

**BARGAINING POWER, OWNERSHIP AND CONTROL
OF INTERNATIONAL JOINT VENTURES IN TAIWAN**

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ABSTRACT

This thesis provides an empirical analysis of international joint venture activities in Taiwan. The primary purpose of this study is to examine control and its antecedents in terms of ownership, bargaining power, resources contribution, and motivation for forming international joint ventures.

Primary data collected by means of a mail questionnaire is analysed along five core dimensions of international joint venture activities. First, the mechanism, focus, and extent of parent control is identified and tested in a number of sample characteristics. This empirical results also reveal that most joint ventures in Taiwan have higher autonomy and have more autonomy on the appointment of key function managers. Supporting results reveal that parent firms seek to focus their control over specific activities of the joint ventures rather than attempting to control the entire range of joint venture activities.

Second, the results of equity shares held by the host country parents and foreign parents show that both parents have minority shareholding in the joint ventures. The results also reveal that a higher ownership by the parents in joint ventures indicates that they have a higher percentage of board members. Supporting evidence is found that ownership is significantly correlated with control. Parents can gain more control of their joint venture through obtaining higher equity shares in such ventures.

Third, the relative importance of a set of bargaining power is identified and hypothesis tested the relationship between control and bargaining power. There is little evidence found that the relationship between bargaining power and control is not closely associated.

Fourth, the relative importance of resource contribution by parents is identified and hypotheses are tested on the relationship between control and resource contribution

factors. The results are strongly supported that the relationships between resource contributions in terms of physical, invisible, financial, human, and organizational ability of parents and their control has significant and positive associations. The greater the resource contribution of parents to joint ventures, the greater their control in joint ventures.

Fifth, the relative importance of a set of motives for international joint venture formation is identified and hypotheses are tested on the relationship between control and motivation factors in terms of technological acquisition, knowledge learning, risk sharing, competitive strategy consideration, resource complementarity, market expansion. The findings reveal a limited number of significant correlations between motivation factors and control. These findings reveal that there are many possible explanations for forming an international joint venture with respect to different theoretical perspectives. The motives for forming an IJV might be to acquire critical resources in order to overcome a transaction difficulty (transaction cost perspective and resource dependency perspective), or to achieve a specific strategic objective (strategic behaviour perspective), or to benefit from knowledge learning (organizational learning perspective), or include all these motives at the same time. Different motives will result in a different influence on the extent of control. Therefore, we suggest that the parent companies can employ various degrees of control over their joint ventures according to their main motives.

The findings indicate that among the four antecedent dimensions, ownership and resource contributions demonstrate significant strong and positive linkages with the extent of control. Parent companies can increase their control in their joint venture through the acquisition of a higher proportion of the JV's equity shares or by contributing large and/or significant resources to their joint venture. However, the two other antecedents, bargaining power and the motives for forming an IJV have only tenuous relationships with the extent of control. Parent companies can increase directly or indirectly their influence and power over the joint venture.

According to this finding, the international joint venture is an effective mode to achieve a parent company's objectives. We suggest that Taiwanese enterprises can create IJVs to achieve their strategic objectives.

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Chapter 1

INTRODUCTION

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 - 1.2 Objectives of the Study
 - 1.3 Definition of International Joint Venture
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Chapter 1

INTRODUCTION

1.1 The Research Background

With the world economic scene growing rapidly and markets becoming globalized and more competitive, most enterprises face intensified competition and severe challenges. Because of changes in global economic circumstances, international cooperation has had a tendency to increase (Buckley, 1994; Teece, 1992; Contractor & Lorange, 1988; Hergert and Morris, 1988). International cooperation may involve several modes such as franchising, strategic alliance, joint venture, and licensing, etc. Comparing all of them, International Joint Venture (IJV) are commonly used by firms as a means of competing within global competitive markets (Harrigan, 1988). International Joint Venture has been perceived as an effective competitive strategy (Geringer and Hebert, 1989; Harrigan, 1987) and a key entry mode into foreign markets (Child and Faulkner, 1998; Beamish, 1985). IJV has become one of the most important topics in international business.

The attraction of IJV lies in the advantages which it can offer to both multinational firms and local firms. For multinational firms, several advantages can be obtained, such as: sharing business risk and costs, attaining economies of scale, overcoming market barriers, acquiring raw materials at a lower cost, and so on. For local firms, the benefits include new competencies to improve management by transferring tacit knowledge, increasing local managerial flexibility, obtaining complementary contributions of technology or know-how, etc. Therefore, the IJV has been perceived as an increasingly important strategic weapon for competing within a firm's core technologies, management and markets (Buckley and Casson, 1996; Dunning, 1988a; Beamish and Banks, 1987; Harrigan, 1986; Beamish, 1985).

Due to globalization, more countries are opening up their markets. As a newly developed country, Taiwan faces pressures from opening its market that stem from internationalization. Thus, the government of Taiwan abolished the restrictive policies on foreign investment and implemented a set of economic plans to stimulate national and inward investments in 1949. The government has strongly encouraged foreign investments and that brings many foreign companies or multinational enterprises into Taiwan and encourages cooperation with Taiwanese companies. One mode for foreign enterprises entering Taiwan is the international joint venture which plays a vital role in the development of the Taiwan economy.

Taiwanese companies have been encouraged by the government to obtain rapid access to capital, technology, management knowledge and export markets by adopting an IJV. Sometimes the government would invite foreign and domestic enterprises to form an IJV for particular products. For example, in December 1986, the Ministry of Economic Affairs encouraged the formation of IJV for 26 industrial products, including seven types of electrical machinery, three types of industrial materials, nine types of information and electronics products, three types of chemical engineering products, and four types of textile products.¹

One particular example is the motor industry. Since 1953, the government has helped the motor industry to be independent, not to rely on government protection. The government achieves this by (a) imposing high tariffs, and (b) encouraging cooperation between major foreign companies and domestic motor companies. This allows domestic companies to obtain the final production design technology from the co-operators and also helps produce a higher self-manufactured rate. Therefore, nine of eleven motor manufacturing companies have used an IJV in the cooperative mode; the detail is shown in Table 1.1. Moreover, from the statistics of the Investment Commissions of the Ministry of Economic Affairs, IJV is used not only in manufacturing industries, but also in the service sector and other industries. Further details will be demonstrated in Chapter 2.

Table 1.1 The Cooperation between Taiwanese Companies and Foreign Companies in the Motor Industry in Taiwan

Taiwanese companies	Nationality of foreign company	Equity shareholding of foreign partners
Yulon Motor Co.	Japan	25%
China Motor Co.	Japan	21.4%
Ford Motors	Canada	70%
Sanfu Motors Co.	France	44.4%
Sanyang Industry Co.	American	13.5%
Kuozui Motors Co.	Japan	47.2%
Da-Cing Motor Co.	Japan	25%
Taiwan Isuzu Co.	Japan	51%
Chinchun	German	33.3
Prince Motor Co.	Japan, American	Technical cooperation
Goldsun	Japan	Technical cooperation

Source: Taiwan Motor Industries Association, 1998.

By utilising the IJV, Taiwanese companies have cooperated well with foreign partners and have acquired management knowledge and technological skills from partners which in turn has increased their competitive abilities. As a result, Taiwan has fast economic development and attracts many foreign companies to seek partnership with Taiwan companies. Taiwan has become a leading nation in global trade and provides a perfect model of transparent economic development for the rest of Asia.

Most researches focus on the developed countries and developing countries; however, Taiwan, as a Newly Industrialized Country (NIC), plays an intermediate and vital role between developed and developing countries because of her successful development experience. Based on the study of the strategic alliance between Canada and the Newly Industrialized Countries of Pacific Asia, Hung (1992) stressed that the NICs are particularly important because they provide the gateway to other countries' markets in the region such as China, Japan and Indonesia. Especially, since the "reopening" policy of China for business in 1978, China has implemented plans for rapid economic growth by freeing up agriculture, loosening central control on regional government enterprises, opening foreign investment, and encouraging private domestic business (Barro, 2002). This results in a lot of foreign investments flowing into China. Unfortunately, it seems that major difficulties have been encountered by many IJV's in the People's Republic

China (PRC) (Shenkar, 1990) and have often led to foreign parent's dissatisfaction and high failure rates (Dacin, Hitt, and Levitas, 1997; Parkhe, 1993; Kogut, 1989; Beamish, 1988).

However, with the great potential of the market place, China has still attracted many foreign investors. Therefore, how to successfully enter China is an important issue for multinational enterprises. On this issue, Taiwan can play an intermediate and vital role between Western countries and China, because of its successful cooperation experience with foreign partners and its location to and similar culture with Mainland China.

Most multinational enterprises deem Taiwan's experience as a touchstone of entering Asian markets, especially Mainland China. For example, the Cetelem Bank which is a subsidiary of the French BNP-Paribas group, built its first Asian branch in Taiwan in 1998.² Cetelem Bank occupies a leading position in the European market and has close cooperation with global enterprises such as Dell and Carrefour. Cetelem Bank expanded its overseas subsidiaries more actively since the middle period of 1990s in order to achieve its strategy objective which was to become the largest financial products company in the world. Taiwan is its first branch in Asian. The manager of BNP-Paribas believes that without studying Taiwan's experience, success in doing business with China will be very difficult to achieve.

In addition, according to the data provided by the Japan Interchange Association, between 2000 and 2002, 63 IJVs cooperated with Taiwan to successfully enter China's markets.³ This phenomenon that foreign companies cooperate with Taiwanese enterprises to enter the mainland China and to seek "double win" have increased continuously. For example, the biggest optical lens company worldwide, the Asia-Optical Company is the most popular company that has Taiwanese and Japanese joint ventures in China. Sixteen Japanese companies including Ricoh, Nikon and Pioneer are all cooperating with it to establish factories in China. The main reasons for forming an IJV with Taiwanese companies to access China are the advantages gained from their long-term cooperative relationships and Taiwan's background with China. As Taiwan

plays an intermediate and vital role between Western countries and China, it is worthwhile to understand how the international joint venture is operated in Taiwan.

IJV has its strategic value and benefits; however, it is not without its difficulties. Forming an IJV often involves partners from different countries. The presence of two or more parents can make the situation difficult to manage. Different partner's nationalities, strategic objectives, management style, and organizational cultures can create conflicts between partners that result in the instability, low performance and high failure rate (Brannen and Salk, 2000; Yan and Zeng, 1999; Dacin, Hitt and Levitas, 1997; Parkhe, 1993; Kogut, 1989; Beamish, 1988; Anderson and Gatignon, 1986; Reynolds, 1984; Killing, 1983). This phenomenon is not only peculiar to western countries but can also occur in Taiwan. When firms consider developing their markets through IJVs, they must evaluate the conditions and consequences to their ownership resources before making any investment decisions. Each partner must negotiate with other partners in order to decide what contributions will be made by each and what proportion of ownership will be allocated to each one. Thus, it is important to learn more about the fundamental issues with respect to international joint ventures. What factors will affect the host country parents to exercise control over the joint venture. What factors will affect the equity shares of the joint venture held by the parents? What kinds of resources will be contributed by the host country parents and what influence will these contributions have on the management of the joint venture? What motives do the host country parents have for forming international joint ventures; and are there any influences regarding different motivations? What factors will affect the bargaining power when the host country parents negotiate with foreign partners? All these issues are worth examining and can help understanding of how international joint ventures have been undertaken in Taiwan.

Numerous studies of joint ventures have addressed the main points of motivation, control and performance. However, Parkhe (1993) argues that the dimensions of joint ventures (motives for joint venture formation, partner selection or characteristics, control/conflict, and stability/performance) have previously been investigated, and cannot be viewed as separate phenomenon, and need to be re-conceptualized into an integrative framework.

Therefore, this study attempts to draw the following dimensions together which are motivation, contribution, ownership, bargaining power and control in order to have a clearer picture of all the relative activities of the international joint venture.

1.2 Objectives of the Study

Taiwan must upgrade its industry structure from the demands of labour structure to the demands of technology and capital, at this time it faces intensified global competition. It needs various resources contributed by foreign firms. These resources include capital, raw materials, management knowledge, marketing ability, productive skills, and new product development, etc. The international joint venture is an effective model to achieve the Taiwanese company's objectives and has been adopted by many local enterprises. While the international joint venture is becoming a popular and effective investment strategy, making significant contributions to Taiwan's economy, a closer examination of its nature is justified.

Thus, the objectives of this study are presented as follows.

I. To clarify the type of control and the extent of control

Although the international joint venture has been used universally; there are still problems associated with the relationship between the partners. Major problems arise in the negotiation, planning and management when the IJV is formed by more than two firms which have different cultures, strategic objectives, contributions and management methods. This often results in a high failure rate (Dacin, Hitt and Levitas, 1997; Parkhe, 1993; Kogut, 1989; Beamish, 1988). Therefore, control is a particularly important research topic in relation to the internal dynamics of the IJV. Theoretically speaking, control offers a company an excellent opportunity to determine the most effective use of resources. This may improve the efficiency and profitability of the parent companies. Thus, it is important to learn more about the precursors of control. What factors affect the issue of control? What type and what extent of control does the parent company

have over the joint venture? What is the relationship between the extent of control and its antecedent factors? To answer these questions is the main objective of this study.

II. To identify the relationship between ownership and control

There is substantial literary research to describe the relationship between ownership and control; however, some research results are conflicting. Blodgett, 1991; Fagre and Wells, 1982; Stopford and Wells, 1972 all use the ownership as a proxy for management control in joint ventures. From the result of their investigation in China, Child and Yan (1999) indicate that equity share is the major factor for the exercise of strategic control and also influences operational control. They suggest that the parent company should acquire a larger equity share, because this could increase the parent company's ability to influence the strategic direction of the international joint venture.

However, in his research sample, Lecraw (1984) finds that the link between the level of ownership and control may not be straightforward. It depends on the type of technology transferred, the capabilities of the local partners, and the host government policies. Multinational enterprises may be able to control the operations of its subsidiary without majority ownership, or, conversely, may have little control over these operations despite majority ownership. In addition, in their case study, Yan and Gray (1994) also argue that equity structure is not equivalent to management control. From the controversial results of empirical studies, can we indicate a significantly positive correlation between the ownership and control in the Newly Industrialized Countries context, particularly in the case of Taiwan? If so, does a larger equity share provide more control?

III. To investigate the factor of bargaining power

There is little research on bargaining power in terms of the IJV. The literature on IJVs has not addressed the issue of bargaining power in detail, with a few exceptions (Combe and Mucchielli, 1998; Inkpen and Beamish, 1997; Yan and Gray, 1994; Kobrin, 1987; Lecraw, 1984; Fagre and Wells, 1982). However, previous researchers discussed the topic of bargaining power using different variables and methods, and focused more on the precursors of bargaining power. Therefore, one of the aims of this study is the attempt to highlight previously unidentified factors in relation to bargaining power in the international joint venture context.

IV. To explore the relationship between bargaining power, ownership and control

If a parent company has more bargaining power will it have a larger equity share and greater control over the joint venture? Previous research suggests that the bargaining power of the partners is a critical variable in determining the patterns of control in joint ventures (Blodgett, 1991; Harrigan and Newman, 1990; Lecraw, 1984). For example, Lecraw (1984) finds a significant association between bargaining power and control. Using the perspective of bargaining power, Yan and Gray (1994) also indicate that the bargaining power between parents will affect the control of IJV. Although previous researchers investigated the relationship between bargaining power and control, the results are difficult to compare because they have measured both variables differently. Therefore, one of the aims of this study is the attempt to elucidate the relationship between bargaining power and control.

