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Shigefumi Makino

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JOINT VENTURE OWNERSHIP STRUCTURE AND PERFORMANCE: JAPANESE JOINT VENTURES IN ASIA

by

Shigefumi Makino

Western Business School

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ABSTRACT

This study examines the relationship between the ownership structure of international joint ventures (IJVs) and their performance. This under-researched relationship was examined using a JV ownership structure typology newly developed in this study. Four distinct JV ownership structures were identified based on both partner nationality and affiliation: Intrafirm JVs - those JVs formed between affiliated Japanese firms; Cross-national DJVs - those JVs formed between unaffiliated Japanese firms; Traditional IJVs - those JVs formed between Japanese and local firms; and Trinational IJVs - those JVs formed between Japanese and third-country based firms. Two primary hypotheses were tested: (1) a JV ownership structure is chosen primarily on the basis of bilateral resource-access needs among partner firms; and (2) each of the JV ownership structures has distinct performance implications. The conceptual model was guided by both the resource-based theory of the firm and transaction cost theory. Drawing on Richardson (1972), the conceptual model postulates that JV performance is determined primarily by the level of resource-complementarity between JV partners and the management complexity embedded in the JV ownership structure. The empirical research was based on a sample of 1,688 manufacturing equity IJVs that involved one or more Japanese MNEs in East and Southeast Asia, collected from the Toyo Keizai database. In a second study, detailed interviews were conducted with managers to determine whether the findings were supported, as well as to explain why a particular JV ownership structure was chosen over the others.

The study found that the number of Traditional IJVs represents only about 70% of the sample; the balance involved non-"traditional" forms. This implies that some previous studies may have lacked both theoretical and empirical rigour, as they have failed to recognize the fact that many IJVs were not the commonly assumed type. The JV ownership-structure typology developed herein revealed significant differences in JV managers' subjective assessment of JV financial performance and survival likelihood. The evidence suggested that: (1) financial performance was highest in Traditional IJVs, followed by Intrafirm JVs and Cross-national DJVs, and lowest in Trinational IJVs; and (2) the termination rate was highest in Traditional IJVs, followed by Trinational IJVs and Intrafirm JVs, and lowest in Cross-national DJVs. This order was unchanged irrespective of JV age, the years of parent firms' local experience, and local government restrictions. The field study identified three distinct parent firm strategies which, in conjunction with host government's restrictions, may influence the choice of JV ownership structure. The study provided several implications. First, JVs are not homogenous structural forms in between market and hierarchy, but take various forms of distinct ownership structure. Second, an effective JV formation requires careful selection of the type of ownership structure and of the JV partner. Finally, a JV is not merely a reactive response to local restrictions, but can be a proactive option which corresponds to parent firms' strategic needs.

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This experience is coming to an end. As a result, I would like to thank my parents for allowing me the opportunity to receive an excellent education abroad. While I have been abroad, my mother has often expressed a desire to go to a hot spring with all of her family members. It appears that my mother's long-time wish will soon be realized.

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CHAPTER 1

INTRODUCTION

The study of international joint ventures (IJVs) has proliferated in international business research. Previous JV studies have successfully specified and explained the conditions under which JV performance will be superior (or not) to other foreign entry modes. Yet, past studies have almost exclusively focused on one form of JV structure - that formed between a foreign and a local firm. Most studies have ignored the fact that many international JVs were in fact formed with non-local firms, such as home-country based and third-country based firms. No study has examined why a firm chooses between these different JV ownership structures in terms of partner nationality (whether JV partners are home-, host-, or third-country based) and/or partner affiliation (whether JV partners are mutually affiliated), and how JV ownership structure influences performance. The lack of study with regard to the choice and performance of JV ownership structure implies that practical advice for managers making this decision is limited or non-existent. The primary goal of this study is, therefore, to examine the factors that influence the choice and performance of JV ownership structure.

1.1 Purposes of the Study

There were four purposes of the study. The first purpose was to develop a theoretical basis for explaining the choice and performance of JV ownership structure. A resource-access perspective was presented to identify the conditions where a JV would be a viable option for foreign investment. Based on the resource-access perspective, we suggested that a JV would be formed not only to exploit the parent firm's own ***competitive*** advantage in a host country, but also to create new advantage by complementing ***comparative*** advantages between partners.

The second purpose was to develop a typology of JV ownership structures. In developing a typology, this study focused specifically on nationality, equity affiliation, and size of equity ownership of the JV partner. Using this classification scheme, four distinct JV ownership structures were identified. They were termed: Intrafirm joint ventures (Intrafirm JVs), Cross-national domestic joint ventures (Cross-national DJVs), Traditional international joint ventures (Traditional IJVs), and Trinational international joint ventures (Trinational IJVs). The characteristics of each type of the JV ownership structure were compared and contrasted to provide both theoretical and practical implications for choosing one JV ownership structure over another.

The third purpose was to examine the relationship between JV performance and its ownership structure using the developed typology. To provide a viable basis for discussion, this study explored the possible linkage between JV ownership structure and performance. Financial performance and a termination rate were used to measure JV performance. Three contingent factors that influence JV performance were discussed and compared: resource-complementarity, management complexity, and host government's local ownership policy. Hypotheses were developed and examined based on a combination of these factors embedded in a particular JV ownership structure.

The fourth purpose was to analyze and to explain (1) why performance differed among JVs with different ownership structures and (2) why a particular JV ownership structure is chosen and when. Here we investigated whether the choice of a JV ownership structure influenced JV performance, and explored the factors affecting the linkage between JV ownership structure and performance.

1.2 Research Methodology

In order to reduce the complexity of the study, the study controlled for three variables that might influence the results. First, the study focused only on manufacturing companies. Joint ventures in other industries such as services, finance, construction and mining were excluded. Second, the study was

conducted from a Japanese company perspective. The firms in the study all included one or more Japanese parent companies. Finally, the study focused exclusively on joint ventures which were located in Southeast Asia (Indonesia, Malaysia, The Philippines, Singapore, and Thailand) and East Asia (People's Republic of China, South Korea, and Taiwan). As many economic indices indicate, these countries have been among the most rapidly growing countries in the world. Foreign direct investment in this area has received increased attention from multinational enterprises (MNEs) around the world.

The empirical research employed consisted of two studies. The first and core study was a large-sample study of JVs which were formed by at least one Japanese firm in East and Southeast Asia. The first study examined the hypothesized relationship between JV ownership structure and performance using a sample of 1,688 manufacturing equity JVs that involved one or more Japanese multinational corporations (JMNCs) in East and Southeast Asia. The analysis was based on cross-sectional data of 1985, 1988, and 1991, collected from the Toyo Keizai database (Toyo Keizai, *Kaigai Shinshutsu Kigyou Souran* of 1986, 1989 and 1992). The second study was an in-depth comparative case-based study of a selected sample. In the case-based study, intensive interviews were conducted with five senior managers of two Japanese MNEs to determine whether the findings based on the large sample were supported, as well as to extend the results from the large sample study.

1.3 Structure of the Thesis

The remainder of the thesis comprises ten chapters. A short description of each follows:

Chapter 2 Joint Venture Formation: Theoretical Overview

Chapter 2 reviews the relevant theoretical foundations for this study. The chapter focuses on reviewing research on organizational functions, purposes, and the economic consequences of joint venture formation.

Chapter 3 The Resource Access View of Joint Venture Formation

Chapter 3 provides the conceptual background for hypothesis development. A resource-access framework was used to explain why and when a JV would become an effective option of foreign direct investment.

Chapter 4 Joint Venture Ownership Structure

This chapter discusses conceptual issues of JV ownership structure, and provides the definition of JV ownership structure used in this study. In defining JV ownership structure, two criteria, partner type (who owns a JV) and partner influence (how much ownership is shared by each partner), were used. On this basis, four distinct JV ownership structures were classified.

Chapter 5 Joint Venture Performance

This chapter discusses both conceptual and measurement issues of JV performance. Following a discussion of the strengths and weaknesses of various performance measures, the definition of JV performance used in the study is provided.

Chapter 6 Joint Venture Ownership Structure and Performance

This chapter provides a conceptual framework for the relationship between JV ownership structure and performance. A series of hypotheses are developed to examine the JV ownership structure-performance linkage.

Chapter 7 Research Methodology

This chapter discusses the research methodology. The research designs for both the large sample survey and field study are discussed in detail. The data source, type of data, and data analysis procedures are also given.

Chapter 8 Large Sample Study: JV Characteristics

This chapter presents an overview of our sample. The database used in the present analysis is comprised of 1,688 joint ventures formed by at least one Japanese manufacturing firm in Asia. The characteristics of the four JV ownership structures are compared and contrasted along various dimensions.

Chapter 9 Large Sample Study: JV Ownership Structure and Performance

Chapter 9 presents the statistical analysis for the large sample study. The relationship between ownership structure and performance of the JVs is examined.

Chapter 10 Field Study Results

Chapter 10 reviews the findings from the in-depth interviews with senior managers of two Japanese parent firms. The chapter presents factors that influenced the choice and performance of JV ownership structure.

Chapter 11 Conclusion

Chapter 11 provides a summary of the study and a brief review of supporting empirical evidence. This chapter also presents both the limitations and the strengths of the study. Implications for theory development and the practice of management are also discussed.

CHAPTER 2

JOINT VENTURE FORMATION: THEORETICAL OVERVIEW

2.1 The Importance of International Cooperative Alliance

The economic impact of international corporate alliances on the world economy is significant. Preston and Windsor (1992) summarized the strategic alliances among the world's larger automotive corporations as follows:

> *General Motors has a US joint venture with Toyota, plus ownership positions in Suzuki and Isuzu in Japan, and in SAAB in Europe. Ford has complex links with three European and two Japanese companies, and Chrysler is primarily linked with Mitsubishi. Isuzu, Fuji Heavy Industries, and Nissan (all of Japan) are interlinked, and both Nissan and Toyota are linked with Volkswagen, which is, in turn, linked with Ford (pp. 54-55).*

In the electronics industry, IBM is allied to Ferranti, Toshiba, DEC, Apollo, HP, Siemens, and Microsoft. GEC has had thirty major alliances with world-wide electronics corporations including General Electric, OGE, Alsthom, and Philips (Krubasik and Lautenschlager 1993). In the pharmaceutical industry, many companies form alliances in order to complement their business systems (R&D and distribution activities) that would otherwise incur high "fixed costs" (Ohmae 1993).

The ownership structure of alliances can take various forms, including: licensing, franchising, joint research agreements, equity joint ventures, contractual joint ventures, international subcontracting, and strategic buyer-supplier coalitions (Buckley and Casson 1985). The JV has become an increasingly popular form of foreign direct investment. Indeed, many successful firms are JVs between companies with different nationalities. Some of the most successful corporations in Japan are JVs formed between Japanese and North American companies (Fuji Xerox between Fuji Photo Films and Rank Xerox; Toppan Moore between Toppan Printing and Moore Corp.; Yokogawa-Hewlett Packard between Yokogawa Hokushin Denki and Hewlett Packard; AGF between Ajinomoto and General Foods). A JV formation is, therefore, considered not merely a way of entering a new market/business but as a mainstream corporate strategy (Killing 1994).

Making international JVs successful, however, is not an easy task. JV failure rate has been reported to be quite high (Franko 1971; Geringer and Hebert 1989; Harrigan 1985; Hergert and Morris 1988; Killing 1983). Kogut (1988a) reported that about 70% of U.S.-based international JVs were either dissolved or acquired by partners in less than six years. The difficulties arising from managing JVs are numerous: first, an international JV is a *foreign* investment and cannot be operated in the same way as a domestic subsidiary. For example, managers in MNEs should not only 'think globally' (how to compete with worldwide competitors) but also 'act locally' (how to adapt the firm's operation, organization, and corporate

culture to the host country environment) (Rugman 1993). Second, the managerial complexity of the JV organization is high. A JV is, by definition, characterized by its "hybrid" organization in which parent firms will "disagree on just about anything" (Killing 1983). As well, partner conflicts are more likely to occur when partners have a different national culture, as is usually the case in international JVs (Kogut and Singh 1988).

2.2 What is an Equity Joint Venture?

An equity JV can be defined broadly as an organization which is owned by two or more firms. A JV is one form of cooperative arrangement that uses resources and/or governance structures from more than one existing organization (Borys and Jemison 1989, p. 235). The JV is formed to gain an increase in profit for at least some parties in the cooperative relationship without a reduction of the profit of others (Buckley and Casson 1988).

A JV involves a trade-off between the benefits of additional opportunities and the costs of increasing managerial complexity (Killing 1983). Stopford and Wells (1972) characterized a JV as an organization formed with a trade-off between a "drive for unambiguous control" and "the quest for additional resources." Similarly, Richardson (1972) pointed out that the cooperative relationships which underlie JV formation call for coordinating "closely complementary but dissimilar activities."

A JV may also be formed as a reaction to pressures from host (local) governments (Doz 1986). Some nations (particularly LDCs) regard domestic ownership as an important national objective (Fagre and Wells 1982; Franko 1989; Lecraw 1984). Following the pioneering study of Stopford and Wells (1972), many researchers have shown that legal restrictions in many LDCs have constrained majority ownership by foreign multinationals (Beamish 1984; Gomes-Casseres 1988; Kobrin 1988; Lecraw 1984; Poynter 1985).

JV and Foreign Entry Mode

A JV can be differentiated from the other foreign entry modes on two dimensions: the organizational form and the cooperative form of the foreign investment (Figure 2.1). The organizational form involves the question of whether or not investment is based on an arm's-length contract or hierarchy. A JV takes the form of an independent organization in which participating firms share equity ownership. A JV differs from an arm's-length contract because it implies joint ownership. The distinction between an arm's length contractual mode of cooperative relationship and a JV is, however, more than the issue of ownership involvement. A JV is an independent organizational entity to which the cooperating firms allocate resources for certain activities. In contrast, an arm's-length contractual cooperative relationship involves joint activities which are performed within each partner's organization (Hogberg 1977; p. 2). In addition, a firm's entry and exit from the

cooperative relationship is more difficult in a JV than in an arm's-length contract. Due to the relatively large joint-resource commitment needed to form a JV, firms can both 'enter' and 'exit' the cooperative relationship less easily when engaging in a JV than when engaging in a contractual relationship of a cooperative activity (Imai, Itami, and Koike 1982).

Figure 2.1 Foreign Entry Modes

	Sole form	Cooperative form
Contractual Mode	**Export/Import**	**Licensing/Joint programs**
Hierarchy Mode	**Wholly-owned subsidiary**	**Joint venture**

Foreign entry modes also differ with regard to whether or not investment is based on a sole or cooperative form. A JV differs from a wholly-owned subsidiary since it is owned by two or more firms. The distinction between sole and cooperative forms is, however, not simply a matter of multiple ownership. It also involves multiple control mechanisms. Unlike a modern large corporation in which the separation of owners and management is observed (Berle and Means 1932), owners of the JV are usually visible and have control over the management function of the JV. Consequently, a JV is characterized not only as multiple

ownership, but also in terms of the "division of control" of technological, operational, and management functions by partner firms (Hebert 1994). Multiple ownership and multiple control mechanisms are two important characteristics that distinguish the cooperative mode from the self-establishment mode of foreign entry.

2.3 Conditions Under Which a JV is the Preferred Mode - Theoretical Overview

2.3.1 Motives for JV Formation

JV formation involves numerous motives. Contractor and Lorange (1988b, p.9) listed seven distinct purposes of JV formation: (1) risk reduction, (2) economies of scale, (3) technology exchanges, (4) co-opting or blocking competition, (5) overcoming government-mandated trade or investment barriers, (6) facilitating initial international expansion of inexperienced firms, (7) vertical and quasi-integration advantages of linking the complementary contributions of the partners in a "value chain." We broadly classify these specific purposes into three categories: (1) accessing or acquiring the partners' proprietary resources; (2) achieving economies of scale, scope, and integration or risk reduction; (3) government policy.

The first factor leading a firm to JV formation is the potential to access and/or

acquire the partner firms' tangible and intangible proprietary resources. Such resources include both firm-specific knowledge (technology, production/marketing skills, and brand name) and location-specific knowledge (knowledge of local economy, politics, practice, and culture). JVs may be formed to access or to acquire either the firm-specific or location-specific knowledge of the partners.

A second reason for using a JV is the potential for cost reduction and risk reduction. Firms might form a JV when they either cannot reduce costs (economies of scale, scope, and integration) or cannot reduce risks (risks of investment and competition) by themselves.

The third factor is government policy. Local governments, particularly in less developed countries (LDCs), have usually placed pressures on foreign companies to form JVs with local partners. From a local government perspective, JVs have often been a means for the local government both to protect and to foster the development of the local economy and industry.

2.3.2 Theoretical Perspective of JV Formation

Whatever the objective of the partners, in order for a JV to be chosen as a means of foreign entry, two conditions need to be simultaneously satisfied: (1) the hierarchical mode of foreign entry has to be preferred to the contractual mode; and

(2) the cooperative form of foreign entry has to be preferred to the sole form. Four broad explanations are offered in the literature with regard to the reasons why a JV is preferred over other investment modes under some conditions: (1) structural efficiency, (2) strategic behaviour, (3) network, and (4) the resource access perspective.

Structural Efficiency Perspective

The structural efficiency model posits that JV formation reflects efforts to minimize the sum of production, transaction, and other kinds of economic costs. JVs are preferred to other modes of foreign market entry when they achieve minimum total cost (Hennart 1982; 1988; 1991a). This perspective has been developed from internalization theory (Buckley and Casson 1976; Casson 1987; Rugman 1981) and transaction cost economics (Coase 1937; Williamson 1975; 1985; 1991).[1] The assessment of the advantages of JV formation is twofold. First, a JV is chosen when the total cost of internalizing a transaction (i.e., hierarchy mode) is equal to or less than the cost of undertaking transactions externally (i.e., market mode). Second, the JV is chosen when the costs (or risks) of sharing the assets and skills

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[1]See Teece (1986, p. 23), Hennart (1986, p. 793), and Buckley (1988, p. 127-129) for a detailed discussion on the similarities and differences of both theories. Teece (1986), for example, pointed out that while both approaches consider a firm as a response to market failure, they are different in terms of primary unit of analysis and implications for the conditions under which a particular governance structure is chosen.

of the partner (i.e., cooperative form) are less than the costs of integrating them within a single organization (i.e., sole form) (Hennart 1988, 1991a; Kogut 1988b). On this conceptual basis, Williamson (1991) viewed a JV as one form of hybrid governance structure which combines aspects of market transactions and characteristics of hierarchies, and falls between the two alternatives on a continuum.

The structural efficiency model implicitly posits that firms tend to favour a sole venture over a JV. First, a JV incurs higher transaction costs of monitoring compared to a sole venture. This is because opportunistic behaviour is more likely to occur in a JV than within a single firm. Hennart (1991a and 1991b) pointed out that conflicting goals between JV partners make JVs particularly costly in this regard. Second, a JV incurs higher transaction costs when transferring proprietary assets than does a sole venture. The structural efficiency perspective posits that it is more difficult to price such proprietary assets and to prevent their leakage outside the firm when the transfer occurs 'between' firms than when it occurs 'within' the firm (Anderson and Gatignon 1986; Hennart 1998, 1991a, 1991b; Hladik 1985; Stopford and Wells; Gomes-Casseres 1989).

On this basis, the structural efficiency model suggests that a JV is chosen over a sole venture (or a wholly-owned acquisition) only when the following conditions are simultaneously satisfied: (1) the firm needs complementary resources it cannot

easily acquire on the market (Hennart 1988, 1991a); (2) sharing of the firm's proprietary assets with an additional party incurs zero marginal transaction costs (zero opportunism costs) (Buckley and Casson 1988; Conner 1991; Hennart 1988, 1991b) and (3) the firm needs only some of the JV partner's assets (in this case, the acquisition mode would result in ownership of unnecessary assets, which would lower the internalization economies) (Buckley and Casson 1988; Casson 1987; Hennart 1988, 1991a, 1991b). Due to the difficulty of simultaneous satisfaction of the above conditions, researchers who share the structural efficiency perspective have tended to regard JVs as a secondary option, or a transitional device, that potentially can dissolve or lead to acquisition by one of the partners (Buckley and Casson 1988; Hennart 1988).

There are several problems with the structural efficiency model. First, the model does not deal explicitly with the impact of any idiosyncratic attributes of the partners on JV formation. The model is based solely on economic factors and obscures the role of historical and social forces that may influence the choice of foreign entry mode (Gulati 1995; Robins 1987). Second, the theory is static. The model is based on the assumption that because cost structures must be efficient, existing organizational structures are assumed to be an 'efficient optimum' (Tallman 1992; p. 459). Third, the model focuses on the "efficiency" side (minimizing transaction costs) and ignores the "effective" side (maximizing revenues) in choosing the foreign entry mode (Beamish and Banks 1987; Buckley

1983; Calvet 1981; Contractor 1990b; Hill and Kim 1988; Horaguchi and Toyne 1990; Kogut 1988a & 1988b). In the model, the decision as to whether or not a firm should enter a foreign market through a JV or other form of entry is discussed in terms of how to reduce both transaction and production costs, but not in terms of how to increase revenues derived form competitive advantages over indigenous competitors. The model, in this sense, obscures the role of the firm's "strategic choice" (Child 1972; Horaguchi and Toyne 1990; Kay 1991; Tallman and Shenkar 1994) in forming a JV and, more importantly, fails to explain why JV performance differs and how JVs improve their performance under a given governance form.

Strategic Behaviour Perspective

While the structural efficiency model focuses primarily on the cost-minimization aspect of forming a JV, the second perspective combines both structural efficiency (cost minimization) and strategic effectiveness (revenue maximization) in forming a JV. A firm can achieve strategic effectiveness by forming a JV when (1) the firm can enhance its competitive position more effectively through forming a JV than through sole-venturing; and (2) the firm alone cannot establish entry or mobility barriers to protect its existing competitive position. Since strategic effectiveness contributes to increasing revenues by maximizing the firm's ability to offer differentiated products or services and, hence, to enhanced competitive position, and structural efficiency contributes to decreasing production and coordination

costs of governance, the match between the two provides superior performance (Koh and Venkatraman 1991). From a strategic behaviour perspective, such a "match" has traditionally been examined in the strategy-structure framework (e.g., Chandler 1962). Thus, this perspective posits that a JV is preferred to the other organizational forms when it is considered the best organizational structure to implement the strategy.

JV strategy has not been well specified in the past literature. Killing (1994) and Porter and Fuller (1986) emphasized the strategic importance of JV formation. Killing (1994) looked at JV formation from a parent firm's corporate strategy perspective - the choice of a business direction for the firm. Borrowing Ansoff's (1965) framework, Killing (1994) identified four generic JV strategies in terms of market- and product-diversification vectors: to strengthen the existing business, to take the firm's existing products into new markets, to obtain new products that can be sold in the firm's existing markets, and to diversify into a new business. From a business strategy point of view, Porter and Fuller (1986) focused on JV formation in terms of a linkage of value added activities among firms. They classified coalition types as 'X' and 'Y.' In the X coalitions, firms divide the activities within an industry between themselves (e.g., one partner manufactures while letting the other market). In the Y coalitions, the firms share the actual performance of one or more value activities (Porter and Fuller 1986; p. 336).

Other researchers have empirically examined the relationship between firms' strategies and their choice of a JV. Stopford and Wells (1972) found that firms with strategies such as product differentiation, rationalization of products to reduce production costs, control over raw materials, or development of new products were likely to avoid JVs. Harrigan's (1988) study indicated that a JV was preferred, and lasted longer, when it entailed a related diversification strategy. Stopford and Wells (1972) found that JVs were more likely to be chosen when the firm entered a new market with the products less related to its core business.

One of the critical problems with the strategic behaviour perspective is that it explains JV formation solely from a parent company's strategic point of view. JV formation has only been considered as a way of strengthening the competitive position of each parent firm, not of the JV itself. Hence, cooperation between the JV partners does not necessarily mean joint efforts for achieving joint outcomes of the partners. Instead, cooperation has been considered as a transitional means of competing with the rival firms - including JV partners. Given these assumptions, the strategic behaviour perspective has tended to regard an ongoing interaction between the partners as a cost factor rather than as a revenue factor. For this reason, a JV is generally viewed as a second best strategy for firms entering foreign markets, or improving competitive positioning in an industry. Porter and Fuller (1986) concluded:

> We believe that coalitions in the most vital activities of a firm's value chain should be resorted to only rarely. A firm must ultimately master such activities itself if it is to sustain a competitive advantage in its industry. The widespread coalitions in Europe in recent years are unlikely to be the "solution" they have frequently been perceived to be. (p. 342; emphasis added)

Network Perspective

The Network model of JVs focuses more on patterns in the interorganizational relationship between partners, rather than on the internal capability of individual parent firms. In the network forms of organizations, individual units exist not by themselves, but in relationship to others (Powell 1987, 1990). A network is defined as a set of exchange relations which consist of voluntary transactions involving the transfer of resources between two or more actors (Cook 1977). Among various types of network relationships, a JV is characterized as one collective form of organization in which: (1) (parent) firms are directly associated and symbiotically interdependent because of the complementary functions they perform for each benefit; and (2) the relationship between firms is stipulated by formal contract as well as controlled by legal sanction (Astley and Fombrun 1983, p. 583-4). Taking an interorganizational relationship as a primary unit of analysis, this model implicitly or explicitly assumes that success in JV formation depends on "reciprocity" in partner relationships (Johanson and Mattsson 1987; Oliver 1990; Powell 1987, 1990; Ring and Van de Ven 1992). Such reciprocity creates the basis for synergies in technology and information sharing (Oliver 1990). According to the

network perspective, a JV is preferred when firms can obtain the benefit of reciprocal relationship to other firms, and the sharing mechanisms of the benefit is "fair" (Jarillo 1988). Unlike the structural efficiency and strategic behaviour perspectives, the network perspective posits that a JV is formed to achieve common goals and to share joint-outcomes (Van de Ven and Walker 1984; Zeitz 1980), not to achieve individual partner self-interests.

As organizations enter reciprocal relationships, these relationships become "institutionalized" and infused with shared value which turns self orientation into the collective orientations of the partners (Berger and Luckman 1966). Van de Ven, Emmett, and Koenig (1974), for example, stated that the actions of organizational parties were symbiotically interdependent, and, over time, network participants took on specialized roles and developed normative expectations of each other regarding their rights and conduct. Such shared values also created a relatively homogenous decision-making context wherein JV partners eventually came to share the idea that "[these] are the ways things should be done." This homogenous decision-making context helps the partners to develop mutual trust.

Trust is a core concept in the network perspective of JV formation (Johanson and Mattsson 1987). According to Ring and Van de Ven (1992), the concept has been defined as either (1) confidence or predictability in one's expectations (Zucker 1986) or (2) confidence in the other's goodwill (Friedman 1991). Trust plays a

substantial role in reducing transaction costs derived from the opportunistic behaviour of the partners (Bradach and Eccles 1989; Ouchi 1980; Williamson and Ouchi 1981; Beamish and Banks 1987; Ring and Van de Ven 1992) and it is enforced through the interaction among partners (Buckley and Casson 1988).

One of the most common problems in the network theory is that the model cannot explain why a JV was selected in the first place. The model starts with the implicit assumption that the relationship between JV partners already exists, and it cannot address the partners' needs and strategic purpose when they formed the JV. The model views JV formation as inevitable, and, therefore, cannot fully explain either why firms prefer the cooperative mode of foreign entry or how they choose partners to form a JV. Second, the network perspective has tended to regard a JV as a relationship between parent firms, not as an individual organization. While the model has viewed an effective interorganizational relationship as a source of competitive advantage, it has neglected JVs or each parent firm's own firm-specific competencies as alternative sources of competitive advantage. Third, the model has failed to explain clearly when and how trust between the JV partners is developed. According to the network theory, each parent company in the JV has an incentive to have more power than its partner so that it can control critical managerial functions within the JV (Pfeffer and Salancik 1978). This perspective raises the questions: When are such parent firms' power-acquisition incentives transformed into the incentives to trust the partner? Can they exist

simultaneously? How do they know that their JV partner is 'trustable' enough to maintain cooperative relationships before a JV is formed? These questions cannot be fully answered by the network perspective.

Resource-access Perspective

The resource-access perspective has viewed a JV organization as a combination of parent firm resources, tangible and intangible, which create competitive advantages. These resources have been classified into two types: firm-specific and location-specific resources. Firm-specific resources involve parent firms' proprietary knowledge and skills which are often referred to as organizational competencies. Location-specific resources involve local firms' knowledge of location specific conditions in the host countries, such as local economy, culture, and politics.

Broadly, firm resources are defined as anything which could be thought of as a firm's strengths (Wernerfelt 1984). They are characterized as always internal to the firm and created by the way the firm utilizes its internal skills and assets available (Reed and DeFillippi 1990). A firm can achieve competitive advantage either by building defendable competencies (Prahalad and Hamel 1990) or by deterring competitors from imitating its existing competencies (Lippman and Rumelt 1982; Reed and DeFillippi 1990). Protecting organizational competencies from imitation

is attained by creating an "isolating mechanism" through which the firm develops causal ambiguities between the firm's actions and outcomes (Rumelt 1984). A JV is used to circumvent a partner's isolating mechanism and to learn firm-specific skills or competencies (Badaracco 1991; Ciborra 1991; Gomes-Casseres 1989; Hamel 1991; Inkpen 1992; Keller 1989; Kogut 1988b; Lei and Slocum 1992; Lyles 1988; Mowery 1991; Westney 1988; Womack 1988).

Under the resource-access perspective, JVs might also be formed to access the location-specific knowledge of the partner. Forming JVs with local partners enables parent firms to access knowledge of the local market and to circumvent institutional and culture factors in host countries (Kogut 1985), and by doing so, the parent firm can overcome its disadvantages of being less familiar with local conditions over indigenous competitors (Hymer 1976). Previous studies have suggested that the disadvantages, or lack of local knowledge, of the foreign firm might be derived from institutional and cultural distance between home- and host-countries. Some studies have suggested that the institutional distance between countries was one of the most critical factors that influenced the firm's internationalization process and its choice of foreign entry mode (Davidson 1980; Johanson and Vahlne 1977; Killing 1983; Kogut and Singh 1988). Empirical studies have found that cultural differences among host- and home-countries increase the probability of choosing a JV over other forms of foreign direct investment (Kogut and Singh 1988; Shane 1993). although the importance of the

cultural distance might decrease over time (Li and Guisinger 1991).

The core idea underlying this perspective is that firms are viewed as social communities that specialize in the creation and internal transfer of knowledge (Kogut and Zander 1993). In this regard, a JV is assumed to act as an effective device for creating, transferring and linking proprietary knowledge and skills between partners. Thus, a JV may be used as a way to transfer knowledge that is specific to firm or location and difficult to transfer either by an arm's-length contractual mode (i.e., licensing) or by a sole venture form (i.e., wholly-owned subsidiary).

The resource-access perspective is the most comprehensive in explaining the reasons a JV originates, and why subsequent interaction between partners is necessary (or unnecessary) to maintain it. The most significant weakness of the perspective is its lack of consideration of the impact of organizational complexity on the choice of a JV. Forming a JV by firms with dissimilar resources provides learning opportunities from the "difference," but it also may create c 's in managing the dissimilar activity of the partners. In addition, the firm may be able to access the partner's proprietary resources only when the partner is willing to provide the firm with a resource of its own. In a resource-access framework, such partner willingness is implicitly assumed.

2.3.3 Comparison of Perspectives

In summary, the literature to date has suggested that the motives for forming a JV involve various dimensions of a cooperative relationship between JV partners. As indicated in Table 2.1, there are several comparable characteristics among the four perspectives on JV formation.

First, each perspective differs at the level of theory development. While the structural efficiency and network models explain "why" cooperative relationships exist and create benefits from joint activities, the strategic behaviour and resource-access perspectives pay more attention to the "what" side of the cooperative relationship. The primary purpose of the former two perspectives is to develop a general theory of the JV and consequently, they have paid relatively less attention to situational variables which uniquely influence a choice of JV formation. The latter two perspectives emphasize the importance of managers' voluntary "choice" of forming a JV and focus more on practical implications rather than on the theoretical rigor involved in explaining why a JV is preferred.

Secondly, each perspective significantly differs in how it views "cooperation" between JV partners. There are three distinct cooperation dimensions: (1) economic consequences, (2) learning, and (3) coordination.

Table 2.1 Comparison of Characteristics of Four Perspectives on JV Formation

	STRUCTURAL EFFICIENCY PERSPECTIVE	STRATEGIC BEHAVIOUR PERSPECTIVE	NETWORK PERSPECTIVE	RESOURCE-ACCESS PERSPECTIVE
Research Focus and Level of Theory Development	Focuses on developing general theory of the firm and explaining why JVs exist	Focuses on providing practical implications and explaining what influences JV formation and its performance	Focuses on developing general theory of the firm and explaining why JVs exist	Focuses on providing practical implications and explaining what influences JV formation and its performance
Economic Consequences through Cooperation	Cooperation as a 'means' to achieve each individual partner's self-interest	Cooperation as a 'means' to achieve each individual partner's self-interest	Cooperation as a 'goal' to share joint-outcomes	Cooperation as both a 'means' to achieve each individual partner's self-interest and a 'goal' to share joint-outcomes
Learning through Cooperation	Learning occurs based on a firm's internalization of the partner knowledge	Learning occurs based on a firm's internalization of the partner knowledge	Learning is a reciprocal process of internalization and externalization of knowledge between partners	Learning is a reciprocal process of internalization and externalization of knowledge between partners
Coordination of Cooperation	JV Partners are potential competitors, and therefore, their relationship should be tightly coordinated	JV Partners are potential competitors and therefore, their relationship should be tightly coordinated	The relationship between JV partners is symbiotic. The relationship is loosely c ..dinated	The relationship between JV partners should be symbiotic. The relationship is coordinated based on inter-dependence of partner resources

(1) Economic Consequences of Cooperation

The structural efficiency and strategic behaviour perspectives have implicitly posited that cooperation is a 'means' to achieve an individual party's economic or strategic interests (Powell 1937; Sharfman, Gray and Yan 1991). For both perspectives, JV formation is a second best strategy for firms to pursue. Both of these perspectives assume that a JV is preferred only when a firm cannot increase

either structural efficiency or competitive position alone, usually due to financial or other resource constraints. Thus, firms are less likely to have incentives to form a JV when they have sufficient resources available. Conversely, the network perspectives are based on the underlying assumption that cooperation is a 'goal' in order to achieve a firm's competitive advantage. While the first two perspectives presume that a cooperative relationship between the firms is formed to achieve the individual firm's own interest, the latter perspectives assume that developing a cooperative relationship provides both sides of the partnership with a positive joint outcome in the long-term. The nature of cooperation is, therefore, associated more with the issue of how to develop a sustainable relationship in which each partner exchanges and learns proprietary skills and knowledge, rather than in how to avoid the self-interested opportunism of the partners (Newman 1992; Westney 1988). The resource-access perspective regards cooperation as both a "means" and a "goal." In the resource-access perspective, cooperation is a "means" in the sense that a firm can access the needed resources that it lacks in order to achieve superior performance. But it is also considered a "goal" because the parent firms gain benefits only as a joint outcome, which is created by providing and complementing the needed resources among the partners.

(2) Learning through Cooperation

There are two different types of partner incentives for learning through the

cooperative relationship: internalization and externalization of partner proprietary resources.

The internalization incentives are based on the idea that a firm can achieve optimal performance by internalizing the needed resources from its partners. The structural efficiency and strategic behaviour perspectives are based on the internalization view of learning. The internalization view of JV formation posits that the superior performance of the JV arising from learning is based only on internalization or acquisition of the needed resources. The underlying idea of this view is that the benefit of utilizing the needed resources 'within' a firm is always superior to sharing these resources with partners that are 'outside' the firm. For this reason, cooperation is considered another form of competition, in which each parent firm competes to acquire and internalize the needed resources from the partners (Hamel, Doz, and Prahalad 1989; Lei and Slocum 1992).

The externalization perspective posits that the firm can also achieve superior performance through externalizing its resources to the partners or providing the partners with access to its resources (Johanson and Mattsson 1987). The firms have externalization incentives when (1) the partners can utilize the firm's resources more efficiently or effectively than the firm does; and (2) the firm can share the joint outcome in exchange for providing its proprietary resources to the partners. The network and resource-access perspectives are both based on the

idea that externalization is necessary to achieve superior performance.

In conclusion, the position from an internalization point of view is that a firm should find the best resources to internalize outside the organization. From an externalization perspective, a firm should find viable partners who can make better use of its resources and who can share the benefits with the firm. Both views provide different starting-points for perceiving learning between partners through JV formation.

(3) Coordination of Cooperation

The third criterion involves the internal coordination mechanisms within a JV. There are also two views. The first view assumes that all parties involved in a cooperative relationship are considered potential competitors, either in the market place or for the benefits of the JV, and will engage in self-interested opportunism; each party is motivated to gain the greatest control over critical resources. Formal control mechanisms such as formal contracts and ownership are often used to prevent partners from acting opportunistically and to stabilize the power distribution among the partners (Buckley and Casson 1988; Killing 1983; Porter and Fuller 1986). The structural efficiency and strategic behaviour perspectives are based on this view of coordination.

The second view posits that a cooperative relationship between the firms is essentially based on symbiotic motives. Unlike the first view, this perspective assumes that the formation of a JV serves to not increase, but to reduce, transaction costs arising from opportunistic behaviour. To make cooperative relationships successful, the control mechanisms among the partners need not necessarily be formal. Rather, they are often more efficient when they are informal, such as institutional adjustment, mutual trust, shared values, and shared commitment (e.g., Beamish 1984; Beamish and Banks 1987; Hebert 1993; Thompson 1967). This view of coordination is most obvious in the network perspective. Although this issue has recently collected increasing attention in the fields of strategic management and organizational design, little has been applied in a JV organizational context.

2.4 Summary

The literature review suggests that no single perspective can sufficiently explain why a JV is preferred over sole venturing. Each perspective has value and each complements or overlaps other perspectives. A JV is a multi-dimensional organization. Therefore, JV formation should be viewed in various ways. The issue is how to balance the relative focus on each dimension of JV formation.

This study adopts the resource-access perspective as a primary theoretical basis

for the subsequent chapters, since this perspective seems to provide the most comprehensive framework for explaining the relationship between JV ownership structure and performance. There are several reasons for this choice. First, the resource-access perspective explains why a particular JV ownership structure is preferred over other ownership structures. For example, this perspective deals directly with the issue of partner selection in terms of access to the partner's resources.

