous decisions (Butler & Sohod, 1995). The evolution of the control design to autonomy may lead to improved performance. As Killing (1983) noted, the more the IJV managers are left alone, the better they will perform. Clearly, the relationship between the control design and performance is not unidirectional but reciprocal. In this study, we attempt to address the reciprocal dynamic relationship between the IJV control and performance with eight cases of Chinese–Japanese joint ventures. In the following section, we present the research method of this study.

3. Research methodology

3.1. Sample and data collection

The cases analyzed in this study consisted of eight Chinese–Japanese joint ventures in manufacturing industries operating in China. We limited the cases to manufacturing industries because IJVs in services industries may significantly differ from those in manufacturing industries in the complexity of technology, structures, and processes and procedures of management (Chowdhury, 1988). Further, the cases were restricted to Chinese–Japanese IJVs so that the extraneous variation (Eisenhardt, 1989) that might be derived from studying IJVs with different national cultures would be minimized.

Because of geographical convenience, Japanese businesses tend to concentrate their investments in the Eastern China areas. Four cases of this sample were located

in Tianjin (a large city in the Northeast) and another four in Nantong (a medium-sized city in the Southeast). Data were collected mainly through in-depth interviews conducted in mid-1995. The interviews were guided by a semi-structured questionnaire to assure that similar procedures were carried out in each and every case. To make the interviewees feel comfortable, the interviews were not tape-recorded but extensive notes were taken.

We used the local general manager from each joint venture as the key informant for data collection. General managers were deemed as the appropriate informants because they were the most knowledgeable people about their ventures and were involved in strategic decision making (Geringer & Hebert, 1991). A practical consideration is that tremendous barriers exist in collecting data from multiple informants in the IJVs in China. The companies have been disguised to ensure confidentiality. The major characteristics of the eight cases are summarized in Table 1.

3.2. Measurement of key variables and data analysis

Two key variables were included in this study: control design and performance. We identified and analyzed three types of control design following Killing's (1983) categories. Killing (1983) measured the extent to which a venture was dominated by either of the partner firms by focusing on the way in which decisions were made and, in particular, by determining how much influence each partner had on various types of decisions. We followed Killing's (1983) approach but added two more dimensions to measure each type of control design: (1) the completeness of the IJV's value-adding chain and (2) the organizational affiliation of the IJV's general manager(s). We argue that these three dimensions are linked to each other and using all of them makes the measurement of control design more rigorous and valid. First, the linkage between the IJV's and a partner firm's value-adding chain reflects the partner's objectives in the joint venture. For example, if an IJV, as a supplier of components, is downward integrated into the foreign partner's value-adding chain, it is likely that the foreign partner's objective in the joint venture is to gain low-cost components. Thus, the foreign partner has both incentive and power to control the IJV as long as the foreign partner focuses on the supply relation. Second, the organizational affiliation of the IJV's general manager(s) may act as a complementary measurement to Killing's measure. For example, if the IJV's general manager is affiliated to one of the partners and represents this partner's benefits, this IJV should be identified as a dominant parent IJV rather than as an independent IJV even if main decisions are made in the IJV.

These measures suggest several control designs. A typical shared management IJV may focus on limited value-adding activities and these activities are integrated into both partners' value-adding chains; both partners are highly involved in the IJV's operations and/or the IJV's general management positions are split between the two partners with the general managers acting as middle managers in the partners' hierarchies. An IJV with a dominant parent focuses on limited value-adding activities

Table 1
A summary of major characteristics of the cases

Characteristics	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7	Case 8
Product	Men's suits	Plastic materials for shoes, belts	Retail shoes	Capacitors	Medicine and intravenous solutions	Panty shields	Syringes, infusion sets, hemodialysis equipment	Printing ink
Formation	1993, Nantong 2.5	1986, Nantong 6.7	1982, Nantong 1.4	1994, Nantong 7.0	1981, Tianjin 5.0	1987, Tianjin 1.0	1986, Tianjin 7.85	1993, Tianjin 48.0
Total investment ^a	50/50	40/60	60/40	60/40	50/50	50/50	47/53	70/30
Japan–China equity shares	95% export	10% export	100% export	70% export	30% export	100% local	70% export	10% export
Product Market source	Local supply	Local supply	40% import	60% import	15% import	40% import	60% import	20% import

^a The unit is in millions of US dollars.

and these activities are integrated into the dominant partner's value-adding chain; only the dominant partner is highly involved in the IJV's operations and/or the IJV's general manager acts as a middle manager in the partner's hierarchy. Finally, an independent IJV has its own complete value-adding chain; and its general manager is the top decision maker in the IJV which is independent from both partners.