In his empirical study, Lecraw (1984) finds that the bargaining power of multinational firms and host LDCs has a strong influence on the percentage of equity ownership. He suggests that the greater the bargaining power possessed by the host country, the greater the level of local ownership gained by domestic stakeholders. Fagre and Wells (1982) use a bargaining power framework to explore the relationship between the multinational

firms' characteristics and the proportion of equity ownership. They regard equity ownership as an outcome of negotiation. However, prior studies investigated the relationship between bargaining power and ownership by using different perspectives and objectives. This study discusses the relationship between bargaining power and ownership based on the bargaining power theory.

V. To explore the relationship between the partner's motivations and their contribution to the IJV

Why should one company wish to cooperate with other foreign companies? A number of theories and hypotheses have been proposed to explain the reasons for the formation of the international joint venture. The main theories relate to resource dependence theory, transaction cost theory, strategic contingency theory and organizational learning theory. Prior studies proposed that there are many motives or factors which may influence the formation of international joint ventures. However, there are some different results which stem from partner variables, different approach aspects and different research samples. There are many possible explanations of the motives for the formation of IJVs. Do all of these theories fit the Taiwanese context? In Taiwan, can we explain the motives for forming an international joint venture in relation to other variables by identifying similar or opposing fundamental concepts?

Firms will cooperate with other partners by forming joint ventures when they can benefit from other partner's knowledge or advantages (Hamel, 1991; Badaracco, 1991; Ciborra, 1991; Kogut, 1988; Harrigan, 1984; Nelson and Winter, 1982). And many previous studies point out that one of the motivations for forming a joint venture is resource complementarity (Inkpen and Beamish, 1997; Beamish, 1985; Harrigan, 1985; Killing, 1983; Pfeffer and Salancik, 1978; Zald, 1970; Aiken and Hage, 1968; Thompson, 1967; Blau, 1964; Emerson, 1962; Selznick, 1948). But what kind of motives for forming the IJV will affect the parent company's resource contribution to the joint venture has not been discussed precisely.

Therefore, one of the objectives of this study is to explore the relationship between the partner's motivations and their contribution to the IJV.

VI. To examine the relationship among motivations, resource contributions, bargaining power, ownership and control

As Parkhe (1993) argues that most dimensions of joint ventures have previously been investigated, and cannot be viewed as separate phenomenon, and need to be re-conceptualized into an integrative framework. Therefore, this study attempts to draw the following dimensions together viz, motivation, contribution, ownership, bargaining power and control. The relationships between the above dimensions will be discussed in order to have a clearer picture of all the relative activities of international joint ventures.

Once the research objectives have been demonstrated, we need to clarify the term of international joint venture which is described in the following section.

1.3 Definition of International Joint Venture

The term of international joint venture has become generally used to describe a wide variety of collaborative agreements between firms. There have been some difficulties in defining international joint ventures precisely because the concept has been viewed as covering numerous situations. Many empirical studies have given many definitions but there has been no systematic adoption of a universally accepted definition (Young et al., 1989). Therefore, it is important to understand and define the nature of international joint ventures clearly before moving further into this study.

In order to understand the meaning of the international joint venture, we first have to describe the meaning of joint venture. Friedman and Kalmanoff (1961) in their pioneering study adopt a very broad definition of joint ventures as: "any type of association which implies collaboration for more than a transitory period". However that definition is too broad, it cannot describe the characteristics of joint venture.

Recognising the lack of a clearer definition, Sukijasovic (1970) stresses four distinctive features of a joint venture, namely “a community of interests involving doing business in common, the sharing of profits, the sharing of business risks and losses, and longevity of cooperation”. Tomlinson (1970) defines that a joint venture is: “the commitment for more than a very short duration of funds, facilities and services by two or more legally separate interests to an enterprise for their mutual benefit”. Young and Bradford (1977) also define a corporate joint venture as: “An enterprise, corporation or partnership, formed by two or more companies, individuals, or organizations, at least one of which is an operating entity that wished to broaden its activities, for the purpose of conducting a new, profit-motivated business of permanent duration”.

Harrigan (1985) defines a joint venture as: “separate entities with two or more active businesses as partners”. Christelow (1987) broadly defines joint ventures to: “include both jointly owned business enterprises and long term contracts covering supplies, technology exchange, production methods, licensing agreements and the like”. Kogut (1988) suggests that: “a joint venture occurs when two or more firms pool a portion of their resources within a common legal organization”. Beamish (1988) defines joint ventures as: “shared-equity undertakings between two or more parties, each of which holds at least five percent of the equity”. Borys and Jemison (1989) define a joint venture as: “joint ventures result in the creation of a new organization that is formally independent of the parents; control over and responsibility for the venture vary greatly among specific cases”. Lyons (1991) defines a joint venture as: “joint venture is cooperative forms of organization between independent parties who could otherwise engage in competition or have a competitive potential”. Driscoll and Paliwoda (1997), in studying the mode of entry decision, identify the joint venture as one of the main choices of mode of entry to new markets. In their study, they define the joint venture as “the pooling of assets in common ownership and separate organizations by two or more firms who share joint ownership and control over the use and output of these assets (Kogut and Singh, 1988).”

Joint ventures can be divided into two classes: equity joint ventures and non-equity joint ventures. For the definition of equity joint venture, the OECD (1984) stresses it as “an equity joint venture implies the sharing of assets, risks and profits, and participation in the ownership (i.e. equity) of a particular enterprise or investment project by more than one firm or economic ‘group’ ”. Killing (1988) views it as “traditional joint ventures”, which is created when two or more partners join forces to establish a newly incorporated company in which each has an equity position, thereby each expects a proportional share of dividend as compensation and representation on the board of directors.

Beamish and Banks (1987) define equity joint ventures as: “shared equity undertakings between two or more parties”. Geringer and Hebert (1989) address that joint ventures involve two or more legally distinct organizations, each of which actively participates in the decision making activities of the jointly owned entity. If at least one parent organization has headquarters outside the joint venture’s country of operation, or if the venture has a significant level of operations in more than one country, then it is considered to be an international joint venture. Inkpen and Beamish (1997) defines equity-based joint venture as “an alliance that combines resources from more than one organization to create a new organizational entity, which is distinct from its parents”.

In contrast, non-equity joint ventures are agreements between partners to cooperate in some ways, but they do not involve the creation of new firms. Wright (1981) defines a contractual joint venture as:

“a risk-sharing venture in which no joint enterprise with separate personality is formed. It is a partnership in which two or more companies (or a company and a government agency) share the cost of an investment, the risks and the long term profits. The contractual joint venture may be formed for a particular project of limited duration, or for a longer term cooperative effort, and the contractual relationship may terminate once the project is complete”. (Wright, 1981)

Some international joint ventures are formed on an equity basis and may have more than two parents. Habib and Burnett (1989) define an international joint venture as “the

national firm from the country where the joint venture located is commonly referred to as the host, local or domestic partner”. Shenkar and Zeira (1987) elucidate international joint venture as: (Mead, 1994)

- The IJV is created by the investments of two or more parent firms;
- It is a separate legal organizational entity, and belongs entirely to neither / none of its parents;
- It is jointly controlled by its parents;
- These parents are legally independent of each other;
- The headquarters of at least one parent is located outside the country in which the IJV operates.

On the studying of generic differences between equity international joint ventures (EIJV), international acquisitions and international Greenfield investments, Newburry and Zeira (1997a) define the EIJV as below

“An equity international joint venture is a separate legal organizational entity representing the partial holdings of two or more parent firms, in which the headquarters of at least one is located outside the country of operation of the joint venture. This entity is subject to the joint control of its parent firms, each of which is economically and legally independent of the other.” (Shenkar and Zeira, 1987, p.547).

From above relative literatures, this study compiled different definitions of joint venture into Table 1.3.1.

Table 1.3.1 Definition of Joint Venture

	Researchers	Year	Definition
Joint Venture	Friedman and Kalmanoff	1961	any type of association which implies collaboration for more than a transitory period
	Sukijasovic	1970	a community of interests involving doing business in common, the sharing of profits, the sharing of business risks and losses, and longevity of cooperation
	Tomlindon	1970	the commitment for more than a very short duration of funds, facilities and services by two or more legally separate interests to an enterprise for their mutual benefit
	Young and Bradford	1977	An enterprise formed by two or more companies, at least one of which is an operating entity that wished to broaden its activities, for the purpose of conducting a new, profit-motivated business of permanent duration
	Walmsley	1984	the deliberate alliance of resources between two independent organizations in order to mutually improve their market growth potential
	OECD	1984	imply the sharing of assets, risks and profits, and participation in the ownership of a particular enterprise or investment project by more than one firm or economic 'group'
	Harrigan	1985	separate entities with two or more active businesses as partners
	Christelow	1987	include both jointly owned business enterprises and long term contracts covering supplies, technology exchange, production methods, licensing agreements and the like
	Kogut	1988	a joint venture occurs when two or more firms pool a portion of their resources within a common legal organization
	Beamish	1988	shared-equity undertakings between two or more parties, each of which holds at least five per cent of the equity
	Borys and Jemison	1989	a new organization is formally independent of the parents; control over and responsibility for the venture vary greatly among specific cases
	Lyons	1991	a cooperative forms of organization between independent parties who could engage in competition or have a competitive potential

Table 1.3.1 Definition of Joint Venture (continue)

	Researchers	Year	Definition
Joint Venture	Driscoll and Paliwoda	1997	the pooling of assets in common ownership and separate organizations by two or more firms who share joint ownership and control over the use and output of these assets
Equity Joint Venture	Beamish and Banks	1987	shared equity undertakings between two or more parties
	Killing	1988	traditional joint ventures” which is created when two or more partners join forces to establish a newly incorporated company in which each has an equity position”
	Geringer and Hebert	1989	involve two or more legally distinct organizations, each of which actively participates in the decision making activities of the jointly owned entity
Non-Equity	Wright	1981	agreements between partners to cooperate in some way, but they do not involve the creation of new firms
Inter-national Joint Venture	Shenkar and Zeira	1987	the IJV is created by the investments of two or more parent firms; it is a separate legal organizational entity, and belongs entirely to neither / none of its parents; it is jointly controlled by its parents; these parents are legally independent of each other; the headquarters of at least one parent is located outside the country in which the IJV operates.
	Geringer and Hebert	1989	at least one parent organization is headquarters outside the joint venture’s country of operation, or if the venture has a significant level of operations in more than one country
	Habib and Burnett	1989	the national firm from the country where the joint venture is located is commonly referred to as the host, local or domestic partner
	Newburry and Zeira	1997	an equity international joint venture is a separate legal organizational entity representing the partial holdings of two or more parent firms, in which the headquarters of at least one is located outside the country of operation of the joint venture.

Sources: this study compiled from relevant articles.

According to the above literature and the purpose of this study, the international joint venture should encompass such characteristics as:

- International joint venture is formed by two or more partners;
- At least one of the parent's headquarters is located outside the joint venture's country of operation;
- At least two parents of different nationality hold at least five percent of the equity.

Therefore, this study refers to the international joint venture as: a newly legal organizational which is created by two or more partners. These parents share the control over the joint venture. And at least one of the parent's headquarter is located outside the country in which international joint venture operates.

1.4 Organisation of the Study

This dissertation is organized into nine chapters. Chapter One demonstrates the research background, objectives of the study, the definition of international joint venture, and the organisation of this study.

Chapter Two begins by describing the historical development of Taiwan including the political background, economic policy, and political system. It also examines the trends of foreign investments up to date and the general characteristics of foreign investments in Taiwan. The chronological sequence of relevant legislation and government policy are described briefly.

Chapter Three examines the theoretical foundations for the present research. The literature review provides a critical analysis of the control in international joint ventures. Literature relating to management control and theoretical and empirical literatures with respect to control in joint ventures is reviewed.

Chapter Four describes the antecedents of control in international joint ventures separately. Alternative theoretical rationales for international joint ventures in terms of resource dependence theory, transaction cost theory, strategic contingency theory, organizational learning theory are reviewed. The research framework and testing hypotheses are developed in this chapter.

Chapter Five describes the research design and methodology employed in this study. An overview of the research process is examined first. The research design then is developed for this study. The research design is divided into ten subsections which include the purpose of the study, types of investigation, extent of researcher interference, time horizon, study setting, unit of analysis, sampling design, measurement, data collection and data analysis methods. Each of ten topics is examined in detail. The profile of the sample characteristics derived from this study is examined.

Chapter Six analyzes the questionnaire derived from this empirical survey of Taiwanese international joint ventures. There are five core research dimensions in this study which are control, ownership, bargaining power, contribution and motivation. Each core research dimension is examined by its empirical results and its relationships with the characteristics of the sample which encompasses nationality or region, industry, size of the host country parents, ages of the host country parents and the joint ventures, and the number of board members in the joint ventures. The important results derived from each core research dimension of this empirical survey are examined.

Chapter Seven focuses on the relationships between control and its antecedents which are motivation, contribution, bargaining power and ownership. It details the analytical processes and results between control and its antecedents. The hypotheses are examined in this chapter.

Chapter Eight outlines the empirical results derived from this study. Further research is suggested by considering an extension of this study. It closes by considering possible constraints.

Chapter Nine examines the finding's implications for both theory and managerial implication.

1.5 Summary

This chapter has indicated the background and objectives of this study; it provides a definition of the international joint venture and gives an outline of the chapters. Most research has focused on the motivation, contribution, partner selection/characteristics, control/conflict, and stability/ performance. However, there is little research on the relationship between bargaining power, ownership and control. And there are very few studies focusing on these issues in the Newly Industrialized Country (NIC) context. The primary purpose of this study is not to develop the theory relating to international joint ventures. It is an attempt to investigate the relationships between motivations, contributions, bargaining power, ownership and control associated with the international joint venture in Taiwan. This research is one of the few studies on international joint venture issues that have simultaneously addressed the perceptions of motivation, contribution, bargaining power, ownership and control in the NIC context.

The following chapter provides an overview of foreign investments in Taiwan which can give a background to economic development before it launches into the topic of international joint ventures in Taiwan.

¹ Referred from China Post, Dec. 17, 1986, at 7.

² Chinatimes, April 22, 2001, at 6.

³ Global Views Monthly, March, 2004, pp. 59-101.

Chapter 2

FOREIGN INVESTMENT IN TAIWAN

Section

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- 2.1 Introduction
 - 2.2 General Introduction of Taiwan
 - 2.3 Business Environments in Taiwan
 - 2.4 An Overview of Foreign Investment in Taiwan
 - 2.5 Taiwan's Advantages
 - 2.6 Summary
-

Chapter 2

FOREIGN INVESTMENT IN TAIWAN

2.1 Introduction

In Chapter 1, the background and objectives of this study have been indicated and the definition of International Joint Venture has been provided. This study focuses on the IJV in the Taiwan context; therefore, this chapter is attempted to provide an overview of economic development of Taiwan before we launch into the topic of International Joint Venture. To understand the economic evolution of Taiwan, it is necessary to view the development of the island from at least a century-long perspective. Section 2.2 introduces the territory, population, climate and major cities of Taiwan. Business environments are described in Section 2.3. Three subsections focus on the political background, economic situation and political system of Taiwan. Section 2.4 presents an overview of foreign investment in Taiwan, including the trends in foreign investment in recent times, geographic and industry characteristics of foreign investment. Taiwan's advantages are described in Section 2.5. Section 2.6 draws a brief conclusion of this chapter.

2.2 General Introduction of Taiwan

The relevant backgrounds with regard to Taiwan are described in this section. The territory, population, climate and major cities of Taiwan are outlined briefly to provide some basic understanding of Taiwan.