Second, the resource-access perspective provides a comprehensive framework that includes both strategic effectiveness and structural efficiency perspectives in forming a JV. From a resource access perspective, the access to the needed resources involves both strategic effectiveness (Which resources are needed? Where to get them?) and structural efficiency issues (How best to coordinate these resources?).

Third, and most important, the resource-access perspective provides a theoretical rationale for the performance of JV formation. While both the structural efficiency and strategic behaviour perspectives explain the effectiveness of the JV from a parent firm perspective, the resource-access perspective explains the effectiveness of the JV organization itself.

CHAPTER 3

THE RESOURCE-ACCESS VIEW OF JOINT VENTURE FORMATION

This chapter provides a theoretical overview of the resource-access view of JV formation. The four issues to be discussed are: (1) what resources are to be accessed; (2) why the firm's resource-access needs occur; (3) why the firm uses foreign direct investment to access the needed resources; and (4) why the firm accesses, rather than internalizes, the needed resources.

3.1 Resource-access Explanation for Foreign Direct Investment

The three classic explanations for the relationship between corporate resources and foreign direct investment are Penrose's resource-based view of the firm's growth (1956, 1959), Hymer's monopolistic advantage theory of foreign direct investment (1976) and Richardson's theory of interfirm cooperation (1972). More recently, Beamish (1984, 1985, 1988), Gomes-Casseres (1989), Inkpen (1992), and Beamish and Inkpen (1995) expanded the resource-access framework to explain why international cooperation via JVs occurs. Table 1 provides a conceptual summary of each perspective.

Table 3.1 Conceptual Contributions to Resource-access Explanation for JV Formation

Interfirm relationship	Geographic Scope	
	General	Specific for International Context
Competitive form	Resource-based view of the firm's growth (Penrose 1956, 1959)	Competitive rivalry in a host country (Hymer 1976)
Cooperative form	Theory of cooperation (Richardson 1972)	Resource-access view of interfirm cooperation (Beamish 1984, 1985, 1988; Gomes-Casseres 1989; Inkpen 1992; Beamish and Inkpen 1995)

Penrose explained a firm's mechanism of growth and foreign direct investment motives from an internal organizational perspective. As the basis of her conceptual framework, she differentiated corporate 'resources' from 'services.' She defined corporate resources as "the physical things a firm buys, leases, or produces for its own use, and the people hired on term that make them effectively part of the firm," and services as "the contributions these resources can make to the productive operations of the firm" (Penrose 1959, p.67). Hence, she viewed a corporate resource as a "bundle of possible services" and claimed that a firm has an incentive to grow as long as the firm has unused productive services. On this conceptual basis, she viewed the firm's foreign direct investment as part of the

parent company's growth process in which it seeks to maximize the use of its resources (Penrose 1956, 1959). Viewing foreign direct investment as a part of the growth strategy of the firm, Penrose suggested that the firm's motive to undertake a foreign direct investment is essentially the same as that of its domestic investment (Penrose 1956, p. 225).

One of the most important contributions that Penrose made was to shed light on the internal forces which drive the firm to engage in foreign direct investment. In particular, she focused not merely on physical assets but also on the firm's capability to utilize them. Penrose's view of investment was based on the assumption that a firm has a motive to engage in foreign direct investment only when the firm's capability is not fully utilized. Maximizing the use of internal resources maximizes the firm's competitive advantage. In this sense, Penrose implied that foreign direct investment decisions were an extension of the growth strategy of a single home-country based firm. In other words, the firm's foreign direct investment is solely an issue of whether it can find a better investment opportunity abroad.

While Penrose (1956, 1959) explained the impact of the firm's internal resources on its foreign direct investment, Hymer (1976; p. 43) explained foreign direct investment from an external perspective. He focused on *relative* advantages of foreign and local firms, or in his words, "the advantages possessed by firms of one

country relative to firms of another country." Hymer (1976) claimed that firms operating in both home and host countries have firm-specific advantages *of their own*, and that the firm has a motive to engage in foreign direct investment when it possesses an advantage sufficient to outweigh the advantage which national (or local) firms possess. He suggested that the foreign firms have advantages such as an ability to acquire factors of production at a lower cost than other firms, knowledge or control of a more efficient production function, better distribution facilities or a differentiated product. On the other hand, local firms possess the advantages of better information about their country, its economy, its language, its law, and its government regulations. Hymer (1976, p. 43) explained that since the foreign firm is subject to all the disadvantages (or advantages) of being foreign, foreign direct investment occurs when the total advantages of the foreign firm exceed its total disadvantages over the local firms.

Whether the firm's foreign direct investment is driven by internal forces of the firm or by competitive rivalry between foreign and local firms is a fundamental question that has been raised by many management theorists (e.g., resource-based theory of the firm) and industrial organization economists. Penrose developed the conceptual basis for the former research streams, and Hymer's proposition originated in the latter research stream. Although Penrose and Hymer made important contributions to developing the basis of the resource-based view of foreign direct investment, they paid little attention to the fact that foreign firms may

form cooperative relationships with local firms to access missing capabilities (Gomes-Casseres 1989). One of the reasons for this limited perspective was that Penrose's and Hymer's view of foreign direct investment was based on the implicit assumption that foreign firms' motivation for foreign direct investment was solely related to the competition between foreign and local firms. For Penrose, foreign firms were assumed to have superior capabilities over local firms once they obtained the local resources. Hymer, on the other hand, asserted that local firms also have advantages over foreign firms, but still assumed that they were potential competitors to foreign firms. Consequently, foreign firms have motives to compete with local firms and acquire (internalize), rather than access, the needed resources that the local firms possess (Beamish and Lupen 1995).

A major classic conceptual development of interfirm cooperation was provided by Richardson (1972). He suggested that firms had motives to form a cooperative relationship when: (1) a firm needed to access the *activities* (or resources) that were *complementary* to its existing activities, and (2) a firm needed to acquire a sufficient *capability* to coordinate those activities which were *dissimilar* to its existing activities (or resources) (Richardson 1972, p. 892). According to Richardson (1972), firms tend to specialize in activities which are similar, and these similar activities require the same capabilities to undertake them. When a firm adds new activities which are dissimilar to their existing activities, they should either acquire or develop new capabilities to coordinate these new activities. When such

capabilities are possessed by local firms - capabilities that require substantial time for the firm to develop alone - the firm has motives to form a cooperative relationship with other firms to gain access to missing capabilities.

The resource-access view of JV formation has been further extended by a series of international JV studies conducted by Beamish (1984, 1985, 1989), Gomes-Casseres (1989, 1990), Hladik (1985, 1988), Inkpen (1992) and Beamish and Inkpen (1995). While Richardson's view is no more than a general explanation of intrafirm cooperation, these authors explained and empirically examined why such cooperative activities occurred *internationally*. In his Ph.D dissertation, Beamish (1984) found that "local partner needs" and "shared commitment between foreign and local firms" were two of the most critical factors for both the determination and consequence of successful international JV formation. Beamish (1984) found that international JVs were formed to match partner needs between both foreign and local firms, and that partner commitment made it easier to coordinate dissimilar activities between JV partners.

Beamish's review (1985) of the characteristics of JVs in developed and developing countries further supports this argument. It demonstrated that foreign firms most frequently formed JVs in developed countries in order to access the local partner's skills. In contrast, foreign firms formed JVs in developing countries as a result of the local government's suasion for access to their advanced technology, effective

production systems, or management capability. In Gomes-Casseres' study of U.S. owned foreign subsidiaries (1989, 1990), he found that access to information about the local environment was the most significant factor for U.S. firms forming JVs with local firms. Similarly, Hladik (1985, 1988) examined the joint R&D activities of 334 U.S.-foreign JVs and found that joint R&D was likely to occur when parent firms had strong motives to access both technical skills and a larger market. Inkpen (1992) examined U.S.-Japanese auto-parts JVs in North America and concluded that many were formed due to complementary needs between American and Japanese firms.

The resource-access perspective suggests that a JV is formed to access a partner's proprietary resources. In this perspective, JV partners are not necessarily viewed as potential competitors or a source of organization "hazards". Rather, they are viewed as proponents who provide each other with an opportunity to achieve new advantages which might not be achieved alone. In other words, the resource-access perspective argues that opportunism is unnecessary to explain the existence of the multinational firm (Kogut and Zander 1992, 1993; Love 1995). A JV is, therefore, not considered the second option of foreign direct investments, but rather considered a viable investment option which is as effective as other investment modes under certain conditions.

Although the resource-access perspective sheds light on JV formation, the

conceptual foundation is still under development. The following sections will attempt to develop possible theoretical extensions and provide some implications on the theory of the MNEs.

3.2 Resource-access vs. Resource-acquisition

To understand the nature of resource-access, we need first to refer to the distinction between resource-acquisition and resource-access. Resource acquisition involves the internalization of resources possessed by the partner; and resource-access involves the process of complementing missing resources among partners.

The two perspectives are the same in that they posit that: (1) a firm's resources are primary sources of competitive advantage of the firm; (2) a JV is formed based on resources provided by each parent firm; and (3) each of the parent firms can access the partner's resources more easily through a JV rather than through market transactions. The perspectives differ, however, concerning various dimensions of JV formation such as: assumptions about the JV partner, source of JV competitive advantage, role of the JV, and preferred level of ownership. A summary comparison of the perspectives is provided in Table 3.2.

Assumptions about JV Partner

The two perspectives have different assumptions about the JV partner. The resource-acquisition perspective posits that a JV partner inherently behaves opportunistically and has a motive to maximize its own benefit. The idea underlying this view is that cooperation is not rewarded: the firm should acquire the partner's resources before the partner does. In contrast, a resource-access perspective posits that a JV partner inherently behaves to gain or enforce trust from the other partners and has a motive to maximize JV outcome which, in turn, contributes to the parent firm's benefit. This view suggests that cooperation pays off: a JV partner provides the firm with an opportunity to attain and share the joint outcome which could not have been attained alone.

Table 3.2 Comparison of Resource-acquisition and Resource-access view of Resource Allocation Process within a JV

	Resource acquisition	Resource access
Assumptions about JV Partner	JV partner inherently behaves opportunistically. JV is formed to acquire missing resources from the partner so that the parent firm can achieve its own strategic goal	JV partner inherently behaves to gain trust from the other partner JV is formed to access partner resources so that each partner can complement missing resources and attain a joint outcome
Source of advantages	Exploitation of a parent firm's *competitive advantage*	Complementing of *comparative advantages* of the parent firms
Role of a JV	JV is a transitional investment form toward acquisition or termination	JV is a separate competitive entity
Ownership position	dominant or full position	shared position

Source of Competitive Advantage

The resource-acquisition perspective posits that resources are more efficiently utilized when they are "owned" by a single firm than when they are "shared" with other partners. The assumption underlying this view is that a firm has a superior capability to utilize any kinds of resource, once they are acquired. Thus, from the resource-acquisition perspective, a primary source of the JV's competitive advantage originates through the *exploitation of one parent firm's own competitive advantages* in the host country. The resource-access perspective, on the other hand, posits that different firms have different proprietary capabilities to utilize resources. In other words, JV resources are more effectively utilized when each partner specializes in the area where the partner has a comparative advantage relative to the other and when each partner's comparative advantage is complemented by the other. For example, while some foreign firms may be superior in production technology or skills, they may not be good at dealing with local distributors. From a resource-access perspective, firms have a motive to maintain a JV so as to *complement comparative advantages between partners*.

Role of the JV

The expected role of a JV is also different between the perspectives. From a resource acquisition perspective, a JV is viewed as a transitional investment form towards either acquisition or termination. This is because a JV is formed merely to internalize the needed resources to implement the parent firm's global strategy.

Since the parent firm's primary purpose of JV formation is the internalization of the partner's skills or know-how, the importance of the JV will decrease as the resource acquisition is completed.

By contrast, a resource-access perspective posits that a JV represents a separate and stand-alone competitive entity. A JV provides an opportunity for the parent firms to complement, rather than acquire, their proprietary resources and to create, specially in the JV, a basis for the economies of scale, scope and integration of complementary resources. From this perspective, a JV partner is viewed as a *continuous* provider of resources, and therefore, the maintenance of the partnership has benefit for both sides. Further, a JV will be viewed as an equal partner with its parent firms as it develops its own competitive advantages and becomes a provider of proprietary resources to its parents.

Ownership Preference

Two motives, resource-access and resource-acquisition, may also influence ownership position. First, a resource-access motive plays the role of "push" in sharing ownership. An underlying consideration is that when a parent firm with resource access objectives seeks new sets of knowledge or skills, the firm would be better with a partner which provides a different set of resources than with a partner which provides similar inputs. On this basis, when a firm seeks such a resource-access opportunity via equity channels, the firm may prefer to share

ownership with other firms than to possess full ownership.

Second, a resource-acquisition motive plays the role of "pull" in securing ownership. When a foreign firm's primary purpose for JV formation is to acquire the partner's proprietary resources, the role of the partner becomes smaller as the resource-acquisition process progresses. This implies that a foreign firm with resource-acquisition motives would prefer to secure a dominant ownership position so that it can control its needed resources from the partner and avoid possible leakages of its own proprietary resources to the partner.

The two perspectives, resource-acquisition and resource-access, are, however, not mutually exclusive. The same firm might have a resource-acquisition motive under some circumstances and a resource-access motive under other circumstances. The following section will discuss different types of resources to be accessed or acquired and attempt to explain when a firm has a resource-access motive rather than a resource-acquisition motive under certain conditions.

3.3 Resources to be Accessed

The resource-access perspective suggests that a JV is formed based on bilateral resource access needs. Then, the question is, "What resources are to be accessed?" In the previously reviewed literature, a firm's resources have been

defined in terms of the extent to which they are valuable, rare, imitable, and substitutable (Barney 1991). When the needed resources have a higher degree of each of these aspects, they become more proprietary to the firm and less marketable. International business literature has long focused on the non-marketable resources and attempted to explain why market failure occurs, and hence, why FDI exists.[1] Strategic management literature has also focused on the non-marketable nature of resources and explained why a firm can attain or sustain competitive advantages.

The literature, however, has defined resources only in general terms. It has paid less attention to the fact that some types of firms' resources are location (host-country) bound. To understand why bilateral resource-access needs occur internationally, corporate resources should also be defined with a location consideration. In investing in a particular country, the resources accessed in an international JV (IJV) are classified at three levels in terms of accessibility by foreign firms: **Non-proprietary**, **General-proprietary**, and **Specific-proprietary** resources (Table 3.3 provides a summary of the three types of resources).

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[1]This type of market failure refers to "structural" market failure (see Dunning and Rugman 1985).

Table 3.3 Types of Resources to be Accessed From a Local Partner

	Non-Proprietary Resources	General Proprietary Resources	Specific Proprietary Resources
Resource specificity to a particular local firm	common to all firms	common to many (but not all) firms in a host country	common to very few firms in a host country
A local partner's contributions to a JV's competitive advantages in a host country	nothing or very limited	limited or indirect	high and direct
Examples	any kinds of assets available through market transaction	general knowledge of local country conditions such as: local labour force, general local knowledge, raw material and services only available in the host country, infrastructure, etc.	a local firm's proprietary skills and knowledge: capability to negotiate with local government, access to local elites, management excellence, brand name, reputation, etc.

Non-proprietary Resources

Non-proprietary resources are defined as resources potentially accessible from every local firm. Specifically, this type of resource involves "local identity." With local identity, foreign firms can satisfy political or legal requirements in a particular country. For example, when investing in countries where a local ownership restriction is imposed, every foreign firm must form a JV with a local firm, irrespective of whether it wants to or not. Another example is where official

permission is required for foreign firms to operate in general or specific businesses in a particular country. In some countries, foreign firms are prohibited or restricted from engaging in particular businesses. In this situation, foreign firms are required to form a JV with local firms and become, at least legally, a "native" company. However, possession of local identity alone hardly contributes to creating competitive advantages for the JV. When a JV is formed to access this type of resource, competitive advantages of the JV essentially depend on a foreign firm's firm-specific strengths. In this respect, a local partner's contribution is non-existent or quite limited, and a JV is usually viewed as a secondary entry option from the foreign parent's perspective. The foreign firm has neither resource-access nor acquisition motives because the local partners do not provide the firm with an opportunity to access or acquire their proprietary resources. A JV exists simply as a necessary response to local ownership policy.

General-proprietary Resources

General-proprietary resources are defined as resources possessed by most local firms in the host country. This type of resource involves general local knowledge about the local economy, politics, cultural and business customs, distribution channels, information on local demands and tastes, access to local labour force, infrastructure, raw material, and so forth. Having a local firm with general-proprietary resources is a necessary condition for the JV to attain competitive

advantages over local competitors. This is because the local partner helps the foreign firm to overcome its disadvantage of being "foreign" (Hymer 1976) by providing general knowledge of local conditions. However, the contributions of the local partner with regard to creating competitive advantages of the JV are still limited or indirect. The source of competitive advantage of the JV still originates primarily in the foreign firm. The success of the JV after all depends on whether the foreign partner can successfully exploit its advantages attained in the home country in the host country. The foreign firm may need a local partner at least in the short run, but as the firm accumulates this general knowledge through local experiences, the importance of contributions from the local JV partners will become smaller. The most likely consequence of such a JV in the long run is acquisition by either partner or termination.

Specific-proprietary Resources

Specific-proprietary resources are defined as resources accessible only from a specific local firm. This type of resource involves a local firm's proprietary skills and capabilities on which its competitive advantages in the host country is based. While the general-proprietary resources are, to some extent, obtainable in the long run as a foreign firm accumulates host-country experiences, the specific-proprietary resources are difficult to internalize by themselves. Examples of the specific-proprietary resources include a local firm's skills and capabilities to negotiate with

local government, to access and negotiate with local elites, to manage the local labour force and unions, to provide market access, product quality, brand name, market reputation, and so forth. Since these resources are highly firm-specific, they are possessed by only a small number of local firms. In this type of JV, local partner contribution is critical and indispensable to complement the comparative advantages of the partners. The result of this type of JV is twofold: acquisition or maintenance. A foreign firm may have a motive to acquire the partner's proprietary resources when it can enforce its own competitive advantages by doing so. In supporting this view, Inkpen (1992) reported that many Japanese automobile manufacturers had resource-acquisition motives when forming a JV with American partners.

Yet, at the same time, some foreign firms provide a JV with substantial support and autonomy, and once the JV is grown up, the JV is treated as equal partner, or even "feeds" the parents (Beamish and Makino 1994). In fact, many successful companies are international JVs (e.g., Toppan Moore, Fuji-Xerox, CAMI, and NUMMI). This type of JV is formed based on the bilateral resource-access needs of the partners and is more likely to survive, as long as it is managed successfully, than the above two types of the JVs.

In contrasting these views, Beamish and Inkpen (1995) discussed whether a cooperative relationship between foreign and local firms would be necessary after

foreign firms acquired the needed local knowledge. Based on the results of two field surveys of JVs formed between North American and Japanese manufacturers, they suggested the following: first, as the foreign partners increased their local knowledge through either internalization from, or access to, the local partner - the probability of JV instability increased; and second, a JV remained stable when the JV partners provided it with substantial autonomy in managing its local operations.

3.4 Summary

This chapter discussed two different perspectives in forming a JV: resource-access and resource-acquisition. Most previous JV literature has implicitly assumed that parent firms would have resource-acquisition motives in forming a JV, at least in the long run. This chapter suggested an alternative view of JV formation from a resource-access point of view and attempted to explain why a JV can be a viable FDI option. While the two perspectives are conceptually different, they are not exclusive in practice, and depend on types of resources to be accessed or acquired.

CHAPTER 4

JOINT VENTURE OWNERSHIP STRUCTURE

In the previous chapter, it was suggested that the motives of parent firms and the type of resources to be accessed would both influence the preferred level of JV ownership. Nevertheless, most of the JV literature has defined ownership from a control aspect, often using categories such as "majority," "even," or "minority." Few studies have explicitly focused on another aspect of ownership function - resource-access channels. In addition, the previous studies have focused almost exclusively on JVs that are formed between home- and host-country based companies. The literature has virtually ignored (1) JVs that are formed with non-host country based firms (home- and third-country based companies), and (2) JVs that are formed by firms which are affiliated with each other (JVs formed between the parent firm and its domestic or foreign subsidiaries). This chapter further extends the definition of JV ownership structure and introduces alternative ownership options. Critical concepts and dimensions of JV ownership structure are examined in the first section of the chapter. The subsequent sections propose a classification scheme of JV ownership structure. Based on the proposed classification scheme, JV ownership structures are classified into four distinct types and are described in detail.

4.1 Functions of JV Ownership Structure

Before defining JV ownership structure, we should identify two major functions of equity ownership. The first function involves control. Control generally refers to "the ability to influence systems, methods, and decisions" (Anderson and Gatignon 1986, p. 3) by which one entity influences the behaviour and output of another entity (Geringer and Hebert 1989; Ouchi 1977).

The second function involves the resource-access channel, which refers to the internal resource allocation mechanism in which each JV parent firm accesses the partner's resources and implements the parent firm's strategy. In this context, JV equity ownership should be reflected in the relative amount of, and importance of, resources provided by each partner (Blodgett 1991).

These two functions act as contrasting forces in determining the firm's desirable ownership position (proportion of equity held by each partner). The control function involves the *demand* side in determining JV ownership. That is, a firm has an incentive to possess greater level of ownership so that it can exercise its control over the operations of the JV. By contrast, the resource-access function involves the *supply* side of ownership choice. Underlying this function is a firm's incentive to share JV ownership with various firms because, by doing so, it can obtain a wider resource access channel. A firm's preference for its JV ownership position

is, thus, determined based on both a *demand* force - a pressure to dominate ownership for higher control and a *supply* force - a pressure to share ownership for greater resource-access opportunities.

The previous body of JV literature has tended to place a relatively strong emphasis on the *demand* (or control) side and usually viewed equity ownership as a proxy for control.[1] However, as was discussed in Chapter 3, since the JV is often formed to complement bilateral resource-access needs between partners, the supply (or resource-access) side of the ownership function should also be taken into account to define JV ownership structure.

4.2 Defining JV Ownership Structure

In this study, JV ownership structure is defined in terms of two aspects of ownership: (1) ***partner type*** (who owns a JV) and (2) ***partner influence*** (how much

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[1]In traditional economic literature, the concept of ownership is defined as the power to exercise *control*, or, more specifically, the *residual right of control* - the right to make any decisions concerning the asset's use that are not explicitly controlled by law or assigned to another by contract (Grossman and Hart 1986, pp.693-694; Milgrom and Roberts 1992). In the field of international business, Anderson and Gatignon (1986) defined different modes of foreign entry in terms of the level of equity ownership. They treated equity ownership as a proxy for the level of control embedded in a particular foreign entry mode. While some exceptional studies have focused on neither equity- nor contractual-based control mechanisms (e.g., Schaan 1983, 1988), most studies of JVs have implicitly or explicitly followed the tradition of equating the proportion of equity held by a parent firm with control (e.g., Blodgett 1991; Fagre and Wells 1982; Stopford and Wells 1972).

ownership is shared by each partner). These two aspects constitute the magnitude of control as well as a resource access opportunity embedded in a chosen JV.

Partner Type

In this study, partner type is defined in terms of (1) partner nationality and (2) partner affiliation. Partner nationality is defined in terms of whether JV equity is owned by *home-*, *host-*, or *third country*-based firms. Partner nationality represents general-proprietary resources which provide the basis for competing in a particular country. With a home-country based partner, the partner's human, capital, and physical resources originate in the parent's home country which are also used to compete in the home country. With a host-country based partner, the partner provides resources necessary for competing in that host country. In a third country-based JV, the partner provides resources necessary for competing in the third country, even though neither partner is from that country.

Partner affiliation is defined in terms of equity relatedness between partners. Two categories are used to define the level of relatedness: affiliated and unaffiliated. A JV partner is considered 'affiliated' when there is an equity relatedness between parent firms. Otherwise, the partner is considered 'unaffiliated.' Partner affiliation represents the extent to which the resources each partner brings to the JV are similar. When a firm forms a JV with affiliated partners, JV resources provided by

each partner tend to be similar; and when a JV is formed by unaffiliated partners, those resources tend to be dissimilar.

Partner Influence

Partner influence is defined as the relative size of ownership shared by each partner. Partner influence usually reflects the extent to which JV resources critical to the JV operation are provided by a particular JV partner (Gomes-Casseres 1989; Ito and Rose 1994). In this context, it is assumed that overall characteristics of JV resources are, to a large extent, reflected by those of the JV partner with the larger share of ownership. Partner influence accounts for the relative impact of each JV partner in characterizing overall JV resources.

A proposed classification scheme for defining JV ownership structure is provided in Figure 4.1. The four JV ownership structures are Intrafirm JV, Cross-national domestic JV (DJV), Traditional International JV (IJV), and Trinational International JV (IJV).[2] Each JV ownership structure is defined based on two categories of partner type - partner nationality and affiliation.

The four types of JV ownership structure represent distinct characteristics in terms

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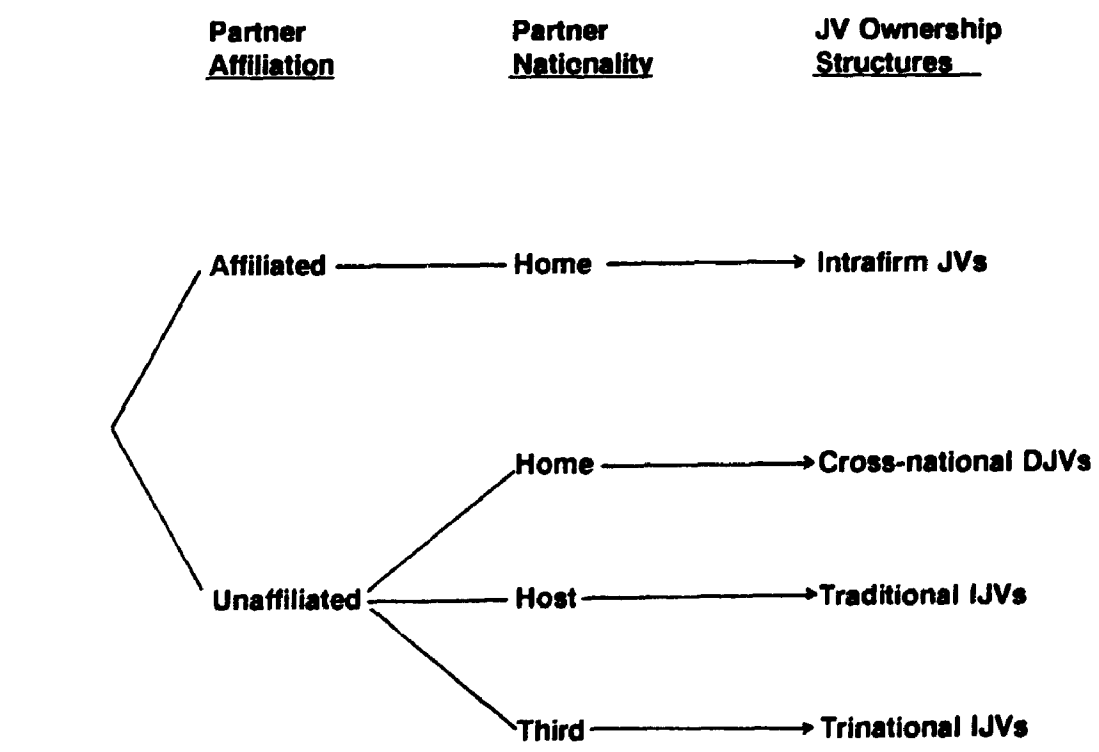
[2]Note that the definition of JV ownership structure is based on *a home-country based firm perspective*. Therefore, when JV partners are classified as 'affiliated,' their nationality is considered "home-country." For this reason, De facto W.O.S. was considered to be formed by parent firms which are both home-country based.

of resource-access opportunities. In Intrafirm JVs, JV partners are all affiliated and provide similar resource sets to the JV. The other three types are formed between unaffiliated firms. They provide different sets of resources which are either home-, host-, or third country based.

Figure 4.1 Joint Venture Ownership Structure Options from the Home-Country Based Firm Perspective



4.3 Classifying JV Ownership Structure

To classify JV ownership structure, we used three measures: ***Nationality Ratio***, ***Affiliation Ratio, and Unaffiliation Ratio***. Nationality Ratio is defined as the percentage of JV equity owned by partners possessing the same nationality (i.e., either home, host, or third country). The home-country based Nationality Ratio (the percentage of JV equity owned by home-country based firms) is further broken into the two measures: Affiliation Ratio and Unaffiliation Ratio. Affiliation Ratio is defined as the percentage of the largest JV equity owned by a single or a group of affiliated home-country based partners in the JV; and Unaffiliation Ratio as the percentage of the residual JV equity owned by the home-country based partners.

These ratios jointly characterize both partner type and partner influence for a given JV ownership structure. The Nationality Ratio represents the extent to which JV ownership is dominated by partners with the same (or different) nationality, and the Affiliation Ratio and the Unaffiliation Ratio represent the extent to which JV ownership is dominated by a single or a group of affiliated home-country based firms.

Table 4.1 provides an example of ownership classification. The table illustrates the ownership structure of TTK, a Thailand-based joint venture formed by Teikoku

Tsushin and Sumitomo Corp., both located in Japan, and Noble Electronic, a Singapore-based subsidiary of Teikoku Tsushin. Table 4.1 shows that the largest JV equity owned by a single or a group of affiliated partners within the JV (Affiliation Ratio) is 95% (Teikoku Tsushin and its foreign subsidiary, Noble Electronic).

In terms of Nationality Ratio, all three JV partners are considered Japanese (i.e., home-based) since all originated from Japan. Therefore, the total Nationality Ratio is 100% home-country based. These two ratios imply that the JV resources of TTK is mostly provided by a group of Japanese affiliated firms (i.e., Teikoku Tsushin and Noble) which are home-country based.

Table 4.1 TTK (Thailand) and the JV Partners

JV partners	Equity ownership by partner (%)	Nationality Ratio				
		Home			Host	3rd
		Total	Affiliation Ratio	Unaffiliation Ratio		
Teikoku Tsushin	70	70	95			
Noble (Singapore)[1]	25	25				
Sumitomo Corp.	5	5		5		
Total	100	100	95	5	0	0

[1] Noble Electronic is a wholly-owned subsidiary of Teikoku Tsushin

4.3.1 Criteria for Classifying JV Ownership Structure

In classifying JV ownership structure, we established a series of criteria. These criteria involve: (1) definitiсn of partner type (nationality and affiliation) and (2) definition of partner influence.

Criteria for Defining Partner Nationality

The difficulty in defining partner nationality occurs when a parent firm is wholly or partly (JV) a subsidiary of another parent firm, or a third firm with different nationality. For example, Nichicon Malaysia is a JV formed by Japan's Nichicon and its foreign subsidiaries, Nichicon Singapore, Nichicon Hong Kong, and Nichicon America. While all the parent firms are affiliated, each of them operates in different countries. How should the nationality of each parent firm be defined? If the parent firms' nationality is defined based on the country origin, then they are all Japanese firms. However, if their nationality is defined based on location of operation, it will be Japan, Singapore, Hong Kong, and U.S.A., respectively.

To solve this problem, the following criteria were established. First, when the JV partner was an independent firm, partner nationality was defined as the nationality where the parent firm originated. Second, when the JV partner was a subsidiary, partner nationality was defined as being the same as that of the parent firm. Finally, when the JV partner was a JV, partner nationality was defined according

to the firm that owns the largest share of its ownership. Table 4.2 summarizes the criteria for defining partner nationality.

According to the criteria in Table 4.2, all the parent firms in the above example are defined as Japanese firms because three of the four JV partners - Nichicon Singapore, Nichicon Hong Kong, and Nichicon America - are all subsidiaries of the other Japanese JV partner - Nichicon.

Table 4.2 Criteria of Defining Partner Nationality and Location based on the Organizational Form of JV Partners

Organization Form of JV Partner	Partner Nationality
Independent firm	Nationality of the country where the parent firm originated
Subsidiary[1]	Nationality of the parent firm
Joint Venture	Nationality of the parent firm which owns the largest ownership share

[1] Subsidiary is defined in this study as one of which more than 50% of its equity ownership is possessed by other firms.

In defining partner nationality, we assumed that the national content of JV resources are represented more by the parent firm's country-of-origin than by its location of operation. There are at least four reasons for this assumption. First, host country based firms are more likely to share and understand the host country national culture than foreign subsidiaries in the host country. Although a foreign firm's experience in a host country may serve to reduce perceived uncertainty

arising from differences in cultures (Johanson and Vahlne 1977; Davidson 1980), home country culture has a strong impact on a foreign firm's decisions. Previous empirical studies on a firm's choice of foreign entry mode have shown that a home country culture has a stronger impact on the firm's entry mode choice than the effects of a foreign firm's experience in a local country (e.g., Kogut and Singh 1988).

Second, host-country based firms know the local conditions better than foreign subsidiaries (Beamish and Inkpen 1995). For example, host country based firms will be familiar not only with general knowledge of host country markets, but also with social factors in the host country such as "exclusive economic elites" or "business groups" who may provide them with a network of connections that foreign firms find hard to penetrate (Gomes-Casseres 1989; p. 287).

Third, the firm's foreign direct investment patterns often reflect the sectors favoured by a country's managerial and technological strengths. Porter (1990) asserted that the firm's competitive advantage reflects the home-country conditions. Kogut (1991) suggested that such home-country effects persist for long periods of time because countries differ in their prevailing country capabilities (technological and organizational capabilities) and they diffuse more slowly across countries than within countries.

Finally, the local government usually treats host country based firms more favourably than foreign subsidiaries in the host country. For these reasons, this study suggests that partner nationality represents a primary national content of the JV resources.

Criteria for Defining Partner Affiliation

It may be difficult to define partner affiliation when a JV is formed between firms which share the same origin of ownership but not the same equity relationship. Sumitomo Electronics and Sumitomo Corporation established a JV with a local partner, Bara Windsor, in Thailand. While both Japanese parents, Sumitomo Electronics and Sumitomo Corp., actually have only a negligible share of ownership in each other, some may argue that both firms are affiliated because they have common ownership origins (i.e., *Sumitomo Zaibatsu*).[3]

In this study, we used two separate criteria to solve this problem. First, we defined partner affiliation in terms of the extent to which one partner owned the equity of other partners in the JV. If more than 50% of one partner's equity was owned by another partner, then, these two partners were considered "affiliated." Second, even though the JV partners are judged as "unaffiliated" by the equity ownership criterion, we classified the JV partners as "affiliated" when the following two

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[3]Sumitomo Corp. and Sumitomo Electronics have cross-ownership. While the former owns 1.09% share of the latter's shares, the latter owns 0.85% of the former's shares as of fiscal year 1989 (Toyo Keizai 1991).

conditions were simultaneously satisfied: (1) cross-ownership between the JV partners existed and (2) two partners belonged to the same *keiretsu* group.

We assumed that firms in the same *keiretsu* group were affiliated because international JVs formed by Japanese firms have often functioned as a part of a larger industrial group relationship, and many JVs have been formed between firms within the same *keiretsu* companies (Burton and Saelens 1982; Gerlach 1987, 1992). In this study, we focused on both horizontal and vertical keiretsu groups. Horizontal *keiretsu* groups included Mitsubishi, Sumitomo, Mitsui, and Fuyo. Vertical *keiretsu* groups included the buyer-supplier alliances in major industrial company groups such as Toyota, Nissan, Matsushita, Hitachi, and so forth. It was assumed that firms within the same keiretsu group are better informed, share similar organizational cultures, and exchange both tangible and intangible resources, regardless of the size of cross-ownership.

Criteria for Defining Partner Influence

When should we judge one partner's influence to be larger than the other's? Most past JV literature has used three general ownership categories, such as equal, minority, or majority ownership. However, this method may lose its explanatory power when JV ownership is shared by three or more firms. For example, in a JV with three or more parent firms, a parent firm with the largest ownership is generally considered a "majority" owner of the JV. However this does not

necessarily mean that the JV as a whole is represented by that particular parent firm's characteristics. For example, an Indonesia-based JV, P.T. Meneramaya Inti Real Estate, is formed by Japan's Marubeni Corp. and Indonesia's P.T. Candra Dutamas and P.T. Cira Holindo. Each parent firm's ownership share is 40%, 30%, and 30%, respectively. While Marubeni holds the largest share of ownership, it is only 40% of the total. Thus, when a JV is formed by multiple partners, the classifications are multidimensional as well, and thus the number of possible JV ownership structures is virtually infinite. In the above case, a partner's ownership is meaningful only in terms of a relative size to others, and does not represent the configuration of JV resources as a whole.

Our notion of categorizing JV ownership structure is based on Hymer's (1976) definition of foreign direct investment. Hymer (1976, p. 1) stated that "[I]f the investor directly controls the foreign enterprise, his investment is called a direct investment. If he does not control it, his investment is a portfolio investment." It should be noted that an underlying assumption in his definition is that a foreign direct investment exists only when a foreign firm has a significant control over the investment (including a JV).

To measure the importance of the ownership size, we followed the traditional accounting rule. In conventional accounting principles, firms are considered to be affiliated when one firm owns between 20% and 50% of the other ; and when one

firm owns more than 50% of another, the former is considered as a parent firm of the latter, and the latter as a subsidiary of the former (e.g., Canadian Institute of Chartered Accountant Handbook).[4] When the equity ownership is under 20%, the investor is considered to have little control and is generally termed a "portfolio investment." Following the principles used in accounting, we adopted a cut-off point of more than 50% equity ownership in the JV to indicate when a partner had a dominant influence on coordinating JV resources, and a cut-off point of more than 20% to indicate when a partner had some influence on coordinating JV resources.

4.3.2 Classifying JV Ownership Structure

Based on the general criteria discussed above, the classification process follows the specific rules described bellow:

First, when the home-country based Nationality Ratio is 80% or more (in other words, neither of the host-country based Nationality Ratio nor the third-country based Nationality Ratio exceeds 20%), it is assumed that the JV ownership is dominated by home-country based firms, and the effect of the host-country or the third-country based firms on JV management is negligible.

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[4]The same accounting standard is used in many other countries including the U.S., Japan, and the U.K.