In this study, we measured IJV performance in three steps. First, the key informant was asked to answer performance questions by referring to the triangular relationship between the IJV, the local partner(s), and the foreign partner(s). Our interviews suggested that such a reference might help the informant incorporate the partner firms' perspectives about IJV performance in a response rather than speaking only from the IJV's perspective. Second, we asked the informants to evaluate their IJVs' performance by using their own criteria. We believe that by using open-ended questions, we would allow the respondents to evaluate their IJVs' performance realistically and multidimensionally. Finally, following Killing (1983) and Beamish (1984), we used a single-item perceptual measure to provide an overall evaluation of IJV performance. As Geringer and Hebert (1989, p. 246) argued, this type of measure is able to "provide information regarding the extent to which the IJV has achieved its objectives".

In order to address the dynamic relationship between the control design and performance, we asked the informant to describe the history of the IJV, with special attention paid to the IJV formation stage, any significant reconfigurations, and the current situation. Since all the informants had worked since the formation of these IJVs, they were capable of providing relevant information. In addition, since five of the eight firms had been operating for over eight years, this sample made it possible to observe the dynamic relationships between the control design and performance in the IJVs. Examples of the interview questions are included in Appendix A .

We analyzed the data following the procedures of comparative case studies suggested by Ragin (1994) and Eisenhardt (1989). The goal of comparative analysis is to determine the causal conditions or combinations of causal conditions that differentiate sets of cases (Ragin, 1994). Three steps were adopted: First, a within-case analysis was conducted for each case. The purpose of this analysis was to provide an adequate explanation for each case that permitted a comparative analysis. According to the theoretical discussion above, key variables were identified (see Table 4). Second, data were analyzed by comparing the presence or absence of causal conditions with the presence or absence of the outcomes. For example, we compared columns 1 and 2 in Table 4 and examined how different types of control designs were associated with different levels of performance. Third, the results of the examination of similarities and differences between cases were then compared with the theoretical debates. Consistency among cases and between the empirical results and theoretical debates led to conclusions. The purpose of cross-case analysis is to draw a theoretical model and formulate a generalization.

4. Results of case studies

The dynamic relationship between the control design and performance are analyzed and presented case by case in an incremental manner. Then, we summarize the overall findings.

4.1. Case description

4.1.1. Case 1

This IJV was formed in 1993 between a Chinese textile manufacturer and a Japanese clothing producer. At its founding, the IJV was dominated by the Japanese partner although it only held 50% of the equity share. Ninety-five percent of the IJV's end-products, clothes, were exported to Japan and 85% of the raw materials were imported from Japan through the Japanese partner. Thus, the Japanese partner had stronger influence than the Chinese partner on the IJV's activities. While both partners, especially the Japanese one, were satisfied with the IJV's performance, the IJV's local managers were not satisfied and attempted to seek independence from the Japanese partner's control for two reasons. First, the Japanese partner could not provide enough orders to the IJV and thus parts of the IJV's production facilities were wasted. Second, the exporting price was very low and targeting the local market seemed more profitable than exporting. Therefore, the IJV's local managers were attempting to establish the IJV's own brand in the Chinese market and looking for local suppliers.

4.1.2. Case 2

This IJV was transformed from a Chinese state-owned enterprise in 1986 and its other two partners were a Chinese financial company and a Japanese trade company with equity shares of 35%, 25%, and 40%, respectively. The IJV had its own independent businesses, led by the general manager from the Chinese state-owned enterprise. Neither of the partners was involved in its businesses. Despite the difficulties the IJV faced at its founding (e.g., high debt ratio), it achieved satisfactory performance in the past years, paying off debts and building new workshops.