2.2.1 The Territory of Taiwan

The Industrial Development & Investment Centre, Ministry of Economic Affairs (2005) claims that the territory of Taiwan under the jurisdiction of the Republic of China (ROC) has two areas. The main area is Taiwan area, which includes the Taiwan Island, Penghu Islands, Green Island, Lanyu Island and the Tiaoyutai Island. The second area encompasses Kinmen Island and Matsu Island. In total the area of Taiwan is 36,000 square kilometres.

Taiwan is situated at a strategic position in the Asia-Pacific region, linking Northeast Asia and Southeast Asia and facing mainland China. The Taiwan Strait separates Taiwan and mainland China; it is an essential passage for major transportation routes of East Asia. Compared with Hong Kong, Shanghai and Singapore, Taiwan has the shortest sailing time to five major Asia-Pacific harbours. Similarly, Taiwan also has the shortest flying time to seven major cities in the Western Pacific. Obviously, it can be seen that Taiwan has a great geographical superiority.

Taiwan Island is shaped like a leaf and stretches 386 kilometres from north to south. Roughly two-thirds of the island is hilly and mountainous terrain, only approximately one-third of the island is suitable for cultivation (Richard, 2001). 22 million people live in 36,000 square kilometres. Although the rugged landscape and population growth has imposed limitations for agriculture, Taiwan can still provide the world with other products and most computer components. Indeed, Taiwan as a whole has gone from being an agricultural base to a densely populated urban industrial society within a century (Richard, 2001).

2.2.2 The Population, Climate and Major Cities of Taiwan

According to a census conducted in December 2003, the total population was 22.689 million.¹ The population density was 626.98 people per square kilometer at that time. It is apparent that Taiwan is one of the most densely populated areas in the world.

The Tropic of Cancer passes through the centre of Taiwan, creating two distinct climatic zones in Taiwan. Therefore, the south of Taiwan is tropical and the north is subtropical. The general climate is typically hot (averaging 20 degrees Celsius), rainy and with seasonal typhoons. However, Taiwan is always blessed with a good climate.

The administrative areas of Taiwan consist of 21 cities and two special municipalities. These two special municipalities are Taipei City and Kaohsiung City. For Taipei City, it is surrounded by several sub-municipalities comprising the greater Taipei area. Especially, the central government of the ROC is located in Taipei City, and most company headquarters are also located in Taipei, making Taipei city the political and commercial centre of Taiwan. As for Kaohsiung City, it is an important industrial city in southern Taiwan. In the past, many heavy industries have located in or around Kaohsiung City, and oil refineries, steel mills, and shipbuilding yards are still all located in this area. In addition, the city also has one airport and one harbour. Shiaogang Airport handles both international and domestic flights, Kaohsiung harbour is the largest harbour in the ROC. Therefore, these two special municipalities play an important role in Taiwan's economic development.

2.3 Business Environments in Taiwan

After World War II, the success of the economic development in Taiwan was recognised worldwide, and its experience became a good model for other developing countries wishing to create similar a successful economic development. Ranis (2002) identified Taiwan as a role model of economic development as “neither miracle nor crisis”, but favourable initial conditions supported with the sound governance of flexible policies.

Ranis (2002) also summarized three conclusions as follow: (1) the success of Taiwan is a combination of favourable initial conditions and largely induced appropriate policy responses, therefore the experience is not a “miracle”. (2) The favourable initial conditions consist of three points—a Japanese colonial heritage, the condition of

substantial entrepreneurial talents as well as capital to the system's total resources in 1949, and the virtual absence of natural resources. (3) The eight elements of policy decisions that helped Taiwan avoid the worst of the East Asian crisis. These eight elements of policy decisions are shown below:

- (a) Early post-independence land reform and further cementing the foundations for “growth with equity” in the rural areas.
- (b) A mild and relatively brief version of the inevitable easy import substance phase.
- (c) Early attention to the increase of agricultural productivity, permitting that sector to support a greater increase in household saving, labour absorption and exports.
- (d) The attention paid to education, marked by flexibility in adjusting to the changing needs of the economy, from primary to vocational secondary to technical junior colleges and, to engineering and science-oriented tertiary education. More importantly, a policy of bringing back highly brained overseas Taiwanese who had migrated to the United States was established.
- (e) A decentralized rural industrialization strategy leading to a workably competitive industrial sector.
- (f) Modest resort to foreign capital inflows, especially with respect to short-term portfolio capital, while substantial foreign exchange reserves were built up.
- (g) A relatively flexible exchange rate regime, with gradual devaluations, preceding the crisis by several years.

Large public sector R & D support led to large foreign exchange reserves that helped ward off speculative attacks on the currency.

However, before probing into the Taiwan economic development, it is necessary to understand the historical background. Therefore, this section introduces the political background and present economic policies in Taiwan.

2.3.1 The Political Background of Present Economic Policies

Traditional China (i.e. now the People's Republic of China) is a country with an extensive history which was ruled for centuries by a series of dynasties. According to China's legend, the Qing (Manchu) Dynasty, China's last dynasty, was overthrown by Dr. Sun Yat Sen in 1911. In the following year, the Republic of China (ROC) was founded in 1912 and was the first democratic republic in Asia. Unfortunately, the country was then embroiled by civil war. After a period of civil war between Chiang Kai-shek's Nationalist Party (Kuomintang or KMT) and Mao Zedong's Communists, the Communists eventually defeated the rival Kuomintang (KMT) nationalist forces. Afterwards, the People's Republic of China (PRC) was established in 1949 and continues to rule mainland China. On the contrary, the central government of the Republic of China (ROC) withdrew to Taiwan in the same year. Despite the withdrawal, led by Chiang Kai-shek, Taiwan still calls itself the Republic of China and lays claim to the whole of the territory of China. However, Taiwan and mainland China are hostile to each other which results in political uncertainty in Taiwan.

In the 20th century, Taiwan has experienced two cycles of regime evolution: the Japanese colonial regime (1895-1945) and the Nationalist emigrant regime (1945-1996). Each cycle of regime evolution consecutively dominated its political history for about a century, and also produced substantially different outcomes in terms of the development of political society and the construction of a collective identity (Chu and Lin, 2001).

In 1895, Taiwan was ceded to Japan after the Sino-Japanese War, but was returned to Chinese sovereignty after Japan's defeat in the Second World War in 1945. For the Japanese colonial period, especially, when the Europeans withdrew their Asian colonies during the First World War, economic expansion boosted Japanese demand for rice, Taiwan was to become a major supplier. In keeping with their rising economic status, the colonial government launched various political initiatives, such as democracy and self-determination. In the meantime, Taiwan had become much more accommodating to the Japanese in the previous two decades, and Japanese was no longer a foreign language to Taiwan's educated class. By the mid-1930s, Japan was on the brink of a war with

China, Taiwan had been transformed from a supplement to Japan's capitalist development into a factory for military supplies. When Japan tried to break out through the sea, Taiwan's role was changed into a naval military base (Chu and Lin, 2001).

In 1936, the governor-generals outlined three policies for the colonial government: to "Japanize" the Taiwanese people, to build military industries and to turn Taiwan into a base for southward advance. To implement the assimilation policy, classical Chinese was totally removed from the curriculum in 1937 and all private schools for Chinese education were banned in 1940. Meanwhile, native society was fully politicized to ensure the success of the new policies, even every street corner was caught in the war machine. By the end of the Second World War, due to the enforced assimilation policies of the colonial government for more than two decades, the impact on identity formation varied across age and social class. Overall, at that time the Taiwanese often wandered between two identities: secondary Japanese or non-Japanese (Chu and Lin, 2001).

Following Japan's defeat in 1945, Ching and the KMT retook Taiwan, and began to consolidate power. The Ministry of Economic Affairs reported a country profile of Taiwan in 2003. It provides detailed political background information. In 1945, Taiwan was restored to Chinese sovereignty, the Nationalist regime (lead by KMT) started from 1945 until 1996. Discontent with the KMT triggered a crackdown starting on February 28th 1947, this event commemorated as the "2-28 incident" (Pang and Haggard, 1994). Those people, who lived on Taiwan before the KMT exodus from mainland China, call themselves "natives". The KMT refugees and their families, who make up about 13% of the population, are called mainlanders or outsiders. Despite intermarriage, the two communities remain largely distinct political constituencies, resulting in decades of mistrust and hostility between "mainlanders" and the "native" Taiwanese.

Regarding the promotion of economic growth from 1949, the KMT initiated a programme of land reform and an export-oriented industrial policy and the results were so successful that the US stopped granting the island economic aid by 1965. Political freedoms were suppressed in that period, martial law was imposed in 1949 and was not

lifted until 1987. When the US built a relationship with mainland China in 1979, the KMT responded by tightening martial law restrictions. It then caused the “Kaohsiung incident”—a violent event in the southern city of Kaohsiung, when the authorities arrested many people running a democracy movement, who subsequently spent several years in jail. By the mid-1980s, Chiang Ching-kuo (Chiang Kai-shek’s son, who became president in 1978) moved towards political liberalisation. The Democratic Progressive Party (DPP) was formed in 1986. In 1987 martial law was lifted and political prisoners were released, opposition parties were legalised over the next two years.

After Chiang Ching-kuo died, Lee Teng-hui was appointed president in 1988. In 1996, at Taiwan’s first direct presidential election, Mr Lee won with 54 % of the vote. He supported the establishment of an independent “Republic of Taiwan”, which expressed from DPP. Mr Lee is also subsequently embarking on a strategy of moulding a Taiwan national identity. In 1999 he announced that Taiwan had still not abandoned its goal of eventual reunification with the mainland, but that any future negotiations with China would be conducted on a “special state-to state” basis.

During the next century, the people of Taiwan will continue to wrestle with competing claims to their political allegiance and cultural identity. The consolidation of a Taiwanese identity will be complicated and will be deeply influenced by the economic interdependence between Taiwan and mainland China, an increasing number of Taiwanese businessman and migrants in China, and the emergence of a Mandarin-based media industry across the Straits.

2.3.2 The Economic Policy

During the years of colonial rule, the Japanese developed Taiwan’s communication and transport networks and fostered commerce and education. After the withdrawal from mainland China, the KMT devoted its efforts to building up the island with a comparatively well-developed economic and social infrastructure.

In 1950 the Korean War broke out, resulting in the East and the West confronting each other. Under a military and economic consideration, the USA recognised Taiwan's government and provided economic aid in order to build a defensive battle line with the East. Under pressure from the US, the government of Taiwan executed a program of land reform which involved rural reconstruction and established a strong foundation for agricultural growth. The import aid from the USA gave the government of Taiwan the impetus to develop the economy and international trade.

However, because the balance of payments deficit of the USA became worse, the US re-evaluated their economic aid policy in 1957. In order to improve the investment climate and encourage exports and in response to pressure from the USA as well, an export-oriented industrial policy was adopted by the government of Taiwan. The USA adjusted its international aid policy in 1958 and finally ceased economic support to Taiwan in 1965. After the loss of economic aid from the USA, Taiwan experienced a succession of setbacks in diplomatic affairs. In 1971, Taiwan signed off from the United Nations and broke off relationships with Japan. During that period of time, Taiwan implemented the export-oriented industrial policies which established the basic structure which became a solid foundation for economic growth.

During the process of economic development in Taiwan, the government adopted a two-pronged approach. On the one hand, the government of Taiwan has sought to keep micro-regulation to a minimum in areas such as the labour market, thereby facilitating the development of a vibrant small and medium-sized enterprise sector that has focused on the manufacture of goods for export. On the other hand, the government has used intervention, regulation and bureaucratic diktat both to guide the direction of economic development and maintain overall economic stability in the face of the military threat from mainland China.

Through the intervention, regulation and bureaucratic diktat, two important factors in creating the Taiwanese phenomenon were the practice of export-oriented industrial policy and a modernization policy, which stimulated the development drive in Taiwan.

The first being the importance of national defence and the creation of an industrial infrastructure to serve defence needs. The second was the government's encouragement of private enterprise and the concurrent development of export markets for products manufactured in Taiwan.

In order to facilitate foreign investment, the government of Taiwan promulgated two cornerstones of Taiwan's legal framework for joint venture participation by foreign investors. There are the "Statute for Investment by Foreign Nationals" (SIFN) promulgated in 1954, and the "Statute for Encouragement of Investment" (SEI) promulgated in 1960. An important objective of these statutes is to simplify the process of foreign investment in order to achieve specific national goals. The government policy strongly favours the importance of modern technology and capital intensive industry. While encouraging investment of all kinds, the government has extended special privileges to joint ventures whose production will fill domestic needs or whose production of export trade can be expected to earn foreign exchange.

For example, according to article 5 of the SIFN which was amended in 1986², overseas investments shall be confined to those which fall in any one of the following categories:

- (1) Investments in manufacturing enterprises which make products needed domestically;
- (2) Investments in service enterprises which are needed domestically;
- (3) Investments in enterprises which have an export market;
- (4) Investments which complement important industrial, mining, or communications enterprises;
- (5) Investments in enterprises which are engaged in scientific and technical research and development ;and,
- (6) Investments in other enterprises which are conducive to the economic and social development of Taiwan.

Traditionally, the government has encouraged joint ventures in light industry along with investment in industries specifically identified as vital to national development (such as mining and communications). Only joint ventures in specified industries qualify for the

privileges and protections of SIFN. Moreover, the joint venture statutes also encourage investment in industries which the government perceives as vital to national welfare (such as defence industries and industries requiring a high degree of technical know-how).

In order to encourage foreign investment, the government will occasionally invite foreign and domestic enterprises to form joint ventures for particular products. For example, in December 1986, the Ministry of Economic Affairs encouraged the formation of joint ventures for 26 industrial products, including seven types of electrical machinery, three types of industrial materials, nine types of information and electrical textile products³.

Over the years, the government of Taiwan has revised the positive policy on investment during which both the domestic and international economic environment have changed. For example, when the expiration of Statute of Encouragement of Investment was due at the end of 1990, the government of Taiwan immediately formulated the “Statute for Upgrading Industries” to encourage business investment.

Basically, the economic development process and the trade policy in Taiwan can be divided into five main stages. These are

1. 1949-1957 : After the KMT moved to Taiwan, the government intervened in political and economic systems using strong control.
2. 1958-1970 : The USA adjusted its foreign aid policy in 1958 until Taiwan signed off from the United Nations in 1971. During this particular period, Taiwan adopted an export-oriented industrial policy.
3. 1971-1983 : The government of Taiwan adopted a free trade economic policy when confronted with international political and economic changes during the petroleum crisis period. During that period, the government also embarked upon a series of economic reforms in order to accelerate economic development.
4. 1984-1994 : The government of Taiwan announced an economic and trade liberalization policy in economy and trade in 1984. It included two

main parts; one was the foreign free trade policy, and the other was the annulment of the restraint of the domestic economy including the liberalization of finance, property development and investment. In 1990, the government also started to pursue membership of the World Trade Organisation (WTO), motivated in part by the desire to liberalise the domestic economy. In membership negotiations, the government pledged to open up Taiwan's domestic markets to foreign competition.

5. After 1994 : The government of Taiwan set the deregulation of economy and the open market policy into action. Deregulation of the economy was also an aim of the plan launched in 1994 to turn Taiwan into an Asia-Pacific Regional Operations Centre (APROC). As originally formulated, APROC envisaged Taiwan becoming a regional centre for multinational companies in six areas: manufacturing, telecommunications, air transport, sea transport, financial services and mass media.