Figure 4.2 Summary of JV Classification Procedures

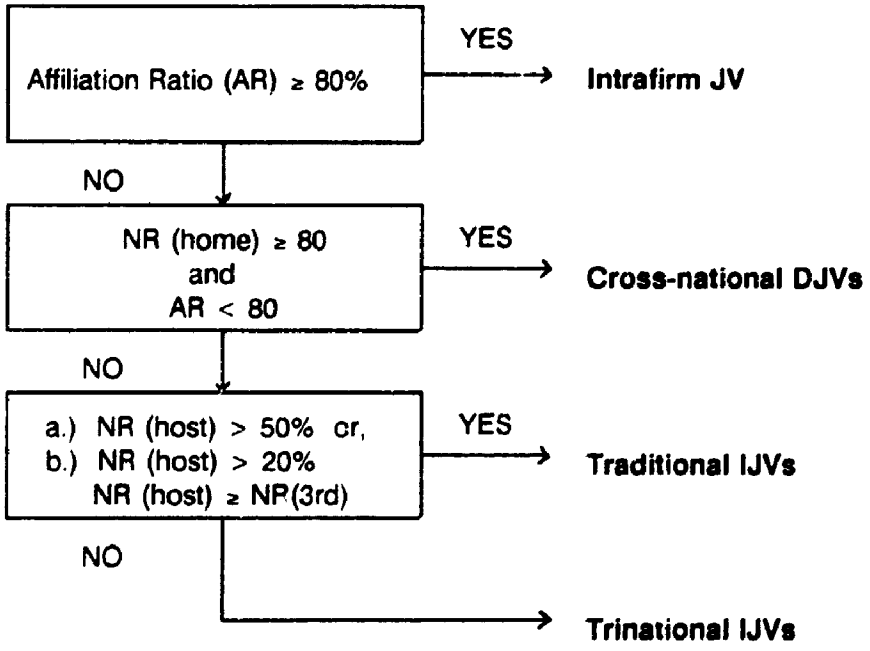
1. If the percentage of the largest JV equity owned by a single or a group of the affiliated home-country based firms (Affiliation Ratio) is 80% or more, the JV is called an **Intrafirm JV.**

2. When the JV is not classified as an Intrafirm JV, it is called either a Cross-national DJV, a Traditional IJV, or a Trinational IJV:

   1.) If the Nationality-Ratio of home-country based partners (NR home) is 80% or more, but the Affiliation Ratio (AR) is less than 80%, then, the JV is called a **Cross-national DJV**

   2.) a.) If the Nationality Ratio of host-country based partners (NR host) exceeds 50%; or b.) if it is 50% or less yet greater than 20%, and if it exceeds the Nationality Ratio of third-country based partners (NR_{3rd}), then, the JV is called a **Traditional IJV**

   3.) If the JV is classified by neither 1.) nor 2.), then, the JV is a **Trinational IJV**



Second, when the home-country based Nationality Ratio is 80% or more, (1) if the Affiliation Ratio is 80% or more, the JV is considered an ***Intrafirm JV*** which is formed between the affiliated home-country based firms; and (2) if it is less than 80%, it is considered a ***Cross-national DJV*** which is formed between the unaffiliated home-country based firms.

Third, when the home-country based Nationality Ratio is less than 80%, if either the host-country based Nationality Ratio or the third-country based Nationality Ratio is greater than 50%, the JV is considered a ***Traditional IJV*** (when the former is greater than 50%) or a ***Trinational IJV*** (when the latter is greater than 50%).

Fourth, when the home-country based Nationality Ratio is less than 80%, and neither of the host-country nor the third-country based Nationality Ratio exceeds 50%, if the host-country based Nationality Ratio is greater than both 20% and the third-country based Nationality Ratio, the JV is considered a ***Traditional IJV***.

Fifth, if the sample are classified neither of the above three JV ownership structures - Intrafirm JV, Cross-national DJV, and Traditional IJV, then, the JV is considered a ***Trinational IJV***.

Sixth, when both the host-country and the third-country based Nationality Ratios exceed 20% of equity ownership, the larger of the two is considered primarily to

represent JV ownership. In addition, when the host-country and the third-country based Nationality Ratios are equal, it is assumed that the host-country based Nationality Ratio primarily represents the JV ownership.

The summary of the classification rules is provided in Figure 4.2, and the examples of the four types of JV ownership structure follow.

Intrafirm JV

Intrafirm JVs are formed between a home-country based firm and its affiliated firms operating in either home-, host-, or third-country.

Table 4.3a Intrafirm JV: Newlong Singapore Pte.Ltd. (Singapore)

JV partners	Equity ownership by partner (%)	Nationality Ratio				
		Home			Host	3rd
		Total	Affiliation Ratio	Unaffiliation Ratio		
Newlong	82.2	82.2	100			
Newlong Kogyo	17.8	17.8				
Total	100	100	100	0	0	0

It has the greatest congruence in terms of both the partner nationality and affiliation. This type of JV form is found in Newlong Singapore Pte.Ltd (see Table 4.3a). The venture was formed by two affiliated Japanese firms (i.e., a parent and a subsidiary), Newlong and its Japanese subsidiary, Newlong Kogyou. Since the two firms are closely associated, the JV formed by them operates like a wholly-owned subsidiary in the host country.

Cross-National Domestic JVs

Cross-national DJVs are formed by unaffiliated home-country based companies. This type of JV is similar to a domestic joint venture because it is formed by two or more unrelated home-country based firms.

Table 4.3b Cross-national DJVs: CMK Singapore Pte.Ltd. (Singapore)

JV partners	Equity ownership by partner (%)	Nationality Ratio				
		Home			Host	3rd
		Total	Affiliation Ratio	Unaffiliation Ratio		
Sumitomo Bakelite	50.0	50 0	50 0			
CMK	50.0	50.0		50.0		
Total	100	100	50 0	50.0	0	0

The difference is that the Cross-national DJV operates outside the home country. This type is represented by CMK Singapore Pte.Ltd (see Table 4.3b). The venture was formed by two unaffiliated Japanese companies, Sumitomo Bakelite and CMK. Both partners are Japanese firms, but they are not affiliated. The JV operates in the host country as if it were a domestic JV.

Traditional IJV

Traditional IJVs represent JVs formed by unaffiliated home-country based and host-based companies. JV partners of the Traditional IJVs share the least similarity in terms of both partner nationality and affiliation.

Table 4.3c Traditional IJVs: Cheena Gasket Co.,Ltd. (Thailand)

JV partners	Equity ownership by partner (%)	Nationality Ratio				
		Home			Host	3rd
		Total	Affiliation Ratio	Unaffiliation Ratio		
Ishikawa Gasket	49.0	49.0	49.0			
Seri-Wathana Ind.	51.0				51.0	
Total	100	49	49	0	51	0

This type is represented by Cheena Gasket Co.,Ltd. in Thailand (see Table 4.3c).

This JV was formed by Japan's Ishikawa Gasket and a local manufacturer, Seri-Wathana Industry. Both the parents are unaffiliated with each other, and both home and host countries are represented in the partnership structure.

Trinational IJVs

Trinational IJVs represent JVs formed between unaffiliated home-country based and third-country based firms. A pure JV form of this type is represented by Thailand's Manhajak International Electric Co.,Ltd (see Table 4.3d). This JV was formed in Thailand by the Japanese firm, Fuji Denki Kagaku, and the Taiwanese firm, Tatung. Both parents are unaffiliated, and both the home and third countries are represented in the partnership structure.

Table 4.3d Trinational IJVs: Manhajak International Electric Co.,Ltd (Thailand)

JV partners	Equity ownership by partner (%)	Nationality Ratio				
		Home			Host	3rd
		Total	Affiliation Ratio	Unaffiliation Ratio		
Fuji Denki Kagaku	50.0	50.0	50.0			
Tatung	50.0					50.0
Total	100	50	50	0	0	50

CHAPTER 5

JV PERFORMANCE

This chapter discusses major conceptual and measurement issues relating to JV performance. Following a brief discussion of the strengths and weaknesses of the various performance measures which have frequently been used, our definition of JV performance is proposed.

5.1 Issues of JV Performance

JV performance can be defined in various ways because it is a complex and multidimensional phenomenon (Chakravarthy 1986; Venkatraman and Ramanujan 1986). The multidimensionality of JV performance stems from two problems related to the following questions: (1) whose criteria should be used to assess JV performance?; and (2) what is the best indicator to define JV performance?

The first question involves the scope of JV performance. By definition, a JV is formed by two or more firms, and therefore, its performance can be assessed from either the JV's perspective, any of the parent firms' perspectives, or the perspective of all multiple JV stakeholders (Anderson 1990). Previous JV literature

has considered most perspectives. Some researchers have focused on one parent's perspective (Inkpen 1991), while other researchers have focused on the performance perspective as viewed by all parent firms in the JV (Beamish 1984; Yan and Gray 1994). Finally, some researchers have treated the JV as an independent competitive entity and assessed the performance from the JV perspective (Anderson 1990). The choice of JV performance measure has varied considerably in previous studies, depending in part on the research objective and the resources available to the researcher. There is no consensus in the academic literature on which performance criteria should be used.

The second question considers the performance problem from both conceptual and operational perspectives. Most previous studies have used cross-sectional financial performance to define JV performance. However, using a cross-sectional financial measure may be misleading for three reasons.[1] First, the measurement cannot address the long-term potential for the business. In many cases, the level of financial performance usually reflects both the risk and uncertainty of a particular period in which a JV operates (Anderson 1990). Second, it fails to account for the diverse objectives or needs of all partners in a JV (Anderson 1990; Hamel, Doz, and Prahalad 1989; Hladik 1988; Mohr and Spekman 1994; Shenkar and Tallman 1993; Yan and Gray 1994). Since a JV is formed by two or more firms which

[1]Ezzamel (1992) provided a comprehensive review of both strengths and weaknesses of financial and non-financial performance measurement.

usually have different objectives, interests, and transfer pricing policies, the financial performance cannot measure how well the parent firm's primary objective is attained. Finally, it focuses only on existing JVs and totally ignores those which are terminated due to poor financial performance. In other words, it focuses on the population of "successful ongoing" JVs.

5.2 Alternative Performance Measures

To supplement the deficiencies of cross-sectional financial indices, three alternative performance measures have been frequently used: longitudinal financial performance, partner satisfaction, and termination (or survival).

Longitudinal Financial Performance

The critical shortcomings of using a cross-sectional measure are twofold: first, it ignores the impact of changes in JV performance over time as the business environment changes; and second, it fails to capture the impact of an evolving organizational JV process which entails such considerations as an experience effect and an interdependence between the parent firms. The first limitation involves the issue of measurement timing, while the second limitation involves the issue of JV age. Without using a longitudinal performance measure, we cannot address these concerns. With a few exceptions (Blodgett 1992; Koh and

Venkatraman 1991; Kent and Helleigel 1991), most previous studies have ignored both the time frame and age of the JV, and assessed JV success based on a cross-sectional comparison of financial performance at a certain point of time.

Partner Satisfaction

Partner satisfaction accounts for the diverse interests and objectives of all JV partners. From a partner's perspective, a JV may be making satisfactory progress toward longer-term goals or non-financial goals, even if current financial performance is not great (Anderson 1990, p. 21; Geringer and Hebert 1991). For this reason, many researchers have recommended the use of a partner satisfaction measure to assess JV performance. Partner satisfaction measures involve subjective evaluation of the degree to which a JV realizes each partner's goals or needs, and JV success is defined as the degree to which various partners are satisfied. The difficulty in using the satisfaction measure relates to the question of whose satisfaction should be measured. Some may argue that satisfaction should be assessed from a parent firm's point of view. Since parent firms have their own goals in forming JVs, performance should be assessed based upon the extent to which parent firms' objectives are attained in the JV.[2] Others may argue that JV performance should be assessed from a JV's point of view. They assume that a

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[2]The profit manipulation of the JV by using transfer prices is a common argument.

JV is an independent competitive entity, and its performance should be assessed as a stand-alone organization (Anderson 1990). Finally, another view suggests that we should focus on the satisfaction of other stakeholders such as host governments, suppliers, buyers, and so forth (Baird, Lyles, and Reger 1993; Doyle 1994). This view suggests that a JV is not a stand-alone organization but rather a part of a larger external interorganizational network with which different units of the multinational actors must interact (Ghoshal and Bartlett 1990) and that JV performance should be assessed in terms of the relationships between the JV and its stakeholders within the network. However, the level of satisfaction among these different stakeholders may or may not be consistent, depending on which stakeholder's value is primarily satisfied in the JV.

Termination (or Survival)

One of the most critical problems of using cross-sectional measures is that they only focus on existing JVs and ignore the terminated ones. Good financial performance is an essential factor in the long-term success of a JV (Killing 1983; Newman 1992). However, the fact that a certain type of JV financially performs better than other types of JV does not necessarily mean that it is more successful, because it may have a much higher termination rate than the latter type. In other words, existing JVs may not represent the whole population of JVs but represent only the successful ones. However, the termination/survival measure alone

provides little insight with regard to why some JVs survive and others do not (Dess and Robinson 1984). This measure may be an ultimate, conclusive measure of performance as it categorizes the JVs into either 'success' or 'failure.' However, it fails to explain whether the JVs were terminated because they performed poorly or because the parent firms' original purpose of JV formation was achieved. The former case suggests that termination is a failure in that it was caused by poor financial performance. The latter case suggests that termination is 'planned' in that it was already intended when a JV was formed (Hamel, Doz and Prahalad 1989; Kogut 1988a). For this reason, a termination (or survival) measure alone cannot define whether a JV is successful or unsuccessful; it depends on both its financial performance and the original purpose of JV formation.

As the above discussion indicates, cross-sectional financial performance alone cannot be a perfect measure of JV performance, and cannot be used as a single measure of JV performance. A desirable performance measure depends on how JV success is defined (Mohr and Spekman 1994).

5.3 JV Performance Defined in This Study

In this study, we define JV performance in terms of the combination of financial performance and survival rate. Although we recognize the importance of partner satisfaction as one of the possible alternative performance measures, we assume

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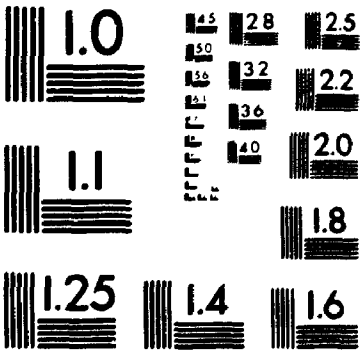
PM-1 3½"x4" PHOTOGRAPHIC MICROCOPY TARGET
NBS 1010a ANSI/ISO #2 EQUIVALENT



that stakeholders' satisfaction is ultimately represented by either financial performance or survival of the JV, or by a combination of both. Research supporting our assumption has been completed by Geringer and Hebert (1991). They found that the level of partner satisfaction was highly correlated with the JV termination and suggested that termination measures could be used as a proxy for partner satisfaction. Similarly, Woo and Willard (1983) asserted that a firm's financial performance was, in most cases, the best proxy for both stockholders' and stakeholders' satisfaction.

The combined measure of financial performance and survival rate avoids a possible population bias as it includes both existing and terminated JVs. This characteristic is extremely important in JV study because JVs generally possess a higher termination rate than other forms of organization (Harrigan 1985). The measure also takes into account both short-term and long-term performance of the JV. While most financial indices are essentially short-term oriented (Ezzamel 1992), this measure provides a combined inference of both short-term financial performance and long-term survival of the JV.[3]

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[3]From a financial accounting view point, the concept underlying this measure is similar to that of a discounted cash flow (DCF)-based income measure in that both emphasize long term performance as well as short term financial performance in evaluating overall corporate (or project) performance. The combined measurement used in this study, however, does not provide comparable performance indices (i.e., net present value of investment) at the firm level but provides a rough proxy for net income of the JVs that belong to a certain segment of the population. While the DCF-based measurement is conceptually superior to the combined measurement, it is more difficult to apply in practice. Some of the

Figure 5.1 illustrates our view of JV performance. Note that the performance is measured here at a group level (i.e., a group of JVs with the same ownership structure) - not at an individual JV level - due to the nature of the termination measure. That is, the calculation of termination rate is possible only when we know the number of terminated JVs relative to that of those JVs formed during a given period. As the table suggests, we can generally consider that a JV ownership structure with a lower termination rate and a higher financial performance is a successful JV ownership structure; and a JV ownership structure with a higher termination rate and a lower financial performance is an unsuccessful JV ownership structure.

The problem of interpreting JV performance may occur when the JV ownership structures are positioned in the other two quadrants: when they achieve a higher financial performance but with a higher termination rate, or when they attain a lower financial performance but with a lower termination rate. JV ownership structures positioned in these two quadrants are considered mixed (either successful or unsuccessful), depending on which aspect of performance is being considered. For example, in the case of a high termination rate and high financial performance JV, the manager may be focusing on short term objectives and view the JV as a unique, short-term project that will be terminated once the original

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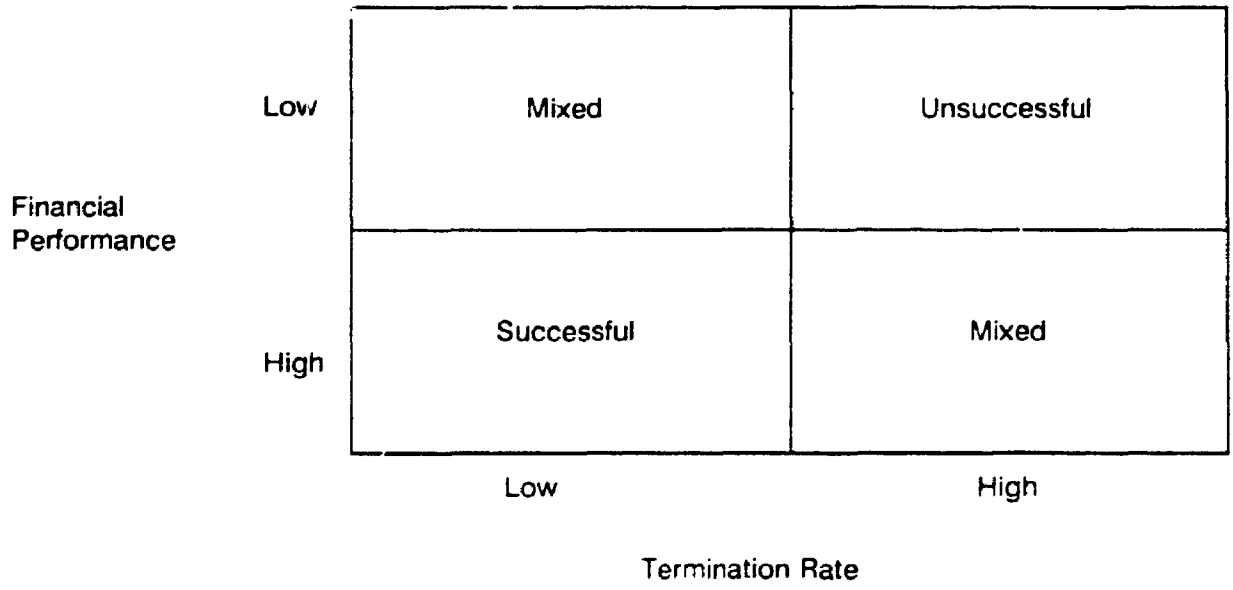
problems with regard to practical applications of DCF-based measurement are summarized by Ezzamel (1992, p. 49-71).

purpose is attained. In this situation, the manager takes a well defined short term strategic perspective of the JV. On the other hand, a low termination rate and low financial performance JV may be one that is used by managers having a longer strategic perspective. They are willing to forgo immediate financial payoffs so as to attain longer term strategic goals.

Figure 5.1 Association between Financial Performance and Termination



CHAPTER 6

JOINT VENTURE OWNERSHIP STRUCTURE AND PERFORMANCE

This chapter examines the relationship between JV ownership structure and performance. The chapter starts with a detailed discussion of the relationship between resource access opportunity, ownership preference, and JV performance. Then the conceptual model used in this study is introduced. Following a discussion of JV ownership structure and performance (financial performance and survival), various hypotheses are provided. At the end of the chapter, the impact of host governments' local ownership policy on JV performance is discussed and a hypothesis is presented.

6.1 Context of Resource-access Opportunity, Ownership Preference, and JV Performance

In Chapter 3, we suggested that improved JV performance would occur when bilateral resource-access needs exist. To examine the relationship between JV ownership structure and performance, therefore, we should be able to identify the resource-access opportunities embedded in a given JV ownership structure and to explain the relationship between resource-access opportunities and performance.

For this purpose, we focus on three factors which are considered to influence resource-access opportunities within a JV: (1) resource complementarity (the extent to which partner resources are complementary), (2) managerial complexity (the extent to which partner resources are dissimilar), and (3) host government's local ownership policy (the extent to which resource-allocation processes are required by a host country government). These three factors and their impact on JV performance will be discussed in the following sections.

6.1.1 Resource Complementarity and Performance

Resource complementarity is defined as that which arises between different sets of resources "when a joint use of them can potentially yield a higher total return than the sum of returns that can be earned if each set of resources are used independently of the other" (Chi 1994, pp. 274-75). Complementarity of resources within a JV generally occurs at three levels: (1) between the Specific-proprietary resources of JV partners, (2) between the Specific-proprietary resources of one partner and the General-proprietary resources of the other, and (3) between both the Specific- and General-proprietary resources of JV partners. The first type of complementarity usually creates R&D JVs between high-tech companies in developed countries (Ciborra 1991; Hladik 1985, 1988; Krubasik and Lautenschlager 1993; Lei and Slocum 1992; Mowery 1991; Ouchi and Bolton 1988; Sinha and Cusumano 1991). The second type of complementarity arises in JVs

formed between a firm in a developing country and a firm in a developed country. Beamish's (1984, 1988) studies of JVs in less developed countries (LDCs) suggest that forming a JV with a local firm can be an effective means of foreign entry, especially when a firm does not have sufficient knowledge about the host country. The final type of complementarity arises in JVs formed by high-tech companies in developed countries to provide cross-distribution for each firm's products in the other market. Many U.S. and Japanese drug companies have formed ventures of this type.

An underlying consideration in all of these JV formation types is that when a parent firm with resource access objectives seeks new sets of knowledge or skills, the firm is better with a partner which provides a different set of resources. On this basis, when a firm seeks such a resource-access opportunity via equity channels, the firm has an incentive to share ownership with other firms which possess resources complementary to those of its own. In support of this view, many previous empirical studies have found that JVs performed better when ownership was shared (Beamish and Banks 1987; Bleeke and Ernst 1993; Blodgett 1992). Thus, this perspective suggests that a JV is likely to attain superior performance when: (1) the JV is formed by partners with diverse national or organizational attributes (diverse ***partner type***); and (2) JV ownership is shared (low ***partner influence***).

6.1.2 Management Complexity and Performance

JVs are made up of two or more firms that have different values and interests. When JV partners provide different sets of resources, the managerial complexity of coordinating interfirm diversity substantially increases. Managerial complexity arises from two sources: coordination of complementary resources, and coordination and/or control of interorganizational relationships between partners. The former is a strategic issue related to the resource-access process within the JV. Difficulty in coordination occurs because, while each partner may have the capability to coordinate its own resources, the JV does not have the capability to coordinate all of the new resources provided by the partners.

The second type of managerial complexity occurs due to inter-partner differences. Since the goals of JVs are sometimes not specific or agreed upon among the partners, each partner may desire different organizational outcomes, leading to conflict (Dunning 1993; Hennart 1988; Killing 1983; Schaan 1983). For this reason, technical and environmental problems cannot be readily identified or solved in a JV organization context. Rather, decisions on critical subjects in the JVs are made on the basis of power and political influence, bargaining, negotiation, persuasion, and coalition building. Such managerial complexity incurs substantial coordination costs due to the need to monitor the opportunistic behaviour of the partners, coordinate goal incongruence between partners, and transfer technologies

(Buckley and Casson 1988; Hebert 1994; Killing 1983; Mohr and Spekman 1994; Porter and Fuller 1986). Managerial complexity further increases when there are cultural barriers between the partners. The cultural barriers include language, working customs and attitudes, communication methods, perceptions of success of the firm, the human relationship between bosses and subordinates, general lifestyle, and religion. Brown, *et al.* (1989) asserted that it was more difficult to manage cultural incompatibility than economic incompatibility between JV partners since the problems of economic incompatibility can be analyzed more objectively compared to cultural incompatibility.

Thus, a JV formed by firms that have organizationally and locationally different attributes is likely to have more managerial complexity than could occur in a wholly-owned subsidiary. This implies that if a parent firm wants to avoid managem ent complexity, it is better to have a partner that is similar. Previous studies have also revealed that the level of managerial complexity was lower either when a firm formed a JV with a firm with a similar set of resources and organizational characteristics, or when a single or a group of affiliated firms possess the dominant share of JV ownership (Anderson and Gatignon 1986; Brown, Rugman and Verbeke 1989; Woodcock and Geringer 1990). Overall, this perspective suggests that a JV is likely to attain superior performance when: (1) the JV is formed by partners with similar national or organizational attributes (homogenous ***partner type***); and (2) a single or a group of affiliated firms

possesses dominant share of ownership (high ***partner influence***).

6.1.3 Local Ownership Policy

The choice of ownership is also influenced by the host government's local ownership policy. In some cases, a JV is not chosen by the firm but is imposed by the local government. In LDCs, local ownership policy has had a significant impact on the formation of transnational coalitions and partnerships (Doz 1986). In particular, some nations have regarded local ownership as an important national objective and as a means of obtaining the foreign partners' proprietary knowledge. This knowledge can then contribute to industrial development in the host countries (Fagre and Wells 1982; Franko 1987, 1989; Lecraw 1984). Such local ownership policy is determined by the nation's bargaining power relative to the foreign firms, the bilateral and multilateral political relationships between home and host countries, or some combination of the two (Poynter 1985). The host country's bargaining power depends upon whether the host countries (or their firms) have the capabilities to supply the needed resources (either general-proprietary or specific-proprietary) to the foreign firms. The political relationships between home and host countries (e.g., trade friction) also affects the policies on inward FDI of the host countries. In either case, host governments have an incentive to control the activities of foreign MNEs operating within their borders, and, to achieve their goals, constrain majority ownership by foreign partners (Beamish 1984; Franko

1971; Gomes-Casseres 1988; Killing 1983; Kobrin 1988; Lecraw 1984; Poynter 1985; Stopford and Wells 1972). In summary, the chosen level of ownership does not necessarily represent the firm's *ideal* ownership but only represent what the firm can *get* under the local government restrictions (Gomes-Casseres 1990). In this situation, a chosen ownership structure does not necessarily reflect a parent firm's intended strategy, and therefore, will not necessarily be reflected in JV performance.

In conclusion, each of the three perspectives sheds light on different aspects in explaining the relationship between JV ownership structure and performance. The first view suggests that JV performance would be higher when ownership is shared by different JV partners. The second view suggests JV performance is higher when ownership is dominated by a single firm or a group of affiliated firms. The final view suggests that the relationship between JV ownership structure and JV performance depends on a host government's local ownership policy. Despite the mixed empirical evidence, each of the three views equally provides a logical explanation of the relationship between JV ownership and performance, and the actual choice of ownership structure may be based on a complex mix of these three dimensions.

6.2 Conceptual Framework

Our view is that neither resource complementarity nor management complexity can be the sole determinant of JV performance: rather, they collectively and simultaneously influence JV performance. For example, as Itami (1987) pointed out, resource complementarity itself cannot be a source of competitive advantage because it alone simply represents "a portfolio" of different resource sets provided by each JV partner. Complementary resources become a source of competitive advantage when they are effectively coordinated, and hence create synergy among these resources (Itami 1987; Milgrom and Roberts 1992), and the effective coordination is easier when the level of management complexity is low. To attain superior performance, therefore, a JV needs to coordinate JV resources which are closely complementary but dissimilar in nature (Richardson 1972).

The two concepts defined in this study Resource Complementarily and Management Complexity, are somewhat analogous to Parkhe's (1991) two types of interfirm diversity. His Type I diversity referred to reciprocal strengths and complementary resources provided by partners, which is analogous to Resource Complementarily. His Type II diversity referred to the differences in partner characteristics, which is analogous to Management Complexity in this study. Consistent with our argument, Parkhe suggested that both types of interfirm diversity would dynamically and interactively influence longevity and effectiveness

of global strategic alliances.

On this basis, we assume the following:

1. ***The level of JV financial performance is represented by the difference between the realized benefits of resource complementarity and the realized costs of management complexity; and***

2. ***JVs survive as long as potential benefits of resource complementarity exceed potential costs of management complexity.***

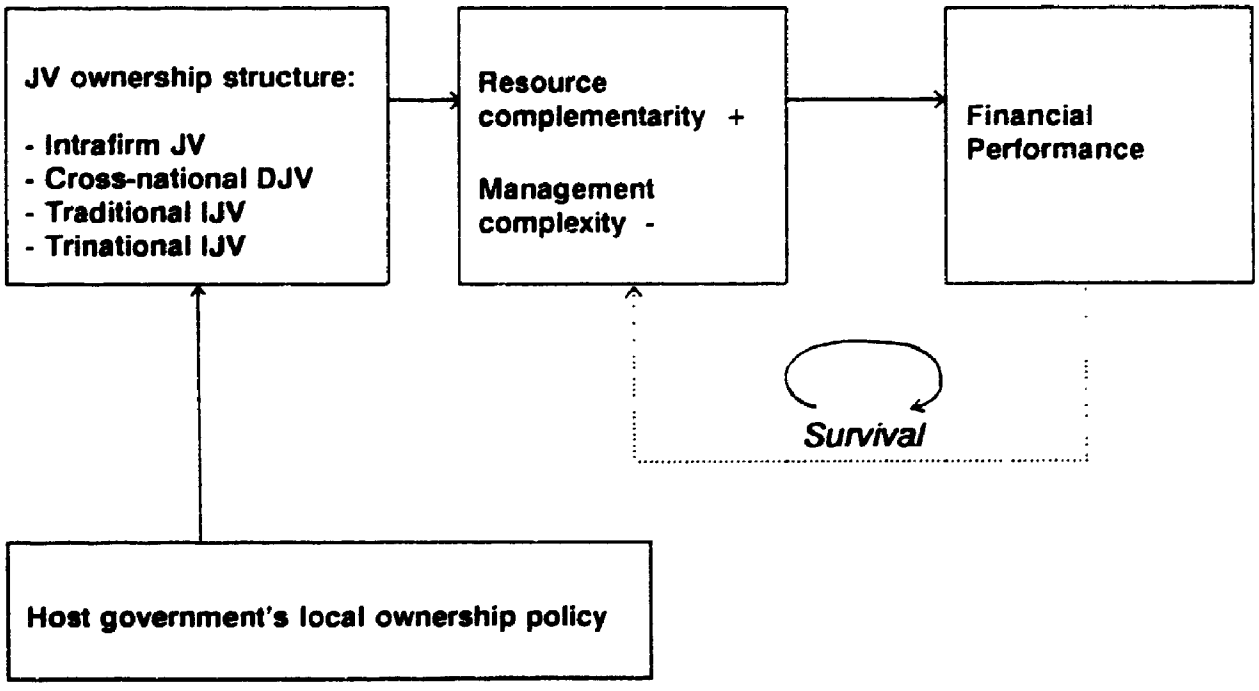
Note that financial performance involves "realized" benefits and costs, whereas survival involves "potential" benefits and costs. Some JVs may survive as long as "pote tial" benefits exist, even though the current "realized" benefits are not considered successful. In other words, financial performance is determined based on the existing resource complementarity and management complexity embedded in a given JV ownership structure, and survival represents the process of realizing these potential benefits. JVs will survive as long as partner firms have a commitment to continue this process.

Figure 6.1 provides the conceptual model used in this study. In the proposed model, JV ownership structure is associated with financial performance. More specifically, two factors embedded in a given JV ownership structure - resource complementarity and management complexity - are considered to influence

financial performance: resource complementarity is positively, and management complexity is negatively, associated with JV financial performance.

The model also illustrates that JV ownership structure is linked with financial performance as a feedback loop (the dotted line). This model suggests two premises: (1) JV financial performance may be improved through post-formation experiences by either increasing resource complementarity or decreasing management complexity without changing JV ownership structure; and (2) a JV will survive as long as JV partners believed the JV to be financially successful or has the potential to be successful.

Figure 6.1 Conceptual Model: JV Ownership Structure and Performance



In the proposed model, host government's local ownership policy is described as a control variable. As was discussed in the previous chapter, host government's local ownership policy often influences the choice of JV ownership structure and may directly or indirectly influence JV performance. Nevertheless, we primarily focus on resource complementarity and management complexity in examining the relationship between JV ownership structure and performance. We consider host government's local ownership policy as a control variable because it can only explain whether foreign firms can choose an ideal JV ownership structure, but does not explain how the "chosen" JV ownership structure influences JV performance.

6.3 JV Ownership Structure and Performance

6.3.1 JV Ownership Structure and Financial Performance

The proposed model suggests that factors influencing JV performance involve a combination of resource complementarity and management complexity embedded in the JV ownership structure which is initially chosen. Here, we assume that a JV performs better financially when it possesses either a higher degree of resource complementarity or a lower degree of management complexity. Thus, if we know the degree of both resource complementarity and management complexity for a given JV ownership structure, we can examine the relationship between JV

ownership structure and performance.

Table 6.1 illustrates the relationship between resource complementarity, management complexity and JV ownership structure. Note that resource complementarity defined in the table refers to the extent to which a home-country based firm accesses a local firm's specific-proprietary resources.

Table 6.1 Potential Opportunities to Complement Partner Resources, Expected Level of Management Complexity, and Performance of the JV

	(A) Resource complementary opportunity	(B) Management complexity	Expected level of JV financial performance
Intrafirm JVs	Low	Low	Higher
Cross-national DJVs	Low	Medium	Medium
Traditional IJVs	High	High	Higher
Trinational IJVs	Low	High	Lower

According to Table 6.1, Traditional IJVs provide the best opportunity for accessing a local partner's specific-proprietary resources, yet they incur the highest managerial complexity. A Intrafirm JV, on the other hand, provides the least opportunity to access a local partner's specific-proprietary resources but the lowest managerial complexity. A Trinational IJV provides little opportunity to access a

local firm's specific-proprietary resources and it takes on the highest level of managerial complexity. A Cross-national DJV provides no opportunity to access a local firm's specific-proprietary resources, but the need for coordinating activities in the JV is less than that of the Trinational IJV since the JV partners share the same nationality. The coordination need of the Cross-national DJV, on the other hand, is larger than that of the Intrafirm JV since the parent firms are unaffiliated.

Expected financial performance is provided based on a simple comparison between the rates given to resource complementarity opportunity and management complexity embedded in each JV ownership structure. As provided in Table 6.1, Intrafirm JV and Traditional IJV are expected to achieve higher financial performance, Cross-national DJV follows, and Trinational IJV is expected to attain the lowest financial performance. Overall, this suggests:

Hypothesis 1:

JV Ownership Structure is associated with different levels of financial performance.

Hypothesis 1a:

Intrafirm JV and Traditional IJVs have higher financial performance than other JV types.

Hypothesis 1b:

Cross-national DJVs have moderate financial performance compared to other JV types.

Hypothesis 1c:

Trinational IJVs have lower financial performance than other JV types.

6.3.2 Experience Effect and JV Financial Performance

A choice of JV ownership structure and its impact on JV financial performance may be moderated by either a parent firm's past international experiences in the same host country or by a JV's own experience in the host country.

Parent Firm Experience

A parent firm's past host country experiences might be internalized into a pool of knowledge which will be transferred to a newly formed JV in the same host country. Thus, when a parent firm has experiences in the host country, the parent firm may not have an incentive to form a JV with local partners as a means of accessing their general knowledge of the host country conditions. Rather, it may prefer to form a JV with affiliated firms in order to avoid possible management complexity derived from having unfamiliar local firms as JV partners. Thus,

Hypothesis 2:

A parent firm's past host country experience influences a choice of JV ownership structure.

Hypothesis 2a:

Firms with host country experience prefer to form Intrafirm JVs over Traditional IJVs when forming a JV in the same host country.

Hypothesis 2b:

Firms with no previous host country experience prefer to form Traditional IJVs over other types when entering the host country.

Also, if other conditions are equal, JVs formed by firms with host country experiences may perform more successfully than those formed by firms with no previous experiences because the former JVs already possess local knowledge when established in the host country and better understand how to compete in the host country (Davidson 1980; Johnanson and Vahlne 1977).

Hypothesis 3:

JVs formed by parent firms with past host country experiences attain higher financial performance than those formed by parent firms with no host country experiences.

JV Experience

A JV's own experience in a host country also influences its financial performance. The effects of JV experience are either economic- or organizational-oriented. In terms of the economic aspect of the JV experience, as a JV operation proceeds, it will merge the relative resources of the partners, create synergy by

complementing these resources, and hence become an independent, stronger, stand-alone enterprise. A JV can increase the level of resource complementarity without changing the JV ownership structure by either (1) better deploying existing resources, or (2) developing new resources which are complementary to the existing resources. The former capability refers to the ability to continually deploy and redefine a resource portfolio based on expected resource complementarity opportunities within a JV. The latter capability represents the ability to acquire necessary resources which create new resource-complementary opportunities when merged with existing resources within a JV.

The organizational aspect of the experience effects involves trust-building between JV partners. Partner firms may develop and enforce the trust-relationship as they accumulate host country experiences and, in doing so, create a basis for the long term success of the JV (Beamish and Banks 1987; Buckley and Casson 1988; Cascio and Serapio 1991; Killing 1983). Trust between JV partners significantly reduces the level of management complexity without reducing the firm's resource access opportunities (Beamish and Banks 1987; Buckley and Casson 1988; Hebert 1994), and hence positively influences JV performance (Hebert 1994). Beamish and Banks (1987) suggest that when a JV is formed based on mutual trust between JV partners, opportunistic behaviour is unlikely to emerge, and the incentives to engage in self-seeking preemptive behaviour can be minimized.

In either case, a JV's post-formation experiences will be positively associated with financial performance. Thus,

Hypothesis 4:

JVs with longer experience in a host country attain more successful performance than those with shorter experience.

6.3.3 JV Ownership Structure and Survival

International joint ventures are terminated for a variety of reasons. Boddewyn (1983) claimed that foreign divestments occur when the reasons for the foreign investment disappeared. He used Dunning's (1977, 1980) eclectic theory of international production to develop a theory of foreign divestment by reversing the conditions described in the eclectic theory. Boddewyn pointed out that foreign divestment occurs when a firm either (1) ceases to possess net competitive advantages over firms of other nationalities, (2) finds it is no longer beneficial to use its net competitive advantages over the sell or rent options, or (3) finds it is no longer profitable to utilize its net internalized competitive advantage outside its home country. Besides such conditional factors, Boddewyn (1979) pointed out that divestment decisions may be made when the firms can neither attain certain objectives nor possess better strategic alternatives to the achievement of such goals due to factors such as poor performance, poor pre-investment analysis, adverse environmental conditions, lack of fit and resources, and so forth.