In 1995, the Japanese partner proposed to restructure the IJV through buying 60% of the equity shares held by the Chinese partners. The reason for this proposal was to integrate all of the Japanese partner's businesses, including this IJV, in China. However, the proposal was strongly opposed by the local IJV general manager. The manager said that, "I don't agree with this reconfiguration proposal. It will damage the interests of our company and the employees. Anyway, the proposal cannot be passed without my approval in the board". In fact, the manager had called for all employees not to cooperate with the consultant team sent by the Japanese headquarters for restructuring. The conflict between the local general manager and the Japanese headquarters resulted in losses for the first time in the recent six years of the IJV.

4.1.3. Case 3

The IJV, formed in 1982, was jointly owned by a Japanese shoe company, a Chinese local government, and a Chinese financial institute with 60%, 30% and 10% of the equity shares, respectively. This IJV represented a dominant parent IJV because only the Japanese partner was involved in the IJV's daily operations. The IJV focused on only one value-adding activity: producing shoes. The Japanese partner bought 100% of the venture's products and supplied 40% of raw materials needed by the IJV. Major decisions were made by the Japanese headquarters rather than by the IJV's board of directors.

The IJV achieved good performance since its formation, meeting the Japanese partner's objective of providing low-cost shoes for Japanese markets and the Chinese partners' objective of setting up a model enterprise for potential foreign investors. Thus, none of the partners desired to reconfigure the venture. Although the Japanese IJV general manager complained that the Japanese headquarters controlled the IJV too much, he had no intention to free the IJV from the Japanese partner's control because he would not have a career in China.

4.1.4. Case 4

This IJV was formed in 1994 by Chinese and Japanese partners that both operated in the capacitor industry. This IJV focused on one single value-adding activity: producing capacitors. Its production capacity was split between the two partners: 70% belonging to the Japanese partner and 30% to the Chinese partner.¹ The partners benefited from the IJV's dividend as well as product sales.

However, the two partners had achieved unbalanced benefits from the IJV. The Japanese partner was a multinational corporation and had large overseas markets and high sales prices. Thus, this partner mainly benefited from selling the IJV's products and wished to keep the venture's ex-factory price at a low level. The Chinese partner, as a local company, had limited local markets and its sales price was quite low. Thus, this partner mainly benefited from the IJV's dividends and wished to set the venture's ex-factory price at a high level. Since the IJV's ex-factory price was fixed at a low level, the IJV had almost no profit and the Chinese partner could not benefit from dividends. Therefore, the Chinese partner was considering ending the partnership. As the IJV's local general manager said, "I think that the Japanese partner is making use of us. We are being cheated. The venture can no longer exist unless both partners can benefit from it".

4.1.5. Case 5.

This IJV, established in 1981, was jointly owned by a Chinese governmental bureau in charge of medicine quality and distribution (50% of the equity share) and a Japanese medicine producer (50% of the equity share). At its founding, this IJV

¹ The split of the IJV's production capacity between the two partners did not parallel their equity shares because the IJV wanted to qualify for some priority treatments from the Chinese government. The priority treatments were given only to IJVs that exported 70% or more of their products.

was a dominant parent venture, with the Japanese partner providing technology and equipment and being involved in the IJV's daily operations while the Chinese partner only provided access to local market channels. The IJV had achieved satisfactory performance because its products were competitive in the Chinese market. Its performance improved after a Chinese general manager replaced the Japanese one since the local general manager emphasized exploiting the local market and learning technology from the Japanese partner.

At the beginning of the 1990s, the Japanese partner desired to reinvest in the venture to increase its equity share. However, this request was rejected by the local partner because it did not want to lose control over the venture. Then, the Japanese partner invested in other regions in China and thus the importance of this IJV to the Japanese partner decreased. Even with reduced support from the Japanese partner, the IJV was still very successful in the Chinese market because this IJV had learned technology know-how from the Japanese partner and its products were very competitive in the market. Further, since the IJV had penetrated the local market, it did not rely on exporting through the Japanese partner. The IJV's superior performance gave the local IJV managers greater bargaining power with the Japanese headquarters. Led by the Chinese general manager, this IJV became very independent. The Chinese general manager expected that there would be no expatriates in the firms after 1997.