The government implements a series of economic reform policies, but the government does not completely abandon its interventionist approach to economic management. The government has played a particularly active role in the development of Taiwan's world-class high-technology sector. For example, government-funded research, carried out by the Industrial Technology Research Institute (ITRI), formed the genesis of Taiwan's semiconductor industry. ITRI has played an important part in the development of the island's computer industry. Also under the "Statute for Industrial Upgrading", high-technology firms have benefited from various kinds of official largesse, such as tariff-free imports and tax holidays. Under the support of economic and trade policies of the government, Taiwan has become one of the world's largest producers of computer-related products. In recent years, Taiwan has also become an increasingly important producer of semiconductors.

During the past forty years, Taiwan has risen rapidly to the status of a "Newly Industrialized Economy." This achievement can be traced to a number of unique social, political, cultural, and geographic factors which cannot easily be duplicated by other

developing countries. According to the classification of countries in the World Economic Outlook published by the International Monetary Fund (IMF); Taiwan was grouped among developing countries before 1997. As Taiwan begins to share a number of important characteristics with industrial countries and prove itself successful, Taiwan was reclassified into a group of advanced economies by IMF in 1997.

As a result of the successful economic reforms and continuous economic development, Taiwan is recognized as one of the key economic countries in the Asia-Pacific Rim.

2.3.3 Political System

Founded in 1912, the Republic of China is the first democratic republic in Asia. The political system is set up according to Dr. Sun Yat-Sen's Five Powers and Three Principles of the People, which form the foundation of the ROC Constitution.

Besides continuously promoting economic growth and upgrading the development of technology, the government also works to carry out democratic politics and constitutional reform. Following the end of martial law in 1987, Taiwan embarked upon a series of political reforms. The first direct election of the president and vice president was held in March 1996, bringing to realization the principle of sovereignty of the people. As a result of the election in 2000, the Democratic Progressive Party (DPP) took over the reins of power in May 2000, bringing to realization the principle of transfer of power between political parties and making the Republic of China in Taiwan a modern democratic country.

China is a big issue, which has a significant effect on global economic development. In 1991, the Democratic Progressive Party (DPP) called for the establishment of an independent Republic of Taiwan. This aspiration of the DPP is widely feared in Taiwan, because it makes the cross-strait relationship with mainland China more difficult. This situation became worse when Mr. Chen who represents the DPP party won the election in 2004 and become the president of the Republic of China (ROC). This is the second

time that Taiwan has non-KMT rule, resulting in an unprecedented degree of domestic political instability which also affects Taiwan's economic development. Taiwan has its historical background with mainland China, but the unstable political situation obstructs its economic development with mainland China. This phenomenon continues to adversely affect Taiwan's economy.

2.4 An Overview of Foreign Investment in Taiwan

The principle objective of this section is to provide a profile of foreign investment in Taiwan. The encouragement of foreign investment has always been a major policy of the government in Taiwan. Therefore, Taiwan places great importance on foreign and overseas Chinese investment. Laws and regulations governing such investments are amended in a timely fashion, and every effort is made to remove investment obstacles and improve investment conditions. The government also provides other assistance to foreign nationals and overseas Chinese investing in Taiwan. Aanalysis of foreign investment patterns can provide an overview of foreign investment in Taiwan. It can reveal the trends in foreign investment, which sectors foreign investors prefer, and what differences exist between investor nations. Holding this overview can help to give a general idea of foreign investment in Taiwan, then, moving onto the specific area of foreign investment in Taiwan which is the International Joint Venture (IJV).

2.4.1 Trends of Foreign Investment in Taiwan over time

The government of Taiwan has long maintained an openly welcoming attitude towards investment, especially in the hi-tech sector. Throughout the second half of the 20th century, investment patterns in Taiwan have been marked by steady progression in value-adding and knowledge-intensive production. As a result of heightened competition, mainly from China, the government has highlighted areas such as biotechnology, opto-

electronics and nanotechnology as development targets to attract foreign investment into Taiwan.

All foreign investment ventures must be incorporated and certified by the Investment Commission of the Ministry of Economic Affairs (CMEA). According to the statistics of the Investment Commission of the Ministry of Economic Affairs, the total amount of foreign investment was US\$ 52,625 million from 1951 to 2003 and the number of foreign investment applications from 1951 to 2003 was 13,102, as shown in Table 2.4.1.

The trend of foreign investment is shown in Figure 2.4.1. From the data, the total amount of foreign investment increased steadily at the beginning of the 1980's. After 1984, there was a rapid rise in foreign investment. The reason for this may have been the government's economic policy which has always been to encourage foreign investment.

As described in section 2.3.2, the government promulgated the "Statute for Investment by Foreign Nationals" in 1954 to encourage foreign investments into Taiwan. The government took another step ahead to announce a liberalization policy in economy and trade in 1984 and also ended martial law in 1987. All these efforts were aimed at attracting foreign investment.

The results showed that foreign investments grew quickly after 1984, especially after 1987. However, due to the worldwide economic slowdown, this trend diminished after 1991 and rose again in 1994, with the growth of the international economy. Since 1984, the trend in foreign investments has risen more steeply. However, the trend showed a fall in 1998 because of the financial crisis in Asia area. It dips again because of a global economic depression since 2001 and fell further in 2002. Well over half (51%) of the total sum was invested in the five years from 1997 to 2001, which was the most significant and rapid growth of the decade. The steeply rising trend explained by the government's policy which launched the deregulation of economy and opened the market in 1994. However foreign investment fell again because of the world economic slowdown. From the trend of foreign investment, we can find that the government's

economic policy has undergone timely amendment in order to accelerate economic development in tandem with the international economy.

Table 2.4.1 The Cases and Amount of Foreign Investment

Year	Case	Amount (US\$1,000)	Year	Case	Amount (US\$1,000)
1952	0	0	1978	66	136,719
1953	2	2,041	1979	73	181,483
1954	5	2,092	1980	71	243,380
1955	2	4,423	1981	73	356,294
1956	2	1,009	1982	82	320,286
1957	4	48	1983	100	375,382
1958	3	1,116	1984	101	518,971
1959	2	145	1985	107	660,702
1960	8	14,338	1986	206	705,574
1961	5	5,964	1987	363	1,223,069
1962	26	3,543	1988	438	1,061,161
1963	16	10,347	1989	477	2,241,026
1964	13	11,890	1990	376	2,081,657
1965	36	35,140	1991	324	1,558,957
1966	52	20,904	1992	338	1,149,228
1967	107	38,666	1993	261	1,089,975
1968	123	53,445	1994	332	1,523,927
1969	111	81,938	1995	370	2,756,786
1970	71	109,165	1996	448	2,290,385
1971	46	125,147	1997	639	3,879,166
1972	52	100,190	1998	1059	3,554,037
1973	150	193,688	1999	1053	4,099,024
1974	83	108,736	2000	1370	7,557,355
1975	43	70,940	2001	1145	5,081,306
1976	45	102,032	2002	1117	3,226,787
1977	50	95,186	2003	1056	3,560,739

Source: Investment Commission of the Ministry of Economic Affairs, ROC

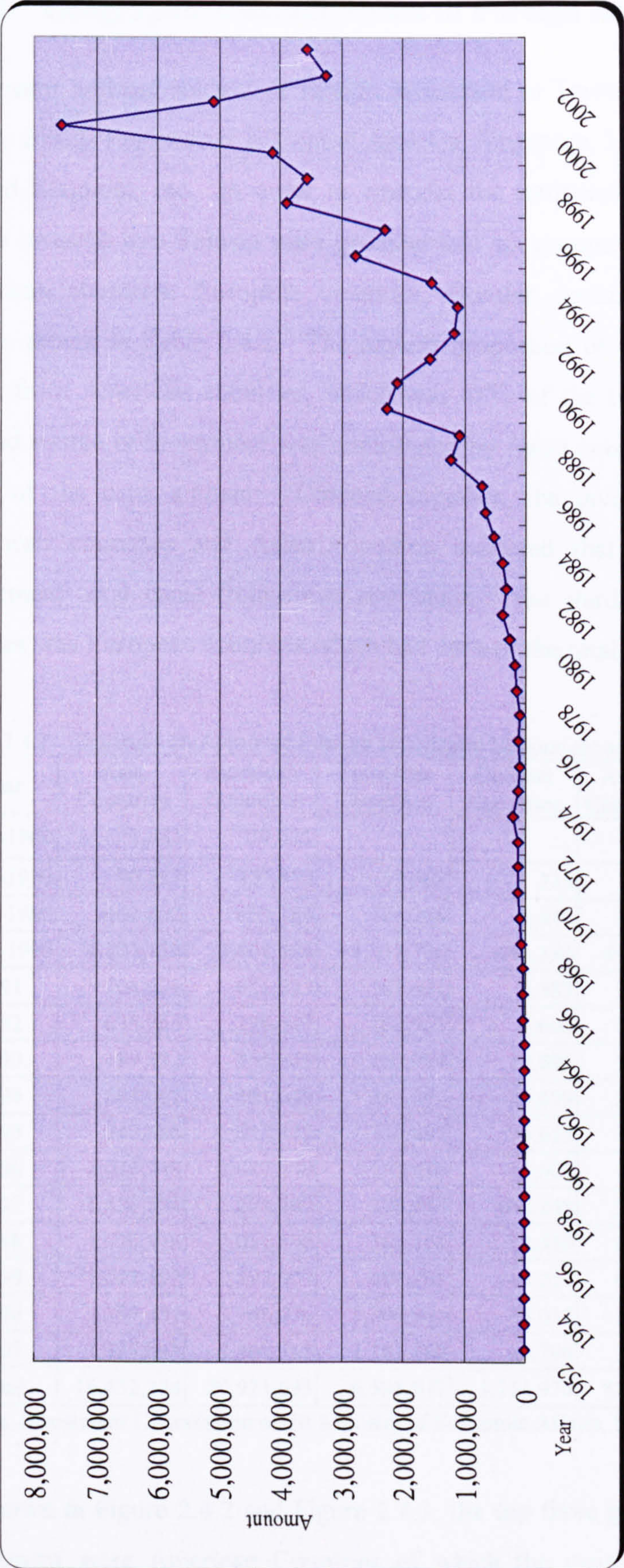


Figure 2.4.1 A Total Amount of Foreign Investment in Taiwan
Source: Investment Commission of the Ministry of Economic Affairs, ROC

2.4.2 Geographic Characteristics of Foreign Investment in Taiwan

The major national sources of foreign investment in Taiwan include the United States, Japan, British Possessions in Central America, Singapore, Hong Kong, Holland, and the United Kingdom, etc. In order to consider the statistical analysis, foreign companies which invested into Taiwan were grouped into six groups; there were Asian countries, American countries, European countries, Oceanic countries, African countries, and others shown in Table 2.4.2. The highest proportion of approved foreign investment came from American countries, which was 46% of the total investment figure. The second source of investment was contributed by Asian countries, which have over one-third of the total amount. Counted together, the investment sum contributed by American countries and Asian countries indicated that 84% of the total foreign investment total came from these two areas. The third area of foreign investment sources was European countries which had 14% of the total foreign investment.

Table 2.4.2 Statistics on Approved Foreign Investment by Amount and by Area Unit: US\$ 1,000

Year	Asia Countries	American Countries	European Countries	Oceania Countries	Africa Countries	Others	Total
1951~1960	1,681	23,531	...	...	...	...	25,212
1961~1970	90,227	227,879	52,663	233	...	...	371,002
1971~1980	462,802	651,184	225,264	1,944	16,307	...	1,357,501
1981~1990	4,187,130	3,401,128	1,313,786	143,544	498,534	...	9,544,122
1991	704,674	671,723	161,421	5,383	15,756	...	1,558,957
1992	635,265	328,647	164,963	6,606	13,747	...	1,149,228
1993	489,882	355,849	209,974	19,896	14,374	...	1,089,975
1994	804,082	421,649	243,590	26,699	27,907	...	1,523,927
1995	747,686	1,633,112	334,887	26,627	14,474	...	2,756,786
1996	1,013,348	1,047,430	197,016	15,502	14,144	2,945	2,290,385
1997	1,486,894	1,278,707	399,957	656,248	51,505	5,855	3,879,166
1998	1,070,816	2,011,696	363,156	22,319	81,757	4,293	3,554,037
1999	1,012,492	2,497,007	460,205	66,217	63,103	...	4,099,024
2000	2,367,451	3,903,436	1,200,305	63,012	10,051	13,100	7,557,355
2001	1,357,848	2,468,715	1,181,760	60,706	10,013	2,264	5,081,306
Total	16,432,278	20,921,693	6,508,947	1,114,936	831,672	28,457	45,837,983

Source: Investment Commission of the Ministry of Economic Affairs, ROC

As shown in Figure 2.4.2 and Figure 2.4.3, the top three geographic regions of foreign investment were American Countries of which the main country is America, Asian

Countries of which the main country is Japan and European Countries of which the main countries are Britain, Germany and Holland. There are 6751 (51%) and US\$ 18,503 million (35%) of foreign investment applications from Asian Countries. American Countries contributed 4568 cases (34%) and US\$ 24,115 million (45%) of foreign investment in Taiwan.

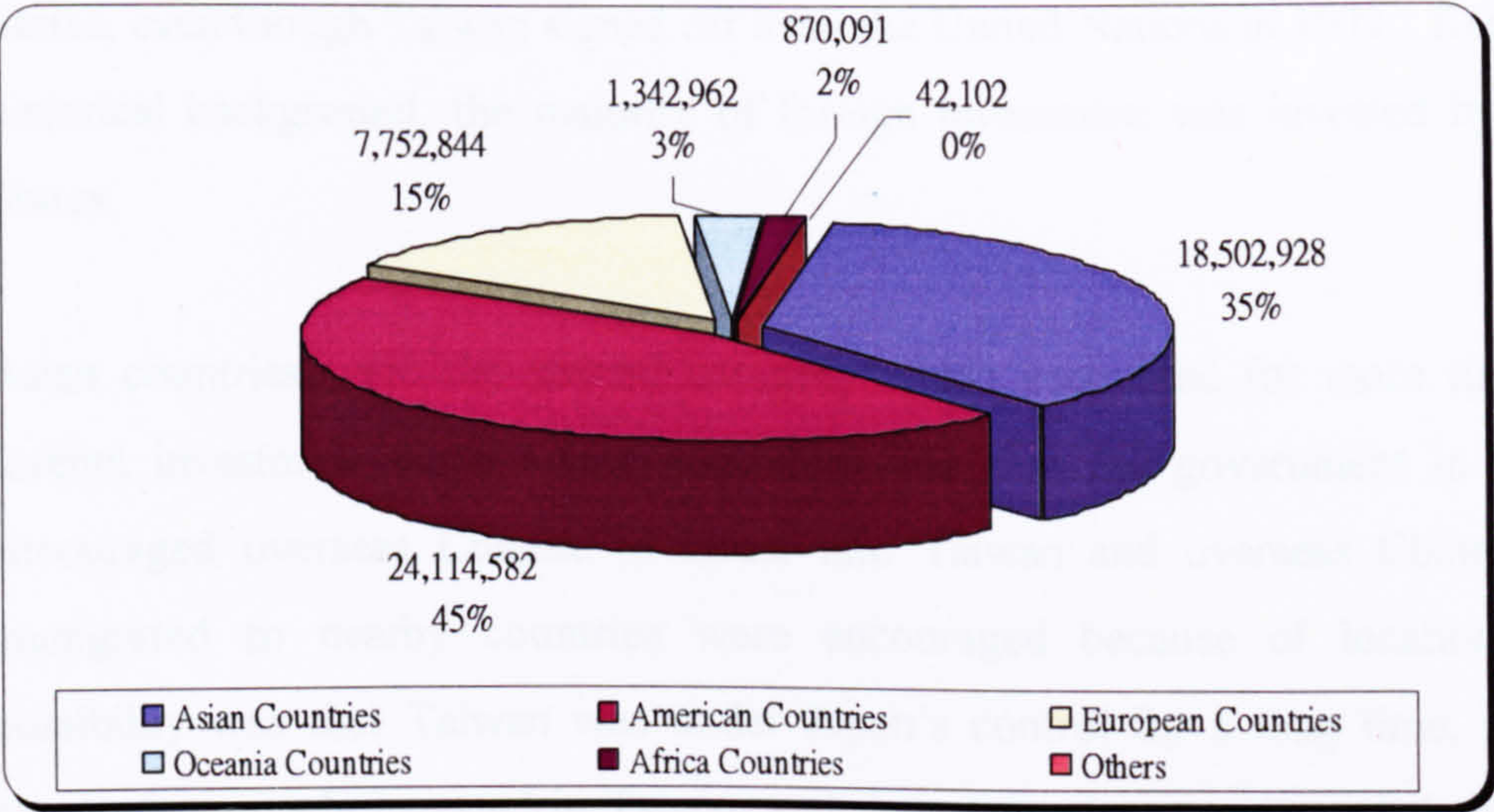


Figure 2.4.2 Statistics on Approved Foreign Investment by Amount and by Area
Sources: Investment Commission of the Ministry of Economic Affairs, ROC