More recent studies have attempted to explain why international JVs are more likely to fail compared with other alternative forms of foreign entry. These studies have suggested that there are at least three major reasons for such failure: a lack of a long-term commitment (Beamish 1984), a partner's excess control over the JV operation (Harrigan 1985; Killing 1983; Ohmae 1990), and a mismatching of partner objectives (Harrigan 1985; Inkpen 1992).

First, JVs are likely to fail when the JV partners do not share a long-term commitment to the JV. Without a long term commitment, JVs become vulnerable to bargaining between the partners and to a loss of a managerial consistency in the JV operation. Beamish's (1984) study of JVs in less developed countries (LDCs) suggested that long term commitment was necessary for JV success. From a practitioner's perspective, Yotaro Kobayashi, president of Fuji Xerox, a Japan-based JV between Fuji Photo Film and Rank Xerox, emphasized the importance of parent firms' continuous and consistent commitment to the JV success. Kobayashi stated:

> The typical problem the joint venture President has is the frivolous attitude of the parents. Sometimes the parent management team changes very often, and with that its policies toward the joint venture change suddenly. Fortunately, we haven't had that. We have been able to establish broad agreement on basic issues at the top level, and we have been helped by a series of American CEOs at Xerox.... For 30 years they have maintained a continuity, a consistency in terms of their respect for Fuji Xerox (quote from *CEO Interview: Yotaro Kobayashi of Fuji Xerox*, Institutional Investor, September 1991: p. 29) .

Second, JVs are likely to fail when either parent company tries to exert excessive control over the JV operation. Many JVs have been terminated because the parent companies would not "keep their hands off their child," even after the child was already grown up (Ohmae 1990). U.S.-based Borden, for example, broke up in 1991 with its Japanese JV partner, Meiji Milk, because Borden tried to increase its control over the Japanese partner. Prior to the break-up, the premium ice cream market in Japan had become more competitive. New entrants, such as Pillsbury's Haagen-Daz brand, Dreyer's Grand Ice Cream, and domestic brands were taking market share from Borden. From 1988 to 1991, Borden's market share dropped from 60% to 50%. Borden tried to sign an agreement with Meiji so that it could increase its direct control over the JV operation in Japan. But, at Meiji, a new management team took over and would not act in accordance with the proposal. Meiji then started selling its own brand of ice cream. Dan O'Riordan, Senior Group Vice President of Borden's International Snacks and Consumer-Products Division, stated the reason why their 20-year-old JV broke up:

> We believe [Meiji Milk] set out systematically to destroy the relationship that we built up so diligently over the past 20 years.... [Borden dissolved its partnership with Meiji Milk because it wanted to react to] threats to our business in Japan, particularly to Lady Borden, on a timely basis.... Meiji, by nature of its organization, moved rather slowly (quoted from The Wall Street Journal, B1, February 21, 1991).

Third, JVs are likely to fail when the partners' needs are mismatched. The mismatching of partner's needs may occur because JVs are formed by firms with different management styles, expectations, and cultural backgrounds. More

importantly, mismatching occurs because JV partners often enter into JVs with very different objectives. Having different objectives, the parent companies come into conflict, and ultimately dissolve their ventures. Such conflicts in the JVs between Japanese and American auto parts manufacturers have been reported in the statements of American managers (Inkpen 1992: p. 231):

> The American partner did not understand what was needed to manage the joint venture. The Japanese partner knew exactly what was needed. I would not be surprised if the Japanese partner's original intention was to get their foot in the door by selecting a weak partner, get the joint venture started, and then take over the joint venture.
>
> Our Japanese partner never did share their goals with us. They wanted a foothold in the United States which we could provide. They used us and then threw us away.

All the examples above illustrate that failures of JVs are frequently associated with the difficulty of maintaining viable partner relationships. Such difficulties are reflected in the level of management complexity embedded in a given JV ownership structure. Based on the level of management complexity described in Table 6.1, the following hypothesis is established:

Hypothesis 5:

JV ownership structure is associated with the likelihood of survival.

Hypothesis 5a:

Intrafirm JVs have the lowest likelihood of termination when compared to other JV types.

Hypothesis 5b:

Cross-national DJVs have a moderate likelihood of termination when compared to other JV types.

Hypothesis 5c:

Traditional IJVs and Trinational IJVs have the highest likelihood of termination when compared to other JV types.

6.4 Host Government's Local Ownership Policy and JV Performance

Government intervention is considered a critical factor influencing ownership structure in foreign firms abroad (Contractor 1990a; Fagre and Wells 1982; Franko 1989; Gomes-Casseres 1990; Lecraw 1984). Foreign firms, in certain situations, may prefer a specific JV ownership structure, but the host government insists on a different ownership structure: a structure that increases the foreign firm's contribution to its national goals. In this situation, although the host government's local ownership policy influences the ownership structure, its effect on JV performance is unknown. Few previous studies have looked at this issue. Theory suggests there are three potential arguments regarding the host government's local ownership policy and JV performance.

The first argument postulates that local ownership policy has a negative impact on JV performance. The argument implies that a "forced JV" does not represent an

ideal JV ownership structure, and hence, may not achieve the ideal performance that the foreign firms originally intended. In a study of JVs in developing countries, Beamish (1984) found that JVs operating in countries where shared local ownership policy was imposed upon foreign investing firms performed less successfully compared to those where no such regulations existed. Thus, the first perspective suggests that a host government's local ownership policy leads to lower performance and a higher probability of termination.

The second argument suggests that a host government facilitates a foreign firm's resource access opportunities. This view implies that a host government assists a foreign firm's access to location-specific resources by providing a wide range of subsidies and fiscal incentives (Guisinger, et al. 1985, pp. 2-4), and protects the JV from threats of competitors both within and outside the host country in exchange for local ownership or control of the JV (Oman 1988). In many cases, such incentives and supports from host government are critical factors which influence foreign firms' choice of location (Guisinger, *et al.* 1985). This view implies that local ownership is a means of circumventing host country conditions and that JVs in the countries with local ownership policy tend to obtain more support from the local government than those operating in the countries with no local ownership policy.

The third argument suggests that a local ownership policy itself does not affect JV

performance. This view postulates that the foreign market entry decision is essentially a foreign firm's choice (Shenkar and Tallman 1993). The assumption underlying this view is that since most foreign firms have many alternative overseas investment opportunities, a decision to invest in any given country must be based on a careful evaluation of the costs and benefits of a particular investment project. For example, foreign firms which have a hurdle-rate ROI may not invest unless expected ROI exceeds their hurdle-rate. This example illustrates that foreign firms do not have to invest in countries employing local ownership policy, which implies that the host government does not have any direct effect on the financial performance and survival of the JV.

In summary, a host government's local ownership policy can either hinder, facilitate, or do nothing for a JV's resource-access opportunities, and hence, be a negative, positive, or a neutral factor in its influence on JV performance. Each of the three explanations may be as likely as the other. Therefore, when other conditions are equal, we can still assume that JV ownership structure is a primary determinant of JV performance regardless of the host government's ownership policy. In conclusion, we put forth the following hypothesis:

Hypothesis 6:

JV ownership structure influences financial performance and survival irrespective of whether the JV operates under the host government's local ownership policy

CHAPTER 7

RESEARCH METHODOLOGY

The empirical research consists of two studies. The primary study will be a large sample study of JVs formed by at least one Japanese firm in East and Southeast Asia. This first study will examine the hypothesized relationships between JV ownership structure and performance. The analysis will be based on the cross-sectional data in the Toyo Keizai database for the years of 1985, 1988, and 1991 (Toyo Keizai, *Kaigai Shinshutsu Kigyou Souran* of 1986, 1989 and 1992). The second study will be an in-depth comparative case-based study of several representative cases. In the case-based study, interviews with the JV managers were conducted to evaluate the findings of study 1 as well as to explore other relationships deemed important by the JV managers.

7.1 Study 1: Large Sample Study

The large sample study involves three steps: sample selection; variable operationalization; and data analysis.

7.1.1 Sample Selection

The JV sample was collected from a survey of Japanese subsidiaries at the end of 1991 that appeared in the "Kaigai Shinshutsu Kigyou Souran 1992" (Toyo Keizai 1992). The data is based on questionnaires sent to all Japanese companies listed on the Japanese stock exchanges as well as to some unlisted firms. To enhance the data set, the survey was supplemented with press releases, annual reports and telephone interviews. Toyo Keizai lists about 13,500 subsidiaries of 3,332 Japanese parents with 5 percent or more equity ownership. From the original survey, the sample selected for this study included:

1.) Manufacturing JVs formed by at least one Japanese parent firm that owns between 5 and 95% of the equity[1],

2.) JVs located in East and Southeast Asia.[2]

3.) JVs that were established on a greenfield basis.[3]

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[1]Although there is no consensus on a cut-off point that should be used to distinguish a JV from a wholly-owned subsidiary (Horaguchi 1992), the international business literature has used 95% as a cut-off point to differentiate a JV and a wholly-owned subsidiary. For example, major studies that have used the 95% cut-off point include Anderson and Gatignon (1986), Franko (1971), Gomes-Casseres (1989), Hennart (1991b), Stopford and Wells (1972). Therefore, this study follows the above convention and uses a 95% cut-off point.

[2]East and South East Asian countries focused in this study include: People's Republic of China, Taiwan, Hong Kong, Thailand, Singapore, Malaysia, The Philippines, Indonesia, and South Korea.

[3]In this study, joint ventures that were formed as a result of either acquisition or capital participation were excluded in order to eliminate the possible confounding effects of acquisition and capital participation.

4.) JVs terminated during 1985 - 1991.[4]

Based on the above criteria, 1,688 cases were available. Of the 1,688 cases, 127 were JVs which had been terminated during the 1985 to 1991 period, and 757 cases included financial performance information for the JV. The balance (804 cases) represented JVs that were active in 1991, but did not have performance information. The breakdown of the sample in terms of performance information is illustrated in Table 7.1.

Table 7.1 Sample Breakdown in terms of Performance Information

Sample Size and Performance Information	Cases	(%)
Total samples of the active JVs in 1991	1,561	
- samples with performance info.	757	44.8
- samples with no performance info.	804	47.7
Total samples of the terminated JVs during 1985-1991	127	7.5
Total	1,688	100.0

Possible Sampling Bias

A possible sampling bias due to using a single data source may exist between the

[4]Terminated samples are defined as those cases that had disappeared from the list of *Kaigai Shinshutsu Kigyou Souran* during 1985 - 1991. The same method was used by Horaguchi (1992).

samples with and without performance information. This was tested in two ways. First, a Chi-square test was conducted to examine whether the frequency of a particular JV ownership structure significantly varied between the two samples. No significant difference was detected (Pearson Chi-Square=7.558; p=0.18).[5] Second, ANOVA was conducted to examine if the size of the JVs (i.e., the size of equity capital and the number of total employees) significantly differed between the two samples. Again, no significant differences were found (equity capital: F= .032; p=.857; and total employees: F = .956; P= .328). From these two tests, we conclude that there are no significant sampling biases in our database.

7.1.2 Database

The original database, *Kaigai Shinshutsu Kigyou Souran*, is one of the most comprehensive databases available in Japan (Horaguchi 1992).[6] The database has been published annually since 1970, yet has not been utilized in international

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[5]A Chi-Square test is usually considered significant when Pearson Chi-Square is less than a significance level of P=0.05 (SPSS Base System User's Guide, 1990, p. 130).

[6]Jun, *et al.* (1993) provided a list of other comprehensive Japanese FDI statistics which includes the officially released data: the Ministry of Finance data (Ministry of Finance) and the Balance-of-payment data (Bank of Japan); the government statistical survey: 'Basic Survey on Overseas Investment' and 'Survey on Japanese Business Activities Abroad' (Ministry of International Trade and Industry); and the non-government statistical survey: 'Japanese Overseas Investments on a Company Basis' (Economic Survey Association), and 'Survey on Global Management and Overseas Direct Investment' (Japan Export-Import Bank). Toyo Keizai data belong to the final category

research until recently. This is mainly due to the fact that the data in the database were coded in Japanese. Recently, the first English version of the database was published (Toyo Keizai "Japanese Overseas Investment 1992/93," 1993, Toyo Keizai Shinposha), and consequently, the database has been used increasingly as a Japanese foreign direct investment data source by researchers (Anazawa 1994; Sohn 1994; Woodcock 1994; Woodcock, Beamish and Makino 1994; Yamawaki 1994). Therefore, this section provides a brief analysis of reliability and coverage of this database.

Comparison of Macro Data

Table 7.2 compares the government's report of planned and/or registered foreign investment (Ministry of Finance), the data listed in the Tokyo Keizai database (*Kaigai Shinshutsu Kigyou Souran*), and the database used in the present study. The table demonstrates that the cumulative number of Japanese foreign investments registered to Ministry of Finance during 1951 and 1991 was 19,351. The Toyo Keizai database lists 5,025 ongoing foreign direct investment cases, which are equivalent to 26% of those listed by the government report. The database used in the present study lists 1,688 ongoing JV cases. The number in the sample accounts for 8.7% of that in the government report and 33.6% in the Toyo Keizai database. The comparisons of these figures suggest that (1) our database includes 8.7% of the total 'registered' Japanese foreign direct

investments in Asia; and (2) approximately 33.6% of the total 'ongoing' direct investments were conducted through JVs.

The sample size of the Toyo Keizai database on which our data set is based is somewhat smaller than that estimated using the government report. This difference is probably due to the fact that each of these reports focused on different populations. For example, the government report looked at planned or registered investments, not actual investments. It included foreign direct investments that were (1) registered but not carried out; (2) dissolved or acquired; and (3) ongoing investments. The *Kaigai Shinshutsu Kigyou Souran*, on the other hand, included only ongoing direct investments. Our data set is more focused in that it includes only ongoing JVs that operate in the manufacturing sector.

Table 7.2 Japanese Foreign Direct Investment in Asia: Comparison of Sample Size

	(A) Government report	(B) Toyo Keizai Database	(C) The Data used in this study	(C)/(A) (%)	(B)/(A) (%)
Industrial section	all industries	all industries	Manufacturing section		
Investment modes	all modes	all modes	Joint ventures		
Content of the data	Cumulative number of planned or registered foreign investments during 1951-1991	The number of active foreign investments as of the end of 1991	The number of foreign investments which were both active as of 1991 and terminated between 1985-1991.		
Sample Size	19,351	5,025	1,688	8.7	26.0

Sources: (A) Japan Export-Import Bank, "Kaigai Toushi Kenkyusho-hou," July 1992; (B) Toyo Keizai, "Kaigai Shinshutsu Kigyou Souran '92," Toyo Keizai Shinposha, 1992.

Estimation of Sample Size Captured in Toyo Keizai Database

To estimate the extent to which ongoing foreign direct investments are actually captured by the Toyo Keizai database, we first need to know the number of foreign direct investments that were planned but not been carried out. If we can calculate the gap between the number of investments that have been registered and those that have been executed and terminated, we would be able to obtain an actual population size of ongoing foreign direct investments.[7]

Horaguchi (1992) examined how much registered investment had been carried out by comparing the cumulative dollar value of the registered investments (US$ 67.5 billion) and that of the actual investment flow in 1989 (US$ 49.0 billion).[8] Using these two numbers, he calculated that US$ 18.5 billion of the registered investment (27.4%)[9] had not been carried out (US$ 67.5 minus 49.0 billion). He also estimated that the mortality rate of the Japanese investments during 1986 and 1987 was 8.5% (Horaguchi 1992).

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[7]This gap was termed "Divestment gap" by Sachdev (1976).

[8]The former figure was compiled by the Ministry of Finance based on data submitted by Japanese investors as required by the Foreign Exchange Control Law; the latter was actual capital transfer statistics compiled from invisible receipt and payment reports submitted by authorized foreign exchange banks to the Bank of Japan (Jun, et al. 1993, p.30).

[9]This percentage may be conservative. Beamish (1993), for example, reported that over half of the registered JVs in China never went into operation.

Based on these two figures, we can roughly estimate that the amount of Japanese foreign investment which has not appeared in the Tokyo Keizai database is 35.9% (27.4% plus 8.5%) of that listed in the government report. Therefore, the revised population size of the Toyo Keizai database (and therefore our database) captures an estimated 40.5% of the total registered number of direct investments.[10]

Comparison of Sample Size by Region

Table 7.3 provides the comparison of the sample breakdown in the government report, Toyo Keizai database, and the data set used in this study by region. The table shows that our sample provides a relatively consistent estimator of the population when compared to the government sample [i.e., it falls between 10% - 15% except Hong Kong (1.7%), Singapore (4.6%), and Philippines (7.7%)]. There are several reasons why the number of JVs in these countries provide different proportions. First, many Japanese investments in Hong Kong and Singapore are

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[10]The revised sample size of the Toyo Keizai database was calculated based on the following four figures:
1.) The number of cases in the government report (1951 - 1991): 19,351 cases.
2.) The number of cases in the Toyo Keizai database as of 1991: 5,025 cases.
3.) The rate at which investments have been registered but not carried out relative to total investments: 27.4%
4.) The rate at which investments have been carried out but terminated: 8.5%

Based on the above figures, the estimated relative size of the Toyo Keizai database is:

$$5{,}025 \;/\; [19{,}351 \times \{100\% - (27.4\% + 8.5\%)\}] = \mathbf{40.5\%}$$

concentrated in the tertiary industrial sectors such as finance, wholesale/retail trade, services, etc. Second, many of the Japanese investments in the Philippines were planned, but not carried out. Many decisions to withdraw were related to the collapse of the Marcos Administration in February 1986 (Horaguchi 1992). Nevertheless, it seems reasonable to consider that our sample of JVs is overall not critically biased compared to those of the government report of Japanese foreign direct investments in Asia.

Table 7.3 Comparison of Sample Size by Region

Country	Scope of the sample	(A) Government report - all FDI modes, - all industries	(B) Toyo Keizai Database - all FDI modes, - all industries	(C) The Data used in this study - JVs - manufacturing	(C)/(A) (%)	(B)/(A) (%)
Hong Kong		3,921	827	68	1 7	21.1
Taiwan		2,487	738	296	11.9	29 7
South Korea		1,895	394	238	12 5	20 8
Singapore		2,662	806	124	4 6	30.3
Malaysia		1 645	543	203	12 3	33 0
Indonesia		2,021	339	204	10 0	16 8
Thailand		2,723	828	324	11 9	30 4
Philippines		892	183	69	7 7	20 5
China (P.R.C)		1,105	367	162	14.6	33 2
Total		19,351	5,025	1,688	8.7	26.0

Sources: (A) Japan Export-Import Bank, "Kaigai Toushi Kenkyusho-hou," July 1992; (B) Toyo Keizai, "Kaigai Shinshutsu Kigyou Souran '92," Toyo Keizai Shinposha, 1992.

Table 7.4 provides the geographic distribution of three samples of Toyo Keizai database: (A) a sample of total direct investments in Asia; (B) a sample of direct

investment in manufacturing sectors; and (C) a sample of direct investment in the manufacturing sectors via a JV (the sample used in this study). As shown in Table 7.4, about a half of the total number of Japanese direct investment occurred in manufacturing (49.1%); about 70% of direct investments in manufacturing involved JV investment (68.5%); and, in total, one-third of the total number of Japanese direct investment involved manufacturing JVs (33.6%).

Table 7.4 Toyo Keizai Database and the Database Used in the Present Study

Country	Scope of the sample	Toyo Keizai Data (A) -all FDI modes -all industries	(B) -all FDI modes -manufacturing	(C)[1] -JVs -manufacturing	(B)/(A) (%)	(C)/(A) (%)	(C)/(B) (%)
Hong Kong		827	131	68	15.8	8.2	51.9
Taiwan		738	461	296	62.5	40.1	64.2
South Korea		394	346	238	87.8	60.4	68.8
Singapore		806	218	124	27.0	15.4	56.9
Malaysia		543	302	203	55.6	37.4	67.2
Indonesia		339	236	204	69.6	60.2	86.4
Thailand		828	449	324	54.2	39.1	72.2
Philippines		183	101	69	55.2	37.7	68.3
China (P.R.C.)		367	221	162	60.2	44.1	73.3
Total		5,025	2,465	1,688	49.1	33.6	68.5

[1] The database used in the present study.

According to Table 7.4, with exception of Hong Kong (15.8%) and Singapore (27.0%), the percentage of the number of direct investment in manufacturing

relative to the total number of the investments exceeds 50%. The relative use of a JV in manufacturing sections exceeds 50% in all countries.

These evidence suggest that a JV is the most dominant form of Japanese direct investment in manufacturing in Asia. On this basis, the sample used in this study (manufacturing JVs in Asia) represents a critical component of Japanese direct investment behaviour in Asia.

7.1.3 Variables

JV Ownership Structure

JV ownership structure is operationally defined based on two ownership ratios: Nationality Ratio (NR) and Affiliation Ratio (AR). These two ratios respectively represents the effect of partner nationality and partner affiliation, which are embedded in JV ownership structure. Nationality Ratio (NR) is measured by the sum of equity ownership between the parent firms which possess the same nationality of either home (Japanese), host, or third country. Affiliation Ratio (AR) is measured by the sum of equity ownership between the parent firms which are affiliated. These two ratios represent an aggregate characteristic of parent firms participating in a JV.

JV ownership structure typology, a concept developed in the previous chapter, will be operationalized based on these two ratios (Intrafirm JV, Cross-national DJV, Traditional IJV, and Trinational IJV). This typology will be used as a categorical measure. The classification procedure will be discussed in detail in the following chapter.

JV Performance

Performance is operationalized using two measures: (1) financial performance and (2) survival (termination) rate.

Financial Performance

Financial performance is measured based on a categorical assessment of financial performance. There are several reasons why categorical assessment measurements are appropriate. First, many JVs do not disclose their performance data. Second, even when financial performance data are available, it is difficult to compare them when the JVs operate in different industries and countries that have different accounting systems and customs (e.g., Brown, Soybel and Stickney 1994). Third, wh[illegible].e measurement may rely on JV managers' assessment of its financial performance, it can still be a comparable measurement (i.e., a loss is a loss, and gain is a gain). Finally, and partly related to the third reason, the

subjective assessment of financial performance may be a better proxy for performance than the objective measure of financial profit, particularly when the parent firm adopts transfer pricing policies towards its foreign subsidiaries.

The financial performance was measured by a three-item scale, 1 indicating a loss, 2 indicating break-even, and 3 indicating a financial gain. The scale of financial performance was used as a categorical as well as a continuous measure of the performance. The scale scoring '1,' '2,' and '3' represent *low-*, *medium-* and *high-financial performance*.

Survival (Termination) Rate

While survival (or termination) rate has been frequently used in previous studies, no consistently used measure exists. First, the scope of measurement differs among the studies. As shown in Table 7.5, for example, in some studies, JV survival has been measured in terms of "instability" - changes in the division of ownership between partners (Blodgett 1992; Franko 1971). In most studies, JV survival has been measured by the ratio of the number of terminated JVs relative to that of surviving JVs (Curhan, Davidson and Suri 1977; Davidson and McFetidge 1984; Gomes-Casseres 1987; Kogut 1988a, 1989).

The range of measurement also varies. As suggested in Table 7.5, the number of

both terminated cases (i.e., numerator of the measure) and surviving cases (i.e., denominator of the measure) has been calculated either on a "flow" basis - the number of cases which had been terminated in a certain period of time, or on a "stock" basis - the number of cases which existed at a certain point of time. In most previous studies, terminated cases tended to be calculated on a "flow" basis, and surviving cases on a "stock" basis, both of which together constitutes a termination rate for each group of cases. For example, Davidson and McFetidge (1984) used the number of JVs which had been terminated between 1976 and 1983 as a denominator, and that of those JVs which existed at the beginning of 1975 as a numerator of the termination measure.

The problem with this measure is obvious: given a constant denominator (e.g., the number of JVs which existed at the beginning of 1975), the termination rate might have differed if the terminated JVs were counted using a different period of time. For example, Horaguchi (1992) used the period of five years (1981-1986), and Li and Guisinger (1991) ten years (1978-1988), to count the frequency of terminated cases, while both of them used the number of surviving cases on a "stock" basis at a certain point of time: Horaguchi used the FDIs which existed in June 1981, and Li and Guisinger used 10,000, as a denominator. The reported termination rates from the two studies are, therefore, incompatible, as the number of the terminated cases were defined using a different range of observation.

Table 7.5. Survival Measures Used in Previous Research[1]

	Samples	Measurement	Data source	Termination rate
Li and Guisinger (1991)	foreign-controlled non-financial firms in the U.S existing during 1978-1988	the number of foreign-controlled business failures per 10,000 foreign-controlled firms during the period of 1978 - 1988 in the U.S.	F&S Index, Wall Street Journal Index	n.a.
Horaguchi (1992)	7,456 Japanese foreign subsidiaries in all industrial sections in the world	the rate of the number of terminated foreign subsidiaries of the Japanese MNCs between 1981 and 1986 relative to those that existed in June 1981	Kaigai Shinshutsu Kigyou Souran	8.5%
Boddewyn, et al. (1973)	425 of the U.S.-based Fortune 500 companies	the rate of the number of divestments relative to new establishment between 1967-71	Questionnaire	11.6%*
Chopra, et al. (1978)	455 of the U.S.-based Fortune 500 companies	the rate of the estimated average book value of divested operations relative to that of U.S.-based direct investments carried out during the period of 1967-71	Questionnaire	4.5% - 9.0%
Franko (1971)	159 U.S. companies on the 1967 Fortune 500 list which had manufacturing operations in six or more foreign countries in 1964	the number of events of JV instability (changes in significant ownership shares) divided by the time spent by a firm in JVs during the period of 1961-67	Harvard Multinational Enterprise Project	n.a.
Blodgett (1992)	International manufacturing and retailing JV contracts formed between 1971-81	the number of years that passed before changes in the division of equity between JV partners occurred	Mergers and Acquisitions	n.a.
Kogut (1989)	92 manufacturing JVs in the U.S.	the rate of the number of the terminated JVs relative to that of all sample JVs	Questionnaire	43 - 70%
Kogut (1988a)	148 domestic and international JVs in the U.S.	the rate of the number of the dissolved or acquired JVs relative to that of all sample JVs	Questionnaire	45.9%*
Curhan, et al (1977)	2,576 manufacturing JVs which are owned more than 5% by U.S. firms	the rate of the number of the total entries that were terminated during the period of 1951-1975 relative to that of those which had exited during the same period	Harvard Multinational Enterprise Project	27.4 - 29.6%*
Gomes-Casseres (1987)	2,378 manufacturing JVs which are owned more than 5% by U.S. firms	the rate of the number of the JVs that had been liquidated, sold, or changed to W.O.S. relative to that of the total entry during the same period between 1900-1975.	Harvard Multinational Enterprise Project	13.6%*
Davidson and McFetridge (1984)	396 manufacturing affiliates of 125 major manufacturing U.S MNCs in Canada	the rate of the number of the terminated affiliates between 1976-1983 relative to those which existed at the beginning of 1975	Harvard Multinational Enterprise Project	30.0%

*The figures were calculated by the author based on figures in the article.

[1] The first four rows involve survival studies of foreign direct investments, and the latter seven studies involve international joint venture investments.

Thus, to provide a valid proxy for JV survival, the termination rate should be defined consistently: if the frequency of terminated JVs (as a numerator) is counted on a "flow" ("stock") basis, that of the surviving JVs (as a denominator) should also be counted on a "flow" ("stock") basis. Comparing the "flow"-based and the "stock"-based counting methods, the former has two major strengths over the latter: First, the "flow"-based method excludes the effects of external factors which are specific to country, industry, or parent firm at the time JVs were terminated. Second, the "flow" method makes longitudinal comparative analysis possible.

On this basis, a survival (termination) rate in this study was defined on a "flow" basis using the number of terminated JVs and that of surviving JVs. The ratio of these two numbers was defined as the termination rate in this study.

Survival of the JVs was measured using the number of JVs which had dissolved or had been acquired during the period of 1986 - 1991. The samples were collected from *Kaigai Shinshutsu Kigyou Souran* (Toyo Keizai, 1986, 1987, 1988, 1989, 1990, 1991, and 1992). The Toyo Keizai database listed the foreign investments that appeared in the database but then disappeared subsequently. The JVs which disappeared in the database between 1986 and 1991 are considered part of the terminated sample, and those which newly appeared are considered part of the new formation sample.

In collecting the data, it should be noted that there is some possibility that JVs disappeared from the database because they simply stopped responding to the survey. To avoid including these data, we checked the annual report of the parents that had indicated that their subsidiary had been closed.

Local Ownership Policy

Host government's local ownership policy is measured in terms of the extent to which foreign ownership is either prohibited or restricted. Judgement of whether a given host country adopts an open or a restrictive local ownership policy is quite complex. First, local ownership policy differs among countries. Some countries, such as Thailand and Indonesia, use a general ownership criterion which is applied to all foreign investments. Another group of countries, such as Taiwan, use either industry- or project-based restrictions. Yet other countries, such as South Korea, Malaysia and Philippines, use a combination of both.

Second, host governments often use differential local ownership policies toward foreign firms. In many cases, host governments impose various ownership restrictions on foreign firms based on type of business, size of equity capital, level of technology, level of outward exports, content of raw materials, age of the subsidiaries, and so forth. Therefore, it is likely that subsidiaries owned by the same foreign firm have different ownership restrictions even though they operate

in the same host country.

Third, some host governments impose no restrictive local ownership policy on foreign firms, but impose a strict pre-investment screening process. China, for example, changed the law and removed local ownership restrictions in 1988. However, establishment of a wholly-owned subsidiary by a foreign firm must first be approved by the Chinese State Administration for Industry and Commerce.

In this study, we measured the degree of openness of local ownership policy for each country using the data from the Benchmark Surveys conducted by the U.S. Department of Commerce in 1982. The data include the fraction of the number of respondents that felt a country was restrictive, using responses of over 17,213 U.S. affiliates in 1982 (Contractor 1990a). The data are the most recent years available from the survey (Contractor 1990a; Shane 1994). Table 7.6 provides the summary of the survey data and brief overview of local ownership policy by country.

The same survey data have been used as a proxy for local ownership restriction in previous studies (e.g., Contractor 1990a; Gomes-Casseres 1990; Shane 1994). Two of the distinctive characteristics of using these data are as follows: first, the data were obtained from a large sample survey (17,213 U.S. affiliates); and second, the data are coded as a continuous measure which makes it easier to compare local ownership policies on a country-by-country basis.

Table 7.6 Summary of Host Government's Local Ownership Policy by Country

Country	The degree of ownership restriction (Benchmark Survey Data as of 1982)1	Summary of Local Ownership Policy (as of 1992)2
Hong Kong	0.01	No distinction between local and foreign firms.
Taiwan	0.08	There is no restriction on the percentage of foreign ownership for most manufacturing companies. Foreign ownership is prohibited or restricted in some government controlling industries (e.g., armaments/munitions, tobacco and wine, public utilities) Foreign Investment Approved (FIA) status is required to invest in certain industries However, the FIA is not a legal requirement, and foreign firms are technically able to invest in domestic companies.
South Korea	0.28	Foreign ownership must be less than 50%. Foreign ownership is prohibited or restricted in state monopoly industries (tobacco and ginseng) and other business areas including public utilities and services as well as other government-related activities, high energy consumption businesses, certain developing industries, and others
Singapore	0.00	No distinction between local and foreign firms
Malaysia	0.18	The level of foreign ownership will be all determined by the Malaysian Industrial Development Authority (MIDA). Foreign ownership of up to 100% will be allowed depending upon factors such as level of exports, level of technology, content of raw materials, types of industry, share holders' value, employment structure
Indonesia	0 19	Typically, local ownership is 20% or more, but in many cases, it may be 5% either when projects require large capital, when they contribute significantly to export, or when they are located in remote areas. Local partners are generally supported to attain majority ownership over a 15 to 20 year period.
Thailand	0 10	Local ownership must be 51% or more A few majority-owned foreign investments in certain industries are allowed if the activities cannot be competently carried on by an entity whose majority is Thai.
Philippines	0.14	Foreign ownership of certain service industries such as retail trade, rural banks, and mass media is prohibited or restricted; foreign ownership of manufacturing sectors is basically open but needs to get the approval of the Board of Investments when it exceeds 40%. Foreign ownership of up to 100% will be allowed depending upon level of exports.
China (P.R.C.)	n a.	Foreign firms have been allowed to establish wholly-owned subsidiaries However, establishment of a wholly-owned subsidiary must be permitted by the State Administration for Industry and Commerce.

[1] Source: The number in the column represents the "RATIO 1" in *The Benchmark Surveys* of the U.S. Department of Commerce (1982).

[2] Source: Price Waterhouse. 1990. *Corporate taxes, individual taxes, foreign exchange investment regulations: An Asia pacific region summary*; and The Economist. 1988. *Business Traveller's Guides: South-east Asia*.

Some weaknesses of using this measure should be noted. First, the survey data involve the subjective assessments on local ownership policy from American managers' point of view. Japanese managers might assess it differently.

Second, the survey data do not include the assessment of local ownership policy in China, P.R.C. China represents 9.7% of the total number of JVs in our sample. By using the survey data, these data must be classified as missing.

Finally, and most importantly, the survey data only represent a particular political environment as of 1982. As previous studies suggested, many countries (particularly less developed countries) have changed, usually liberalized, their local ownership restrictions over time (Business International 1981; Contractor 1990a; and European Round Table of Industrialists 1994). The survey data cannot capture such changes in local ownership policies.[11]

7.1.4 Classification Results

Based on the classification schema discussed in Chapter 4, the JVs in our sample were classified into one of the four JV ownership structures: Intrafirm JVs, Cross-

[11]As will be shown in Chapter 8, the average age of the JVs in our sample was 10.3 years as of 1991 (standard deviation = 8.1 years). In other words, the JVs in our sample were, on average, formed early in the 1980s, thus their political environment might be closely characterized by that of 1982.

national DJVs, Traditional IJVs, and Trinational IJVs. In a total of 1,688 cases, 242 cases were classified as Intrafirm JVs, 179 cases as Cross-national DJVs, 1,215 cases as Traditional IJVs, and 49 cases as Trinational IJVs. Three cases were classified into none of the four groups due to incomplete ownership information.

Table 7.7 provides the summary of the classification results. Both the Intrafirm JVs and the Cross-national DJVs hold a higher home-country based (Japanese) Nationality Ratio (94.3% and 95.2%, respectively). The other JVs - Traditional IJVs and Trinational IJVs - hold less than 80% of the home-country based Nationality Ratio (47.8% and 45.5%, respectively).

Each type of JV ownership structures is characterized by one of the two Nationality Ratios (host- and third-country based), the Affiliation Ratio, and the Unaffiliation Ratio. As indicated in the shaded diagonal cells in Table 7.7, Intrafirm JVs hold the highest Affiliation Ratio (90.6%); Cross-national DJVs the highest Unaffiliation Ratio (37.2%); Traditional IJVs the highest host-country based Nationality Ratio (51.9%); and Trinational IJVs the highest third-country based Nationality Ratio (51.7%). The statistical analyses (Scheffe's test at the $p=0.05$ level) suggest that each of the above Ratios significantly corresponded to a particular JV ownership structure.

The overall fit between the sample and the classification schema was tested using discriminant analysis. The result suggests that 93.6% of the grouped JV cases

were correctly classified based on the Nationality and the Affiliation (Unaffiliation) Ratios.

Table 7.7 Summary of Classification Results (in %)

JV ownership structure (N = 1,685)[1]		Nationality Ratio (Home)			Nationality Ratio (Host)	Nationality Ratio (3rd)
		Total AR + UAR	Affiliation Ratio (AR)	Unaffiliation Ratio (UAR)		
1. Intrafirm JV (N = 242)	mean	94.3	90.6	3.7	5.3	0.3
	(std dev)	(7.3)	(7.7)	(6.4)	(7.3)	(1.9)
	range	80.0-100.0	80.0-100.0	0.0-20.0	0.0-20.0	0.0-20.0
2. Cross-national DJV (N = 179)	mean	95.2	58.0	37.2	4.8	0.0
	(std dev)	(7.1)	(11.9)	(14.0)	(7.8)	(0.1)
	range	80.0-100.0	20.0-79.0	3.30-80.0	0.0-50.0	0.0-2.0
3. Traditional IJV (N = 1,215)	mean	47.8	42.6	5.2	51.9	0.3
	(std dev)	(14.3)	(14.5)	(8.8)	(14.1)	(3.1)
	range	5.0-79.0	5.0-79.0	0.0-49.0	21.0-95.0	0.0-45.0
4. Trinational IJV (N = 49)	mean	45.5	39.4	6.1	2.8	51.7
	(std dev)	(17.9)	(17.3)	(10.4)	(8.0)	(16.8)
	range	10.0-75.0	10.0-75.0	0.0-33.4	0.0-35.0	25.0-90.0
Scheffe's test (at p = .05 level)		1 > 3,4 2 > 3,4	1 > 2,3,4 2 > 3,4	2 > 1,3,4	3 > 1,2,4	4 > 1,2,3

Percent of grouped cases correctly classified: 93.6% (Wilks' Lambda = 0.262, p = 0.0000)

[1] Of the total 1,688 cases. 3 cases were classified as "missing cases."

7.1.5 Data Analysis

Data analysis consists of two stages: (1) An overview of the data; and (2) An

empirical analysis of the relationships between JV ownership structure and performance.

Overview of the Data

This section provides an overview of the distribution of JV ownership structure by country, industry, and JV attributes.

Table 7.8 Study Focus: Distribution of JV Ownership Structure by Country, Industry, and JV Attributes

	Study focus
Country	Nine Asian countries (South Korea, Taiwan, Singapore, Hong Kong, China, Philippines, Indonesia, Malaysia, Thailand)
Industry	Manufacturing section (2-digit SIC code)
JV attributes	(1) the size of equity capital (2) the number of total employees (3) the number of Japanese expatriates (4) the years of parent firms' past operational experience in a host country (5) average JV age

Distribution of JV ownership structure is compared along three measures: country (South Korea, Taiwan, Singapore, Hong Kong, China, Philippines, Indonesia, Malaysia, Thailand); industry (2-digit SIC code in the manufacturing industries); and organizational attributes (i.e., the size of equity capital, the number of total employees and Japanese expatriates, the years of parent firms' past operational

experience in a host country, and the average JV age). Table 7.8 summarizes the study focus of this section.

Empirical Study: JV Ownership Structure and Performance

The primary purpose of the empirical study is to examine the relationship between JV ownership structure and performance. We used two measures of JV performance: (1) managers' categorical assessment of financial performance; and (2) survival rate. Host governments' local ownership policy was used as a control variable. The data analysis on ownership structure-performance relationship was conducted through the use of two separate statistical tests: a.) JV ownership structure and financial performance, and b.) JV ownership structure and survival rate. Then, the results of these tests were compared between countries with restrictive local ownership policy and those with open local ownership policy.