4.1.6. *Case 6.*

This IJV had two Chinese partners and two Japanese partners. The largest Chinese and Japanese partners had 40% and 48.5% equity shares, respectively. The IJV had been an independent venture since its founding. First, none of the partners was familiar with the venture's businesses. The Japanese partner was an equipment producer that aimed to use the IJV as a "window" to show its products to potential Chinese customers while the Chinese partner was a paper producer that had little to do with the IJV's businesses. Thus, neither of them could integrate the IJV's activities into their own value-adding chains. Second, since the IJV was small and its operations were of a little importance to the partners, the partners had little benefit from controlling it. The board of directors was the top decision-maker. The IJV had performed well from the beginning and its superior performance had strengthened the local IJV managers' autonomy.

4.1.7. *Case 7*

This IJV, a shared management venture, was established in 1986. All the management positions were split between the managers from the Chinese partner and those from the Japanese partner. According to the partnership contract of 1986, 50% of the venture's products would be exported to Japan. However, the venture failed to do this because of poor product quality and high costs. Thus, both partners were dissatisfied with the venture's performance.

In 1991, the Japanese partner reinvested in a new assembly line for the venture and increased its equity share from 40% to 67%. After that, Japanese expatriates controlled the IJV's operations and the local IJV managers were excluded from

decision making. Though the Japanese partner was criticized as having cheated the IJV through internal transfer pricing, the overall performance of the IJV greatly improved. Its new product was more competitive in overseas markets, which further increased the sales of the IJV's other products. The local general manager stated that they had tried to free themselves from the Japanese partner's control. But it was very difficult since the Japanese partner controlled the exporting channels of the venture's products.

4.1.8. Case 8

This IJV was transformed from a large Chinese state-owned firm with more than 1,700 Chinese employees in 1993. The initial equity share between the Chinese and Japanese partners was 50/50. This IJV was an independent venture with a complete value-adding chain, and the board of directors were the final decision makers. The IJV's performance was satisfactory though it sustained losses after the joint venture was formed. Losses in the company's accounts resulted not from the operation's failures but from increases in employees' compensation and the change in the depreciation calculation after the IJV was formed. The main reason that the state-owned enterprise formed the IJV was to facilitate its R&D and exports. In fact, the IJV had developed more than ten new products and expanded its exporting channels with the help of the Japanese partner in the two years since the venture's founding.

In 1994, the Japanese partner reinvested in a raw material supply base in the IJV and increased its equity share from 50% to 70%. The board composition changed as well. The board used to have five Chinese directors and five Japanese directors, but now it had seven Japanese directors and five Chinese directors. Despite the changes in equity shares and board composition, the IJV still remained independent and led by the Chinese general manager. The Chinese general manager had been in the state-owned firm for more than ten years and his authority had been institutionalized during that time. This was a large and old Chinese firm and thus it would have been difficult for a Japanese manager to manage such a firm effectively. It was stipulated that a decision could be passed in the board only when more than two thirds of the directors agreed. Thus, the Japanese partner could not control the venture by simple majority.

4.2. Initial control design and performance

Table 2 shows the initial control design for each IJV. Among the eight IJVs, two were shared management IJVs (cases 4 and 7), three were dominant (cases 1, 3 and 5) and three were independent (cases 2, 6, and 8). Table 3 presents the criteria that the informants used to evaluate IJV performance and how well they thought their ventures were performing. The multiple indicators used by the informants reflected the multidimensional nature of IJV performance. The IJV's overall performance was then assessed ranging from good to satisfactory to poor. Based on Table 2 and Table 3, Table 4 summarizes the relationships between initial designs (column two) and initial performance (column three) in the eight IJVs. Our data indicate that the two

Table 2
Initial control designs^a

Case	Dominance of the Partners (1)	Completeness of Value Chain (2)	Organizational Affiliation of the IJV's GM (3)	Type of Design (4)=(1)+(2)+(3)
1	Dominated by JP	Incomplete and integrated into JP	Japanese GM affiliated to JP	Dominant
2	Neither of the partners dominated	Complete and independent	Chinese GM affiliated to the IJV	Independent
3	Dominated by JP	Incomplete and integrated into JP	Japanese GM affiliated to JP	Dominant
4	Both partners dominating	Incomplete and integrated into the two parents	Japanese GM and Chinese GM affiliated to JP and CP, respectively	Shared
5	Dominated by JP	Incomplete and integrated into JP	Japanese GM affiliated to JP	Dominant
6	Neither of the partners dominating	Complete and independent	Chinese GM affiliated to the IJV	Independent
7	Only JP involved in the IJV's operations	Incomplete and integrated into JP	Local managers making decisions while Japanese expatriates consulting	Shared
8	Neither of the partners dominating	Complete and independent	Chinese GM affiliated to the IJV	Independent

^a JP denotes Japanese partner and CP denotes Chinese partner; GM denotes general manager.