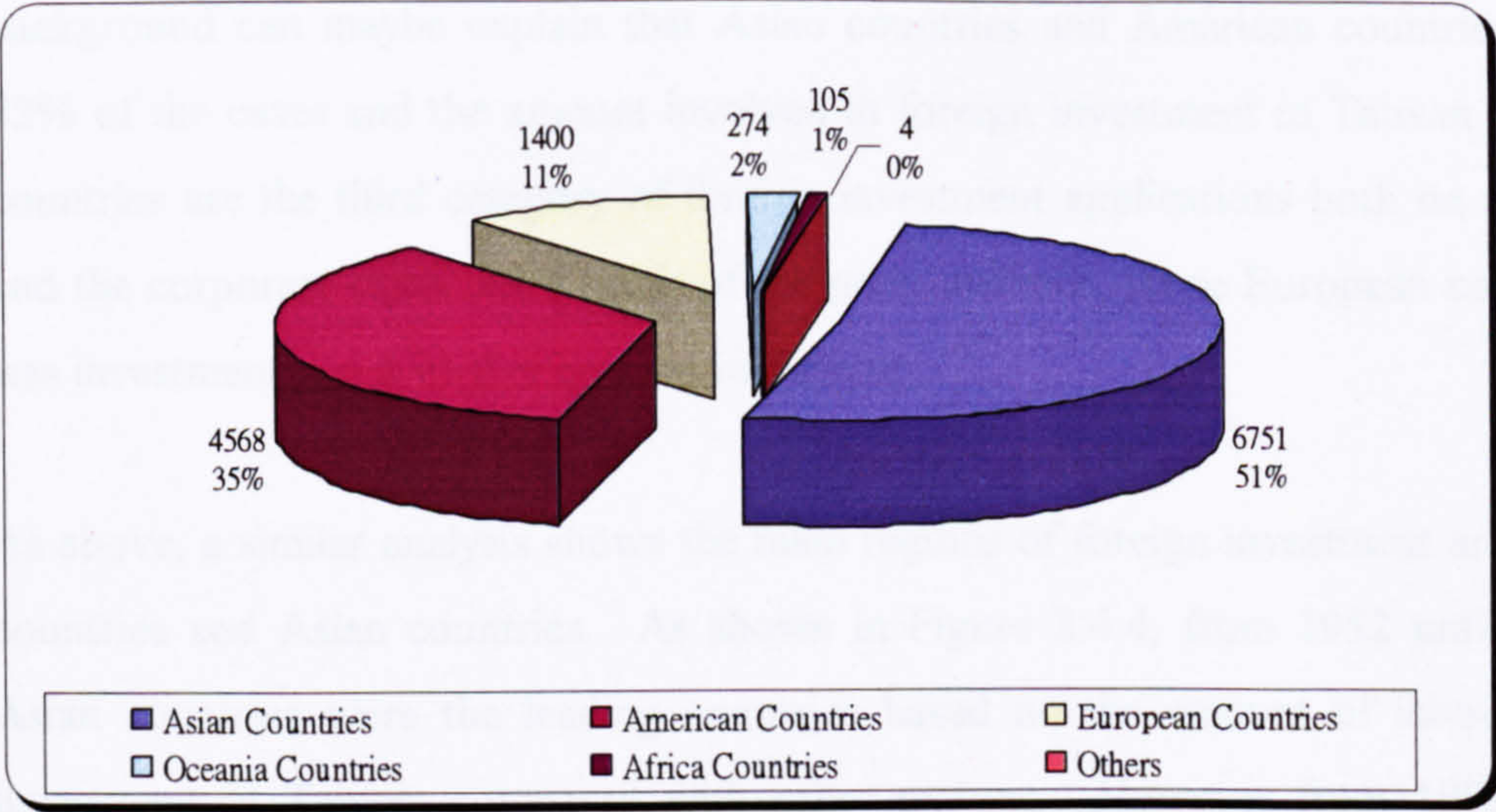


Figure 2.4.3 Statistics on Approved Foreign Investment by Cases and by Area
Sources: Investment Commission of the Ministry of Economic Affairs, ROC

The largest amount of foreign investment was invested by American countries, mostly by the United States. This phenomenon maybe can be explained by the relationship between the United States and the government of the Republic of China. When the government of Republic of China withdrew from mainland China to Taiwan, the United States provided economic aid. From that time, Taiwan built a close relationship with United States, even though Taiwan signed off from the United Nations in 1971. Because of this historical background, the majority of foreign investment was invested by the United States.

Asian countries were the second category which accounted for more than a half of foreign investment cases. One possibility was that the government in Taiwan had encouraged overseas Chinese to invest into Taiwan and overseas Chinese who had immigrated to nearby countries were encouraged because of location. Another possibility was that Taiwan was under Japan's control for a long time, the Japanese companies already invested in Taiwan and they wanted to continue their business with Taiwanese companies. On the other side, Japanese companies control the key components of manufacturing and the Taiwanese companies have to cooperate with them in order to obtain these components or key technology. Therefore, the historical background can maybe explain that Asian countries and American countries had over 82% of the cases and the amount involved in foreign investment in Taiwan. European countries are the third category of foreign investment applications both on the amount and the corporate cases. As a result of the great distance, those European countries had less investment and a smaller amount in Taiwan.

As above, a similar analysis shows the main regions of foreign investment are American countries and Asian countries. As shown in Figure 2.4.4, from 1952 until 1995, the Asian countries were the leading countries based on the amount of inbound foreign investment in Taiwan compared with other regions. However from 1995 onwards, American countries became prime investors. But when calculated on the number of

cases, Asian countries are still the main area of inbound foreign investment applications, as shown in Figure 2.4.5.

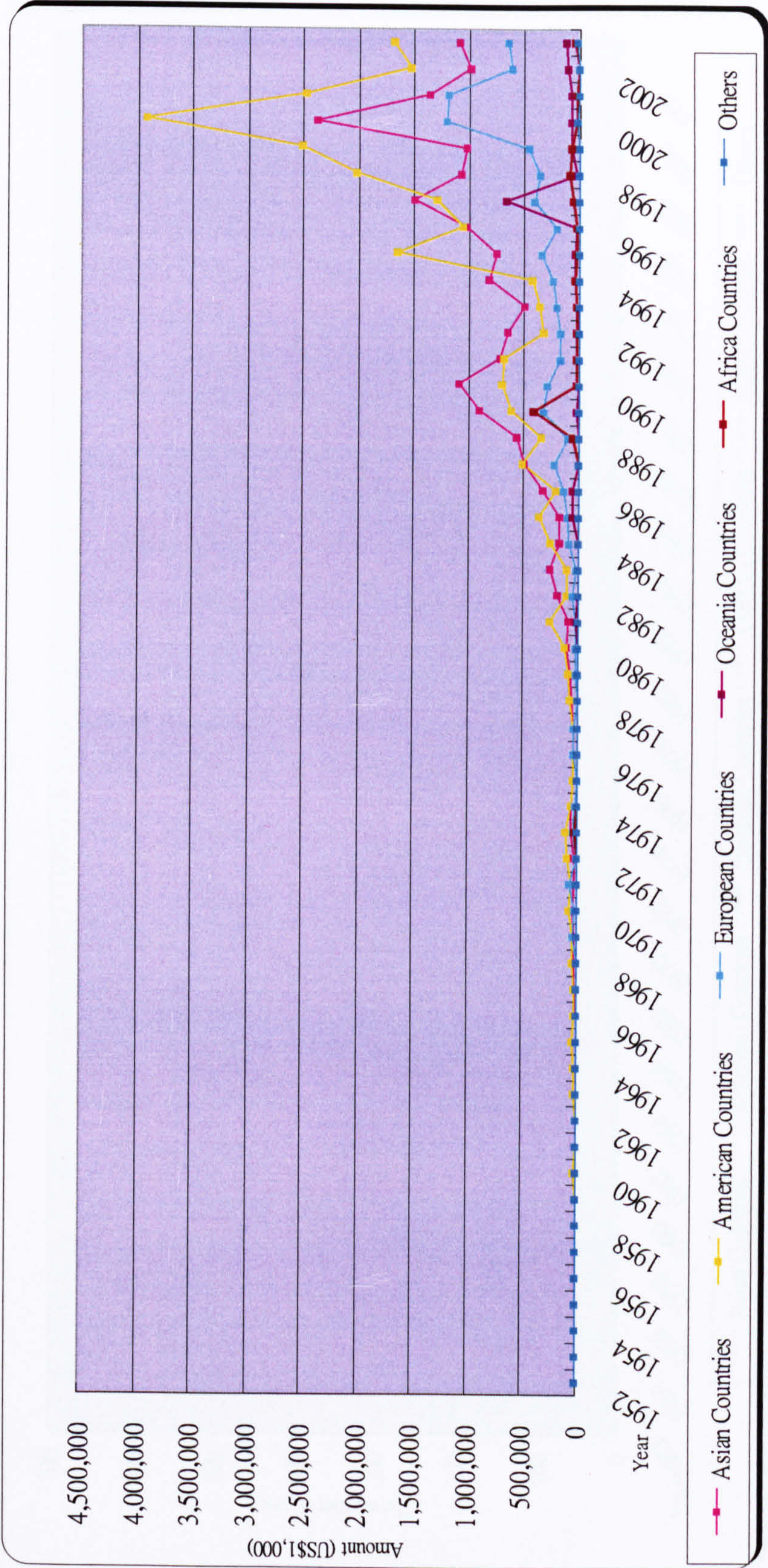


Figure 2.4.4 Statistic on Approved Foreign Investment by Amount and by Area
Source: Investment Commission of the Ministry of Economic Affairs, ROC

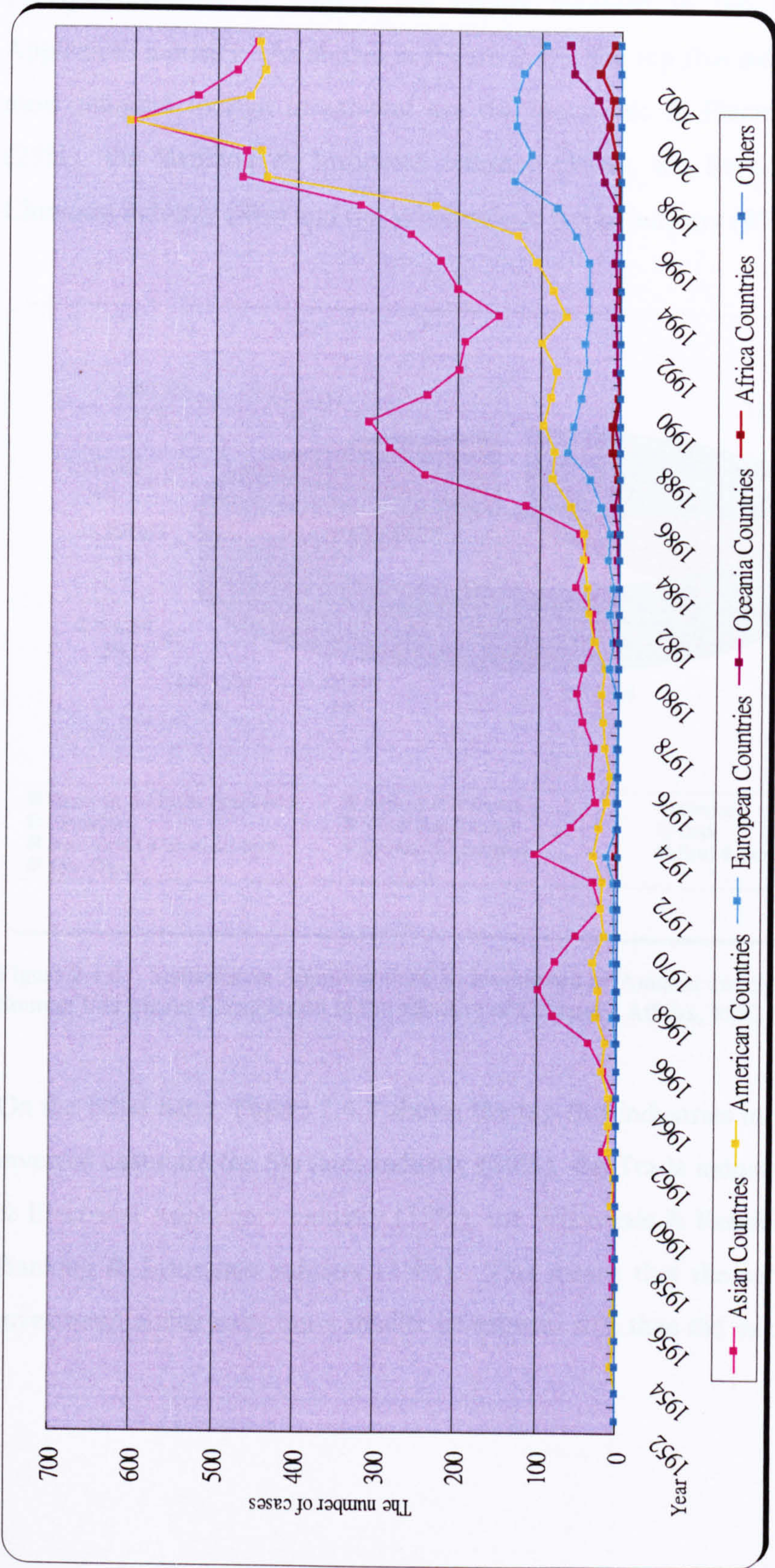


Figure 2.4.5 Statistics on Approved Foreign Investment by Cases and by Area
Source: Investment Commission of the Ministry of Economic Affairs, ROC

2.4.3 Industry Characteristics of Foreign Investment in Taiwan

Foreign investors in Taiwan are mainly involved in the Electronic & Electrical Appliances industry. As shown in Figure 2.4.6, the top five industries that attracted the most inbound foreign investment are the Electronic & Electrical Appliances industry (25%), the Banking & Insurance industry (16%), the Services industry (11%), the Chemical industry (8%) and the Wholesale & Retail industry (8%).