Financial Performance and JV Ownership Structure

The analysis uses univariate Analysis of Variance (ANOVA) and Analysis of Covariance (ANCOVA). ANOVA was used to examine the group differences (i.e., JV ownership structure category) on each of the dependent variables (i.e., financial performance); and ANCOVA was used to examine the impact of covariates (e.g., JV age, or a parent firm's years of operation in the host country) on the dependent variable. Then, Scheffe's multiple-comparison test was used to

assess performance differences across the four JV ownership structure groups. The Scheffe's technique conducts multiple-comparison of dependent variables across the groups. It provides post hoc results of a series of paired t-tests and was used in this study to examine the association between a particular JV ownership structure and financial performance.

Survival and JV Ownership Structure

The relationship between survival and JV ownership structure is examined using the Chi-square test. A dummy variable measures JV survival: "0" for those which were terminated during the period of 1985 - 1991; and "1" for those that survived until the end of 1991. The Chi-square test will be used to examine whether JVs' survival was independent of the ownership structure.

Effect of Host Government's Local Ownership Policy

To examine whether host governments' local ownership policy influences the relationship between JV ownership structure and performance, the above two tests are conducted separately for both JVs operating in open countries and those operating in restrictive countries. If the results differ between these two groups, it can be considered that local ownership policy has some impact on the relationship.

7.2 Study 2: Comparative Case-based Study

The second study is a comparative case-based study. The case-based study involves in-depth interviews with JV managers. The primary purpose of the large sample study was to investigate the general relationship between JV ownership structure and performance. The large sample survey, however, cannot answer the following three questions.

1. Why was a particular JV ownership structure chosen?
2. Why do JVs with the same ownership structure perform differently?
3. Why does the same firm possess two or more JVs operating in the same industry and country but with different o nership structures?

The comparative case-based study investigates the above three questions. Case-based research was selected for two reasons. First, few studies have successfully explained the relationship between JV ownership structure and performance. Therefore, the research approach should be exploratory rather than theory confirmatory in nature. We use case-based research because, as a methodology, it is more appropriate for building knowledge and understanding a phenomenon, particularly when "how" or "why" questions are posed (Yin 1984).

Second, the resource allocation process among JV partners is a complex phenomenon. As discussed earlier, JV resources are unobservable due to the complex causal relationships that exist between the process of partner

complementing each other's resources and the competitive advantage provided to the JV. Given the "messy" nature of this phenomenon, case-based research will provide a more effective approach to extracting the essential factors influencing the JV success compared to the "traditional-deductive" methodological approaches (Hamel 1991; Parkhe 1993).

7.2.1 Research Design

The proposed case-based study is based on in-depth interviews with managers of three Japanese parent firms. Respondents are those who are, or used to be, senior managers in the JVs. The purpose of the interviews is to understand in detail the processes and mechanisms through which partners' resources are complemented and coordinated, and how this influences JV performance. To this end, the interviews are conducted under the following two research treatments (or, control settings).

Treatment 1 *Japanese parent firms that possess two or more JVs operating in the same industry/country with the same ownership structure but performing differently.*

Treatment 2 *Japanese parent firms that possess two or more JVs operating in the same industry/country with different ownership structures and performing similarly.*

The above treatments are set up to examine the relationship between JV ownership structure and performance. Both treatments control for possible firm,

industry, and country effects on the performance. Treatment 1 is used to investigate why JVs with the same ownership structure have different impacts on performance. Treatment 2 is used to examine the firm's motivation for choosing a particular JV ownership structure. The primary goal in examining the cases in treatment 2 is to explain why the same firm chooses different JV ownership structures. Both treatments will jointly be used to examine whether choices of JV ownership structure are a direct cause of JV performance.

7.2.2 Sample Selection and Interview Process

The sample firms have been selected from Toyo Keizai database (*Kaigai Shinshutsu Kigyou Souran*). Within this database, we selected cases that met the conditions of the three treatments. Following this approach, we identified two appropriate cases to study: S-Electric Industries (S-Electric) and M-Automotive Industries (M-Auto). Both firms were selected for three reasons. First, both firms provide complete JV ownership structure coverage (all four of the JV ownership structures). Second, they provide the highest number of JVs with performance information (S-Electric has performance information for 10 out of 14 cases; and M-Auto has all 8 cases with performance information). Third, the performance of the JVs significantly differs across ownership structures. Tables 7.9 and 7.10 list the manufacturing JVs of S-Electric and M-Auto in Asia.

Access to Respondents for Interviews

Generally, Japanese firms tend to be quite reluctant to be interviewed, particularly when an interviewer is non-Japanese with no link to the company.

Table 7.9 Manufacturing JVs of S-Electric Industries in Asia

JV	JV Ownership Structure	Ownership (%)	Foundation (year/month)	Location	Performance
1	Traditional IJV	31.5	70 3	Korea	gain
2	Traditional IJV	49.0	87.3	Korea	loss
3	Traditional IJV	65.0	87.10	Taiwan	loss
4	Traditional IJV	60.0	88.1	Taiwan	gain
5	Traditional IJV	5.0	89.2	Thailand	n.a
6	Trinational IJV	20 0	69.12	Thailand	gain
7	Traditional IJV	25.5	69.2	Thailand	breakeven
8	Intrafirm JV	35.0	83.12	Thailand	gain
9	Traditional IJV	12.5	88 8	Thailand	breakeven
10	Intrafirm JV	95.0	74 4	Singapore	gain
11	Intrafirm JV	64 0	90 6	Singapore	n a.
12	Intrafirm JV	80.0	88.9	Malaysia	loss
13	Traditional IJV	40.0	90 5	Malaysia	n a.
14	Intrafirm JV	75 0	90.12	Indonesia	n a.

The more successful approach taken here was to contact a person who has a strong personal connection with senior managers in each firm. To implement this strategy, we accessed the Keio University Alumni Association. Keio University is well known for its strong alumni association in the Japanese business world, and most large Japanese companies have formally, or informally, a Keio alumni association of their own. Approaching executives through the university's alumni organization was more effective than contacting firms directly in Japan.

Table 7.10 Manufacturing JVs of M-Automotive Industries in Asia

JV	JV Ownership Structure	Ownership (%)	Foundation (year/month)	Location	Performance
1	Traditional	6.32	82.4	Korea	gain
2	Traditional	17.31	86.6	Taiwan	n.a.
3	Traditional	48.0	87.1	Thailand	breakeven
4	Traditional	46.7	64.10	Thailand	Terminated (87.1)
5	Traditional	40.0	73.12	Thailand	Terminated (87.1)
6	Traditional	13.0	83.5	Malaysia	n.a.
7	Cross-national DJV	50.0	87.2	Philippines	gain
8	Traditional	5.7	74.6	Philippines	breakeven
9	Traditional	49.16	75.1	Indonesia	n.a.
10	Intrafirm JV	40.0	85.1	Indonesia	Terminated (88.1)
11	Trinational IJV	25 0	90.1	Vietnam	n.a.

We first contacted professor Tsuneo Yahagi of the Graduate School of Business Administration, Keio University. A prominent Business Policy scholar and consultant in Japan, Prof. Yahagi has a large network of contacts in the Japanese business world. He was the author's MBA thesis supervisor in 1989.

We asked him to help us to access the informants who satisfied at least one of three conditions:

1.) Informants should be involved in the planning stages of JV formation,

2.) Informants should be involved in the operation and strategic management of the joint venture, or

3.) Informants should be familiar with the reasons for the joint venture's formation.

The interview informants were selected with full support from Prof. Yahagi. He

contacted executives at both companies. They agreed to prepare the list of senior and middle managers (interview informants) who could help with the case studies (face-to-face interviews). Through this process, we were able to make an interview appointment with one senior- and one middle-manager from each company.

Interview Process

We first contacted the senior managers who are, or used to be, involved in the planning stage of JV formation in Asia to determine the firm's general foreign direct investment policy. Most senior managers we contacted were managers involved in the International Planning Department at headquarters. Specifically, we addressed the following questions:

1.) Why was a JV preferred over other foreign entry modes?

2.) What were the criteria for selecting JV partners?

3.) Why and when did the firm choose different JV ownership structures?

4.) What was the intended future goal of the JV ownership structure; maintain, acquire, or dissolve?

Second, we interviewed middle managers who were involved in the JV operations. The questions asked were pertinent to the ongoing relationship between the JV partners. Unlike the first set of interviews, this stage involves "front-line" JV management. These managers had direct experience of managing the JV. The

questions asked of these respondents included:

1.) What are the difficulties of managing the partner relationship?

2.) What was done in terms of partnership relations pertinent to maintaining or improving JV performance?

3.) What have you gained, and what have you contributed to the other partner(s) in the JV?

4.) When is the pressure for termination of a JV greatest and why?

These questions were asked in an unstructured setting. All interviews were taped and documented with the permission of the respondents.

CHAPTER 8

LARGE SAMPLE STUDY:

JV CHARACTERISTICS

This chapter summarizes the results of the statistical analysis using the Toyo Keizai database. The purpose of this chapter is to provide an overview of JV investment in Asia. Various characteristics of JV ownership structure and the ownership pattern (Nationality Ratio and Affiliated Ratio) were compared and contrasted at the firm-, industry-, and country-levels.

8.1 JV Ownership Structure Characteristics

JV ownership structure was classified into four distinct types using the classification scheme discussed in Chapter 4. Each type of JV ownership structure has distinct characteristics in terms of organizational characteristic, formation/termination pattern, demographic distribution by industry and/or country. The following sections will discuss each of these JV characteristics.

8.1.1 Organizational Characteristics and Ownership Structure of the JVs

The structural characteristics in our sample are outlined in Table 8.1. 72.1% of the JVs were Traditional IJVs. This is the type of JV assumed by the vast majority of JV researchers. The next most frequently observed types were Intrafirm JVs (14.4%) and Cross-national DJV (10.6%). Trinational IJVs accounted for only a small proportion of our sample (2.9%). The fact that nearly thirty percent of all Japanese JVs are not the traditionally assumed type has implications for JV research.

JV Size

JV size is defined in terms of the number of total employees and the amount of equity capital. In our sample, the average number of total employees was relatively large in Intrafirm JVs. Conversely, Unaffiliated JVs (Cross-national DJVs, Traditional IJVs, and Trinational IJVs) had relatively few employees. The statistical analysis (Scheffe's multiple comparison test with significance level .05) showed that the average number of total employees in Intrafirm JVs was significantly higher than in any of the other three Unaffiliated JV types.

The average equity capital for each of the four types was US$ 2.9 million (Cross-national DJVs), US$3.3 million (Trinational IJVs), US$ 4.4 million (Traditional IJVs), and US$ 5.9 million (Intrafirm JVs). The statistical analysis (Scheffe's test at the

.05 significance level) showed that the average equity capital of both Intrafirm JVs and Cross-national DJVs was significantly larger than Traditional IJVs and Trinational IJVs. This result suggests that the JV size is generally larger when the JV is formed between Japanese firms.

Investment Type

JV ownership structure was also related to investment type. JV investment is classified into two major types: capital-intensive and labour-intensive. Investment type is considered capital-intensive when the average equity capital per employee is higher than average and labour-intensive when it is lower than average. Table 8.1 (Row-D) shows that the average equity capital per employee was highest in Trinational IJVs (US$36,500), followed by Intrafirm JVs (US$24,200), Cross-national DJVs (US$18,500) and Traditional IJVs (US$14,900). Scheffe's test showed that the average equity capital per employee was significantly different between each of the four types. This suggests that Japanese firms tend to form Traditional JVs when involved in labour intensive industries, Trinational JVs and Intrafirm JVs when involved in capital intensive industries; and Cross-national DJVs when involved in moderately labour- (or capital-) intensive industries.

Japanese Expatriates

The 1,685 JVs in the study employed a total of 3,458 Japanese expatriates out of a total of 225,347 employees. The number of Japanese expatriates was highest

when JVs were formed by Japanese firms such as Intrafirm JVs (4.2) and Cross-national DJVs (3.6); and lower in those formed by non-Japanese firms such as Traditional IJVs (2.5) and Trinational IJVs (1.5). Scheffe's test showed that Intrafirm JVs had the highest number of Japanese expatriates, and both of the JVs formed by Japanese firms (Intrafirm JVs and Cross-national DJVs) had a significantly higher number of Japanese expatriates than those formed by non-Japanese firms in Traditional IJVs and Trinational IJVs.

The Japanese expatriate ratio (the number of Japanese expatriates relative to total employees) was similarly higher in JVs formed by Japanese firms: Intrafirm JVs (3.3%) and Cross-national DJVs (3.4%); and lower in Traditional IJVs (1.7%) and Trinational IJVs (2.5%). Scheffe's test revealed that Intrafirm JVs and Cross-national DJVs had a statistically significant higher ($p < .05$) Japanese expatriate ratio than the non-Japanese JVs (Traditional IJV and Trinational IJV). These results clearly suggest that both the absolute and relative number of Japanese expatriates are significar tly related to the extent to which a JV is formed by Japanese firms.

Parent Firm Past Local Experience

A parent firm's past local experience was measured by the year of JV foundation minus the year of the parent firm's first FDI entry (including wholly-owned subsidiaries) in a host country. Consistent with our hypothesis, the number of years of past operation in a host country was highest for an Intrafirm JV when

using either all the sample or the sample that excluded first entries (i.e., years of past experience equal to 0). This implies that, in their subsequent investments, parent firms with more years of operating experience in a host country tend to form an Intrafirm JV over the other types of JV ownership structure. In contrast, the choice of Traditional IJVs does not necessarily correspond to the lack of parent firms' past operational experience in the host country. For example, Table 8.1 shows that when using the whole sample, the average years of parent firms' local experience for Traditional IJVs was 1.6-years, which is longer than that for Trinational IJVs; and, when using the sample excluding first entries, the average years of parents' past local experience was 9.0-years, which is longer than that for Cross-national DJVs. This evidence implies that firms chose Traditional IJVs irrespective of their previous years of experience in a host country. It should be noted, however, that Scheffe's test at a significance $p=0.05$ level did not detect a significant difference in the years of past experience between Intrafirm JVs and any of the other ownership structures. Thus, the overall evidence suggests that the choice of JV ownership structure may be related to the parent firm's past operational experience in a host country (in particular in choosing Intrafirm JVs over the other JV structure forms), yet only marginally so.

JV Age

The average age of the JVs was higher in Intrafirm JVs (10.5 years old) and Traditional IJVs (10.9 years old) and smallest in Trinational IJVs (7.3 years old).

Table 8.1 JV Characteristics and Ownership Structure

	JV Ownership Structure[1,2]				Row total
	Intrafirm JV	Cross-national DJV	Traditional IJV	Trinational IJV	
(A) Total Number of Employees	363 (496)	239 (292)	275 (402)	122 (84)	281 (404)
(B) Total Number of Japanese expatriates	4.2 (3.7)	3.6 (3.4)	2.5 (3.3)	1.5 (1.6)	2.8 (3.4)
(C) Japanese expatriates ratio (%): (B)/(A)	3.3 (3.3)	3.4 (4.1)	2.3 (4.0)	1.7 (2.6)	2.5 (2.9)
(D) Average equity capital (US$mil.)	5.9 (6.3)	2.9 (3.5)	4.4 (10.8)	3.3 (3.5)	4.4 (9.7)
(E) Average equity capital per employee (US$1,000)	24.2 (25.3)	18.5 (18.3)	14.9 (14.8)	36.5 (45.9)	17.8 (19.7)
(F) Years of parent firms' past local experience					
i.) all sample	2.5 (5.6)	1.7 (4.6)	1.6 (4.8)	1.1 (3.9)	1.7 (4.9)
ii.) sample excluding first entries	9.9 (7.0)	8.1 (6.8)	9.0 (7.9)	9.1 (7.9)	9.1 (7.6)
(G) Average age[3]	10.5 (7.7)	9.5 (8.2)	11.0 (8.2)	7.3 (6.8)	10.3 (8.1)
Total cases (%)	242 (14.4%)	179 (10.6%)	1,215 (72.1%)	49 (2.9%)	1,685 (100.0%)

[1] Figures in brackets, except in the "row total" row, are standard deviations. Most measurements (approximately 95% if the distribution is mound-shaped) will be within 2 standard deviations of the mean. And, regardless of the shape of the distribution, almost all of the measurements will fall within 3 standard deviations of the mean. For example, the average number of employees for Intrafirm JV was 363 with a standard deviation of 496. This means approximately 95% of the value will be within 912 (496 x 2), and almost all the values will be less than 1,488 (496 x 3).

[2] Each category in each of the columns has missing cases due to incomplete information in the database and elimination of the extreme cases. We defined extreme cases following the SPSS Boxplot procedure (SPSS Inc. 1993. SPSS for Windows: Base System User's Guide). The Boxplot procedure plots the box corresponding to the interquartile range, which is the difference between the 25th and 75th percentiles of the total observation. In the procedure, cases with values that are more than 3 box-lengths from the upper or lower edge of the box are defined as "extreme values". The total missing cases per total cases for each category ranges between 1.4% ("average age") and 24.7% ("average equity capital per employee").

[3] Average age was calculated by the formula: 1992 minus the year of JV foundation.

This suggests that historically, Intrafirm JV and Traditional IJV structures have been preferred by Japanese firms in Asia. Trinational IJVs are a relatively new form of JV ownership structure.

8.1.2 Formation and Termination of JVs

Table 8.2a illustrates both the number of JVs which were terminated and those which were newly formed. The table indicates that more than forty percent of the existing JVs (737 cases) were formed within the past five years. This may be due partly to the rapid appreciation of the Japanese Yen relative to the U.S. dollar after the Plaza Accord in 1985. The appreciation of the Yen discouraged exporting from Japan and encouraged Japanese firms to engage in foreign direct investment.

Table 8.2a Formation and Termination of the JVs by JV Age

	JV Age[1]					
	1 - 5	6 - 10	11 - 15	16 - 20	> 21	Average age
(A) Total Termination (N=127)	10	31	55	22	9	11.9
(B) Total Formation (N=1,688)	737	194	173	320	264	10.3
(A) / (B) (%)	1.4	16.0	31.8	6.9	3.4	

[1] JV age for (B) was calculated by the formula: 1992 minus the year of JV foundation; and JV age for (A) represents years of duration.

Most terminated JVs in our sample were more than ten years old, with most terminations occurring between the JV ages of 11 and 15 years. This finding suggests that the JVs formed by Japanese firms in Asia were relatively stable, particularly when compared with previous studies of international JVs of U.S. multinational companies. For example, while Kogut (1989) reported that more than half of the JVs in his sample were terminated during the first five years of operation, our sample shows that only 1.4% of the JVs were terminated within the first five years. As Table 8.2a suggests, more than 67% of our terminated sample (86 cases) survived longer than ten years. This implies that the JVs formed by Japanese companies tended to have a longer duration than those formed by American firms.

The relationship between JV termination and JV age (years of duration) was statistically examined using the Kolmogorov-Smirnov test and discriminant analysis. In the results, the *null hypothesis* that the frequency of JV termination is normally distributed by JV age was not rejected (K-S $Z=0.787$, $p=0.564$). This suggests that the association between the number of terminations and JV age is a clear bell-shaped curve (with a mean age of 11.9 years and a standard deviation of 4.89 years). Strikingly, the discriminant analysis suggested that JV age alone correctly classified 97.9% of our sample into the dichotomous categories of terminated and surviving JVs (Wilks' Lambda $=0.401$, $p=0.0000$). This evidence suggests that JV age is strongly associated with JV survival.

Table 8.2b provides a comparison of the number of JVs which were terminated and those JVs which were newly formed, by the number of years of parent firms' past local experience in a given country. A few interesting points emerge from the analysis in Table 8.2b. First, all terminations occurred when parent firms had less than ten years of past operational experience in a host country at the time in which their subsequent JV formation occurred. Second, most of the JVs which were newly formed (1,263 out of 1,688) and most of the JVs which were terminated (110 out of 127) were the first entries (the number of years of parent experience equal to 0).

Table 8.2b Formation and Termination of the JVs by Parent Firm Experience

	Years of parent's local experience[1]				Average years of parent local experience	
	0	1 - 5	6 - 10	> 11	All sample	Sample excluding first entries
(A) Total Termination (N = 127)	110	13	4	0	0.5	4.2
(B) Total Formation (N = 1,688)	1,263	138	45	242	1.8	9.4
(A) / (B) (%)	8.0	8.6	8.2	0		

[1] Years of parent firms' past local experience was calculated by the formula: the year of a JV foundation minus the year of the parent firm's first manufacturing FDI entry (including wholly-owned subsidiaries).

Third, when parent firms have relatively short past operational experience in a host

country, the JVs are more likely to be terminated. Table 8.2b shows that the average years of parent firms' past local experience for the terminated JVs was shorter than that for the surviving JVs. The result of the t-test suggests that the difference in the average years of parent firms' experience between the terminated JVs and surviving JVs was statistically significant ($t=5.73$, $p=0.000$, when the whole-sample was examined; and $t=5.52$, $p=0.000$, when the sample excluding the first-entry JVs was used). Overall, the evidence suggests that years of parent firms' past local experience is positively associated with JV survival.

8.1.3 JV Ownership Structure by Industry

Table 8.3 shows the number of cases for each JV type by industry. The JVs were fairly dispersed in terms of industry concentration. Approximately fifty percent of the JVs were engaged in process and engineering industries such as electronics, chemicals, transportation, and machinery. Preferred JV ownership structure can be compared by industry. More than 90% of the JVs were formed as either Traditional IJVs or Cross-national DJVs in the Textile industry. In all industries, except Electronics, more than 60% of the JVs were Traditional IJVs, and nearly 80% of the JVs were either Traditional IJVs or Cross-national DJVs. In the Electronics industry, on the other hand, the number was evenly divided among Intrafirm JVs, Cross-national DJVs, and Traditional IJVs.

Table 8.3 JV Ownership Structure by Industry

	JV Ownership Structure				Row total
	Intrafirm JV	Cross-national DJV	Traditional IJV	Trinational IJV	
Food	14 (5.8)	16 (8.9)	99 (8.1)	4 (8.2,	133 (7.9)
Textile	2 (0.8)	20 (11.2)	60 (4.9)	1 (2.0)	83 (4.9)
Chemicals	15 (7.0)	18 (10.1)	189 (15.6)	10 (20.4)	234 (13.9)
Rubber/Plastics	13 (5.4)	11 (6.1)	76 (6.3)	2 (4.1)	102 (6.1)
Primary Metal	11 (4.5)	5 (2.8)	55 (4.5)	2 (4.1)	73 (4.3)
Fabricated Metals	22 (9.1)	22 (12.3)	89 (7.3)	9 (18.4)	142 (8.4,
Machinery	23 (9.5)	9 (5.0)	112 (9.2)	6 (12.2)	150 (8.9)
Electronics	81 (33.5)	27 (15.1)	156 (12.8)	7 (14.3)	271 (16.1)
Transportation	16 (6.6)	14 (7.8)	134 (11.0)	4 (8.2)	168 (10.0)
Others	43 (17.8)	37 (20.7)	245 (20.2)	4 (8.2)	329 (19.5)
Total	242 (100.0)	179 (100.0)	1,215 (100.0)	49 (100.0)	1,685 (100.0)

(The number in brackets represents the column %)

Intrafirm JVs were concentrated in the Electronics industries (33.3%). The other JVs were moderately concentrated in Chemicals and the Electronics industries. Besides the Chemicals and Electronics industries, Cross-national DJVs were engaged more frequently in the Textile (11.2%) and Fabricated metals (12.3%) industries; and Trinational IJVs were relatively concentrated in Fabricated metals (18.4%) and Machinery (12.2%) industries.

The above observations are generally consistent with the JV Investment Types identified in the previous section. Intrafirm JVs and Trinational IJVs are more frequently involved in capital-intensive industries such as Electronics, Chemicals, Fabricated metals, and Machinery. Cross-national DJVs are split between labour-intensive industries (Food and Textile) and capital-intensive industries (Electronics and Fabricated metals). Traditional IJVs are more dispersed across labour-intensive industries compared to the other JV types.

8.1.4 JV Ownership Structure by Country

The locations of JVs were geographically quite dispersed. In each of five countries there were more than 200 Japanese JVs. Table 8.4 provides a breakdown of the number of JVs by country. Thailand, South Korea, and Taiwan were three of the most popular countries for JV investment. More than 50% of the JVs were established in either Thailand (18.9%), South Korea (14.1%), or Taiwan (17.5%). Malaysia, Indonesia, and China (P.R.C.) were moderately popular countries for JV investment. Less than 10% of JVs in our sample were established in Hong Kong (4.0%) and Philippines (4.1%).

The most popular form of JV ownership structure across countries was Traditional IJVs. Traditional IJVs were concentrated in Taiwan (18.6%), South Korea (17.5%), Indonesia (13.0%), Thailand (19.1%), and China (12.5%). Cross-national DJVs

were relatively concentrated in Thailand (25.1%), Singapore (17.3%) and Hong Kong (12.3%); and Trinational IJVs were concentrated in both Malaysia (38.8%) and Thailand (20.4%)

Table 8.4 JV Ownership Structure by Country

Country	JV Ownership Structure				Row total
	Intrafirm JV	Cross-national DJV	Traditional IJV	Trinational IJV	
Hong Kong	15 (6.2)	22 (12.3)	27 (2.2)	3 (6.1)	67 (4.0)
Taiwan	45 (18.6)	20 (11.2)	226 (18.6)	4 (8.2)	295 (17.5)
South Korea	19 (7.9)	5 (2.8)	213 (17.5)	0 (0.0)	237 (14.1)
Singapore	43 (17.8)	31 (17.3)	49 (4.0)	1 (2.0)	124 (7.4)
Malaysia	49 (20.2)	19 (10.6)	116 (9.5)	19 (38.8)	203 (12.0)
Indonesia	19 (7.9)	20 (11.2)	158 (13.0)	6 (12.2)	203 (12.0)
Thailand	37 (15.3)	45 (25.1)	232 (19.1)	10 (20.4)	324 (19.2)
Philippines	10 (4.1)	13 (7.3)	42 (3.5)	4 (8.2)	69 (4.1)
China (P.R.C.)	5 (2.1)	4 (2.2)	152 (12.5)	2 (4.1)	163 (9.7)
Total	242 (100.0)	179 (100.0)	1,215 (100.0)	49 (100.0)	1,685 (100.0)

(The number in brackets represents the column %)

Table 8.4 implies that the choice of JV ownership structure is strongly influenced by the host government's local ownership policy. In the "open" countries which imposed no local ownership policy, such as Hong Kong and Singapore, more than

sixty percent of the JVs were Intrafirm JVs and Cross-national DJVs. Traditional IJVs represented less than 40% of the JVs in total. Traditional IJVs were generally concentrated in the "restrictive" (as of 1991) countries such as Taiwan, South Korea, Indonesia, Thailand, and China.

8.2 Characteristics of Ownership Pattern

Ownership pattern was defined in this study based on both the Nationality Ratio and the Affiliation (Unaffiliation) Ratio discussed in Chapter 4. The Nationality Ratio was measured by equity ownership of home-, host-, and third-country based JV partners respectively. The Affiliation (Unaffiliation) Ratio was measured by the sum of the equity ownership of the Japanese parent firms which are mutually affiliated (or unaffiliated). Note the home-country based Nationality Ratio will, by definition, represent the sum of the Affiliation Ratio (affiliated Japanese ownership) and the Unaffiliation Ratio (unaffiliated Japanese ownership). In this section, these ratios are compared in terms of various organizational characteristics such as the size of investment, Japanese expatriate rate, and the age of the JV.

8.2.1 Organizational Characteristics and Ownership Pattern

In terms of JV partners, Japanese parent firms held the largest share in JV ownership (59.4%). This was followed by unaffiliated host-country based partners

(38.8%), and third-country based partners (1.8%). Table 8.5 reports the correlation between equity ownership and attributes of the JVs, such as size (the number of total employees and the equity capital), the Japanese expatriate rate, the number of employees per equity capital, and the years of parent firm's past local experience, the average age of the JV.

Table 8.5 Equity Ownership and Organizational Attributes: Correlation Analysis[1]

	Equity capital	Number of total employees	Japanese expatriate rate	Equity capital per employee	Parent firms' past local experience	Average JV age
Japanese partners	021	021	316***	084***	- 026	- 114***
- (a) affiliated partners (Affiliation Ratio)	063***	024	271***	099***	- 026	- 053**
- (b) unaffiliated partners (Unaffiliation Ratio)	- 031	- 046*	067	- 031	- 005	-.125***
Host-country based partners	- 027	- 002	- 297***	- 141***	019	140***
3rd-country based partners	025	- 045*	- 042	160***	- 006	- 068***

Significance level: *** $p<0.01$; ** $p<0.05$; * $p<0.1$

Each category in each of the columns has missing cases due to incomplete information in the database and elimination of the obviously extreme cases. We defined extreme cases following the SPSS Boxplot procedure (SPSS Inc. 1993 SPSS for Windows, Base System User's Guide). The Boxplot procedure plots the box corresponding to the interquartile range, which is the difference between the 25th and 75th percentiles of the total observation. In the procedure, cases with values that are more than 3 box-lengths from the upper or lower edge of the box are defined as "extreme values". The total missing cases per total cases for each category ranges between 1.4% ("average age") and 24.7% ("average equity capital per employee").

JV Size

Table 8.5 shows that JVs with a higher Affiliation Ratio tended to be formed when

the size of equity capital was relatively large, but a clear association between the Nationality Ratio and equity capital was not detected. The number of total employees was negatively but only marginally significantly associated with the ownership of both the unaffiliated Japanese and third-country based partners. The other ownership ratios were not significantly associated with the number of total employees.

Investment Type

While the size of JV (i.e., equity capital and the number of total employees) was not clearly associated with JV ownership, the average equity capital per employee was significantly associated with each of the ownership ratios. The average equity capital per employee was significantly associated with the Nationality Ratio - positively associated with ownership of Japanese partners and the third-country based partners and negatively associated with that of host-country based partners. It was also positively associated with the Affiliation Ratio. This implies that when Japanese firms make capital intensive investments abroad, they tend to form a JV with either Japanese firms (in particular, with affiliated Japanese firms) or with third-country based partners. On the other hand, when the Japanese firms are involved with lower capital intensive investments, they tend to form a JV with local firms.

Japanese Expatriates

The Japanese expatriate rate (the ratio of the number of Japanese expatriates

relative to the total employees) was positively related to the size of Japanese ownership and negatively associated with the ownership of the host-country based partners. This clearly suggests that a Japanese expatriate rate is closely associated with the size of equity ownership shared by Japanese partners.

Parent Firm Past Local Experience

Parent firms' years of past operational experience in a host country was not significantly associated with any of the ownership ratios. This implies that a parent firm's previous local experience is not a critical factor which influences the actual level of ownership.

JV Age

The average age of the JV was positively related to the size of the host-country based partner's ownership, and was negatively associated with that of the Japanese, the third-country based partners, and both the Affiliation and Unaffiliation Ratios. This suggests that the older the JV, the more likely the host-country based partners would hold the higher share of JV ownership.

8.2.2 Ownership Pattern by Industry

Table 8.6 provides a frequency distribution of ownership pattern by industry. Table 8.6 shows that the home-based (Japanese) partners had a higher percentage of

equity ownership in most industries. Specifically, they held relatively higher JV ownership when the JVs operated in the fabricated metals, machinery and electronics industries. In electronics, the home-country based partners had the highest share in JV ownership (67.6%) of any industry.

Table 8.6 Ownership Pattern by Industry

Industry	Nationality					Cases
	Home (Japan)			Host-country	3rd-country	
	Total (A) + (B)	(A) Affiliation Ratio (%)	(B) Unaffiliation Ratio (%)			
Food	59.3	48.8	10.5	38.9	1.8	133
Textile	59.9	42.1	17.8	39.2	0.9	83
Chemicals	53 9	46.7	7.2	42.7	3.4	234
Rubber/Plastics	59.2	49.7	9.5	40.1	0.7	102
Primary Metal	57.7	48.8	8.9	40.6	1.7	73
Fabricated Metal	60.7	50.0	10.7	35.0	4.3	142
Machinery	60.4	54.0	6.4	37.6	2.0	150
Electronics	67.6	61.1	6.5	31.2	1.2	272
Transportation	54.4	46.8	7.6	43.8	1.8	168
Others	59.0	51.1	7.9	40.4	0.6	331
Total	59.4	51.1	8.3	38.8	1.8	1,688

The equity ownership of the host-country based partners was, on average across industries, less than 40 percent. The third-country based partners tended to hold a higher equity ownership in the chemicals (3.4%) and fabricated metals (4.3%)

industries, and essentially no ownership in the textile (0.9%) and rubber/plastics (0.7%) industries. Table 8.6 shows the Affiliation Ratio (the percent equity owned by Japanese-affiliated partners) by industry. The Affiliation Ratio ranged between 42.1 and 61.1%. The affiliated Japanese partners held majority ownership in capital-intensive industries such as machinery (54.0%) and electronics (61.1%). In contrast, the Unaffiliation Ratio was, on average, less than 18%, ranging between 6.4 and 17.8%. Compared to the affiliated partners, the unaffiliated Japanese partners held relatively higher ownership in labour-intensive industries such as Textiles (17.8%), Food (10.5%), and Rubber/Plastics (9.5%). This evidence generally supports the preferred JV ownership structure by industry identified in the previous section.

8.2.3 Ownership Pattern by Country

Table 8.7 shows differences in the percent equity ownership among nations. With the exception of China (48.8%), the equity ownership of home-country based (i.e., local) partners was always more than fifty percent.

The home-country based partners (i.e., Japanese partners) had a relatively higher equity ownership in "open" countries such as Hong Kong and Singapore (75.7% and 79.0%, respectively). Host-country based partners had a relatively higher equity ownership than home-country based partners in China (49.7%). Third-

country based partners had a relatively higher share of equity ownership only in Malaysia (5.2%) and the Philippines (3.7%), and almost no share in Taiwan (0.8%), Singapore (0.4%) and South Korea (0.5%). However, here again overall figures were quite low (average 1.8%).

Table 8.7 Ownership Pattern by Country

Nation	Nationality					Cases
	Home (Japan)			Host-country	3rd-country	
	Total (A) + (B)	(A) Affiliation Ratio (%)	(B) Unaffiliation Ratio (%)			
China	48.8	44.7	4.1	49.7	1.5	163
Taiwan	58.8	53.9	4.9	40.4	0.8	296
Hong Kong	75.7	58.8	16.9	22.3	2.0	68
Thailand	59.4	48.0	11.4	38.9	1.7	324
Singapore	79.0	66.1	12.9	20.6	0.4	124
Malaysia	61.2	53.4	7.8	33.6	5.2	203
Philippines	58.0	47.2	10.8	38.3	3.7	69
Indonesia	61.4	49.1	12.3	36.8	1.8	204
South Korea	50.3	47.0	3.3	49.2	0.5	237
Total	59.4	51.1	8.3	38.8	1.8	1,688

Table 8.7 also shows that with the exception of Singapore (66.1%) and China (44.7%), the equity ownership of the affiliated partners comprised between 47 and 59% of the total. In "open" countries such as Hong Kong and Singapore, the percent equity ownership of affiliated Japanese partners (58.8% and 66.1%,

respectively) and that of unaffiliated Japanese partners (16.9% and 12.9%, respectively) was much higher than elsewhere. The equity ownership of the affiliated partners was larger in the countries where the level of economic development was relatively high. In newly industrialized countries (NICs), except South Korea, the affiliated partners tended to have a higher percentage of equity ownership than in the other countries.

CHAPTER 9

LARGE SAMPLE STUDY :
JV OWNERSHIP STRUCTURE AND PERFORMANCE

This chapter provides the results of the statistical tests of the relationship between JV ownership structure and performance. The statistical tests in this chapter include a series of tests of: (1) the relationship between JV ownership structure and financial performance, (2) the relationship between JV ownership structure and survival, (3) the effect of host government local ownership policy on the JV ownership structure and financial performance and/or survival, and (4) periodic changes in JV ownership structure and their impact on financial performance.

9.1 JV Ownership Structure and Financial Performance

The results of statistical analyses on the relationship between each type of JV ownership structure and performance are provided in Tables 9.1a and 9.1b.

Table 9.1a shows the result of ANOVA which examined whether or not financial performance significantly differed between JV ownership structures. The result

suggested that financial performance differed significantly across the JV ownership structures ($F=9.287$, $p=0.000$).[1] The standard deviations in financial performance also differed among the four JV types. Trinational IJVs had the largest variance in financial performance, Cross-national DJVs and Intrafirm JVs had a medium level of variance, and Traditional IJVs had the smallest variance in financial performance. The result of Levene's test suggested that both Trinational IJVs and Cross-national DJVs had significantly larger variance than Intrafirm JVs and Traditional IJVs at a significance level of $p<0.05$.

Table 9.1a JV Ownership Structure and Financial Performance: Result of ANOVA[1]

Dependent variable: Financial performance	(1) Intrafirm JV	(2) Cross-national DJV	(3) Traditional IJV	(4) Trinational IJV
Performance:				
Mean	2.44	2.29	2.54	1.72
(Std dev)	(.766)	(.875)	(.727)	(.894)
N	96	84	563	23
$F=9.287$ ($p=0.0000$)	Levene's test[2]: 2 > 1,3; 4 > 1,3			

[1] The performance measurement used in the analysis was based on JV performance of 1991

[2] Levene's test examines the difference in the variance of financial performance for each pair of JV ownership structures at a significance level of $p<0.05$

[1]To confirm these results, we conducted the same analysis using the dataset as of 1988. The 1988 dataset included 321 cases with performance information. The average financial performance of Intrafirm JV, Cross-national DJV, Traditional IJV, and Trinational IJV was 2.65, 2.56, 2.74, and 2.37, respectively. This result suggested that financial performance was highest in Traditional IJVs, followed by Intrafirm JVs and Cross-national DJVs, and lowest in Trinational IJVs. This order is consistent with that provided in Table 9.1a.

Table 9.1b provides the result of a multiple-comparison (independent two-sample t-test) of financial performance for each pair of four JV ownership structures. The result suggests that the Traditional IJVs had the best financial performance of all, the Intrafirm JVs had the second best, the Cross-national DJVs the third best, and the Trinational IJVs the worst financial performance. There was no statistically significant difference in financial performance between Intrafirm JVs and Cross-national DJVs at a significance p=0.10 level.