Table 3
Performance indicators adopted and overall performance assessment^a

Case Indicators	1	2	3	4	5	6	7	8
Productivity	√		√				√	√
Product Competitiveness	√	√			√		√	
Innovativeness								√
Partner Harmony		√			√	√		
Achieving partners' objectives				√				√
Profitability	√	√	√	√	√	√	√	√
Growth and Expansion		√	√				√	√
Initial Performance Assessment	S	S	G	P	S	G	P	S
Current Performance Assessment	S	P	G	P	G	G	S	S

^a Performance ranking: G=Good>S=Satisfactory>P=Poor.

Table 4
Patterns of the dynamic relationship between control design and performance^a

Case	Initial Design	Initial Performance	Design Evolution	Current Performance
4	Shared	Poor	To be Liquidated	Poor
7	Shared	Poor	Dominant	Satisfactory
3	Dominant	Good	No evolution	Good
1	Dominant	Satisfactory	Independent	Satisfactory
5	Dominant	Satisfactory	Independent	Good
6	Independent	Good	No evolution	Good
8	Independent	Satisfactory	No evolution	Satisfactory
2	Independent	Satisfactory	Dominant	Poor

^a Performance ranking: Good>Satisfactory>Poor.

shared management IJVs (cases 4 and 7) had poor performance while the other types of IJVs had satisfactory or good performance.

Closer examination of cases 4 and 7 provides insights into why shared management IJVs tend to have poor performance. In case 4, the venture's production capacity was split between the two partners. Its management positions were also split between Japanese expatriates who were in charge of production and product quality and Chinese managers who were in charge of personnel and public relations. However, the Chinese and Japanese partners had interest conflicts. The Chinese partner wanted to set up a higher ex-factory price in order to benefit more from the venture's dividends while the Japanese partner preferred a lower ex-factory price in order to benefit more from selling products. The Chinese partner felt that it was being cheated because the current price was fixed at a lower level. Also, the Japanese expatriates always arranged the orders from the Japanese partner prior to those from the Chinese partner and they often made free use of the production capacity belonging to the Chinese partner.

Case 7 initially was a shared management venture. For each senior management position, there was a Chinese manager with formal authority and a Japanese manager as a consultant to that position. Although this design was intended to reduce inter-partner opportunistic behaviors, it created the bargaining and influence problems. No decision could be made unless both managers agreed. In addition, while the IJV's strategy was to export 50% of its end-products to the Japanese market, the Chinese managers dominated the production processes. The Japanese headquarters believed that the product quality could not meet the standards of the Japanese market and refused to sell the products in the Japanese market. Hence, the IJV almost did not survive in the beginning. It is not surprising that, later on, the Japanese partner increased its equity share, monopolized the decision making and exported 70 percent of the end-products to the Japanese market.

These cases suggest that managers in shared management IJVs tend to form subgroups based on their organizational affiliations. They view themselves as

safeguards of their organizations' interests in the IJV, and they lack confidence in the other group's goodwill in cooperation. The achievement of one group's objectives automatically raises the expectations of the other group. Hence, the likelihood that the other group is satisfied with its achievements (relative to the first group's achievements and relative to its expectations) will decrease and the likelihood that it feels that it is being cheated will increase (a typical response would be, "how can they achieve so much if they do not make use of us?"). Moreover, the fact that both subgroups are involved in decision making in shared management IJVs increases the chance that members of different subgroups could compare their relative achievements and perceive inter-group conflicts and politics. It becomes likely that members of one subgroup will be dissatisfied not because they have not achieved their objectives but because they are not satisfied with how they achieved their objectives.