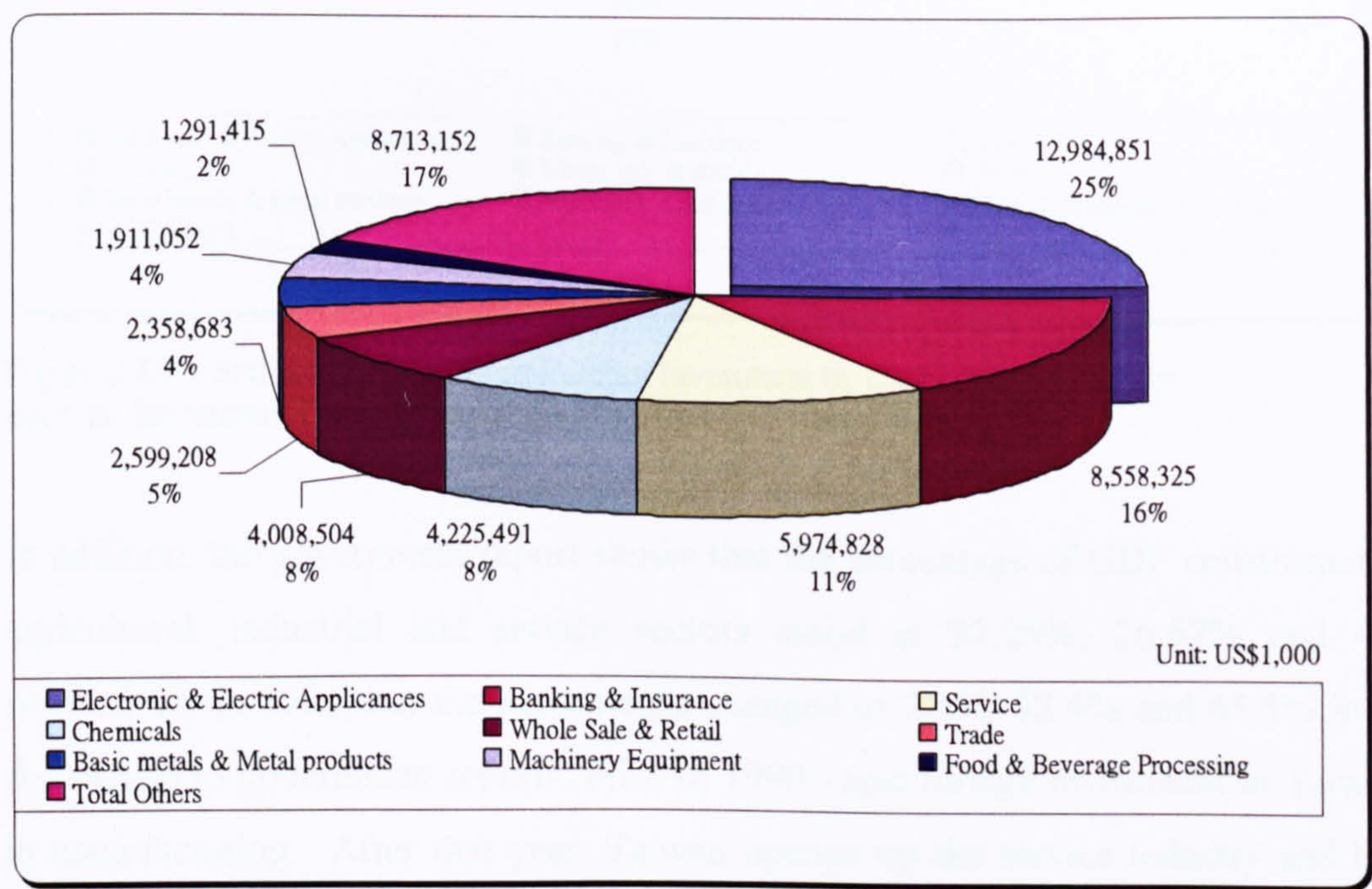


Figure 2.4.6 Statistics on Approved Foreign Investment by Amount and by Industry
Source: Investment Commission of the Ministry of Economic Affairs, ROC

On the other hand, Figure 2.4.7 shows the top five industries in terms of the numbers of invested cases are the Services industry (16%), the Trade industry (14%), the Electronic & Electrical Appliances industry (15%), the Wholesale & Retail industry (19%), and the Banking & Insurance industry (15%). This means that the service sectors have more investment numerically but a smaller investment sum than the industrial sectors.

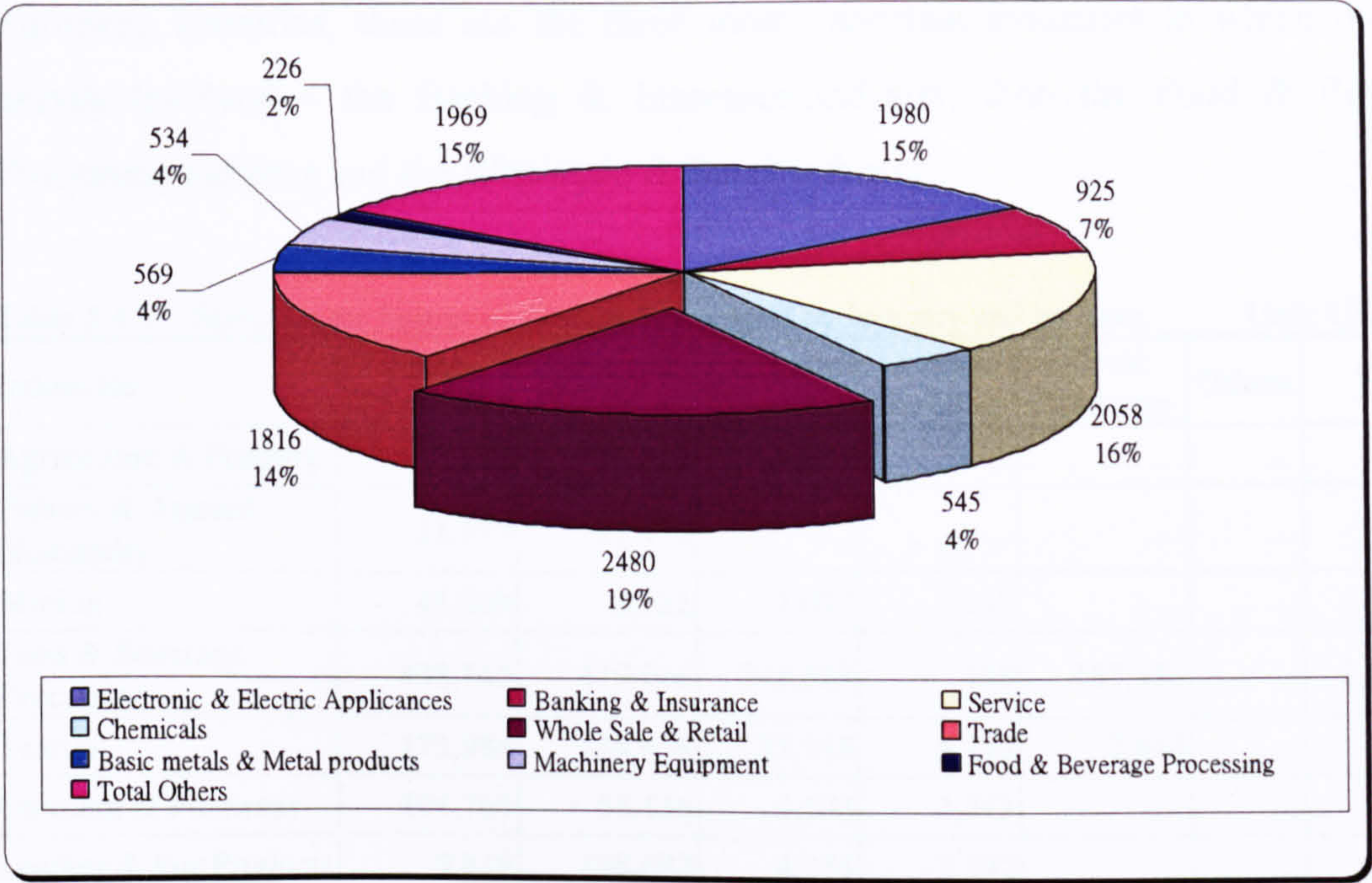


Figure 2.4.7 Statistics on Approved Foreign Investment by Cases and by Industry
Sources: Investment Commission of the Ministry of Economic Affairs, ROC

In addition, the government report shows that the percentage of GDP constituted by the agricultural, industrial and service sectors stood at 27.25%, 26.57% and 45.98% respectively in 1961; but the percentages changed to 2.1%, 32.4% and 65.5% in 2000⁴. According to government reports, prior to 1990, most foreign investment in Taiwan was in manufacturing. After that year, Taiwan opened up the service industry and brought about a structural change in foreign investment coming into the island. The proportion of foreign investment flowing into manufacturing steadily declined, while that flowing into services increased rapidly; from 1991 to 2003, the amount of approved foreign investment in services exceeded that in manufacturing. The foreign investment in the service sector was increasing and becoming more important.

To consider the Industry and the Area together shown in Table 2.4.3, the data represents that the different country Area is involved more in different industries. Firstly, for Asian countries the most important industry is the Electronic & Electrical Appliances industry, followed by Wholesale & Retail industry and then Banking & Insurance industry. In the case of the American countries, the major industry is the Service industry, followed by the Electronic & Electrical Appliances industry and Wholesale & Retail industry. In

European countries, these are the three most important industries in which they are heavily involved – the Banking & Insurance industry, then the Food & Beverage Processing industry and the Wholesale & Retail industry.

Table 2.4.3 Statistics on Approved Foreign Investment by Industry and by Area Unit: US\$1,000

Industries	Asian Countries	American Countries	European Countries	Oceania Countries	Africa Countries	Others	Total
Agriculture & Forestry	8,222	16,514	1,415	...	...	...	26,151
Fishery & Animal Husbandry	11,177	11,450	...	...	...	...	22,627
Mining	44,669	2,322	2,097	2,349	...	...	51,437
Food & Beverage Processing	438,165	419,966	245,525	448	187,311	...	1,291,415
Textile	173,984	158,678	31,718	5,744	7,643	...	377,767
Garment & Footwear	104,765	53,136	4,103	2,443	...	...	164,447
Leather & Fur Products	9,819	168,682	4,254	2,592	...	...	185,347
Lumber & Bamboo Products	68,179	16,962	8,255	...	...	...	93,396
Paper Products & printing	33,648	63,509	5,069	44,137	...	...	146,363
Chemicals	1,056,194	1,819,258	1,066,383	62,690	214,640	6,326	4,225,491
Rubber products	291,210	99,722	56,764	682	...	...	448,378
Plastic Products	54,218	79,415	53,428	25,133	89	44	212,327
Non-Metallic Minerals	318,812	169,517	89,734	1,923	725	...	580,711
Basic metals & Metal products	985,681	543,327	128,845	675,558	25,272	...	2,358,683
Machinery Equipment	1,028,058	663,369	157,920	8,067	53,638	...	1,911,052
Electronic & Electrical Appliances	4,636,387	6,811,043	1,467,265	63,086	2,564	4,506	12,984,851
Transport Equipment	637,271	184,972	64,533	...	21,920	...	908,696
Precision Instruments	211,307	278,650	42,745	1,841	...	10,651	545,194
Construction	267,967	299,236	94,073	3,396	...	...	664,672
Wholesale & Retail	1,394,346	1,738,139	799,853	46,045	28,356	1,765	4,008,504
Trade	1,298,817	857,931	324,522	111,166	2,777	3,995	2,599,208
Restaurant	63,885	87,879	18,626	...	...	...	170,390
Transportation	125,872	563,087	74,564	464	154,284	...	918,271
Storage	5,898	10,175	6,302	7,686	2,274	...	32,335
Banking & Insurance	1,680,478	4,865,557	1,876,761	116,159	13,459	5,911	8,558,325
Service	2,377,003	2,419,848	863,109	150,825	155,139	8,904	5,974,828
Others	1,176,896	1,712,238	264,981	10,528	...	...	3,164,643
Total	18,502,928	24,114,582	7,752,844	1,342,962	870,091	42,102	52,625,509

Sources: Investment Commission of the Ministry of Economic Affairs, ROC

From the above profile analysis of foreign investment in Taiwan, we can form a general idea that American countries are the main region in terms of investment amount and focus more on the Service industry and Electronic & Electrical Appliances industry. Because of location, Asian countries were the earliest investors and have the most cases in the region of foreign investment, and they contribute more in manufacturing, especially in the Electronic & Electrical Appliances industry. European countries entered Taiwan very late and focus more on the Service industry. It might be because of the effects of culture distance or psychic distance and physical distance, and their ability to specialize in the field of service.

2.5 Taiwan's Advantages

Taiwan not only has great geographic superiority, it also has a good investment environment that is amenable to foreign enterprises. The Industrial Development and Investment Center (IDIC) has a publication to introduce the investment environment of Taiwan to foreign investors.⁴ According to the 2002 global competitiveness ranking published by the World Economic Forum (WEF), among the 80 countries covered, Taiwan ranked third in the world, behind only the U.S. and Finland, and first in Asia. In 2003-2004, Taiwan ranked fifth out of 102 economies maintaining its high rank. In its report for April 2003, Business Environment Risk Intelligence (BERI) of Switzerland ranked Taiwan investment environment fourth in the world and second in Asia. In the assessment published in April 2003 by the Political and Economic Risk Consultancy (PERC) of Hong Kong, Taiwan's business environment is given fourth place in the Asian region. In the category of Innovation Potential, Taiwan ranked fourth in the world in the number of U.S. patents granted. The assessments compiled by these institutions, all of which enjoy a high degree of public trust, make it clear that Taiwan has a low risk investment environment and is suitable for investment. These evaluations once again identify Taiwan as one of the most favourable environments for investment in Asia.

As mentioned above, because of the superiority of Taiwan's geography and investment environment, Taiwan lends itself to foreign investment. In the eyes of foreign investors, Taiwan's greatest advantages are its close proximity to the mainland Chinese market, its excellent geographic location, convenient sea and air transportation, a complete network of peripheral industries, high efficiency, abundant manpower, highly efficient shipment and logistical services, a complete infrastructure, and strong support capabilities.

After more than 50 years of economic development, Taiwan has built up a highly liberalized economic system with highly advantageous conditions, shown as the following.⁵

1. Solid industrial infrastructure, strong vertical integration capability in IT and electronics industries.

Over the past 20 years, Taiwan's development has focused on information technology (IT) as the economy's driving force, and has become an integral link in the global high technology industry supply chain.

In 2003, products for which Taiwan was the world's largest supplier included following⁶: (1) eighteen products ranked as the world number one, such as Notebook PCs, cable modems, LCD monitors, IC packaging etc. (2) Six products ranked as the world number two, such as IC design, digital steel cameras, polyester filament, purified terephthalic acid etc. (3) Four products ranked as the world number three, such as DRAM, flat panel displays, nylon fibre, and screws and nuts.

2. Strong industrial research and development capability

Taiwan has placed an ever-increasing emphasis on improving R&D capabilities. National expenditure on R&D as a percentage of GDP rose from 1.66 % in 1990 to 2.30 % in 2002. Also Taiwan was granted 5,431 US patents, the fourth largest quantity in the world after the US, Japan and Germany.

3. A corporate sector with a strong spirit of entrepreneurship and innovation, and experience in international competition.

4. A leading position in Asia in venture capital

Venture capital can flexibly integrate technology, personnel, market opportunities and capital investment in new technology industries. In 2003, Taiwan's venture capital industry had become the largest in Asia⁷. By the end of 2003, Taiwan had 209 venture capital firms, and had raised a total of NT\$158.346 billion in venture capital. The investment projects mainly focused on the semiconductor, IT, telecoms, electronics and fibre optics industries.