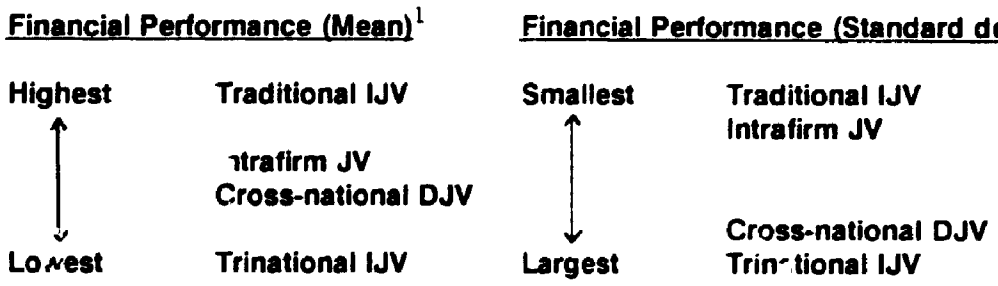
Table 9.1b Multiple Comparison of JV Financial Performance by JV Ownership Structure: Results of T-test

	(1) Intrafirm JV	(2) Cross-national DJV	(3) Traditional IJV	(4) Trinational IJV
(1) Intrafirm JV	-	-	-	-
(2) Cross-national DJV	1.22 (p=.12)	-	-	-
(3) Traditional IJV	1.25 (p=.08)	2.51 (p=.01)	-	-
(4) Trinational IJV	3.59 (p=.00)	2.52 (p=.02)	3.88 (p=.00)	-

(Figures in the table represent t-value)

These results provide strong support for our hypotheses. As expected, Traditional IJVs were the most successful JV structural form in terms of both mean financial

performance and the stability (small variance) of financial performance. Intrafirm JVs had a higher financial performance, yet the mean performance was not significantly different from that of Cross-national DJVs. Trinational IJVs attained both the lowest average financial performance and the highest instability (variance) of financial performance. Note the variance in financial performance for each JV type is in the same order as the average financial performance. This implies that Traditional IJVs, while in existence, were the most successful JVs, and Trinational IJVs were the least successful. Intrafirm JVs and Cross-national DJVs fell between these two JV types. A suggested order of both the mean and standard deviation of financial performance by JV ownership structure is shown below:



[1] Average financial performance of Intrafirm JVs is statistically indistinguishable from that of Cross-national DJVs.

[2] Average variance in financial performance of Intrafirm JVs is statistically indistinguishable from that of Cross-national DJV.

Some may argue that JV performance is associated with: (1) the parent firm's past host country experiences and (2) the JV's post-formation experiences. Table 9.2a presents the result of ANCOVA which controlled for: (1) the parent firm's years of

JV operation in a particular host country before the focal JV was formed (Parent experience) and (2) the age of the JVs (JV age). The statistical analysis used here involved two stages of analysis.[2] The first analysis examined the relationship between parent experience, JV age and financial performance. Since parent experience and JV age are both continuous measures, these variables function as covariates in the analysis. The ANCOVA, then, examines whether JV performance differs among JV ownership structures after removing the effects of covariates (i.e., Parent Experience and JV Age).

Table 9.2a JV Ownership Structure and Financial Performance with Controlling for Parent Experience and JV Age: Result of ANCOVA[12]

Dependent variable: Performance	Sum of squares	Degree of freedom	Mean squares	F-value	
Covariates					
(A) Parent experience	.89	1	.89	1.75	p=.186
(B) JV age	52.81	1	52.81	104.25	p=.000
Main Effect					
(C) JV ownership structure	10.83	3	3.61	7.12	p=.000
Explained	64.36	5	12.87	25.40	p=.000
Total	445.37	757	.59		

[1] The performance measurement used in the analysis was based on JV performance of 1991.
[2] The effects of covariates (i.e., the parent experience and the JV age) on financial performance were assessed before the main effect (i.e., JV ownership structure) on performance was assessed.

[2]This is called the "Experimental" method in the SPSS program.

As suggested in Table 9.2a, the statistical analyses showed that: (1) JV age was significantly associated with JV financial performance ($F = 104.25$; $p = .000$); yet Parent experience was not significantly related to JV financial performance ($F = 1.75$; $p = .186$). The second analysis examined whether JV financial performance would differ among the four JV forms even after removing both the parent experience and JV age effects. Row-(C) in Table 9.2a shows that financial performance still differed among JV types ($F = 7.12$; $p = .000$).

The positive association between JV age and its financial performance may be explained in two ways: First, JV age is positively associated with the termination of financially unsuccessful JVs. In other words, only financially successful JVs will survive over time. Second, JVs will improve their financial performance through posteriori organizational efforts (such as trust building between JV partners and the internal development of complementary resources). Whichever explanation may hold, it is important to note that JV financial performance was positively associated with the type of JV ownership structure initially chosen, regardless of the JV age.

An interesting observation is that the statistical analysis revealed that a JV's own experience in a host country was a more important determinant of JV financial performance than a parent firm's past host country experience. In our analysis, Parent experience had no significant impact on JV financial performance. This finding implies that local knowledge is transferred less effectively from a parent firm

than from a local partner.

Table 9.2b Multiple Comparison of JV Financial Performance by JV Ownership Structure with Controlling for Parent Experience and JV Age: Results of ANCOVA

Covariates: Parent experience and JV age	(1) Intrafirm JV	(2) Cross-national DJV	(3) Traditional IJV	(4) Trinational IJV
(1) Intrafirm JV	-	-	-	-
(2) Cross-national DJV	.754 (p=.38)	-	-	-
(3) Traditional IJV	.198 (p=.65)	3.838 (p=.11)	-	-
(4) Trinational IJV	15.236 (p=.00)	8.140 (p=.00)	19.989 (p=.00)	-

(Figures in the table represent F-value)

Table 9.2b provides the summary of the ANCOVA for each pair of the JV ownership structures with controlling for Parent experience and JV age.[3] The results suggest that the order of the financial performance between the JV ownership structures is unchanged even after removing both the parent experience and JV age effects. However, after controlling for this experience effect, the difference in financial performance between the Traditional IJVs and Intrafirm JVs ($t=0.198$, $p=0.65$), and that of the Traditional IJVs and Cross-national DJVs

[3]Since the SPSS for Windows cannot execute the Scheffe's multiple comparison test for ANCOVA, we conducted the ANCOVA (with controlling for Parent experience and JV age) for each pair of the JV ownership structures.

($t=3.838$, $p=0.11$), became less clear. Considering the fact that JV age had a significantly positive impact on JV financial performance, this implies that Traditional IJVs perform better than the other JV forms particularly at the first stage of operation. Then, as a JV operates in a host country longer, the importance of having a local partner with regard to attaining higher JV performance is reduced, and consequently, there is a lower performance difference between Traditional IJVs, Intrafirm JVs and Cross-national DJVs.

9.2 JV Ownership Structure and Survival

The result of the statistical analysis on the relationship between JV ownership structure and survival is illustrated in Table 9.3. The termination ratio was calculated by the number of JVs terminated between 1986 and 1991 divided by that of those formed between 1986 and 1991.

Table 9.3 demonstrates that the JVs which were formed only by Japanese partners (Intrafirm JVs and Cross-national DJVs) tended to survive longer than those formed by non-Japanese partners (Traditional IJVs and the Trinational IJVs) Pearson Chi-square tests suggested that the termination rates of both Intrafirm JVs (5.3%) and Cross-national DJVs (4.8%) were significantly lower than those of Traditional IJVs (15.9%) and Trinational IJVs (13.9%). There was no significant difference in termination rate between Intrafirm JVs and Cross-national DJVs, nor

between Traditional IJVs and Trinational IJVs.[4]

Our sample also shows that the overall termination ratio was 12.9% during the period 1986 - 1991. This number seems to be quite low compared with past JV research using U.S.-based firm data (see the latter five rows in Table 7.4 in Chapter 7), yet was higher than the 8.5% ratio of the overall foreign direct investment of Japanese firms in Asia during the 1981 - 1991 period (Horaguchi 1992, see Table 7.4 in Chapter 7). However, Horaguchi's study included wholly-owned subsidiaries as well as JVs. If we assume that wholly-owned subsidiaries have as low a termination rate as Intrafirm JVs, the termination rate of 5.3% for Intrafirm JVs is close to the level Horaguchi observed.

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[4]In Chapter 7, we argued that when the number of terminated cases (as a numerator) is calculated on a flow(stock)-basis, that of surviving cases (as a denominator) should also be calculated on a flow(stock)-basis. Nevertheless, we examined how the termination rate was changed when the stock-based number was used as a denominator, instead of the flow-based number, whereas the numerator was remained on a flow-basis (i.e., the number of terminated JVs between 1986 and 1991). The results suggested that: (1) when the denominator was calculated by the number of JVs which existed as of 1991, the termination rate of Intrafirm JV, Cross-national DJV, Traditional IJV, and Trinational IJV became 2.9%, 3.4%, 8.6%, and 10.2%, respectively; and (2) when the denominator was calculated by the number of JVs which had existed between 1986 and 1991, it became 5.7%, 9.4%, 14.4%, and 23.8%, respectively. In either case, the termination rates of both Intrafirm JV and Cross-national DJV were significantly lower than those of Traditional IJV and Trinational IJV. This evidence is consistent with the results provided in Table 9.3.

Table 9.3 JV Ownership Structure and Termination: Result of Chi-Square Test[1]

	(1) Intrafirm JVs	(2) Cross-national DJV	(3) Traditional IJV	(4) Trinational IJV	Total
(A) Number of the JVs terminated during 1986 -1991	7	6	105	5	123
(B) Number of the JVs formed during 1986 -1991	125	120	554	31	830
(A)/[(A) + (B)] Termination Ratio (%)	5.3	4.8	15.9	13.9	12.9

Pearson Chi-squares:

- All sample: $\chi^2 = 19.626$ (p=0.000)
- (1) Intrafirm JV vs. (2) Cross-national DJV: $\chi^2 = 0.394$ (p=0.842)
- (1) Intrafirm JV vs. (3) Traditional IJV: $\chi^2 = 10.224$ (p=0.001)
- (1) Intrafirm JV vs. (4) Trinational IJV: $\chi^2 = 3.143$ (p=0.076)
- (2) Cross-national DJV vs. (3) Traditional IJV: $\chi^2 = 10.873$ (p=0.000)
- (2) Cross-national DJV vs. (4) Trinational IJV: $\chi^2 = 3.685$ (p=0.054)
- (3) Traditional IJV vs. (4) Trinational IJV: $\chi^2 = 0.107$ (p=0.743)

[1] Termination ratio equals the number of JVs terminated divided by the number formed between 1986 - 1991

9.3 The Effects of Host Government Policy on JV Ownership Structure and Financial Performance

The effects of local ownership policy were measured using the data from the Benchmark Survey of the U.S. Department of Commerce conducted in 1982. The survey data provide the proportion of 17,213 U.S. affiliates reporting "they were

required to limit U.S. parent's equity" (Contractor 1990a). The data are rated for each of the Asian countries except China (P.R.C.).

Host Government's Local Ownership Policy and JV Ownership Structure

Table 9.4a provides the result of the one-way ANOVA. The one-way ANOVA was used to test whether the degree of perceived ownership restriction differed among four types of JV ownership structures. The result suggested that the degree of ownership restriction significantly differed between JV ownership structures ($F=29.58$, $p=0.0000$).

Table 9.4a Host Government's Local Ownership Policy (U.S. Benchmark Survey data) and JV Ownership Structure: Result of ANOVA[1]

	(1) Intrafirm JV	(2) Cross-national IJV	(3) Traditional IJV	(4) Trinational IJV
Degree of ownership restriction:				
Mean	.112	.095	.148	.137
(std dev)	(.083)	(.074)	(.082)	(.056)
N	237	175	1,063	47
F-value = 29.58 (p = 0.0000)				

[1] The sample of JVs in China (P.R.C.) was excluded from the analysis due to the lack of the ownership restriction data for the country.

Table 9.4b provides the result of a multiple-comparison (independent two-sample

t-test) of the degree of ownership restriction for each pair of four JV ownership structures. The result suggests that Traditional IJVs had the highest degree of ownership restriction, Trinational IJVs had the second, Intrafirm JVs had the third, and Cross-national DJVs had the lowest degree of ownership restriction.

This evidence suggests that local ownership policy in the host countries influenced a firm's choice of JV ownership structure. The analysis revealed that Japanese firms tended to form a JV with Japanese partners (an Intrafirm JV or a Cross-national DJV) when entering less restrictive countries, and to form a JV with the non-Japanese firms (a Traditional IJV or a Trinational IJV) when entering more restrictive countries.

Table 9.4b Multiple Comparison of Host Government's Local Ownership Policy by JV Ownership Structure: Results of T-test

Covariates: Parent experience and JV age	(1) Intrafirm JV	(2) Cross-national DJV	(3) Traditional IJV	(4) Trinational IJV
(1) Intrafirm JV	-	-	-	-
(2) Cross-national DJV	2.11 (p=.03)	-	-	-
(3) Traditional IJV	6.11 (p=.00)	8.58 (p=.00)	-	-
(4) Trinational IJV	2.59 (p=.01)	3.60 (p=.00)	1.27 (p=.00)	-

(Figures in the table represent t-value)

Host Government's Local Ownership Policy and Financial Performance

The relationship between ownership restriction and performance was examined using ANCOVA. In the analysis, JV performance was defined as a dependent variable, ownership restriction as a covariate, and JV ownership structure as an independent variable. The ANCOVA examined whether (1) host government local ownership policy has a direct impact on JV performance; and (2) JV performance differs between JV ownership structures even after removing the effect of local ownership policy on JV performance The result of the ANCOVA is provided in Table 9.5a.

Table 9.5a Effect of Host Government's Local Ownership Policy on JV Financial Performance: Result of ANCOVA[1] [2]

Dependent variable: Financial performance	Sum of squares	Degree of freedom	Mean squares	F-value	
Covariate					
(A) Ownership restriction	.10	1	.10	0.18	p=.669
Main Effect					
(B) JV ownership structure	17.19	3	5.69	10.22	p=.000
Explained	17.29	4	4.29	7.71	p=.000
Total	368.97	635	.58		

[1] The performance measurement used in the analysis was based on JV performance of 1991.
[2] The effects of a covariate (i.e., the ownership restriction) on financial performance were assessed before the main effect (i.e., JV ownership structure) on performance was assessed.

The results suggested that (1) local ownership policy had no significant direct impact on JV financial performance (F=0.18; p=.669); and (2) the choice of JV ownership structure was a critical factor influencing its financial performance, irrespective of the local ownership policy (F=10.22; p=.000).

Table 9.5b provides the summary of the ANCOVA for each pair of the JV ownership structures with controlling for the host government's local ownership policy. The results suggest that the difference in financial performance between the JV ownership structures is unchanged even after removing the effect of the host government's local ownership policy on performance.

Table 9.5b Multiple Comparison of JV Financial Performance by JV Ownership Structure while Controlling for Host Government's Local Ownership Policy: Results of ANCOVA

Covariate: Host government's local ownership policy	(1) Intrafirm JV	(2) Cross-national DJV	(3) Traditional IJV	(4) Trinational IJV
(1) Intrafirm JV	-	-	-	-
(2) Cross-national DJV	.996 (p=.32)	-	-	-
(3) Traditional IJV	2.608 (p=.10)	8.898 (p=.00)	-	-
(4) Trinational IJV	9.293 (p=.00)	4.734 (p=.03)	23.598 (p=.00)	-

(Figures in the table represent F-value)

The evidence provided in Tables 9.4, 9.5a and 9.5b can be summarized as follows: (1) host government local ownership policy is significantly associated with the choice of JV ownership structure; yet (2) local ownership policy itself does not have a direct influence on JV performance. Combined together, the evidence suggests the following sequential relationship among local ownership policy, JV ownership structure, and JV financial performance.

local ownership policy --> JV ownership structure --> financial performance

Host Government Local Ownership Policy and JV Survival

Whether host government local ownership policy significantly influenced the rate of termination was tested using ANOVA. The JV sample was first broken into two groups: terminated JVs (JVs which had been terminated during the 1986-1991 period) and surviving JVs (those which had existed during the 1986-1991 period). Then, ANOVA was conducted to examine whether the degree of ownership restriction differed between the two JV categories. If the degree of ownership restriction is significantly higher (or lower) in the terminated JVs than in the surviving JVs, it may imply that local ownership restriction is negatively (or positively) associated with the survival of JVs. The result of the ANOVA is provided in Table 9.6.

Table 9.6 Effect of Host Government's Local Ownership Policy on JV Survival: Result of ANOVA

Dependent variable: Degree of ownership restriction	(1) Surviving JVs[1]	(2) Terminated JVs[2]	F-value
Mean (Std dev)	0.143 (0.073)	0.165 (0.078)	8.7347 (p=.003)
N	640	116	

[1] Surviving JVs: JVs which had existed during the 1986 - 1991 period
[2] Terminated JVs: JVs which had been terminated during the 1986 - 1991 period.

We also examined whether the degree of ownership restriction differed between the two categories after controlling for the years of operation (the JV age as of 1991 for the surviving JVs and the duration of operation for the terminated JVs). We controlled for this variable because some JVs might survive merely because they were younger than those which were terminated. The result of the analysis is provided in Table 9.7.

The results of the above two analyses showed that the average degree of local ownership restriction was 0.143 for the surviving JVs, and 0.165 for the terminated JVs (Table 9.6). As suggested in Table 9.7, the difference in the degree of local ownership restriction between the JV categories was significant (F=6.39; p=0.012), even after controlling for the years of operation of the JV. This suggests that the degree of ownership restriction has a significant negative association with JV survival. In other words, JVs formed in relatively restrictive countries have a

higher likelihood of termination, and those in less restrictive countries have a lower likelihood of termination.

Table 9.7 Effect of Host Government's Local Ownership Policy on JV Survival: Result of ANCOVA with Controlling for Years of Operation[1]

Dependent variable: Degree of ownership restriction	Sum of squares	Degree of freedom	Mean squares	F-value	
Covariate					
(A) Years of operation	.01	1	.01	2.58	p=.109
Main Effect					
(B) Surviving JVs vs terminated JVs	.03	2	.03	6.39	p=.012
Explained	.50	2	.02	4.48	p=.012
Total	4.23	754	.00		

[1] The effects of a covariate (i.e., years of operation: the JV age as of 1992 for the surviving JVs and the years of duration for the terminated JVs) on the degree of ownership restriction were assessed before the main effect (i.e., survival vs. terminated JV category) on the degree of ownership restriction was assessed.

From the above analyses, it is concluded that the local ownership policy had little impact on JV financial performance but was significantly negatively associated with JV survival. This implies that "forced" JVs, or JVs which are formed responding to local ownership policy, are more likely to have difficulties of management and incur a higher likelihood of termination. However, if managed successfully, JVs in restrictive countries are just as likely to attain higher financial performance as those in less restrictive countries.

Changes in JV Ownership Structure and Financial Performance

Changes in JV ownership structure between the years 1985 and 1991 were measured. Table 9.8 illustrates the number of each type of JV as of 1985 vertically, and as of 1991, horizontally. The number in the shaded diagonal cells represents JVs which did not change their structure during the period of 1985 - 1991, and the numbers in the off-diagonal cells, those which did.

Table 9.8 Changes in JV Ownership Structure 1985 - 1991

FROM: JV ownership structure in 1985	TO: JV ownership structure in 1991				Row Total (%)
	(A) Intrafirm JV	(B) Cross-national DJV	(C) Traditional IJV	(D) Trinational IJV	
(A) Intrafirm JV	32 (72.7)	3 (6.8)	9 (20.5)	0 (0.0)	44 (100.0)
(B) Cross-national DJV	12 (28.6)	26 (61.9)	4 (9.5)	0 (0.0)	42 (100.0)
(C) Traditional IJV	7 (1.7)	4 (1.0)	389 (97.0)	1 (0.2)	401 (100.0)
(D) Trinational IJV	0 (0.0)	0 (0.0)	0 (0.0)	14 (100.0)	14 (100.0)
Column total	51 (10.2)	33 (6.6)	402 (80.2)	15 (3.0)	501 (100.0)

Pearson Chi-square = 1659.081 (p = .0000)
Figures in brackets represent row percentage

☐ = unchanged from 1985 to 1991

As Table 9.8 indicates, most JVs (461 out of 501 cases) did not change their structure over the period (Pearson Chi-square = 1659.081; p = .0000). Intrafirm JVs

and Cross-national DJVs changed their ownership structure more than 20% of the time. 38.1% of Cross-national DJVs changed their ownership structure: 28.6% of Cross-national DJVs were transformed into Intrafirm JVs and 9.5% into Traditional IJVs. 27.3% of Intrafirm JVs changed their structure: 6.8% were transformed into Cross-national DJVs and 20.5% into Traditional IJV structure. This finding implies that Intrafirm JV and Cross-national DJV were relatively unstable (or flexible) JV structures compared to the other forms of JVs such as Traditional IJVs and Trinational IJVs.

Changes in JV ownership structure might be related to the financial performance of the JV. ANOVA and t-tests (paired) were used to test if the changes in ownership structure were associated with JV financial performance. The two dependent variables used in the ANOVA were: (1) financial performance of the JV as of 1991, and (2) financial performance as of 1985. The independent variables were two JV groups: (1) JVs that changed their ownership structure during the 1985 - 1991 period, and (2) those that did not change their ownership structure. Two ANOVA's were conducted to examine whether financial performance in 1985 and 1991 differed between changed and unchanged JVs.

Two sets of t-tests were used to examine whether financial performance had improved between 1985 and 1991 for each group of the changed and unchanged JVs. If a significant difference is detected, it implies that the changes in JV

ownership structure are associated with an increase or decrease in financial performance. Tables 9.9a and 9.9b show the results of the analyses.

Table 9.9a Changes in JV Ownership Structure and Financial Performance: Result of ANOVA[1]

	(A) JVs which changed their structure during 1985 - 1991 (N=16)	(B) JVs which did not change their structure during 1985 - 1991 (N=180)	F-value
Performance in 1991			
mean	2.87	2.76	0.678
(std dev)	(0.34)	(0.54)	(p=.411)
Performance in 1985			
mean	2.43	2.71	2.760
(std dev)	(0.81)	(0.62)	(p=.098)

[1] Only those JVs from Table 9.8 with performance information in both 1985 and 1991 were included here.

The results of the ANOVA and t-test suggest that the JVs that changed their ownership structure had significantly lower financial performance in 1985 compared to those unchanged JVs ($F=2.786$; $p=0.098$), and had significantly improved their financial performance between 1985 and 1991 ($t=1.96$; $p=0.069$). This evidence generally suggests that changes in JV ownership structure are associated with performance.

Table 9.9b Comparison of Financial Performance between 1985 and 1991 while Controlling for Changes in JV Ownership Structure: Result of T-test[1]

	(A) JVs which changed their structure during 1985 - 1991 (N=16)	(B) JVs which did not change their structure during 1985 - 1991 (N=180)
Performance in 1991		
mean	2.87	2.76
(std dev)	(0.34)	(0.54)
Performance in 1985		
mean	2.43	2.71
(std dev)	(0.81)	(0.62)
t-value	1.96 (p=.069)	0.78 (p=.439)

[1] Only those JVs from Table 9.8 with performance information in both 1985 and 1991 were included here

9.4 Ownership Pattern and Financial Performance

This section examines the relationship between ownership pattern and financial performance of the JVs. The dependent variables used here were the Nationality Ratio and the Affiliation (Unaffiliation) Ratio as defined in Chapter 4. Independent variables were defined in terms of the three-point financial performance scale: Low-performance ("loss"), Medium-performance ("breakeven"), and High-performance ("gain").

Nationality Ratio and Financial Performance

Nationality Ratio (NR) represents the extent to which country attributes of the JV partners are reflected in JV ownership structure. Table 9.10 provides the results of the MANOVA. It was used to examine whether the equity ownership held by JV partners significantly differed among the three financial performance groups.

Table 9.10 Nationality Ratio and 1991 Financial Performance: Result of MANOVA

Nationality Ratio	Total (N=761)	(A) Low (N=128)	(B) Medium (N=133)	(C) High (N=500)	F-value
Home-country based (Japanese) partners	59.6	64.6	60.9	57.9	4.454**
Host-country based partners	38.9	30.9	37.8	41.2	10.245***
3rd-country based partners	1.5	4.5	1.3	0.9	8.443***

Wilks' Lambda = .95878 (equivalent to F=5.335: p= .000)

Significance level: *** p<0.01; ** p<0.05

The result of the univariate analysis of variance (ANOVA) suggested that the average percentage of equity ownership was significantly different among performance groups for all partner nationalities: Japanese partners (F=4.454; p<.05); host-based partners (F=10.245; p<.01) and third-country based partners

($F=8.443$; $p<.01$). This suggests that the equity ownership of JV partners with different nationalities influenced performance differently.

The overall association between financial performance and the Nationality Ratio was examined with multivariate test statistics (Wilks' lambda). The result revealed that there was a statistically significant association between the performance group and the equity ownership by partner nationality (Wilks' Lambda= .958; Approximate $F=5.335$; $p=.000$). Scheffe's multiple-comparison test was used to compare the size of equity ownership of JV partners across the three performance groups at the 0.05 significance-level. The result suggests that: (1) the average equity ownership of Japanese parents was negatively associated with financial performance; (2) the average equity ownership of host-based partners was positively associated with financial performance; and (3) the average equity ownership of the third-country based partners was negatively associated with financial performance. These results strongly suggest that as JV partners become more host-country oriented, the JV is more likely to attain higher financial performance; and as they become either more home- or third-country oriented, the JV is more likely to attain lower financial performance.

Table 9.11 provides the result of the MANOVA that examined the relationship between the Nationality Ratio and the survival of the JV. The JV was more likely to survive when home country based partners (Japanese partners) had a relatively

high share of ownership, and were more likely to be terminated when the host-country based partners had a relatively high share of ownership. The ownership of the third-country based partners was negatively, not significantly, associated with the termination of the JVs.

Table 9.11 Nationality Ratio and Survival: Result of MANOVA

Nationality Ratio	Total (N=1,688)	(A) Surviving JVs[1] (N=1,562)	(B) Terminated JVs[2] (N=126)	F-value
Home-country based (Japanese) partners	59.4	60.1	50.8	17.291***
Host-country based partners	38.7	37.9	47.8	18.597***
3rd-country based partners	1.8	1.8	1.5	0.119 n.s.

Wilks' Lambda = .95896 (equivalent to F=5.335: p= .000)

Significance level: *** p<0.01; ** p<0.05; * p<0.1; n.s. not significant

[1] Surviving JVs are the JVs which existed in 1991.

[2] Terminated JVs are those which had been terminated during the period of 1986-1991.

The results of the analysis suggest that the equity ownership of a host-country based firm was positively associated with financial performance and negatively associated with its survival. Conversely, the equity ownership of a home-country based firm was negatively associated with financial performance and positively associated with its survival. The equity ownership of a third-country based firm was negatively associated with financial performance, but not significantly

associated with JV survival.

These findings imply that the ownership structure of the JV was determined by the trade-off between financial performance and the survival of the JV. JVs with dominant Japanese ownership tended to survive longer, presumably because they could avoid possible managerial complexity, although they might have sacrificed the benefits of accessing partner resources. JVs with dominant host-country ownership tended to achieve superior performance yet were more likely to incur the risk of termination; and the JVs with higher ownership of the third-country based firm tended to achieve lower financial performance.

Affiliation/Unaffiliation Ratio and Financial Performance

Table 9.12 provides the result of the ANOVA that examined the relationship between the JV's financial performance and the degree to which Japanese JV partners were affiliated (or unaffiliated).

Although a significant difference in the Affiliation Ratio of the three performance groups ($F = 1.562$) was not detected, the direction of the ratio was negatively associated with financial performance. Similarly, the Unaffiliation Ratio was negatively associated with financial performance, but it significantly differed among the performance groups. Taken together, these results suggest that financial

performance was primarily associated with the overall size of Japanese ownership, irrespective of the degree of equity affiliation among the Japanese partners.

Table 9.12 Affiliation Ratio and Financial Performance: Result of ANOVA[1]

	Total Sample (N=762)	(A) Low (N=128)	(B) Medium (N=133)	(C) High (N=501)	F-value
Total Japanese ownership: (A)+(B)	59.6	64.6	60.9	57.9	4.454**
(A) Affiliation Ratio	51.3	53.6	52.5	50.4	1.562 n.s
(B) Unaffiliation Ratio	8.3	11.0	8.4	7.5	3.399**

Significance level: *** p<0.01; ** p<0.05; * p<0.1; n.s. non-significant

[1] Performance groups were classified based on a JV's financial performance as of 1991.

Table 9.13 provides the result of the ANOVA which tested the relationship between JV survival and the Affiliation Ratio, the Unaffiliation Ratio, and overall Japanese ownership. The result shows that the Affiliation Ratio was positively associated with the survival of the JVs: as the Affiliation Ratio became higher, the JVs were more likely to survive. The Unaffiliation Ratio did not significantly differ between the surviving and terminated JV groups. These results provide strong support for the hypothesis that managerial complexity is negatively associated with JV survival. In other words, when JV ownership was dominated by a single parent firm or a group of affiliated firms, the JV survived longer.

Table 9.13 Affiliation Ratio and Survival: Result of ANOVA

	Total sample (N=1,686)	(A) Surviving JVs[1] (N=1,564)	(B) Terminated JVs[2] (N=122)	F-value
Total Japanese ownership: (A)+(B)	59.4	60.1	50.8	17.291***
(A) Affiliation Ratio	51.1	51.8	42.3	21.681***
(B) Unaffiliation Ratio	8.3	8.3	8.5	0.414 n.s.

Significance level: *** p<0.01; ** p<0.05; * p<0.1; n.s. non-significant

[1] Surviving JVs are the JVs which existed in 1991.

[2] Terminated JVs are those which had been terminated during the period of 1986-1991.

However, the extent to which a single parent firm or a group of affiliated firms had a dominant equity in the JV operation did not necessarily mean that the JV was successful in terms of achieving superior financial performance (Table 9.12); rather, it suggests that the JV was successful only in terms of survival when ownership was dominated by a single or affiliated parent firms (Table 9.13). Overall, these evidence suggest that the extent to which JV partners are affiliated is associated more with survival likelihood than with financial performance.

9.5 Changes in JV Ownership Structure and Performance

In this section, we examine the changes in JV ownership structure and performance over time. Here, we are particularly interested in examining the

changes in JV ownership structure between high- and low-performance groups.[5] While a series of cross-sectional analyses in the early sections examined the static relationship between JV ownership structure and performance, this section is focused on a longitudinal analysis to examine the association between changes in structure and performance. Changes in JV ownership structure were measured by changes in percent equity ownership at three points in time during a six-year period (1985, 1988 and 1991) and were statistically examined by a series of paired t-tests. Statistical analyses revealed that there were several significant differences in the patterns in changes of JV ownership structure between the high- and low-performance groups.

Nationality Ratio and Changes in JV Ownership Structure

Table 9.14 provides the results of t-tests which examined whether the equity ownership of Japanese-, host-based, and third-country based partners changed over time. The statistical results show that there were no significant differences in the equity ownership over time for the low-performance JV group during both the 1988-1991 and 1985-1991 periods. Significant differences were found in the high-performance group. Table 9.14 shows that the average equity ownership of the home-based (Japanese) parents in the high-performance group significantly

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[5]The JVs were classified into a high-performance group when their financial performance in 1991 was "gain", and a low-performance group when it was "loss."

decreased, whereas that of the host-based (local) parents significantly increased during the period of 1985 to 1991. Across the performance groups, the equity ownership of the third-country based partners was found to be unchanged during the period.

Table 9.14 Comparison of Changes in Nationality Ratio between High- and Low-Performance Groups: Result of T-Test

	(A) 1985	(B) 1988	(C) 1991	T-test
Low Performance group				
Japanese partners	55.4	57.4	55.3	n.s.
Host-country based partners	38.3	33.8	36.1	n.s.
3rd-country based partners	6.1	8.6	8.6	n.s.
High performance group				
Japanese partners	52.9	51.9	51.2	A > C **
Host-country based partners	45.6	46.4	47.0	A < C **
3rd-country based partners	1.4	1.6	1.6	n.s.

Significance level: *** p<0.01; ** p<0.05; * p<0.1; n.s not significant

These results clearly suggest that a successful JV was likely to become "locally oriented" and increased its host orientation in JV ownership structure over time. Unsuccessful JVs did not change their ownership structure. Also, both the Japanese partners and the third-country based partners in the low-performance group held a higher share of equity ownership than in the high-performance group

for any point of time. Similarly, Host-based partners in the high-performance group always held a lower share in the equity ownership share compared to those in the low-performance group during the periods.

Affiliation/Unaffiliation Ratio and Changes in JV Ownership Structure

Table 9.15 provides the results of t-tests which examined whether the equity ownership of both affiliated- and unaffiliated-partners changed over time.

Table 9.15 Comparison of Changes in Affiliation and Unaffiliation Ratios between High- and Low-Performance Groups: Result of T-Test

	(A) 1985	(B) 1988	(C) 1991	T-test
Low Performance group				
Total Japanese Ownership	55.4	57.4	55.3	n.s.
(A) Affiliation Ratio	46.7	48.7	47.3	n.s.
(B) Unaffiliation Ratio	8.7	8.7	8.0	n.s.
High performance group				
Total Japanese Ownership	52.9	51.9	51.2	A > C**
(A) Affiliation Ratio	47.1	47.7	47.2	n.s.
(B) Unaffiliation Ratio	5.8	4.2	4.0	n.s.

Significance level: *** p<0.01; ** p<0.05; * p<0.1; n.s. not significant

The results show that no significant changes occurred during the six-year period in either performance group. This suggests that changes in partner affiliation were not critical for determining financial performance. Again, this evidence suggests that financial performance is influenced primarily by partner nationality and only marginally by partner affiliation.

9.6 Summary and Discussion of the Results

JV Ownership Structure, Financial Performance and Survival

Overall, our findings suggest that JV ownership structure was chosen based on the trade-off between resource-access opportunity and managerial complexity and was strongly associated with both financial performance and survival of the JV. Our analysis supported the hypotheses and revealed that (1) Traditional IJVs provided the highest opportunity to achieve superior financial performance yet had the highest likelihood of termination; (2) Intrafirm JVs provided the second highest opportunity to attain superior performance, and had the lowest likelihood of termination; (3) Cross-national DJVs provided a lower opportunity for attaining superior financial performance compared to Traditional IJVs, yet had a lower likelihood of termination compared to Traditional IJVs; and (4) Trinational IJVs provide the least opportunity for attaining superior financial performance and had the highest likelihood of termination.

JV financial performance differed significantly among the four types of JV ownership structure even after controlling for both a parent firm's years of past host country experiences and JV age. While JV age was significantly positively associated with financial performance, parent experience was not significantly associated with financial performance. However, the financial performance of Traditional IJVs did not significantly differ from that of Intrafirm JVs when the experience effect (JV age and past local parent experience) was controlled. This implies: (1) JV ownership structure and JV age are two of the primary, independent determinants of financial performance; (2) parent firms' years of past local experience is not directly associated with JV financial performance; and (3) local experience moderates the relative ranking of Traditional IJVs over Intrafirm JVs in terms of attaining higher performance.

These results were further supported by various tests of the relationship between ownership pattern and the financial performance/survival of the JV. The results suggested that the equity ownership of the host-country based partners was positively associated with financial performance, whereas that of home-country based (Japanese) and third-country based partners were both negatively associated with financial performance. While equity affiliation among JV partners (Affiliation Ratio) was less likely to be associated with superior performance, it was positively associated with the survival of the JV. These findings were further supported by the longitudinal comparative analysis, using the same JV samples

(1985, 1988, and 1991). The result of the longitudinal analysis showed that the successful JVs significantly increased the equity ownership of the host-country based partners over the period and decreased that of the home-based partners (Japanese parent firms).

These results suggest that there was a clear trade-off between resource complementarity and management complexity in forming a JV. An increase in the level of access to the needed resources, particularly to the location-specific resources possessed by local firms, was the critical factor that improved financial performance of the JV. Conversely, managerial complexity was strongly related to the survival of the JV, but did not have a significant impact on its financial performance. Interpreting this finding differently, it is suggested that financial performance and termination rate do not always coincide under a given JV ownership structure. In our analysis, there was no one JV ownership structure which both attained higher average financial performance and had lower termination rate than any other JV ownership structures. The question of which JV ownership structure is most successful, therefore, still remained unclear from the analysis, particularly when both performance measures are taken into account simultaneously.

From the above discussions, we recognize that JVs may be formed based on two different strategies: a long-term focus strategy and a shorter-term focus strategy.

The long-term focus strategy puts a relative emphasis on a long-term survival of the JV by reducing the level of managerial complexity; and the shorter-term focus strategy is concerned with attaining and maintaining higher financial performance by gaining an access to the missing resources of the partners. Our analyses suggest that when the former strategy was adopted, the firm tended to prefer to form an Intrafirm JV, and when the latter strategy was adopted, the firm tended to prefer to form a Traditional IJV. Which strategy should be adopted is a major issue for every multinational company. Our findings clearly suggested that strategy and ownership structure were significantly related, and implied the existence of a contingent relationship among strategy, ownership structure, and performance.

Changes in JV Ownership Structure and Financial Performance

Our statistical analysis found that most JVs (461 out of 501 cases) had not changed their structure between 1985 and 1991. The JVs that changed their ownership structures tended to have achieved lower performance at the time of the change, but had significantly improved financial performance after the cnanges occurred. This suggests that a Japanese firm may have an incentive to change JV ownership structure when the JV has unsuccessful financial performance, and the change in JV ownership structure can be a viable means to improve JV performance.

Effect of Host Government's Local Ownership Policy

Another important finding involved the impact of local ownership policy on JV performance. As Gomes-Casseres (1990) pointed out, the ideal ownership structure for the firm may be different from what the firm can get. It is often difficult for the foreign firm to get 'ideal' ownership in forming a JV particularly when the local government has relatively strong bargaining power in imposing local ownership on the foreign firms (Fagre and Wells 1982; Lecraw 1984). Our evidence in part supported this argument. The Japanese firms tended to form Traditional IJVs when entering more restrictive countries.

With regard to the effect of the local ownership policy on JV performance and survival, while the local ownership policy did not have a direct impact on the financial performance of the JV, it had a significant direct impact on the likelihood of JV termination. Our statistical results showed that local ownership policy was not significantly associated with the financial performance of the JVs but was significantly negatively associated with the survival of the JVs.