4.3. The evolution of control design and performance

The relationship between the evolution of control design and performance is also summarized in Table 4 (columns four and five). We first examined how the control design evolves over time by comparing columns two, three, and four. We observed that shared management and dominant parent IJVs (cases 1, 4, 5 and 7) tended to evolve while independent types remained stable (case 2, as an exception, will be discussed later). More specifically, shared management IJVs tended to evolve toward the dominant parent type (case 7) and dominant parent IJVs tended to evolve toward the independent type (cases 1 and 5). We did not observe design reconfiguration in case 4 because of its short history at the time of interview. However, the Chinese managers had explicitly expressed their dissatisfaction and intended to liquidate the partnership.

Second, we observed that IJV performance has an important feedback impact on the evolution of the control design. Shared management or dominant parent IJVs are more likely to be reconfigured over time if they have poor or satisfactory performance (cases 1, 4, 5, and 7). In contrast, an IJV with good performance tends to be stable over time even if it is a dominant one (case 3). This finding is consistent with Gray and Yan's (1997) observation that early success of IJVs could create a self-sealing effect contributing to the perpetuation of the initial control structure.

Our data (except case 2) demonstrated that stable control designs will occur to IJVs with good performance regardless of their control designs and to IJVs with independent control designs regardless of their performance. The overlap of these two sets of IJVs is the independent IJVs with good performance, which represent the ultimate destination of IJV design evolution. The results suggest that the evolution of IJV control design has a strong tendency to independence, evolving along a continuum from a shared management design, through a dominant parent design, to an independent design. Moreover, poor IJV performance tends to accelerate this process and good IJV performance may delay this process. The findings that independent IJVs with good performance serve as the end point of IJV evolution indicate that

the purpose of prompting IJV evolution is to build the IJV as a successful independent firm operating in the Chinese market. This is consistent with the fact that most of the local managers evaluated their ventures' performance with IJV-related criteria such as profitability and growth, besides the achievements of partner firms' objectives in the IJV. They viewed the IJVs as their own ventures rather than owned by their partner firms.

To examine the consequence on performance of the evolution of the IJV control design, we compared columns four (design evolution) and five (current performance) in Table 4. Across the seven cases (except case 2), we found that the control design evolution had resulted in similar or better performance. For example, case 7 evolved from a shared to a dominant type, which increased performance from a poor to a satisfactory level. Case 5 evolved from a dominant to an independent type, resulting in increased performance from a satisfactory to a good level. Though the evolution of case 1 from a dominant to an independent type did not increase the firm's performance significantly, it still retained its performance at a satisfactory level. The cases (cases 3, 4, 6, and 8) where no evolution occurred remained at their original performance levels.

Case 2 created an exception in our data. This venture started with an independent control design led by a Chinese general manager and satisfactory performance. Later, the Japanese partner attempted to reconfigure the firm into a dominant parent design, but this attempt raised conflicts between the Chinese general manager and the Japanese headquarters, which resulted in reduced (from satisfactory to poor) performance (see Table 4). During the interview, the Chinese general manager was very emotional in discussing the reconfiguration issues. He claimed that, "I cannot accept the reconfiguration plan. I have called for all employees to resist the consulting team sent from the Japanese headquarters. I will fight them in board meetings". We interpreted the general manager's reaction in two ways. First, this reconfiguration attempt was emotionally unacceptable to him because he took the IJV as the employees' firm not the Japanese partner's firm. Second, he was afraid to lose power in the venture after it was reconfigured into a dominant one in which the Japanese headquarters would dominate decision making and some expatriate managers would join the venture. The case suggested that the local manager's autonomy in an IJV has little elasticity. In other words, once a local manager is empowered, it would be difficult to take away his/her power later.

Based upon previous discussions, we summarize the dynamic relationship between IJV control design and performance into the following propositions:

- Proposition 1:* Shared management IJVs tend to have worse performance than dominant parent IJVs and independent IJVs.
- Proposition 2:* The worse the IJV performance, the more likely its control design will evolve over time.
- Proposition 3:* IJV control design tends to evolve over time along a continuum from a shared management type, through a

dominant parent type, towards an independent one, with increasing levels of autonomy. IJVs that evolve following this trend tend to have equal or better performance while IJVs that evolve against this trend tend to have worse performance.