5. Complete information and communications infrastructure.

Taiwan began privatization of the industry in 1998 in order to response to a general worldwide trend toward telecoms privatization, and to provide the public with a greater choice of telecoms providers. The telecoms industry had enjoyed rapid growth since 1998. By the end of 2003, there were 590.8 telephone line subscribers per 1,000 people, and 1,109.9 mobile phone subscribers per 1,000 people. According to statistics from the International Telecommunications Union (ITU), Taiwan's mobile phone saturation at 1,109.9 per 1,000 is now the highest in the world for the second year, which is far higher than the US (at 488.1 mobile phones per 1,000 people), Japan (636.6 per 1,000 people) and South Korea (679.5 per 1,000 people) (year 2000 figures)⁸.

With increasing computer ownership, Internet accounts in 2003 reached 7.84 million users, reflecting an average growth of 36.2% per year over the last five years. ADSL broadband subscribers also have a huge increase over the 1999 figure and reached 3.01 million in 2003. These figures illustrate the huge achievements Taiwan has made in establishing telecommunications, information technology and Internet infrastructure.

6. Complete harbour infrastructure and a central location at the hub of Asian transportation routes.

In March 2004, legislation was passed to designate Kaohsiung Port and Keelung Port as free trade zones. This measure will speed up customs procedures; increase the flow of goods and lower business operating costs.

- 7. High extent of industrial computerization and digitization, appreciable trend toward knowledge and technology industries.**
- 8. Large numbers of enterprises with experience in international and mainland Chinese markets, making it certain that these enterprises will play a key role in the future process of integration in the Asian region.**

With a high level of management capabilities, Taiwanese companies have established mutually-beneficial collaborative relationships with many leading European and American multinational corporations, thus becoming a vital link in the global supply chain. For example, major foreign companies operating in Taiwan include DuPont, Corning, Applied Materials, Texas Instruments, Toshiba, NEC, Philips, General Instrument, Mitsubishi, Samsung, and Siemens.

The government continues to approve related plans and regulations in order to make Taiwan become the ideal location for transactional corporations to undertake regional or global logistics management.

2.6 Summary

This chapter attempts to provide a profile of foreign investment in Taiwan from 1951 to 2003. It might help in understanding the background of Taiwan's economic development before looking at specific sections of international joint ventures.

Despite the fact that Taiwan has a complicated historical relationship with mainland China which makes for an unstable political situation that obstructs Taiwan's economic development. However, Taiwan still develops its economy and has risen rapidly to the

status of a “Newly Industrialized Country”. Many assessments compiled by world famous institutions, make it clear that Taiwan has a low risk investment environment and is suitable for investment. They once again identify Taiwan as one of the most favourable environment for investment in Asia.

The encouragement of foreign investment has always been a major policy of the government of Taiwan. The government of Taiwan has long maintained an openly welcoming attitude towards investment and provides assistance to foreign nationals and overseas Chinese to encourage foreign investment into Taiwan. For example, in 2004, the government has highlighted areas such as biotechnology, opto-electronics and nanotechnology as development targets to attract foreign investment into Taiwan.

The main regions of foreign investment are American countries and Asian countries, especially the United States and Japan. The majority amount of foreign investment is most invested by the United States. The top five industries in which foreign investors are mainly involved are the Service industry, the Electronic & Electrical Appliances industry, the Banking & Insurance industry, the Wholesale & Retail industry, and the Chemical industry.

From the viewpoint of foreign investors, Taiwan’s greatest advantages are its close proximity to the mainland Chinese market, its excellent geographical location, convenient sea and air transportation, a complete network of peripheral industries, high efficiency, abundant manpower, highly efficient shipment and logistical services, a complete infrastructure, and strong support capabilities.

This chapter provides a basic introduction to the backgrounds of Taiwan and an overview of foreign investment before we move on to international joint ventures. The theories related to the international joint venture are discussed in the following chapter.

¹ Monthly Bulletin of Statistics, Directorate-General of Budget, Accounting and Statistics, Executive Yuan, R.O.C. [On-line] Available—<http://www.dgbas.gov.tw>

² 「Statute for Investment by Foreign National」 Amended time and articles

Revision time	Article	Content
1959	Article 5	The investment is limited to invest the following industries: 1. Investments in manufacturing enterprises which make products needed domestically; 2. Investments in enterprises which have an export market; 3. Investments in enterprises which complement important industrial, mining, or communications; 4. Investments in other enterprises which are conducive to the economic and social development
1979	Article 5	The investment is limited to invest the following industries: 1. Investments in manufacturing enterprises which make products needed domestically; 2. Investments in enterprises which have an export market; 3. Investments in enterprises which complement important industrial, mining, or communications; 4. Investments in enterprises which are engaged in scientific and technical research and development ; 5. Investments in other enterprises which are conducive to the economic and social development of Taiwan.
1986	Article 5	The scope of investment is the following industries: 1. Investments in manufacturing enterprises which make products needed domestically; 2. Investments in service enterprises which are needed domestically; 3. Investments in enterprises which have an export market; 4. Investments in enterprises which complement important industrial, mining, or communications; 5. Investments in enterprises which are engaged in scientific and technical research and development ; 6. Investments in other enterprises which are conducive to the economic and social development of Taiwan.
1989	Article 5	The investor is prohibited from investing in the following industries: 1. Those which may negatively affect public order 2. Those which may negatively affect good customs and practices 3. Those which are high pollution 4. Those which monopolize by law or are prohibited by the law. The investor, who applies to invest in the following industries, shall obtain an approval thereof or a consent thereto from the competent authority in charge of the industry in question. 1. The public service industries 2. The financial and insurance enterprises 3. The journalist and publish enterprises 4. Those which are prohibited by the law The industries prohibited under Paragraph 1 above or restricted under Paragraph 2 above shall be prescribed by the Executive Yuan.
1997	Article 7	The investor is prohibited from investing in the following industries: 1. Those which may negatively affect national security, public order, good customs and practices, or national health; and 2. Those which are prohibited by the law. The investor, who applies to invest in an industry in which investment is restricted by law or by an order given under the applicable law, shall obtain an approval thereof or a consent thereto from the competent authority in charge of the industry in question. The industries prohibited under Paragraph 1 above or restricted under Paragraph 2 above shall be prescribed and reviewed on a regular basis by the Executive Yuan.

Sources: Industrial Development & Investment Center, Ministry of Economic Affairs, Republic of China.

- ³ China Post, December 17, 1986, at 7.
- ⁴ The Industrial Development &Investment Centre, Ministry of Economic affairs, ROC [On-line] Available—<http://www.idic.gov.tw/htm/einto-1.htm>
- ⁵ The Industrial Development &Investment Centre, Ministry of Economic affairs, ROC [On-line] Available—http://www.idic.gov.tw/content/doc/ROC_edoc_2.doc
- ⁶ The Industrial Development &Investment Centre, Ministry of Economic affairs, ROC [On-line] Available—http://www.idic.gov.tw/content/doc/ROC_edoc_2.doc

Products ranked as the world number one

World Number 1	World Number 2	World Number 3
1. Notebook PCs 2. Wireless LAN 3. xDSL Modems 4. Cable Modems 5. Foundry 6. IC Packaging 7. SOHO Routers 8. LCD Monitors 9. Optical Disk Drives 10. Motherboards 11. Recordable Optical Disks 12. Network Interface Cards 13. Hubs 14. ABS Copolymers 15. Glass Fiber 16. Bicycles 17. Ethernet Switches Power Chaires	1. IC Design 2. Digital Still Cameras 3. Polyester Filament 4. Polyster Staple Fiber 5. Purified Terephthalic Acid 6. Polyurethanes Synthetic Leather	1. DRAM 2. Flat Panel Displays 3. Nylon Fiber 4. Screws and Nuts

- ⁷ The Industrial Development &Investment Centre, Ministry of Economic affairs, ROC [On-line] Available—http://www.idic.gov.tw/content/doc/ROC_edoc_2.doc
- ⁸ The Industrial Development &Investment Centre, Ministry of Economic affairs, ROC [On-line] Available—http://www.idic.gov.tw/content/doc/ROC_edoc_2.doc

Chapter 3

ANTECEDENTS AND RATIONALES OF CONTROL IN INTERNATIONAL JOINT VENTURES

Section

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- 3.1 Introduction
 - 3.2 General Theories of Management Control
 - 3.3 Theoretical and Empirical Studies Relating to Control of International Joint Ventures
 - 3.4 The Antecedents of Control in International Joint Ventures
 - 3.5 Summary
-

Chapter 3

ANTECEDENTS AND RATIONALES OF CONTROL IN INTERNATIONAL JOINT VENTURES

3.1 Introduction

After the introduce about Taiwan's history and the development of foreign investment and Taiwan's advantages, in this chapter, we move on to the topic of antecedents and rationales of control in IJVs. Although this study is primarily concerned with the issue of control in international joint ventures and its antecedent factors in particular, it is necessary to have a basic discussion concerning management control. There are two reasons. First, management control is a core concept in management it is necessary to refer to theoretical and empirical studies. Second, a variety of theoretical approaches in management show management literature can offer useful theories of management control and we can use relative theoretical studies to illustrate aspects of control in international joint ventures. This chapter is organized into five sections. General theories of management control are presented in section 3.2. Then the relevant theories and empirical studies of control in international joint venture are reviewed in section 3.3. Section 3.4 briefly discusses control and its antecedent factors and a research framework for this study is proposed. Finally, we summarise the empirical studies and provide a brief conclusion in the final section 3.5.

3.2 General Theories of Management Control

As there is a vast amount of research which is relevant to management control, this research will only concentrate on the definition of control and the types of control which

are relevant to this study. First, the relevant studies regarding the definition of control are reviewed then different types of control are examined.

3.2.1 The Definition of Control

The issue of control has long been a topic of interest in organization theory (Eisenhardt, 1985) and has been broadly discussed in the literatures of both organization theory and international management. Management control is referred to as a procedure that an entity employs to affect its subsidiary or members behavior in order to achieve organizational objectives (Yan and Gray, 1994; Flamholtz, Das and Tsui, 1985; Arrow, 1974). Anthony (1965) defines management control as “the process by which managers assure that resources are obtained and used effectively and efficiently in the accomplishment of the organization’s objectives”. Lowe (1971) describes the control broader as “a system of organizational information seeking and gathering, accountability and feedback, designed to ensure that the enterprise adapts to changes in its substantive environment and that the work behavior of its employees is measured by reference to a set of operational sub-goals so that the discrepancy between the two can be reconciled and corrected”. Machin (1983) defines control as “...the process by which managers assure that resources are obtained and used effectively and efficiently in the accomplishment of the organization’s objectives”. Child (1984) defined management control as “a process whereby management and other groups are able to initiate and regulate the conduct of activities so that their results accord with the goals and expectations held by those groups”. Simons (1987) defined control as the formalised routines and procedures that use information to maintain or alter patterns in organizational activity.

After reviewing the existing literature, Geringer and Hebert(1989) demonstrate that control is a process in which one entity influences, to varying degrees, the behaviour and output of another entity, through the use of power and authority (Etzioni, 1965) and a wide range of bureaucratic, cultural and informal mechanisms (Jaworski, 1988 ; Baliga and Jaega, 1984).

With regard to international joint ventures, Hebert and Beamish (1994) define the control of IJV as “the process by which the behaviour and output of the venture are influenced by an IJV partner.” Yan and Gray (1994) also describe management control as the process by which an organization influences its sub-units and members to behave in ways that lead to the attainment of organizational objectives. The extent of influence exercised by each partner over the following three dimensions of control: strategic, operational and structural (Flamholtz, Das, and Tsui, 1985; Ouchi, 1977; Arrow, 1974). Driscoll and Paliwoda (1997), in investigating the different dimensions of the mode of entry decision and the determinants which bear on mode choice, identify control as one of the key underlying dimensions of the choice of mode of entry. In their study, they define the term “control” as “the extent to which a firm desires authority over both operational and strategic decision-making responsibilities in the host market.”

The definitions of control have been described in a wide variety of research fields. Numerous empirical studies have given many definitions. We compile these definitions as shown in Table 3.2.1.

Table 3.2.1 The Definition of Control

Authors	Year	Term	Definition
Anthony	1965	Management control	the process by which managers assure that resources are obtained and used effectively and efficiently in the accomplishment of the organization's objectives
Lowe	1971	Control	A system of organizational information seeking and gathering, accountability and feedback designed to ensure that the enterprise adapts to changes in its substantive environment and that the work behavior of its employees is measured by reference to a set of operational sub-goal's
Machin	1983	Control	The process by which managers assure that resources are obtained and used effectively and efficiently in the accomplishment of the organization's objectives
Child	1984	Management control	A process whereby management and other groups are able to initiate and regulate the conduct of activities so that their results accord with the goals and expectations held by those groups
Simons	1987	Control	The formalised routines and procedures that use information to maintain or alter patterns in organizational activity
Geringer and Hebert	1989	Control	The process by which one entity influences, to varying degrees, the behaviour and output of another entity through the use of power and authority (Etzione, 1965) and a wide range of bureaucratic, cultural and informal mechanisms (Baliga & Jaega, 1984)

Table 3.2.1 The Definition of Control (continue)

Authors	Year	Term	Definition
Hebert and Beamish	1994	Control	The process by which behaviour and output of the venture are influenced by an IJV partner
Yan and Gray	1994	Management Control	The process by which an organization influences its subunits and members to behave in ways that lead to the attainment of organizational objectives
Driscoll and Paliwoda	1997	Control	The extent to which a firm desires authority both over operational and strategic decision-making responsibilities in the host market.

Source: this study compiled from relative articles

In multinational companies, the concept of control has been given different terms, for example, it has been named as control, organization control, control system, strategic control, communication control or control mechanism. Researchers have used the term of control differently; however, they have the same perception of the intention of control that the objective of control is to reduce the varied behaviour of an organization’s subsidiary or employee in order to achieve focused organizational objectives.

Therefore, in this study the term of “control” or “management control” only focuses on the definition in relation to international joint ventures and is used interchangeably. In this study, the term of control is referred to as “a process that parents of international joint venture utilise to affect its venture’s behaviour in order to ensure that the venture conforms to its organizational objectives (Ding, 1997; Schaan, 1983).

3.2.2 The Type of Control

Due to the large number of studies on the issues of management control, this review will therefore mainly highlight the representative studies of different types of control in relation to international joint ventures.

Ouchi (1977) classified control into “behavior control” and “output control”, shown as Table 3.2.2. Behavior control is where the supervisor is personally observing and checking the behavior of subordinates. In contrast, output control is involved with the

extent to which data on sales, returns, exchanges, and so on is used to monitor operations.

Table 3.2.2 Control Type and its Antecedent Conditions

		Knowledge of Transformation processes	
		Perfect	Imperfect
Availability of output measures	High	Behavior control Or Output control	Output control
	Low	Behavior control	Ritual

Source: Ouchi, W.G. (1977). The relationship between organizational structure and organizational control, *Administrative Science Quarterly*, 22: 95-113.

Integrating organizational theory and transaction cost theory; Ouchi (1979) describes three fundamentally different mechanisms which organizations can employ to effect organizational control in order to achieve organizational objectives. These three mechanisms are referred to as the market mechanism, the bureaucratic mechanism and the clan mechanism (an informal social mechanism).

- Market mechanism: deals with the control problem through their ability to precisely measure and reward individual contributions.
- Bureaucratic mechanism: depends on a mixture of close evaluation and a socialized acceptance of common objectives. It involves close personal surveillance and direction of subordinates by superiors. The information necessary for task completion is contained in rules which concern processes to be completed or by specifying the standards of output or quality.
- Clan mechanism: relies on a deep level of common agreement between members on what constitutes proper behavior, and it requires a high level of commitment on the part of each individual to those socially prescribed behaviors.