CHAPTER 10

FIELD STUDY RESULTS

Chapters 8 and 9 examined the various characteristics of JV ownership structure and its impact on financial performance and survival using the large sample database. The results suggest that the four identified JV ownership structures had differential impacts on both financial performance and the likelihood of termination. However, questions remain of why a firm chooses a particular JV ownership structure, and how the JV partnership is maintained. This chapter presents findings from the field research based on detailed interviews with the senior managers of two Japanese MNCs.

10.1 Sample Company Profile

The present field study was conducted based on interviews in Japan and in Japanese with senior managers of two Japanese MNCs: M-Auto and S-Electric.[1]

[1]The names of the companies are disguised.

Table 10.1 Sample Company Profile

	M-Auto	S-Electric
Foundation	1970	1911
Employees	26,470	14,833
Businesses (%)	Compact cars (47) Sub-compact cars (7) Tracks & Buses (25) Auto parts (7) others (14)	Electric wires & cables (53) Special steel wires (5) Sintered alloy products (10) Brake products (6) Hybrid products (4) others (21)
Total net sales (Japanese yen billion)	2,798	1,114
Export sales (%)	48	10
Overseas subsidiaries & affiliates (all industries)	Asia 8 Europe 7 North America 8 others 3 Total 26	Asia 26 Europe 10 North America 15 others 10 Total 61

The interviews were conducted with three general managers from M-Auto and two from S-Electric.[2] The summary of both firms' profiles is shown in Table 10.1. As

[2]It is often said that when discussing with an outsider about business, Japanese managers sometime intentionally hide their "*Hon-ne*" (what one feels about what she/he is actually doing), and only express their "*Tatemae*" (what one thinks to be done) to the business partner. To improve the likelihood that the Japanese managers were willing to talk candidly ("*Hon-ne*"), the following steps were taken before starting the interview: we specified that we would disguise the names of the companies; not reveal the rank and names of the managers; not disclose detailed performance information about their JVs; and not publish any information obtained in the interview without their permission (except this study). In addition, the interviews themselves were the result of access gained in part through a network of trusted relationships.

illustrated in Table 10.1, both firms are large and highly diversified in terms of products and geographic regions served. In comparing the international activities of the two firms, while M-Auto had higher export sales with a relatively smaller number of overseas subsidiaries and affiliates, S-Electric had a relatively lower exports and a larger number of overseas subsidiaries and affiliates.

10.2 Why Are Different JV Ownership Structures Chosen?

The results of the field research are summarized in Table 10.2. As Table 10.2 shows, several factors influence the firm's choice of JV ownership structure. Through detailed interviews with the Japanese senior managers, we identified the following three strategies which influenced the choice of particular JV ownership structure.

i.) to exploit the competitive advantage specific to a parent firm

ii.) to exploit competitive advantage specific to the established business relationship between non-local firms (i.e., between Japanese firms, or between a Japanese firm and a third-country based firm)

iii.) to complement each partner's comparative advantage relative to the other

The interviews suggested that each of the above strategies corresponded to the preferred JV ownership structure: the first strategy is associated with the choice

of Intrafirm JV; the second strategy is associated with the choice of Cross-national DJV and Trinational IJV; and the third strategy is associated with the choice of Traditional IJV.

Table 10.2 Strategy and Major Reasons to Choose JV Ownership Structure

	Strategy	Major Reasons Revealed in the Field Study
Intrafirm JV	- exploit a Japanese parent's competitive advantage	- to internalize a firm's global value activities - to share the same corporate value and culture
Cross-national DJV	- exploit competitive advantages of the established business relationship between Japanese firms	- to disperse investment risks - to avoid possible partner conflict stemming from having a JV partner with different national background - to use its partner's previous international experience - to transfer the existing domestic business relationship (a buyer-supplier relationship between two or more Japanese firms) when a desirable local firm cannot be found
Traditional IJV	- complement comparative advantages between a Japanese firm and a local firm	- to disperse investment risks - to get access to local partner's capability of marketing, negotiating with the government and managing local labour forces
Trinational IJV	- exploit competitive advantages of the established business relationship between a Japanese firm and a third-country based firm	- to disperse investment risks - to circumvent the local ownership restrictions through the investment agreement between the host-country and the third-country governments - to transfer the existing international business relationship between a Japanese firm and a third-country based firm when a desirable local firm cannot be found

The interview findings with regard to the association of strategy and JV ownership structure and the major reasons for a particular JV ownership structure are summarized as follows.

Intrafirm JV

The Japanese managers suggested that Intrafirm JV was usually preferred when the benefits of internalizing internationally dispersed activities were high. According to the S-Electric manager, an Intrafirm JV has virtually the same function as a wholly-owned subsidiary in that it is used to save production costs, hedge exchange rate risk and export products and components to its (home-country based) parent, or substitute the parent firm's exports to a third country.[3] In this regard, an Intrafirm JV is characterized as a "miniature replica" of the Japanese parent: it is expected to replicate its parent's strategy and to contribute to the benefits of internalization of global activities. The manager of S-Electric mentioned:

> "This type of JV is used to implement our global strategy: to produce products where the manufacturing costs are cheaper, to sell products where the sales margins are higher, and to report profits where the taxes are lower."

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[3]This begs the question of whether an Intrafirm JV and a wholly-owned subsidiary (W.O.S.) have the same performance. Although this is the beyond the scope of the present study, we examined if JV performance (both financial performance and termination rate) differed between W.O.S. and each of the JV ownership structures. The summary of the result is provided in the NOTE at the end of the chapter.

The senior manager of M-Auto suggested another benefit of forming an Intrafirm JV: sharing the same corporate value. Sharing of the same corporate value facilitates the normative integration between parent and its subsidiaries. He mentioned that:

> "If we can manufacture standard cars in ASEAN countries and sell them without restriction, the establishment of a wholly-owned subsidiary or a JV formed with our affiliates may be the best way to proceed. Although there may be many merits of forming this latter type of venture, I personally feel that the most important thing is that it is easier to share our 'manufacturer's mind-set' [with our partners] when we have such ventures."

The competitive advantages of an Intrafirm JV is its capability to exploit a Japanese parent firm's competitive advantages and to internalize its global production and marketing systems on a consolidated basis. Performance of the venture is expected to be successful, yet the level of the profit reported in the financial statement of the venture does not necessarily reflect its own competitive advantages due to the parent firm's transfer pricing strategy.

An Intrafirm JV may incur the least management complexity between JV partners because the JV partners are, *de facto*, the same company. Since the JV partners share the same corporate value, termination deriving from partner conflicts or misperception is less likely to occur.

Cross-national DJV

According to the Japanese managers, Cross-national DJVs are often formed to: (a) transfer an established *domestic* buyer-supplier relationship into the host country, or (b) access the local market information of a firm with the same nationality. The first type of Cross-national DJV is usually formed when the firm cannot find desirable suppliers or buyers in the host country. The M-Auto manager mentioned,

> "Our suppliers often follow us into foreign markets. In most cases, we set up a JV with a supplier, partly to disperse the capital risk to the supplier. Also, by carrying on the manufacturer-supplier relationship from Japan to the foreign country, we can make sure that technical cooperation between the two companies is strengthened. In many cases, it's quite difficult to find a comparative parts supplier in Asian countries. And probably most important, it is easier to manage a JV with a familiar Japanese business partner."

The second type of Cross-national DJV is usually formed with *Sogo Shosha* (general trading companies). The *Sogo Shosha* possess huge market networks across the world and are a source of local market information for the firm. Most Cross-national DJVs formed by M-Auto and S-Electric are those formed with *Sogo Shosha*. JV formation between Japanese manufacturing firms and *Sogo Shosha* is quite popular, but unique to Japanese multinationals (Kojima 1981; Kokusai Shoji Chusai Kyokai 1994).[4] Both the M-Auto and S-Electric managers explained the

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[4]*Sogo Shosha* also gain benefits by forming a JV with a Japanese manufacturer. Anazawa (1994) noted "[*Sogo Shosha*] enhanced their businesses

merits of forming a JV with *Sogo Shosha*:

> "The reason why a *(Sogo)Shosha* is sometimes chosen as a JV partner is to let them take care of export operations. Especially when entering an unfamiliar market, the information on the world market which Shosha have is very useful." (the M-Auto manager)
>
> "[By having a *Sogo Shosha* as a JV partner] we can hedge the sales risk by asking a *(Sogo)Shosha* to engage in the sales, and we can hedge the risk of foreign currency restrictions, where they apply, through the Shosha's participation in the partnership." (the S-Electric manager)

As the managers suggested, the merits of the Cross-national DJV may be in dispersing investment risks, and accessing JV partners' proprietary resources without incurring conflicts stemming from having a JV partner with different national background. The source of advantage of the Cross-national DJV is often its ability to exploit the competitive advantages of the established domestic relationship between Japanese firms. While an Intrafirm JV tends to be used to exploit the parent firm's own competitive advantages, the Cross-national DJV is often used to exploit the advantages of the existing *relationship* (e.g., a buyer-supplier, or a manufacturer-Shosha, relationship in Japan) already established between the Japanese firms.[5]

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by exporting machinery and production equipment before starting [JV] operation and supplying materials for production thereafter. They also made use of their business networks in the host country" (p. 99).

[5]In our large sample of 179 Cross-national DJV cases, about 50% of the JVs (87 cases) were formed between Japanese manufacturers and *Sogo Shosha*; and about 30% of the JVs (52 cases) were formed between Japanese manufacturers in the vertically-linked industries (at the level of 4-digit SIC) in which JV partners were either a supplier or a buyer of the final products. The rest of the JVs

According to the managers, a Cross-national DJV was often chosen when the firm had a need to establish a JV in the host country, and a suitable local firm was not available. In this sense, a Cross-national DJV can be a secondary option to a Traditional IJV. However, the Cross-national DJV may have merit in incurring less management complexity than a Traditional IJV. Since the JV partners have the same country of origin (i.e., Japan), the Cross-national DJV can incur less management complexity than JVs formed between firms of different nationality.

Traditional IJV

According to the Japanese managers, a Traditional IJV is usually formed either when local ownership is required by a host government or when a firm needs a local firm's assistance. The S-Electric manager mentioned:

> "Establishment of a JV usually results from either of the two following circumstances: first, when it is impossible to establish a 100% subsidiary because of local regulations; and second, when there is no existing local market for the product we are going to manufacture. In the latter case, we need to form a JV in order to develop the market."

The managers of both companies suggested that a local partner plays a critical role in accessing local distribution networks, negotiating with local government,

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consisted of the consortia for government-related projects (16 cases) and those JVs which were formed between Japanese firms of unrelated industries (24 cases). When excluding the consortia from the sample, about 85% of the Cross-national DJVs (139 out of 163 cases) were estimated as having been exploit the existing business relationship into a host country.

and hiring, educating, and managing local labour forces. The M-Auto manager suggested that this type of capability cannot be obtained merely by spending years in the local country. He mentioned:

> "Although we have long international experience in Asia, we still feel we have limited ability in negotiating with the local government and developing the local distribution network. In that sense, a JV with a local company has a big advantage in terms of complementarity."

The question raised here is, if the local access is necessary, then, why does the firm choose a local firm, not *Sogo Shosha*? While both a local firm and a *Sogo Shosha* provide the Japanese firm with general and specific local knowledge, *Sogo Shosha* may be advantageous in that it incurs less management complexity than a local firm. On this question, the M-Auto manager mentioned:

> "In terms of usefulness as an information source, local companies are superior to any *Shosha*. For example, using the information network of a local company is more effective for marketing than using the network of a *Shosha*. In addition, we have to pay dividends and commissions to the *Shosha*, so we try to avoid *Shosha* partners as much as possible."

While a Traditional IJV can provide both partners with a bilateral resource access opportunity, it is more likely to incur management complexity than an Intrafirm JV or a Cross-national DJV. The M-Auto manager, however, insisted that ease of management and business results did not always coincide. The manager mentioned:

> "Our company set up a JV with a Chinese company which had majority ownership. Although our business plans have almost never been easily

> accepted by our Chinese partner, the business is very successful in terms of results. We cannot deny the considerable advantage of having a local partner, though other Japanese companies may want to have Japanese partners and be eager to obtain majority ownership."

The source of advantage of most Traditional IJVs seems to be their ability to complement the comparative advantages of a Japanese and local firms. Most Traditional IJVs of both M-Auto and S-Electric are in fact those formed to complement Japanese parent's technical advantages and a local firm's location-specific knowledge and skills.

An interesting observation from the interviews was the managers' views that both M-Auto and S-Electric were concerned primarily with economic compatibility (i.e., resource complementarity) and secondarily with organizational compatibility (i.e., management complexity) in choosing a JV partner. This does not mean that they think that organizational compatibility is unimportant. Rather, they think that economic compatibility is something to be developed in a relatively early stage of the JV's formation, and organizational compatibility is something developed on an ongoing basis during the JV's operation. In other words, while the short term success of the Traditional IJV may depend on resource complementarity, the long term success may depend on how fast JV partners can develop, and how long they can maintain, a viable trust relationship with one another. Consistent with the evidence of the large sample study, both managers agreed that Traditional IJVs had the highest potential to attain financial performance, yet the highest likelihood

of failure (i.e., termination).

Trinational IJV

The interviews with the Japanese managers suggested that a Trinational IJV is usually formed to transfer the established *international* business relationship between a Japanese firm and a third-country based firm to another market. In addition, this type of JV is often preferred when a desirable local partner cannot be found and when the host country government has a special investment agreement with the third country government. The M-Auto manager mentioned:

> "Our policy in choosing a JV partner is 'to find the best in the country'. However, this is not always easy. For example, even if it is best in the long term to set up a JV with a certain local company, in the short term we sometimes have to choose second best owing to regulations imposed by the foreign government and the existing relationship of our company with the other company in the area. In fact, we are currently trying to go into Vietnam. As we could not find an attractive local company, we gave up our plan to establish a JV with a Vietnamese company. Instead we decided to set up a JV with a Malaysian company with which we had already established a business relationship. Malaysia has a national investment agreement with Vietnam. Therefore, the JV with the Malaysian company enabled us to receive preferential treatment for our investment in Vietnam."

The advantage of a Trinational IJV seems to be its ability to exploit the competitive advantages of the established business relationship between the Japanese firm and a third-country based firm.

The choice of Trinational IJV is usually considered a secondary option to a

Traditional IJV and a Cross-national DJV. More specifically, the Trinational IJV is often chosen when the parent firm can find neither an ideal local firm nor a potential Japanese partner with which to form a JV. The M-Auto manager noted:

> "This JV is a special case in our past foreign investments. Frankly, we were not so excited about the project.... We might have never considered forming this type of JV unless the Vietnam government provided subsidies for the investment."

A Trinational IJV is the most complex form of the four types of JV ownership structure because the location of the operation and partner nationality are all different. JV partners have different countries of origin (higher management complexity), and neither of the partners is familiar with local conditions (lower resource complementarity). As the large sample study suggested, a Trinational IJV is not only the least popular form of JV ownership structure but also is the least successful JV in terms of both financial performance and survival likelihood. The interviews with the managers generally supported the evidence of the large sample study.

10.3 Managing Traditional IJVs

As was suggested in Chapter 8, a Traditional IJV is the most popular form of JV ownership structure. In our sample, Traditional IJVs represent approximately 70% of total JVs formed by Japanese MNCs in Asia. Our data showed that while Traditional IJVs, on average, attained higher financial performance than other JV

forms, they also had the highest likelihood of termination during the given period. This evidence may reflect Killing's (1983) caution concerning a shared management JV in the international context:

> *A shared management venture should not be established unless it is abundantly clear that the extra benefit of having two parents managerially involved will more than offset the extra difficulty which will result.* (p. 53)

However, if the above statement is true, then, why do so many Traditional IJVs still exist? Did most Japanese managers make a wrong decision? The reason seems to be that a Japanese firm weighs the potential benefits of having a local partner against the potential costs of doing so. In other words, JV success involves not only whether to have a local partner, but also how to build a trust relationship with that partner.

10.3.1 Trust and Contract

Theoretically, trust plays an important role in preventing JV partners from behaving opportunistically (Beamish and Banks 1987; Buckley and Casson 1988). Partners' opportunistic behaviour creates potential management complexity, and hence increases transaction costs of monitoring. The opportunism can be avoided either by specifying the terms of penalty in the contracts or by building a trust between JV partners. In comparing contract and trust, the managers of both companies suggested that contracts were a less effective means of avoiding opportunism than

building a trust relationship between the partners. The managers of both M-Auto and S-Electric mentioned:

> "Since the contract [at the time of the JV agreement] is after all only paper, we can hardly say that preparing a complete contract is a sufficient pre-condition for success. I think it is important to establish a relationship of trust between the two parties so the partner may not violate the provisions. This is more effective than specifying penalties in the contact if the terms of the original agreement are violated." (the S-Electric manager).

> "Some people argue that it is important to include rules of behaviour in the contract in order to prevent the partner from taking opportunistic actions. According to our experience, preventing the partner's opportunistic behaviour through a contract has not proved to be a very effective method. For example, we had a JV which exported their products against the contract which had a provision prohibiting it. We did not try to resolve this by referring to the contract because that could have hurt the relationship, although we might have been able to resolve the problem temporarily. We believe that it is basically more important to try to avoid break-ups than prepare detailed contracts to abide by." (the M-Auto manager).

Interestingly, the managers of both firms had an assumption about human nature and organization which was quite different from that underlying the conventional economic literature of the MNE. Most economic studies of MNEs are based on the implicit assumption that a JV partner is essentially opportunistic, and therefore, monitoring or controlling the partner's activity is critical for maintaining a good partnership. In contrast, the managers we interviewed seemed to have the opposite assumption: a JV partner is inherently cooperative at least initially, and therefore, trust is critical for maintaining a good partnership. This difference in assumption is also reflected in the factors assumed to affect JV formation. Transaction cost theory suggests that a JV is formed to minimize transaction costs

stemming - at least partly - from suppliers' or buyers' opportunistic behaviour.[6] In contrast, the practitioner assumes, as the M-Auto manager commented, that "after all, a JV is a kind of token to enforce our trust relationship" (the M-Auto manager).

10.3.2 Trust and Resource-access Incentive

The two statements above suggest that "trust" is a partner's long term commitment to the maintenance of a good partnership. Such commitment is likely to occur when a firm has a resource-access incentive rather than a resource-acquisition incentive (see Chapter 3). Both managers of S-Electric and M-Auto shared the same opinion in this regard:

> "Our policy for the relationship between our company and the local partner is not 'to acquire something from the partner', but to 'create something new to both of us together by each bringing something necessary" (the S-Electric manager)
>
> "The responsibility of a parent company should essentially be to support its local JV to become the best in the area. However, some managers of the Japanese company do not 'support the JV not for the sake of the JV' but 'try to use the JV for the sake of the profit of the parent company.' Such an attitude could hurt the relationship based on trust between the two

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[6]For example, Williamson (1985) noted that "any issue that can be formulated as a contracting problem can be investigated to advantage in transaction cost economizing terms" (p. 17). Hennart (1991a) also adopts this contracting orientation in the study of JVs. He mentioned that "[w]henever partners have conflicting goals which cannot be reconciled by contract, their actions will lower the profits available for sharing, and the joint venture mode of organization will prove to be very costly for one or both parties" (pp. 99-100, emphasis added).

> partners. In order to establish a good partnership, it is sometimes necessary to be unselfish in order to build trust in the long term." (the M-Auto manager).

The interviews with managers suggest that trust is a special form of psychological commitment between JV partners which facilitates their bilateral resource-access incentive. Without trust, each of them would focus merely on maximizing self-interested purposes, or acquiring partner resources, resulting in conflict.

10.3.3 Trust, Ownership, and Control

The level of ownership has long been considered one of the most important mechanisms for control. However, the responses from the managers did not confirm this. The managers of both Japanese companies repeatedly emphasized the importance of informal control mechanisms such as shared values and shared commitment. The M-Auto manager suggested that these informal control systems reduce the importance of the size of ownership, yet facilitate the autonomous decision making process within the JV. The M-Auto manager mentioned:

> "We think a JV evolves. Since we are an automobile manufacturer, we think the key to success is to share our 'manufacturer's mind-set' with our partners. If a JV develops the capacity to think with the same 'mind-set' as the parent company, it is time for that JV to act independently. By that time the JV may have grown to be independent enough to even be able to support the parent company.... If we achieve this sharing of the mind-set, the next objective of the JV is 'to be the best in the country'. Therefore, the equity ownership percentage of the parent company itself becomes less important in terms of management control."

The S-Electric manager explained the risks of management by majority rule. The manager mentioned that decisions should be made not by majority rule, but by unanimous agreement on which partners' trust is based. He noted:

> "There are many ways to maintain a good relationship [between JV partners]. I think the most important thing is, no matter how high our equity is in the JV, one should not make management decisions by majority rule. If we force the partner to accept our majority decision, the minority holder will inevitably resist us saying, for example, 'we will sell our stock to a third party if you force us to comply'. Thus the relationship based on trust will collapse. A JV is like an arranged marriage. Often we do not know the partner until after we are married. That is why we have to free ourselves from the amount of ownership and make sure we have commitment and the right attitude on which to build trust. We are not making management decisions by majority but by unanimous agreement."

Both of the above statements suggest that a successful JV tends to have a homogenous and autonomous decision making context within the organization. Both managers suggested that a homogenous decision making context would be created through sharing values; and an autonomous decision making context would be created by the parents' being "hands-off" from the JV. Interestingly, while equity ownership and control have long been two of the major research streams in the study of JVs, neither were employed by these managers as a means of achieving JV success. Rather, the managers repeatedly emphasized the importance of trust between partners because they believed that both ownership and control become less critical as the partners build trust for each other.[7]

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[7]The M-Auto manager pointed out that national culture might influence the partner's attitude towards the concept of ownership and control. The manager mentioned that, "There are some unique customs in Asia where the ideal and the

10.4 Summary

This chapter discussed two major unresolved questions in the large sample study: one, why does a firm choose different JV ownership structures? and two, how does the firm maintain or enforce a good partnership? The field research that was based on the detailed interviews with the senior managers of two Japanese MNCs was conducted to answer these questions.

With regard to the first question, the field study generally supported the hypotheses developed in Chapter 6. The interviews with the Japanese managers suggested that JV ownership structure involves the trade-off between the benefits of having different partners (resource complementarity) and the costs of organizing them (management complexity). A choice of particular JV ownership structure was associated with the parent firm's strategy. The present study identified three distinct strategies which influence the choice of JV ownership structure.

The results of the second question are summarized in Table 10.3.

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reality are different and there is no strict distinction in management control based on the equity ownership.... The reason we do not want to set up a JV with American companies is because they think very strictly that equity ownership equals control. If we were to set up a JV in, say, Thailand with an American company where our equity was 49% and theirs 51%, I do not think such a JV would be successful."

Table 10.3 Perspectives on JV Formation: Conventional Economic Theory of the JV vs Findings from the Field Study

	Conventional Economic Theory of the JV	The Findings from the Field Study
Primary Incentive for JV Formation	Resource-acquisition - Firms form a JV to acquire a JV partner's proprietary resources and skills for their own sake	Resource-access - Firms form a JV to create "new" strengths by complementing strengths of the JV partners
Assumption about JV partner	JV partner's behaviour is based primarily on opportunism - Firms tend to behave so as to cheat a JV partner: When it is doubtful that a JV partner is trustworthy, the partner is considered untrustworthy - JV partnering is considered a "hostage" exchange by which opportunism becomes irrational	JV partner's behaviour is based primarily on trust - Trust is the best way of avoiding a JV partner's opportunism
Primary Control Mechanism	Equity ownership and formal contract - Equity ownership and contracts are considered sole mechanisms of control	Shared values and mutual commitment - Shared values and mutual commitment often become a more effective control mechanism than ownership and contract - Excess emphasis on equity ownership and contract is considered to hurt the existing trust relationship between JV partners
Source of Competitive Advantage	Performance of a JV is a function of control	Performance of a JV is a function of both resource-access opportunity and control (i.e., management complexity)

As shown in Table 10.3, the results of the small sample field study suggested that JV partnership was developed, maintained, and enforced in a ' that was different from that suggested in the previous economics literature. The gap in the views may be the result of the different assumptions about a firm's behaviour and attitude towards cooperative relationship. The present study showed that

Japanese practitioners had a different view of corporate behaviour and had a very positive attitude towards development of cooperative relationships with local partners.

ENDNOTE to CHAPTER 10

Supplementary Study: Performance Comparison of Wholly-Owned Subsidiaries and Joint Ventures

In this study, an Intrafirm IJV is conceptually treated as a *de facto* wholly-owned subsidiary. Thus, a secondary issue relates to the implication of choosing an Intrafirm JV over an actual wholly-owned subsidiary (W.O.S.).

In our database, there were 493 wholly-owned subsidiaries in Asia as of 1991, of which, 181 cases had financial performance information. T-tests were conducted to examine whether the financial performance of W.O.S. differed from JVs. The results suggested that overall performance of W.O.S. was, at 2.41, lower (yet not significantly) than that of the JVs (2.48). The average financial performance of W.O.S. was significantly higher than that of Trinational IJVs ($t = 3.54$, $p = .000$), and was significantly lower than that of Traditional IJVs ($t = 2.04$, $p = .041$). There was not any significant difference in performance between W.O.S., Cross-national DJVs, and Intrafirm JVs.

The termination rate of W.O.S. was also compared with the overall termination rate of the JVs as well as with those of each form of JV ownership structures. The evidence suggested that the overall termination rate of W.O.S. was 12.2%, which was quite close to that of the JVs (12.9%). The termination rate of the W.O.S. was higher than that of Intrafirm JVs and Cross-national DJVs, but lower than that of

Traditional IJVs (15.9%) and Trinational IJVs (13.9%).

The termination rate of W.O.S. varied across countries. In our analysis, the termination rate of W.O.S. was overwhelmingly higher when operating in Korea and the Philippines, compared to those W.O.S. operating in other countries. The evidence suggested that the termination rate of W.O.S. in Korea was 40.7%, and in the Philippines 30.8%, whereas the average termination rate of the W.O.S. in the other countries was 7.6%, ranging between 0% (China and Malaysia) to 12.2% (Taiwan).

When the W.O.S. cases in Korea and the Philippines were removed from the sample, the overall termination rate of the W.O.S. decreased from 12.2% to 7.6%, which is closer to those of the Intrafirm JVs (5.3%) and Cross-national DJVs (4.8%) than to those of the Traditional IJVs (15.9%) and Trinational IJVs (13.9%).

This suggests that W.O.S. have, in general, a similar pattern in both financial performance and termination rate, compared to those of Intrafirm JVs; yet the performance of the W.O.S. (i.e., termination rate) might vary significantly, depending on the country in which they operate. The issue of whether an Intrafirm JV can be considered as a sub-set of W.O.S. or if it should be considered as an independent foreign entry option is an interesting research question, but beyond the intended scope of this study.

CHAPTER 11

CONCLUSION

This chapter synthesizes the overall findings of the study, discusses limitations and strengths of the study, and provides implications for theory development and the practice of management.

11.1 Synthesis of Findings

This study first defined four distinctive forms of JV ownership structure based on JV *partner type* (i.e., partner nationality and equity affiliation between partners). The size of equity ownership, which was referred to as *partner influence* in this study, was used to define the extent to which partner characteristics are dominant in the JV and to draw the boundary between JV ownership structures. Four international JV ownership structures identified in this study are: **Intrafirm JV** (a JV formed by two or more affiliated Japanese firms), **Cross-national DJV** (a JV formed by two or more unaffiliated Japanese firms), **Traditional IJV** (a JV formed by a Japanese and a local firm), and **Trinational IJV** (a JV formed by a Japanese and a third-country based firm). As discussed in Chapter 8, the four types of JV ownership structure have different characteristics in terms of organizational

attributes (i.e., size, investment type, expatriate rate, and age), and demographic distribution by industry and among nations. The following sections discuss the findings pertaining to the hypotheses developed in the study.

11.1.1 Strategy, Ownership Structure, and Performance of the JV

The overall results of the large sample study and the small sample field study conducted in this thesis identified the linkage of strategy, ownership structure, and performance. The large sample study examined the linkage between JV ownership structure and performance (financial performance and termination rate); and the field study (interviews with senior managers of Japanese parent firms) examined the linkage between strategy and ownership structure. Table 11.1 provides the summary of the identified linkage between the three variables.

As is shown in Table 11.1, Intrafirm JVs tended to be chosen when a Japanese parent firm exploited its own competitive advantage (or ownership advantage) in the host country. Since all JV partners here are mutually affiliated, an Intrafirm JV is least likely to incur management complexity, and hence, provides lower likelihood of termination compared to other types of JV ownership structure. The average financial performance of Intrafirm JVs was second highest, following that of Traditional IJVs.

Cross-national DJVs tended to be chosen when a Japanese parent exploited the competitive advantages stemming from the established relationship between Japanese firms. The interviews revealed that such relationships usually took the form of either a buyer-supplier relationship or a producer-seller (i.e., manufacturer-*Sogo Shosha*) relationship. This ownership structure was sometimes considered a secondary option to a Traditional IJV because it was chosen, in many cases, when the Japanese parent could not find a desirable partner in the host country. Since JV partners in this ownership structure are all Japanese firms, and many already had an established relationship, it incurs lower management complexity, and hence, provides lower likelihood of termination compared to JVs formed by firms of different nationality. The average performance of the Cross-national DJVs was third highest, following those of both Intrafirm JVs and Traditional IJVs.

Traditional IJVs tended to be chosen when a Japanese parent needed to complement its comparative advantage (usually technical skills) with that of a local firm's knowledge of local conditions. In the interviews, Japanese managers repeatedly suggested that some knowledge of, or capabilities to deal with, local conditions and customs could not be obtained merely by accumulating operational experiences in a host country. A Traditional IJV is, thus, used to complement each partner's comparative advantages in its respective specialized area. The average financial performance of the Traditional IJVs was highest as well as most stable (i.e., the least variance) among the four JV ownership structures. However, the

termination rate was highest of the four types, reflecting the difficulty of developing a sustainable partnership between Japanese and local firms.

Table 11.1 Strategy, Ownership Structure, and Performance of the JV

Strategy	Ownership structure	Performance	
		Average financial performance (variance)	Termination rate
Exploitation of a Japanese parent firm's competitive advantage	Intrafirm JV	moderately profitable (medium)	low
Exploitation of competitive advantages based on the established relationship between Japanese firms	Cross-national DJV	moderately profitable (medium to large)	low
Complementing of comparative advantages between Japanese and local firms	Traditional IJV	highest profitability (smaller)	highest
Exploitation of competitive advantages based on the established relationship between Japanese and third-country based firms	Trinational IJV	unprofitable (larger)	high

Trinational IJVs tended to be chosen when a Japanese parent exploited the competitive advantages stemming from the established relationship between Japanese and third-country based firms. The interviews with managers suggested that a Trinational IJV was usually a secondary option behind a Traditional IJV or a Cross-national DJV because this option was usually chosen when a Japanese firm could find neither a desirable local partner nor a Japanese partner. Consistent with the reluctance expressed by the Japanese managers, the study found that the average financial performance of the Trinational IJVs was the lowest, and the most

unstable, and their likelihood of termination was second highest.

Strategic Orientation and JV Ownership Structure

Each of the four JV ownership structures has a distinct strategic orientation. An Intrafirm JV should be differentiated from the other three forms of JV ownership structure in that it is an option in which partners provide *similar* elements of resources to the venture, while the other forms of JVs are options in which the partners make *independent* or *complementary* contributions to the venture. Such a distinct characteristic of the Intrafirm JV originates in the scope of the source of the JV competitive advantages: competitive advantages of Intrafirm JV are specific to a single-parent firm, whereas those of the other JV forms are specific to the relationship between partners.

A Traditional IJV also has distinctive characteristics in terms of the way it attains competitive advantage. While the competitive advantages of JVs with the other ownership structures seem to originate in the "transfer" (or exploitation) of ownership advantage of either a single firm or an established relationship between firms in a host country, those of the Traditional IJV seem to involve the "creation" of a new advantage by complementing comparative advantages between partners in the host country. A Cross-national DJV and a Trinational IJV both seem to have a similar strategic orientation; the competitive advantage of both JV ownership

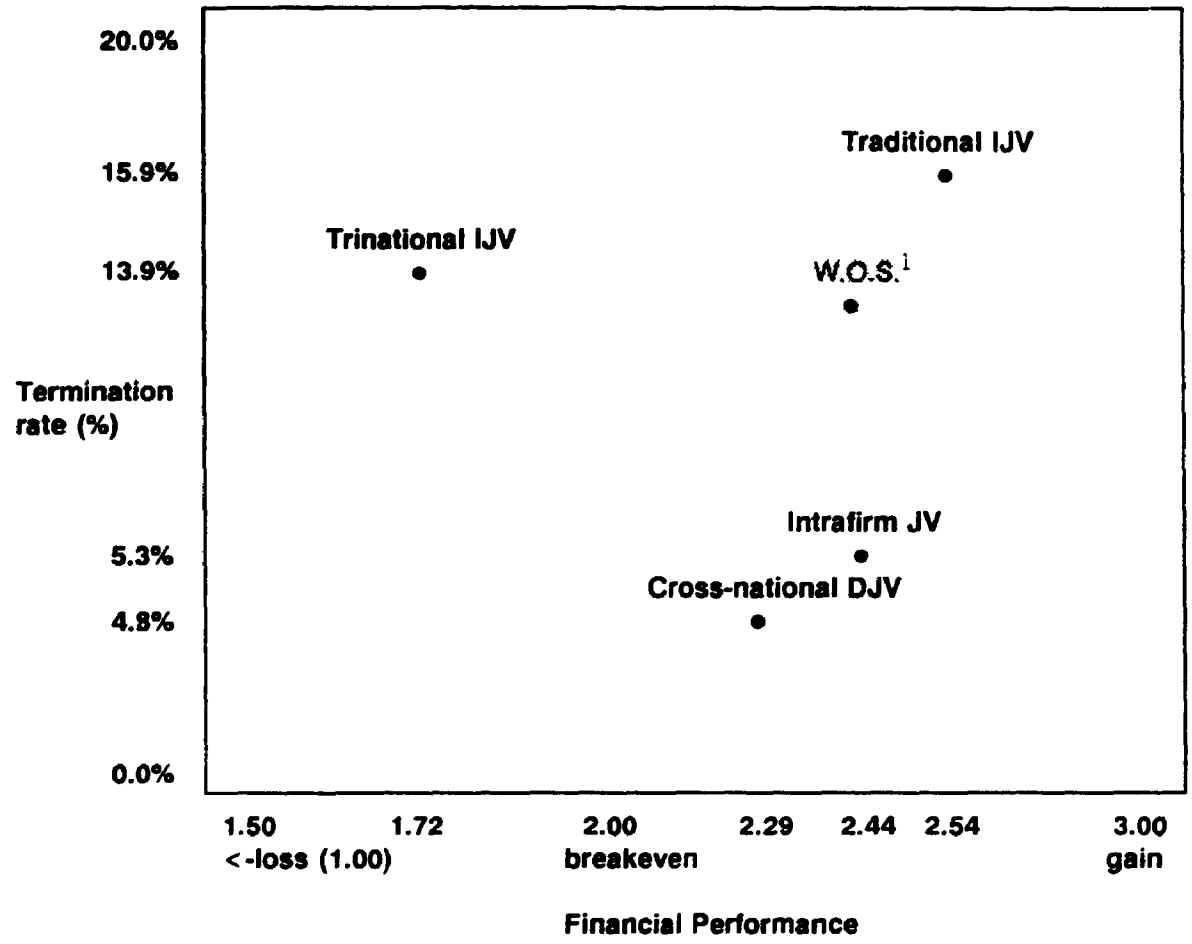
structures are in the exploitation of relationship-based advantages. They are, however, different, in that while the JV partners of the former share the same nationality, those of the latter have different nationalities.

Performance Focus and JV Ownership Structure

As the results of the study suggested, each JV ownership structure provides a different implication for performance. In general, the choice of particular JV ownership structure implies a trade-off between financial performance and survival likelihood. Figure 11.1 illustrates the relationship between financial performance, termination rate, and JV ownership structure.

Figure 11.1 suggests that a Traditional IJV may be a higher risk approach, because while both an Intrafirm JV and a Cross-national DJV had a lower termination rate than the Traditional IJV, their average performance is still profitable (i.e., more than 2.00). However, our evidence also suggested that: (1) the average financial performance of Traditional IJVs was significantly higher than that of Intrafirm JVs and of Cross-national DJVs; and (2) the order of performance among JV ownership structures was generally consistent across countries and industries (see APPENDIX). In this respect, it is fair to conclude that in terms of attaining superior financial performance, a Traditional IJV is the most successful JV ownership structure.

Figure 11.1 JV Ownership Structure, Financial Performance, and Termination Rate



Note 1: Performance information on W.O.S. (wholly-owned subsidiary) is included for comparative purposes. The endnote to Chapter 10 suggests that the average financial performance of W.O.S. in Asia (N = 181) is 2.41, and the termination rate is 12.2%

As is shown in Figure 11.1, the choice of JV ownership structure may be made based on the trade-off between longer-term and shorter-term orientations for JV success. In general, an Intrafirm JV and a Cross-national DJV may be used as a longer-term solution (i.e., lower likelihood of termination yet with moderate-to-high financial performance) for attaining JV success, and a Traditional IJV as a medium-term solution (i.e., higher likelihood of termination yet with stable and higher

financial performance). A Trinational IJV is usually the least desirable of the ownership-structure types, as it incurs the higher likelihood of termination compared with both an Intrafirm JV and a Cross-national DJV, and achieves lowest financial performance. As is suggested by these results, judging the success of a JV solely from either financial performance or termination rate is misleading. Neither financial performance nor termination rate necessarily imply that one JV ownership structure is more successful than another. In this regard, the assessment of JV success essentially depends on managers' relative emphasis on each of the two performance measures.

11.1.2 Government Policy, Ownership Structure, and Performance

The second finding involves the impact of government policy on the choice and performance of JV ownership structure. Consistent with previous studies of MNEs, the present study found that firms investing in countries with a relatively high degree of ownership restriction tended to choose Traditional IJVs over other forms of JV ownership structure (Fagre and Wells 1982; Lecraw 1984; Gomes-Casseres 1990). However, in terms of the relationship between ownership restriction and JV performance, the evidence is mixed. The study suggested that a host government's ownership restriction did not have a direct impact on JV financial performance, but it did have a negative impact on JV survival. However, this negative association between local ownership restriction and JV survival might be

reflected in the fact that a larger number of Traditional JVs, which were found to have a relatively higher termination rate, were formed in those restrictive countries. On balance, it is concluded that a host government's local ownership restrictions strongly influence the choice of JV ownership structure but have a limited impact on both JV financial performance and survival.