Proposition 4: Successful independent IJVs tend to be stable over time.

5. Discussion

5.1. Independence and success in IJVs

Our findings about the evolution of the IJV control design coincide with the failure cycle in shared management IJVs identified by Killing (1983). Killing (1983) found that there existed a common pattern of shared management IJVs in decline: poor venture performance leads the partner firms to monitor the IJVs' activities closely, which lowers the autonomy of IJV managers. Low autonomy of IJV managers and high intervention from the partners are likely to slow and confuse the decision making process in the IJVs, which may cause performance to worsen further. This in itself encourages the partners to become even more closely involved and therefore the downward cycle continues. The current study and Killing's work (1983) have revealed a critical issue in IJV management: independence (or autonomy) and success are twins in IJVs from a dynamic view. Indeed, these two studies describe the same coin from different sides. While Killing (1983) found that low autonomy may cause failure and failure further lessens autonomy, our study suggested that high independence will lead to success and success further enhances independence. However, our study has advanced Killing's (1983) study by addressing how an IJV evolves across the three types of IJV control designs while his study focused on shared management IJVs.

5.2. The IJV's role in its evolution

Previous studies have examined IJV design evolution from the interpartner perspective because the IJV represents a mixed motive game between partners who cooperate and compete simultaneously (Hamel, Doz, & Prahalad, 1989; Inkpen & Beamish, 1997; Yan & Gray, 1994). Hence, shifts in partners' bargaining powers that may result from interpartner learning, changes in resource contributions, and changes in the host government's regulations regarding foreign investments would all result in structural reconfigurations of IJVs. However, as noted by Yan and Gray (1994), increase in one partner's power from one source may simply replenish its depleted power from other sources or only offset the increase in the other partner's power. Therefore, structural reconfigurations are difficult to observe in IJVs from

the interpartner perspective even though the partnership does change over time (Yan & Gray, 1994).

In the current study, we did observe structural reconfigurations in eight Chinese–Japanese IJVs in China. We attribute the finding to the fact that we took the relationships between the IJV and the partner firms rather than the partnership as the unit of analysis. We argue that the interpartner perspective ignores the IJV's role in its evolution process. The interpartner perspective is appropriate at the negotiation stage because at that stage, the IJV as an entity has not been established. However, at the post-negotiation stage, the IJV as a new entity has been created and it may have a mission and strategy different from the missions and strategies of the partner firms (Harrigan & Newman, 1990). The interpartner perspective may be appropriate in alliances between large firms in developed countries if the alliance managers' career concerns are considered. In those alliances, the managers are likely to have their careers within the partner firms from where they came rather than in the alliances themselves. Hence, these managers tend to emphasize the achievements of their organizations' objectives over the alliances' growth and independence. However, in IJVs in developing countries, like China, the local managers are less likely to have their careers in the organizations from where they come because IJVs represent the most successful firms in China's economy and provide the highest salaries. Hence, these managers are more likely to pursue their careers in the IJVs and be interested in developing the IJVs into successful, independent firms in China.

While changes in interpartner power might offset each other, resulting in an overall balance, changes in the IJV management's power tend to be observable over time. More likely, the IJV may have no power at the formation stage. As time goes on, however, the IJV may achieve more bargaining power from either or both partner firms as it learns from them, localizes raw material supply, exploits local markets, and has good performance (Killing, 1983; Li & Zhang, 1998; Van Sluijs & Schuler, 1994). Hence, we suggest that examining the IJV's role in its evolution process represents a promising area in IJV research.

5.3. Costs and benefits of IJV control

Previous studies on the IJV control–performance relationship tend to focus on the associated costs of control such as agency costs (Yan & Gray, 1994) and management or bargaining costs (Killing, 1983; Pearce, 1997). Yet, high levels of control by the partner firms tend to be associated with high levels of support from the partner firms (Blodgett, 1991; Martinez & Ricks, 1989). For example, during the first several years of operation, case 5 was dominated by the Japanese partner that supplied technology, equipment, and raw materials to the IJV. The success of this IJV at the early stage depended heavily on the foreign partner's support of the firm's products and technology. As the venture freed itself from the foreign partner's control to be an independent firm, the support from this partner also decreased. The IJV could maintain its success because it had effectively learned technology from the foreign partner and set up local market channels and it then became less dependent upon the foreign partner.

Another example is case 6. In this venture, while the local general manager enjoyed extreme autonomy from both of the partners, he could not get enough support from them. He complained that, “we need capital to expand the production capability and promote the products. But none of the partners has interest in reinvesting in the venture. We have to solve these problems by ourselves”. Because of lack of capital, the IJV was forced to shut down offices in some regions in China to reduce expenses and some markets were lost.

From a practical view, we suggest that the IJV management should balance the costs and benefits of partner firms’ control in the IJV even though their ambition is to develop the IJV into an independent venture led by themselves. It is from a dynamic view that we argue that successful independent IJVs represent the end point of IJV evolution. In certain stages, partner firms’ control and the associated supports could be critical for IJV survival and growth.

6. Conclusions

Based upon the data from eight IJVs operating in China, this study contributes to the IJV literature by examining the dynamic nature of the IJV control design and its performance implications. We found that IJV control design tends to evolve over time from shared management types, through dominant parent types, towards independent types, with increasing levels of autonomy. The increased level of autonomy is associated with better performance. Our study has significant practical implications. First, from the MNCs’ point of view, IJVs are seen as a rapidly growing means for market entry. Our findings urge MNCs to consider local managers’ thirst for independence and their career concerns, especially in developing countries. Because these local managers are not likely to have their careers inside the MNC’s hierarchy, they seek independence from the MNCs and develop their own empires in the local market. Once they gain independence, it is difficult to take it away. From the IJV manager’s point of view, this study gives some advice on how to manage the relationship between the IJV and the partner firms and how to gain independence in this relationship. We suggest that control and its associated support from partner firms are essential for IJV success at the early stages and the key to gaining independence is to develop the IJV’s own capability.

Despite these contributions, this study has several limitations that offer interesting opportunities for future research. First, this study used IJVs’ general managers as key informants. Future studies could benefit from using multiple informants by getting information from the perspectives of the IJV and partner firms. Second, this study investigated the control design–performance relationship within the boundary of the IJV setting. We believe that the evolution of the control design is not independent from extraneous variables such as the changes in government policies, competitive environment, and institutional changes. Also, types of national culture (Hofstede, 1980) may have relevance. Future research is needed to explore how these extraneous variables affect the relationship between the control design and performance. Finally,

because our study used a case study approach, the validity of the findings is limited to these eight IJVs. Though we have attempted to establish internal validity by focusing on only manufacturing industries and similar regions, the findings of this study may not be generalizable to other IJVs. Future work needs to replicate this study with other samples and with alternative methods to reinforce our confidence in them.

Appendix A

Table 5
Examples of interview questions^a

Interview category	Example
Dominance of the partner firms	<ol style="list-style-type: none"> 1. How much was the total investment in this venture? How was the ownership split between partner firms? 2. What did each partner firm invest in the venture (e.g., capital, equipment, or technology)? 3. How many directors are on the board and how is the board membership split between partner firms? 4. What decisions are made within the venture and what decisions should be referred to the headquarters of partner firms?
Completeness of value chain	<ol style="list-style-type: none"> 1. What are the major businesses of the venture? 2. What are the major businesses of each partner firm? 3. What were the main objectives of each partner firm in the venture? 4. What percentage of your venture's products are sold by each partner firm and what percentage of your venture's raw materials are provided by each partner firm?
Organizational affiliation of the general manager	<ol style="list-style-type: none"> 1. Who is the general manager of your venture? A Chinese or a Japanese? 2. Who appointed him and who pays him?
Performance	<ol style="list-style-type: none"> 1. How would you assess the performance your venture? 2. What are the major problems your venture has solved? 3. What are the major problems your venture is facing now? 4. How would you evaluate the relationship between your venture and the partner firms? 5. Has overall performance reached initial expectations?

^a In order to capture the dynamics of the IJV control–performance relationship, we first asked the informants to describe the IJV's history and identify significant reconfigurations. Then we asked the informants to answer the questions by referring to the formation stage, significant reconfiguration stages and the current stage of the IJV.

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