11.1.3 Changes in JV Ownership Structure and Financial Performance

The third finding involves the relationship between the changes in JV ownership structure and financial performance. This study suggested that the JVs which changed their ownership structure had significantly lower financial performance in 1985 compared to those JVs which did not, and those JVs which changed their ownership structure significantly improved their financial performance between 1985 - 1991. This implies that changes in JV ownership structure are generally associated with improved JV performance.

11.1.4 Local Experience, Ownership Structure, and Performance

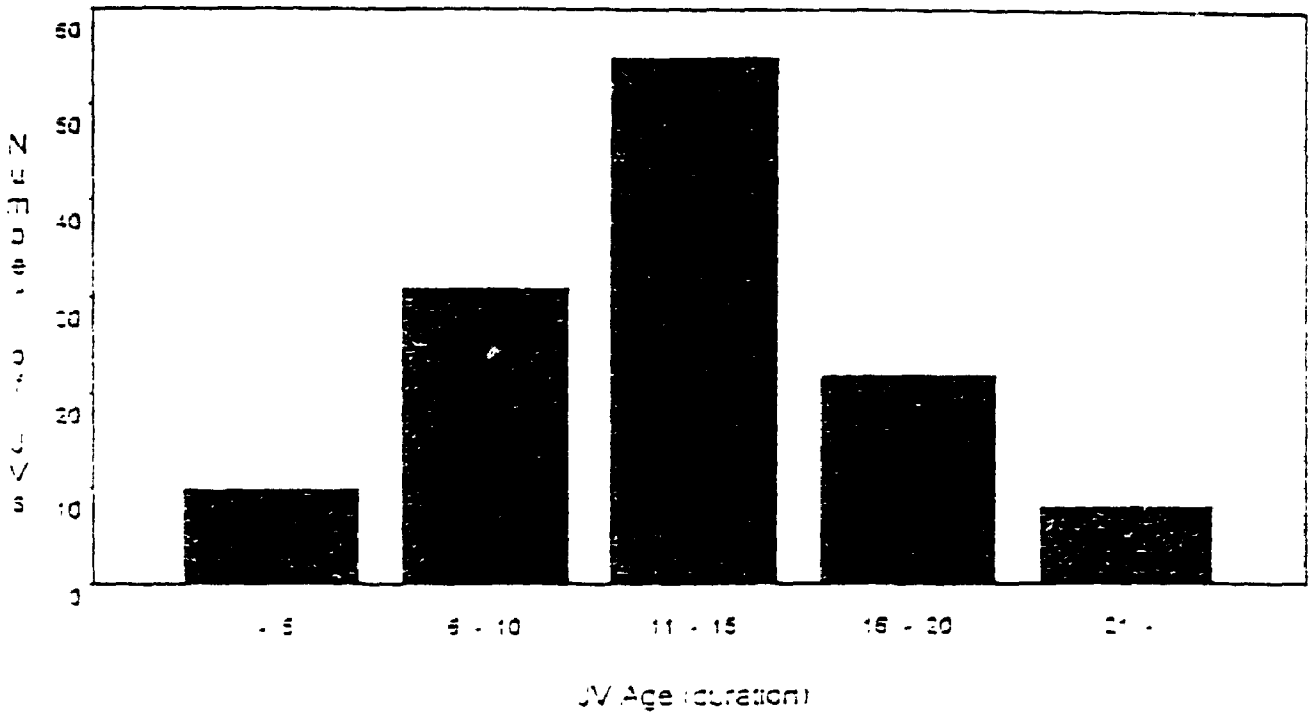
The fourth finding involves the impact of both a parent firm's and a JV's operational experience on the choice (or change) and performance of its ownership structure. The evidence did not find a clear association between the years of local experience either of the parent firms or of the JVs, and the choice of JV ownership structure. In our analysis, the average number of years of the

parent firm's past operational experience in a particular host country was higher for Intrafirm JV, suggesting that the longer the years of parent firms' past local experience, the more likely Intrafirm JV was chosen over the other JV structure forms. While this finding is consistent with hypothesized direction, it was not statistically supported. The relationship between JV age and the choice of JV ownership structure was also unclear. For example, our evidence showed that over 90% of JVs (461 out of 501 cases) did not change their ownership structure during the given time period (1985 - 1991), suggesting that the changes in JV ownership structure were unlikely to occur irrespective of JV age. Overall, the evidence suggests that neither the years of local experience of parent firms nor of JVs directly influences the choice (or the change) of JV ownership structure.

With regard to the impact of experience on performance, the study found that there was a significant association between JV experience (JV age) and both financial performance and termination rate, and between the years of parent local experience and termination rate. In our sample, JV age was significantly positively associated with financial performance. In terms of JV survival, our analysis showed that the association between JV survival and JV experience (JV age) forms a clear bell-shaped curve with a peak age of 11 to 15 years (mean 11.9 years and standard deviation 4.89 years) (Figure 11.2). The years of parent firms' past experience was also associated with termination rate. The evidence suggested that: (1) over 85% of the JVs that were terminated between 1986 and 1991 (110

out of 127 cases) were the first-entries; and (2) the average years of parents' local experience was significantly higher for the surviving JVs (9.4 years old) than for the terminated JVs (4.2 years old), when removing the first entries from the sample.

Figure 11.2 Frequencies of Terminated JVs by Age (duration in years)



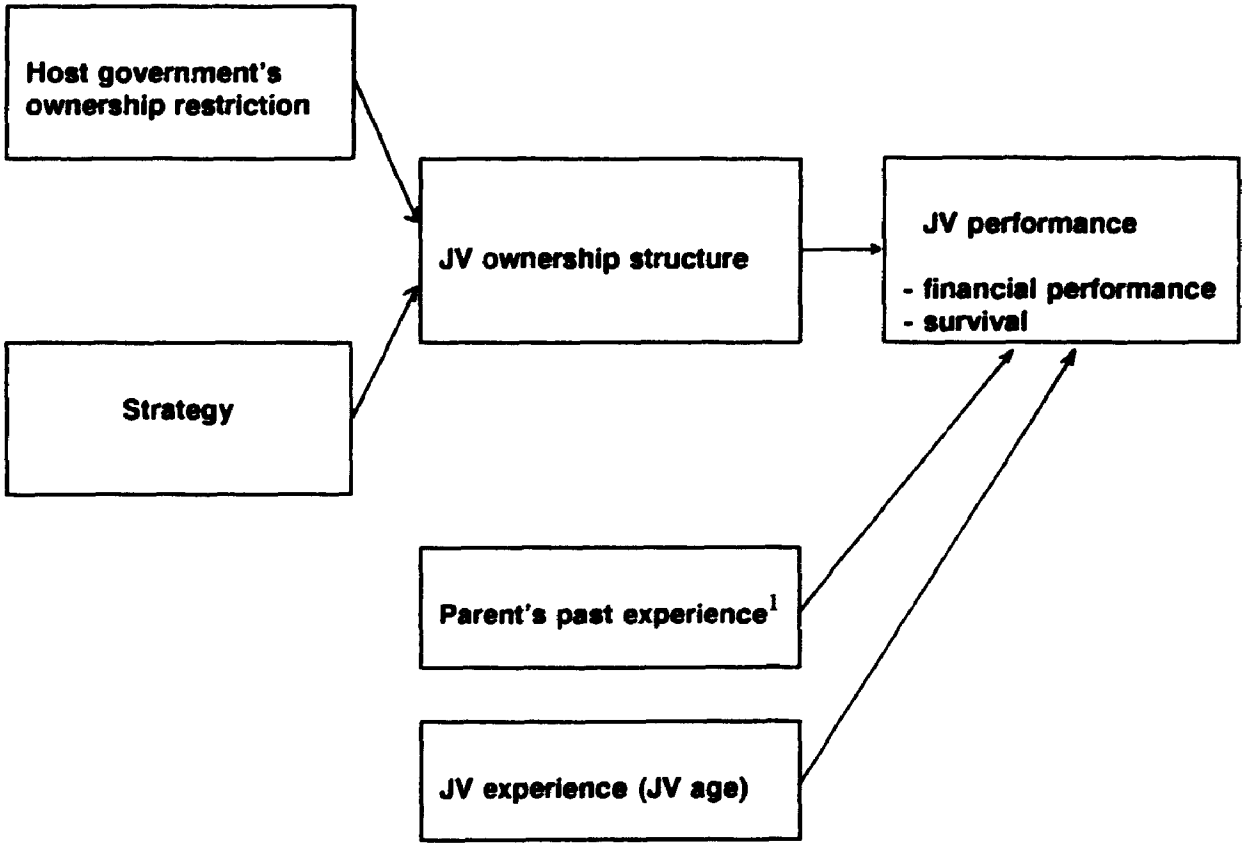
Kolmogorov-Smirnov test[2]: K-S Z = 0.787 (p= 564)

[1] The chart is created based on figures in Table 8.2a

[2] This test examines the *null hypothesis* that a sample is normally distributed. The result of the test suggests that the null hypothesis is not rejected, implying that JV age (duration) is normally distributed.

The overall association between the variables discussed above is illustrated in Figure 11.3. The choice of JV ownership structure depends on a parent firm's strategy and host country's local ownership restriction. JV performance (financial performance and survival of the JV) is influenced by the chosen ownership structure and the local experience of both the JV and the parent firms.

Figure 11.3 Identified Association



[1] Parent's past experience (the years of a parent firm's previous operational experience in a host country) was associated only with survival.

In conclusion, previous studies of JVs have failed to identify distinct JV ownership structures, and hence ignored the importance of the choice and performance of JV ownership structure. This study shed light on this dimension by attempting to explain the impact of the choice of JV ownership structure on performance.

11.2 Limitations and Strengths of the Study

While overall hypotheses developed in this thesis were generally supported, this study is not without limitations. The following sections discuss both limitations and strengths of the study.

11.2.1 Limitations

The first and probably the most critical limitation of this study may involve operationalization of the constructs such as JV ownership structure, performance, and a host government's local ownership restriction. First, JV ownership structure was defined based on the JV partners' nationality and equity affiliation. The size of equity ownership was used to define whether one partner's characteristics were influential in a given JV: when one partner's equity ownership exceeded 20%, the JV was considered to be similar to a partnership. As many studies have pointed out, however, the size of equity ownership may not represent its actual proportion

of responsibilities or influences in the decision making process within a JV.

Financial performance was measured using managers' subjective assessment of JV financial performance. It may not directly measure the actual financial performance, but may measure the attitudes of managers. Also, the termination rate used in this study was calculated for each of the four groups of JVs with the same JV ownership structure. While this measure examined JV survival at the *group* level, not at the *firm* level, the questions of how and why some JVs with the same ownership structure survive longer than others remain unsolved in this study.

Finally, the degree of a host government's local ownership restriction could be criticized in terms of reliability of the measure. As discussed in Chapter 7, the actual local ownership policy is a complex phenomenon because the content of local ownership restrictions differ significantly between countries. We used the single-scale measure to operationally define the concept. Although the measure was created based on a large sample (more than 17,000) survey conducted by the U.S. Department of Commerce, the reliability of the measure and its applicability to a Japanese context are unknown.

The second limitation may involve the nature of the analysis. With some exceptions, most analyses conducted in this study were cross-sectional in nature. The study did not always capture the longitudinal changes in the choice and

performance of JV ownership structure. However, this study made some attempts to overcome the weaknesses stemming from the use of a cross-sectional analysis by: (1) controlling for JV age and parent firm experience in a given host country; (2) using both financial performance and termination rate as a measure of JV performance; (3) using two databases from different points in time (1985 and 1991); and (4) using detailed interviews.

The third limitation may involve the generalizability of the results of the study. This study focused exclusively on Japanese MNEs investing in manufacturing sectors in nine Asian countries. Do the results also apply to the JVs in the U.S.? to those in service sectors? or, to those formed by non-Japanese parent firms? As many studies of Japanese MNEs suggest Japanese MNEs might have different strategic orientations or patterns of behaviour than North American MNEs. For example, Japanese MNEs tended to prefer shared-ownership or even minority-ownership positions, whereas American MNEs have a greater preference for full- or dominant-ownership (Franko 1976; Kojima 1982; UN, Centre on Transnational Corporations 1978). Moreover, JVs formed by Japanese MNEs often involve a "group" investment - FDI involving two or more Japanese group firms (such as *Sogo Shosha*) (Franko 1983; Fujimori 1989; Gittelman and Graham 1994; Kojima 1982; Yoshihara 1979). Given such observed differences, a further study should be conducted to verify the results obtained in this study using different research settings such as nationality of investing firms (i.e., non-Japanese parent firms) and

geographic regions (i.e., non-Asian host countries).

The fourth limitation may involve the scope of the analysis. This study examined the performance difference "between", rather than "within", JV ownership structures. In other words, this study was not able to explain why some JVs are successful and others are not, when they share the same ownership structure. Future study, therefore, should investigate the characteristics of both successful and unsuccessful JVs sharing the same ownership structure, and the process of how they have improved their performance. Three specific research questions should be answered in this regard. First, How can Traditional IJVs reduce the level of management complexity between JV partners while maintaining, or enforcing, a local-resource access opportunity? Second, How can Japanese-based JVs such as Intrafirm JVs and Cross-national DJVs build location-specific resources internally without having a local partner? Third, How can Trinational IJVs successfully compete with the other JV types?

11.2.2 Strengths

Despite the limitations, this study also has some strengths. First, this study is the first that: (1) identified distinctive types of JV ownership structure based on a measurable classification scheme, newly developed in this study; (2) examined the choice and performance (financial performance and survival) of JV ownership

structure using the largest sample (1,688 cases) ever used in studies of JVs in Asia; and (3) identified four strategies pertaining to the choice of JV ownership structure.

Second, this study used a multi-method approach. A large sample study was used to examine the "what" part of the relationship between JV ownership structure and performance. Specifically, the large sample study was used to: (1) compare and contrast various organizational attributes and characteristics between the four JV ownership structures; and (2) examine the relationship between JV ownership structure and financial performance and survival likelihood. A small sample field study was used to examine the "why" part of the analysis. The small sample field study used in-depth interviews with the Japanese senior managers of the large Japanese MNEs to confirm the results of the large sample study and to explain why a firm chooses different JV ownership structures.

Third, this study focused on the JVs formed by *Japanese* MNEs, using a *Japanese* information source (i.e., database and interview informants), conducted by a *Japanese* researcher. It is, therefore, expected that there was less bias in accessing, collecting and interpreting the data used in this study, which might have been the case if the researcher had a lack of understanding of culture and language, or difficulty in accessing the source of the data (Wright, Lane and Beamish 1988).

11.3 Implications

This study provides various implications for both theory development and the practice of management. The following sections discuss some of the implications obtained in both the large sample study and the small sample field study (interviews).

11.3.1 Implications for Theory Development

Implications for theory development are provided in the areas of alternative forms of governance, ownership choice, transaction cost theory, and resource-based view of the firm.

Implication for Alternative Forms of Governance

The first contribution of this study is that it provides measures of alternative forms of JV ownership structure. While studies of international JVs (IJVs) have proliferated, conventional studies have almost exclusively focused on one form of structure of an IJV - an IJV formed between a foreign and *a local* firm - which is referred to as a Traditional IJV in this study. These studies have generally ignored the other types of IJVs - those IJVs formed by non-local firms in a local country. This study found that the number of Traditional IJVs represents approximately 70%

of our sample, and the rest of the sample (30%) involved non-"traditional" forms. This implies that some previous studies of JVs may have lacked both theoretical and empirical rigour, as they have failed to recognize the fact that many JVs (at least 30% of the JV population) were not traditionally defined JVs, and, therefore, have never examined the effect of JV ownership structure on performance. This study identified four distinct types of JV ownership structure and examined their organizational attributes as well as their impact on performance. As discussed in Chapter 8 and 9 in detail, this study found that each JV ownership structure had different organizational characteristics and a differential impact on both financial performance and survival likelihood. The evidence indicates that a JV is not a homogenous intermediate form in between an arm's-length contract and a full-ownership hierarchy, but takes various forms of distinct ownership structure.

Implication for Ownership Choice

The second contribution of this study is to provide an alternative view of the choice of ownership position of the JV. Most prior studies of JVs have related the level of equity ownership to the level of control. These studies have long assumed that a firm generally prefers to possess a full or dominant ownership position because the parent firm with the larger equity ownership could exercise greater control over the other partners. However, this study suggested that an alternative explanation with regard to the choice of ownership position is also possible. It suggested that

a firm's ownership position involved not only the degree of control but also the potential resource-access channel through which each parent firm can circumvent or access its partner's proprietary technical know-how or knowledge of local conditions. To examine this, we identified two general types of JV ownership structure. The first type involves JVs formed by firms which provide *similar* contributions to the JV; and the second type involves those JVs formed by firms which make *complementary* contributions to the JV (Contractor and Lorange 1988b). With partners which provide similar contributions, the JV incurs less management complexity, and the control of JV operation is easier. With partners which provide complementary contributions, the JV brings together complementary skills and knowledge (Contractor and Lorange 1988b, p.13). Our evidence suggests that JVs formed by firms with complementary contributions (i.e., Traditional IJVs) are, on average, more successful than those JVs formed by firms with similar contributions (i.e., Intrafirm JV). This result implies that the level of control is not necessarily the sole factor that influences JV financial performance. The resource-access opportunity via JV ownership channel is also an important factor that influences the choice and performance of JV ownership structure.

Implication for Transaction Cost Theory

Opportunism has been one of the central behavioral assumptions in transaction economics (Williamson 1975, 1979, 1985, 1990). The concept of opportunism

generally refers to "a self-interest seeking assumption that makes allowance for guile" (Williamson 1990, p.11). Due to this assumption, the risks of moral hazard (or partner opportunism) are generally considered higher in a JV than in a wholly-owned subsidiary. However, our study suggested that such risks did not primarily influence the firm's decision of JV formation. As the Japanese managers suggested in this study, their primary concern was whether they could find the ideal partners which could contribute what they needed. The study revealed that the Japanese MNEs preferred to form a JV with local partners (i.e., Traditional IJVs) when they needed to gain access to local knowledge and proprietary skills to deal with location specific conditions such as education of the local labour force, access to local distribution networks, and negotiation with local governments. Thus, the overall results suggested that: (1) the decision to form a JV and the choice of JV ownership structure were driven primarily by a parent (Japanese) firm's strategic needs; and (2) partner opportunism was viewed (by the Japanese managers) as something to be overcome in the process of ongoing partner interaction *a posteriori*. This is consistent with Contractor and Lorange's (1988b) premise with regard to the primary factors that influence JV formation. They noted:

> ".... even though subsequent problems [of JV formation] may develop (such as cultural difficulties, slower decision making, arguments over the rate and division of profits, disputes over sourcing, tensions in connection with the assignment of personnel, and disagreements on future expansion), these are still all less onerous problems when compared with an erosion of the fundamental strategic rationales...." (Contractor and Lorange 1988b, p.25)

The results from our field study clearly support this premise and suggest that each

JV ownership structure corresponds to a distinct strategy of the parent firm (Table 11.1). As the evidence suggests, we should note that opportunism can not be the sole reason for a foreign firm to be involved (or not involved) in JV formation: the decision to form a JV can be also driven by the parent firm's strategic needs. To extend this perspective, future studies should recognize that a JV is not merely a form of governance that contributes to minimizing the *costs* of management or transactions, but also involves a bundle of proprietary resources, on which each partner's competitive advantage is based, and in turn, contributes to increasing the *revenues*.

On Behavioral Assumption

Transaction cost theory suggests that the best way to avoid partner opportunism is to make a complete contract for every transaction which can potentially occur between JV partners *ex ante*. In contrast, the Japanese managers suggested that a contract was not the best way to maintain an effective partnership: it was more important to develop trust between partners. The contrast in these views is further reflected in their assumptions regarding the nature of the firm. Transaction cost theory assumes that firms inherently behave opportunistically to maximize their own interest. In contrast, the alternative perspective is, as one Japanese manager suggested, that firms inherently behave to gain ***trust*** from the others. Further, transaction cost theory posits that opportunism occurs on a separate transaction

basis, and hence, focuses on an independent transaction as a unit of analysis. On the other hand, the alternative perspective posits that trust occurs on an intra-organization basis, not on an independent transaction basis. Underlying this idea is that if trust is violated on one transaction, it will be disrupted in related transactions: transactions based on trust are, not separable, but are bundled and interact (Zucker 1986, p. 66).

The two different perspectives provide interesting implications for future research. From the transaction cost view, a JV is generally considered a secondary option in terms of attaining superior performance due to the increased transaction costs stemming from monitoring the partner's opportunistic behaviour. From the alternative perspective, a JV can be a primary option in terms of attaining superior performance because each partner has a strong commitment to JV success and has a willingness to provide its proprietary or complementary resources to the venture. While the question of which perspective is more relevant is unknown, it may be that a single view from either perspective cannot fully explain the complex issues identified in this study. Recently, some studies have attempted to explain the existence of MNEs without appealing to the opportunism assumption (Beamish and Banks 1987; Kogut and Zander 1992, 1993; Love 1995). To extend this line of study, a good starting point may be to loosen the opportunism assumption and reconsider the alternative behavioural assumption. The trust based view of cooperative ventures may be one of the more promising areas of future research.

Implication for Resource-based View of the Firm

A firm's competitive advantage (or ownership advantage) has long been considered to influence the firm's involvement in foreign direct investment. Since a foreign firm usually lacks knowledge of local conditions for FDI to occur, the firm must possess distinct ownership advantages that outweigh its disadvantage of the lack of local knowledge (Hymer 1976). This study, however, suggested that an alternative conception is also possible: a foreign firm can improve its competitive advantage *vis a vis* indigenous competitors by overcoming its disadvantages with regard to local knowledge. The Japanese managers suggested that most JVs formed with local firms (Traditional IJVs) were aimed at gaining an access to their local knowledge. Some forms of the local knowledge are not obtainable by accumulating operational experience in a local country. In this study, we attempted to distinguish between three types: non-proprietary, general-proprietary, and specific-proprietary, and suggested that the need for a local partner would be associated with the extent to which the needed local knowledge is proprietary to a specific local firm. To date, a greater emphasis has been placed on identifying components of ownership advantage in the field of international business, and few studies have focused on differential attributes of local knowledge on which local firms' relative advantages are based. Future studies should also investigate the role of local partners and identify the various attributes of the contributions from local partners and their impact on JV performance.

11.3.2 Implications for Managers

From the findings, the following managerial implications are suggested: First, JVs may be a risky investment, but, if managed successfully, they can be a viable foreign direct investment option for successful entry into a new international market. Our sample showed that the average termination rate (the number of the JVs terminated between 1986 - 1991 divided by those formed during the same period) was 12.9%, which was higher than the termination rate of overall Japanese direct investment in Asia (8.5%; Horaguchi 1992). However, more than 65% of the remaining JVs were financially profitable.

Second, foreign firms have three major options with regard to choosing joint venture partners: home-country based (affiliated or non-affiliated) partners, local partners, and third-country based partners.

First, if a foreign firm is confident that its ownership advantage can be strong enough to outweigh its disadvantages of the lack of local knowledge *vis a vis* indigenous competitors, one promising option is to form an Intrafirm JV. This option may enable the firm to attain ease of management and to avoid potential leakage of its proprietary know-how and skills to a competitor. This option incurs a lower risk of termination, but does not guarantee the highest and most stable financial performance.

Second, if a foreign firm is confident that it can attain higher competitive advantages *vis a vis* indigenous competitors by transferring an established relationship into the host country rather than investing in the host country alone, it may be able to use either a Cross-national DJV (when a JV partner is of the same nationality) or a Trinational IJV (when a JV partner is of a different nationality). Both options are, however, less likely to result in superior performance than a Traditional IJV, and less likely to survive than an Intrafirm JV. While a Cross-national DJV provides some merits in terms of ease of management (due to the fact that JV partners share the same nationality), a Trinational IJV is generally the least successful alternative form because the firm can neither access local knowledge nor share similar organizational and national attributes with its partners.

Finally, if a foreign firm's primary purpose is to gain access to local firms' proprietary knowledge of local conditions, a Traditional IJV will be the best choice. While this option provides the firm with the best opportunity to attain superior financial performance, it also incurs the highest likelihood of termination due mainly to the difficulty of maintaining a good partnership. As the Japanese managers suggested, for the JV to be sustained, both JV partners must have a strong commitment to the JV success.

Third, previous experience in a particular host country does not guarantee the

success of subsequent JVs. Our analysis suggested that a parent (Japanese) firm's years of past operational experience in a given country was not significantly associated with higher financial performance. This implies that a foreign firm cannot perfectly understand local conditions merely by accumulating experience in the local country. However, this also implies that a foreign firm with limited experience in the country may have a chance for the success. The success may to a large extent depend on whether the firm can find a local partner which provides the necessary knowledge of, and skills to deal with, the conditions specific to the particular country.

Finally, although the host government may impose local ownership restrictions on foreign firms, it should be noted that such ownership restrictions *per se* are not necessarily an obstacle for JV success. The key is not the extent to which a foreign firm controls a JV, but rather whether it can choose the right partner with which to form a cooperative relationship. To attain superior JV performance, foreign firms should find a local partner that possesses, and is willing to provide, complementary resources. To sustain the JV's success, each partner should have a strong commitment to overcoming the managerial complexity arising from coordination of the dissimilar interests and activities of the partners.

APPENDIX

Effects of Country, Industry, and Parent Firm on the Choice and Performance of JV Ownership Structure

In Chapter 9, the relationship between JV ownership structure and performance (both financial performance and termination rate) was examined without paying explicit attention to the effects of country-, industry-, and parent firm-specific factors which could moderate this relationship. In the following sections, the hypothesized relationship between JV ownership structure and performance is discussed at the country, industry, and parent firm level.

1. JV Ownership Structure and Financial Performance

The sample was divided into sub-samples by each of the nine countries, nine industries, and the ten Japanese parent firms which possessed 10 or more JVs in East and Southeast Asia. Statistical analyses were conducted to examine whether or not JV financial performance differed for each pair of the four JV ownership structures for each of country, industry, and parent-firm subsamples. Due to the small samples of firms in some of the cells, the hypothesized relationship between performance and JV ownership structure could only be partially examined.

Country

Table A.1a provides a comparison of the average financial performance of the four JV ownership structures by country. In most countries, the average financial performance for Traditional IJVs was either highest (6 out of 9 countries) or second highest (2 out of 9 countries). Intrafirm JVs, on average, attained higher performance compared to Cross-national DJVs and Trinational IJVs, but lower performance than Traditional IJVs. The average performance of Cross-national DJVs was either second highest or third highest, yet never the highest nor the lowest. Trinational IJVs attained the lowest financial performance for all countries where they existed.

Traditional IJVs attained higher financial performance than Intrafirm JVs in most countries. In our analysis, Intrafirm JVs attained statistically significant higher financial performance than Traditional IJVs only when these JVs operated in Hong Kong ($t = 1.74$, $p = .082$). When the JV cases in Hong Kong were removed from the total sample, the average financial performance of Traditional IJVs improved from 2.54 to 2.55, and that of Intrafirm JVs decreased from 2.44 to 2.41. Consequently, the difference in performance between these two JV forms became statistically significant at the $p = 0.05$ level.

Overall, our evidence suggests that there were not critical country-specific factors

which moderated the relationship between JV ownership structure and performance.

Table A.1a JV Ownership Structure and Performance by Country

	Total	Intrafirm JV	Cross-national DJV	Traditional IJV	Trinational IJV
China	2.42 n = 64	3.00 n = 2	n.a.	2.40 n = 62	n.a.
Taiwan	2.54 n = 143	2.65 n = 20	2.11 n = 9	2.56 n = 114	n.a.
Hong Kong	2.53 n = 30	3.00 n = 6	2.83 n = 6	2.31 n = 16	2.00 n = 2
Thailand	2.43 n = 156	2.41 n = 17	2.26 n = 26	2.49 n = 109	2.00 n = 4
Singapore	2.50 n = 61	2.50 n = 24	2.42 n = 14	2.56 n = 23	n.a.
Malaysia	2.30 n = 76	2.17 n = 17	2.08 n = 12	2.52 n = 42	1.40 n = 5
Philippines	2.37 n = 24	2.00 n = 2	2.14 n = 7	2.69 n = 13	1.50 n = 2
Indonesia	2.63 n = 84	2.25 n = 4	2.42 n = 7	2.73 n = 68	1.80 n = 5
Korea	2.54 n = 123	1.75 n = 4	2.33 n = 3	2.57 n = 116	n.a.
Total	2.48 n = 761	2.44 n = 96	2.29 n = 84	2.54 n = 563	1.72 n = 18

Industry

Table A.1b provides a comparison of the average financial performance for each of the four JV ownership structures by industry. As is suggested in Table A.1b, the relationship between performance and JV ownership structure was generally

consistent across major industries. The average performance of Traditional IJVs was either highest or second highest in all the industries listed in the table.

Table A.1b JV Ownership Structure and Performance by Industry

	Total	Intrafirm JV	Cross-national DJV	Traditional IJV	Trinational IJV
Food	2.24 n = 49	2.50 n = 8	2.00 n = 7	2.27 n = 33	1.00 n = 1
Textile	2.65 n = 49	3.00 n = 1	2.53 n = 15	2.69 n = 33	n.a.
Chemicals	2.61 n = 117	2.62 n = 8	2.30 n = 10	2.64 n = 96	2.66 n = 3
Rubber /Plastics	2.28 n = 46	2.33 n = 3	1.80 n = 5	2.37 n = 37	1.00 n = 1
Fabricated Metal	2.33 n = 48	2.25 n = 8	2.16 n = 6	2.45 n = 31	1.66 n = 3
Machinery	2.33 n = 78	2.20 n = 10	1.50 n = 4	2.52 n = 61	1.66 n = 3
Electronics	2.50 n = 119	2.46 n = 30	2.20 n = 15	2.59 n = 72	2.00 n = 2
Transportation	2.52 n = 89	2.66 n = 3	2.50 n = 8	2.55 n = 72	1.50 n = 2
Total	2.47 n = 591	2.43 n = 71	2.22 n = 70	2.54 n = 435	1.80 n = 15

The average performance of Intrafirm JVs was also either highest or second highest in most industries. Cross-national DJVs attained the third highest performance in most (6 out of 8) industries, and the lowest performance in the Chemicals and Machinery industries. In sum, Traditional IJVs and Intrafirm JVs consistently attained the highest or the second highest financial performance in all

the industries in our sample. Trinational IJVs attained the lowest performance in all the industries except the Chemicals and Machinery industries. While Trinational IJVs attained the highest financial performance in the Chemicals industry, there was no statistically significant performance difference between JV ownership structures in the Chemicals industry. Overall, our evidence suggests that the relationship between JV ownership structure and performance is generally consistent across industries.

Parent Firm

Table A.1c provides a comparison of financial performance for each of the JV ownership structures by parent firm. Note the parent firms listed in the table represent those Japanese firms which possess the largest equity share of the JVs. These Japanese parent firms may or may not be minority ownership holders for the other JVs in our sample. The ten parent firms listed in the table represent those firms which possessed the largest equity share in 10 or more JVs in East and Southeast Asia as of 1991. However, statistical comparison could not be conducted due to the small size of the sample for each parent firm. Instead, t-tests were conducted for an aggregate sample of the ten parent firms' sample. Table A.1c suggests that Cross-national DJVs attained the highest performance (2.83), Traditional IJVs second (2.58), Intrafirm JVs third (2.40), and Trinational IJVs the lowest (1.00). While the average performance of Cross-national DJVs was

higher than both those of Traditional IJVs and Intrafirm JVs, the difference in performance was not statistically significant. The t-test results also suggested that the average performance of Intrafirm JVs, Cross-national DJVs, and Traditional IJVs was significantly higher than that of Trinational IJVs

Table A.1c JV Ownership Structure and Performance by Large Parent Firm[1]

	Total	Intrafirm JV	Cross-national DJV	Traditional IJV	Trinational IJV
C.Ito n=17	3.00 n= 1	n.a.	n.a.	3.00 n= 1	n.a.
Sanyo n= 19	1.50 n= 2	2.00 n= 1	n.a.	n.a.	1.00 n= 1
Citizen n=10	3.00 n= 1	3.00 n= 1	n.a.	n.a.	n.a.
Sumitomo Corp n=10	n.a.	n.a.	n.a	n.a.	n.a.
Tomen n=15	2.09 n= 10	1.00 n= 1	2.00 n= 1	2.42 n= 7	1.00 n= 1
Toray n=10	2.79 n= 10	3.00 n= 1	3.00 n= 2	2.71 n= 7	n.a
Nissho Iwai n=12	2.49 n= 8	n.a	3.00 n= 1	2.42 n= 7	n.a
Honda n=14	3.00 n= 3	3.00 n= 1	3.00 n= 1	3.00 n= 1	n.a.
Marubeni n=23	2.62 n= 8	n.a	3.00 n= 1	2.57 n= 7	n.a
Mitsui Corp n=16	2.00 n= 2	n.a.	n.a	3.00 n= 1	1.00 n= 1
Total	2.48 n= 45	2.40 n= 5	2.83 n= 6	2.58 n= 31	1.00 n= 3

The number (n) in the first-left column represents that of the JVs owned by each of the parent firms in Asia, and the number (n) in the second-left column ("Total"-column) represents that of those JV cases with performance information. Since some cases in the sample do not comply financial performance information, the number of the JVs in these columns is not necessarily consistent.

While the association between JV ownership structure and performance for each parent firm remained unclear due to the difficulties in conducting statistical tests, the overall results using the aggregated parent firm sample were generally consistent with the hypothesized relationship.

2. JV Ownership Structure and Termination Rate

A summary of termination rates for each of the four JV ownership structures by country, industry, and parent firm is provided in Tables A.2a, A.2b, and A.2c respectively.

Country

The termination rate for each JV ownership structure varies across countries. As is suggested in Table A.2a, for example, the termination rate of the Traditional IJVs ranges between 0% (China) and 34.8% (Philippines). However, for most countries, consistent with the hypothesis, both Traditional IJVs and Trinational IJVs in our sample had higher termination rates than either that of Intrafirm JVs or Cross-national DJVs. The only exception was in South Korea, where the termination rate of Intrafirm JVs (27.3%) was higher than that of Traditional IJVs (22.9%).

Table A.2a JV Ownership Structure and Termination Rate by Country (%)

	Intrafirm JV	Cross-national DJV	Traditional IJV	Trinational IJV
China n = 148	0	n.a.	0	n.a.
Taiwan n = 132	0	0	30.0	50.0
Hong Kong n = 39	0	6.3	7.7	0
Thailand n = 204	0	0	4.5	0
Singapore n = 56	6.7	13.3	32.0	n.a.
Malaysia n = 115	0	0	23 2	7.1
Philippines n = 42	12.5	10.0	34.8	100.0
Indonesia n = 96	15.4	14 3	23.1	25.0
Korea n = 121	27.3	0	22.9	n.a.
Total n = 953	5 3	4.8	15.9	13 9

Industry

The termination rate also varies across industries. For example, while the termination rate of Traditional IJVs was 6.1% in the Rubber/Plastic industry, it was greater at 35.3% in the Textile industry. Consistent with the hypothesis, however, the termination rate of Traditional IJVs was constantly higher than either that of Cross-national DJVs and Intrafirm JVs in most (seven out of eight) industries. Intrafirm JVs and Cross-national DJVs had a relatively low termination rate across

industries: Intrafirm JVs had the lowest termination rate in 5 out of 8 industries; Cross-national DJVs had the lowest termination rate in 4 out of 8 industries, and both had a zero termination rate in Textile, Fabricated Metals, and Machinery industries.

Table A.2b JV Ownership Structure and Termination Rate by Industry (%)

	Intrafirm JV	Cross-national DJV	Traditional IJV	Trinational IJV
Food n = 86	0	7.7	9.5	33.3
Textile n = 27	0	0	35.3	n.a.
Chemicals n = 105	0	7.1	22.2	16.7
Rubber/Plastics n = 64	14.3	0	6.1	0
Fabricated Metal n = 82	0	0	22.7	12.5
Machinery n = 96	0	0	13.7	50.0
Electronics n = 148	2.0	0	12.5	0
Transportation n = 96	9.1	9.1	9.6	0
Total n = 704	2.9	3.1	14.6	16.1

Overall, this evidence suggests that Traditional IJVs had a higher average termination rate, whereas Intrafirm JVs and Cross-national DJVs had relatively low average termination rate, across industries, supporting the hypothesized association between JV ownership structure and the termination rate.

Parent Firm

Examination of the termination rate for each of the ten Japanese parent firms yielded an ambiguous result with regards to the relationship between JV ownership structure and survival.

Table A.2c JV Ownership Structure and Termination Rate by Large Parent Firm (%)[1]

	Intrafirm JV	Cross-national DJV	Traditional IJV	Trinational IJV
C.Ito	n.a.	100.0	45.5	n.a.
Sanyo	0	n.a.	0	0
Citizen	0	0	100.0	n.a.
Sumitomo Corp	n.a.	n.a.	0	n a.
Tomen	n a	0	28.6	0
Toray	0	0	0	n.a.
Nissho Iwai	0	n.a.	0	n.a
Honda	0	n a.	0	0
Marubeni	n a.	0	14.3	n a
Mitsui Corp	n a.	n.a.	14 3	n a.
Total	0	14 3	19 4	25 0

[1] The parent firms listed in the table represent those Japanese firms which possess the largest equity share of the JVs These Japanese parent firms may or may not be minority ownership holders for the other JVs in our sample

This ambiguity is due mainly to the small sample size which makes valid comparisons difficult. However, when the aggregated sample of the ten Japanese parent firms was used, the evidence suggests that Trinational IJVs had the highest termination rate (25.0%), followed by Traditional IJVs (19.4%), and Cross-national DJVs (14.3%). Intrafirm JVs did not have a termination rate in the sample. This

observation is generally consistent with the hypothesized association between termination rate and JV ownership structure.

3. Summary

The evidence obtained from the analyses suggested that the hypothesized order of JV performance (both financial performance and termination rate) between JV ownership structures was generally consistent across countries, industries, and parent firms. However, due to the small size of the divided sub-samples used in the analyses, this evidence should be interpreted with caution. In particular, effects of parent firm specific factors on the choice and performance of JV ownership structure remain unclear. Thus, the evidence obtained in this analyses should be investigated further using more detailed qualitative research.

Despite the limited explanatory power of the analysis, the evidence strongly supports the notion that JV ownership structure is a primary factor influencing JV performance. The association between JV ownership structure and performance might be weakened, depending on the type of country or industry where JVs operate, or on the type of parent firm attributes; but the overall pattern in the relationship was consistent across countries, industries, and parent firms. This suggests that the evidence obtained in Chapter 9 has a high internal consistency.

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