On the basis of the management and accounting reviews, Jaworski (1988) identifies two broad classes of control: formal controls and informal controls. He identifies formal

controls as the written, management-initiated mechanisms that influence the individual or group behaviour, which was classified into three types: the input, the process, and the output controls. In contrast, informal controls are unwritten, worker-based mechanisms that influence the individual or group behaviour, also classified into three categories: self-control, social control, and cultural controls. Extending Jaworski's (1988) results, Jaworski, Stathakopoulos and Krishnan (1993) identify four combinations of controls: (1) a traditional bureaucratic management control system whose primary emphasis is on formal controls, (2) a clan system control whose primary emphasis is on informal controls, (3) a low control system whose low formal control is combined with low informal control, and (4) a high control system whose high formal control is combined with high informal control.

Parker and Lewis (1995) summarized the classical model of control using the following concepts (Parker, 1986a, 1986b).

- **Authority-based control:** This is centralized control exercised through formal lines of authority and positions of responsibility at each point in the organizational hierarchy.
- **Disciplinary control:** This approach involves restriction, prohibition, direction and transactions for non-compliance. Budgetary control has been often employed as a part of disciplinary control.
- **Coordinative control:** This targets the coordination of various key organizational functions through the exercising of the supervisors' authority and self-adjustment between subordinates. Mechanisms include specification of objectives, tasks, lines of authority, spans of control, costing, budgeting and transfer pricing.
- **Controls:** This sees effective control being achieved via the employment of 'control' such as rules of behavior, workplace procedure, technical standards and budget targets.
- **Exception control:** This involves the detection of significant variances from planned targets and the correction of such variances. Variances in actual operating results from predetermined standards or targets are seen as denoting inefficiency and ineffectiveness.

Emmanuel et al. (1990) classifies control into a number of major types:

- Behavior (or action) control: Actual behaviors are monitored and compared with specified desirable behaviors. Although suitable for programmed or routine tasks, generally such controls have limited applicability to managerial work.
- Output (or result) control: Actual results are monitored against those that are desired. Where available, such controls are often preferred for much managerial work, as evidenced by the widespread use of profit centers.
- Input controls: comparison of resources used in task performance against pre-set budgets.
- Personnel controls: desirable behavior is encouraged by the selection, recruitment and training of appropriate people to help ensure that they conduct themselves in predictable and desirable ways.
- More general social controls: appropriate behavior patterns are encouraged by the development of a cultural ethos which controls individual behavior by means of the establishment of appropriate norms and values, which are monitored on a general and random basis.

Anthony (1988) describes one management control system as three coexisting control systems, which include management control, task control and strategic planning. Anthony and Govindarajan (1998) also explore the relationship between the operation of management control systems and the actors' power resources in multinational companies. Based on the organizational theory literature in multinational companies, they distinguish three types of control namely; "personal control", "bureaucratic control" and "social" or "cultural" control.

- Personal control: relies on direct close personal supervision of lower levels by higher (Child, 1984).
- Bureaucratic control: relies on the deployment of social control mechanisms to make employees operate effectively. It is based on formalized procedures and systems such as budgeting, investment appraisal, or formal human resource management policies. Child (1984) emphasizes the budgetary and standard cost-variance accounting controls within a bureaucratic mechanism.

- **Social or Cultural control:** depends on developing a manager’s identification with and commitment to the values and objectives of the corporation.

According to the object of control, Groot and Merchant (2000) classify control mechanisms as actions, results, or personnel/cultural shown as Table 3.2.3.

Table 3.2.3 Type of Control Mechanisms Classified by the Object of Control

Action Controls	Results Controls	Personnel/Cultural Controls
Require adherence to specific actions defined in legal contracts.	Set performance targets and monitor performance reports. Ask for explanations and give advice where appropriate.	Select partner(s) who can be trusted (e.g., reliable history, shared management philosophy).
Require adherence to pre-specified policies and procedures (with checking by auditors and penalties for non-adherence).	Set performance targets and monitor performance reports. Intervene when necessary.	Place qualified, loyal personnel in key operating positions.
Review and approve certain planned decisions (e.g., proposed investments).	Set performance targets and promise and provide rewards for good performance.	Require specified training.

Source: Groot, T.L.C. M. & merchant, K.A., (2000). Control of International Joint Ventures, Accounting Organizations and Society, 25(6):579-607.

Yan and Gray (1994, 2001) state that parent firms can exercise control in three ways (1) strategic control by the IJV’s board of directors, (2) operational control by the joint venture’s top management; and (3) structural control by imposing the procedures and routines of the parent companies in the IJV.

Stewart (2002) examines management control systems that are used by a US physicians group. Reviewing the existing literature, he describes an effective set of formal controls that includes three major mechanisms: operational plans, performance measurement systems and feedback mechanisms.

- **Operational plans:** include the company’s annual master budget and the related supporting work plans and are the standard for operating performance.
- **Performance measurement systems:** report the financial results and operating data of the work activities on a periodic basis.

- Feedback mechanisms: report the variances that generated from the comparison of actual and planned performance within the organization periodically through various interim reports.

In summary, this review of the existing literature suggests that various mechanisms or types of management control developed by scholars are well documented. We compile the relative literatures of control mechanism in Table 3.2.4.

Table 3.2.4 The Relative Literatures of Control Mechanism

Authors	Year	Control mechanisms
Ouchi	1977	Behavior control Output control
Ouchi	1979	Market mechanism Bureaucratic mechanism Clan mechanism
Parker	1986	Authority-based control Disciplinary-based control Coordinative control Controls Exception controls
Anthony	1988	Management control Task control Strategic planning control
Jaworski	1988	Formal controls Informal controls
Emmanuel et al.	1990	Behavior (action) control Output (result) control Input controls Personnel controls Social controls
Parker and Lewis	1995	Authority-based control Disciplinary control Coordinative control Controls Exception control
Anthony and Govindarajan	1998	Personal control Bureaucratic control Social or culture control
Groot and Merchant	2000	Action controls Results controls Personnel/culture controls
Yan and Gray	1994, 2001	Strategic control Operational control Structure control
Stewart	2002	Operational control Performance measurement systems Feedback mechanisms

Source: this study compiled from relevant articles

Based on the above literature review, this study uses the decision-making and the appointment of high-level management to discuss the control of international joint venture in Taiwan.

3.3 Theoretical and Empirical Studies Relating to Control of International Joint Ventures

An international joint venture agreement legally creates a JV through a contract and identifies the major rights and obligations of the partners. However, the legal agreement in an IJV cannot ensure that the partner's objectives will be observed precisely. Therefore, the joint venture's partners typically rely on various control mechanisms to ensure their objectives are achieved. Control is a crucial organizational process and also a complex and multidimensional concept. Control is desirable to improve a firm's competitive position and maximize the returns on its assets and skills (Agarwal and Ramaswami, 1992). It plays an important role in the successful management and performance of international joint ventures. For example, Killing (1983) found that if one partner has dominant control, the IJV will be operated more successful and have higher performance. Geringer and Hebert (1989) also suggest that the exercise of control by a parent company over some or all of an international joint venture's activities helps to protect it from the risk of prematurely exposing its technological or other proprietary assets to the other partner.

Some researchers deem control as the authority over decision-making responsibilities (Driscoll and Paliwoda, 1997; Hill et al., 1990; Young et al., 1989; Klein, 1989; Anderson and Gatignon, 1986; Philips, 1982). Driscoll and Paliwoda (1997), in investigating the different dimensions of the mode of entry decision and the determinants which bear on mode choice, define the term "control" as "the extent to which a firm desires authority both over operational and strategic decision-making responsibilities in the host market." They elucidate control as having some benefits for the partners. First, control can be used to safeguard supplies of essential inputs to the production process,

coordinate activities, ensure the quality of end products, and influence the logistical and marketing activities for the production for the target market. Second, control can enable firms to make more precise decisions in response to the demands of the market, and in turn to increase the satisfaction of the customers. Third, control enables the firm to anticipate and respond to the strategies of competitors.

Prior research has also found that many international joint ventures fail. Kogut (1988) found that 32% of one sample of joint ventures failed within the first 10 years. In a sample of over 5000 subsidiaries of 180 large US multinationals, Gomes-Casseres (1987) found that 31% of joint ventures were unstable. Some authors have suggested that control problems are one of the primary causes of international joint venture failures (Dacin, Hitt and Levitas, 1997; Parkhe, 1993; Kogut, 1989; Beamish, 1988). However, only a relatively small proportion of international joint venture research has focused on control issues. For example, Geringer and Hebert (1989) wrote

”The issue of control has received only fragmented and unsystematic attention in joint venture literature and managers have received minimal guidance about when and how to use(the various control options), as well as about the potential trade-offs between alternative control options”. (Geringer and Hebert,1989, p237, p250)

Glaister(1995) argues that the relevant literature on joint ventures basically focuses on two parts: emphasizing on general issues in the management of joint ventures where the problems are often running them(Ohmae, 1989; Datta, 1988; Contractor and Lorange, 1988; Koot, 1988; Otterbeck, 1981; Peterson and Shimade, 1978;) and providing guidelines as to how joint ventures should be managed (Lorange, 1988; Schaan, 1988; Devlin and Bleackley, 1988; Lorange and Probst, 1987; Killing, 1982; Holton, 1981).

After reviewing previous literature, Geringer and Hebert (1989) identify three dimensions of joint venture control: the mechanism of control, the extent of control and a focus of control.

(1) Mechanism of control

The mechanism of control refers to the methods by which control is exercised. Initial researches show that firms frequently rely on majority ownership or on voting rights to achieve effective management control of an IJV's activities (Stopford and Wells, 1972; Friedman and Beguin, 1971; Tomlinson, 1970). Behrman (1970) and Friedman and Beguin (1971) suggest that control is not a strict and automatic consequence of ownership. It is a variety of mechanisms which are available to firms in exercising effective control such as the right of veto, representation in management bodies and special agreements related to either technology or management. Parent firms might also be able to depend on their technical superiority and managerial skills as a means of guaranteeing participation in the management of operations. Methods of exercising managerial control can also be found in the appointment of a joint venture's general manager and key functional managers, and the employment of different ownership structure arrangements (Rafii, 1978; Gullander, 1976;).

Doz and Prahalad (1981, 1984) demonstrate a series of administrative mechanisms which can be used by the MNCs to gain control over subsidiary operations and to influence their strategies over time. They identify three kinds of mechanisms which help to acquire the control: (1) data management mechanisms which structure and provide data that are relative to the global performance of the company, (2) managers' management mechanisms which shift the expectations of managers to meeting, and (3) conflict resolution mechanisms which resolve the conflicts triggered by the necessary tradeoffs among national subsidiaries.

Cullen and Johnson (1995) in a study of Japanese companies, use three mechanisms of control and the extent of control of decision-making to evaluate the commitment to IJVs of both Japanese and local partners. They indicate that mechanisms of control include equity share, voting control and strategic placement of key personnel in an IJV. Therefore, they represent the mechanisms of control as: the proportion of ownership by each partner, the proportion of IJV managers assigned by each partner and the

proportion of IJV directors from each partner. Yan and Child (2004) argue that parent firms can use the appointment of key management in an IJV to protect their strategic resources or to safeguard the delegation of their technology and management and also to increase their power by creating dependency on the parent firms. They also illustrate that the occupancy of key IJV management positions are important factors in IJV control.

Schaan (1983) classifies several control mechanisms in joint ventures as follows: representation on the board of directors, formal agreements, the appointment of key personnel, participation in the joint venture's planning process and reporting relationships. He makes a significant contribution to the understanding of joint venture control by identifying control mechanisms into positive and negative types. Positive controls are mechanisms which parent companies use to promote certain joint venture behaviours. In contrast, negative control mechanisms tend to be imposed by parent companies to stop or to prevent the joint venture from implementing certain activities or decisions. He found that positive control was most exercised through informal mechanisms.

Child (1984) identifies four mechanisms of control including personal supervision, formalization, targeting systems, and cultural control. Based on a 67 samples of international joint ventures in China, Child and Yan (1999) distinguish strategic control and operational control. They describe strategic control as "control over the means and methods on which the whole conduct of an organization depends (Child, 1984)" including the deployment of capital, the determination of strategic priorities and the making of senior appointments. Operational control is "control over the production process within an organization, in the sense of determining how the employees of an organization perform their work (Child, 1984)". Operational control focuses on production related activities such as purchasing, sales and distribution, and quality. Their results showed that equity share is the major driver for the exercise of strategic control and also influences operational control through its effects on the appointment of board members and appointments to key executive positions. Also, non-capital resources have

a direct effect on operational control in addition to an indirect effect through appointments to key executive positions.

Previous studies of alliances have examined control mechanisms within the framework of cultural controls, behavioural actions controls, and outcome results controls (Groot and Merchant, 2000; Mjoen and Tallman, 1997). Chalos and O'Connor (2004) have studied the effects of determinants on the usage of various types of control mechanisms in US-Chinese joint ventures. They used various control mechanisms which included: (1) cultural controls which include expatriate staffing and socialisation practices encourage the alignment of partner values and interests; (2) behavioural controls which include delegated decision-making responsibilities and parent company communications control and monitor managers; and (3) output controls which include management performance incentives to motivate managers to meet strategic goals and objectives.

According to prior research results (Kumar and Seth, 1998; Geringer and Hebert, 1989; Schaan, 1983), Jaussaud, Schaaper and Zhang (2001) suggest that partners can use several mechanisms to exert effective control over the activities of joint ventures.

- Active participation in the joint venture's board of directors. Exercising control depends on the capacity of certain administrators to influence the points of view of other board members.
- Holding directorship positions. Partners who keep total control on certain key functions can prevent misappropriation and can ensure the resources transferred from parent to joint venture are utilized effectively.
- Training and socialization of managers and other employees of the joint venture.
- Special technology transfer agreements or supply of specific component parts between the partners of the joint ventures.
- Close contacts between the managers of both partners, by installing committees and working groups to solve problems that the joint venture may encounter.

(2) Extent

The extent of control is the degree to which a parent company exercises control over the joint venture at strategic and operational levels (Killing, 1983; Tomlinson, 1970). Lyles and Reger (1993) suggest that the extent of control can be expressed in terms of the degree to which joint venture managers enjoy autonomy from the parent companies. Using a sample of 153 EIJVs located in China, Newburry, Zeira and Yeheskel (2003) found that a JV's autonomy and effectiveness had strong relationships. Their results revealed that joint ventures with higher autonomy have increased effectiveness. Their results imply that the extent of control affects the JV's performance, and more freedom will result in greater effectiveness of the joint venture.

In his study of 37 joint ventures in developed countries, Killing (1983) defines control in terms of the decision-making role of joint venture management. He identifies nine types of decisions: pricing policy, product design, production scheduling, manufacturing process, quality control replacement of managers, sales targets, cost budgeting and capital expenditures. Killing investigates whether each decision was made by the JV general manager alone, by the local parent alone, by the foreign parent alone, by the JV general manager with input from the local parent, or from the foreign parent, or from both parents. He identifies three types of control, namely, dominant parent, shared and independently controlled.

- (a) Dominant parent control: Killing (1983) states that dominant parent ventures are managed much like wholly-owned subsidiaries. The dominant parent makes all operating and strategic decisions and all functional managers will come from or be selected by the dominant parent.
- (b) Shared management control: The use of shared control is the notion of split control. Both parents manage and play an active role in the management of joint ventures. Geringer and Hebert (1989) provide empirical support for this view. Dunning and Cantwell (1984) suggest that it is possible to obtain the benefits of each partner's expertise by dividing or splitting decision-making.

- (c) Independent control: A joint venture is relatively free of the interference from either parent. Such ventures receive little direction from either parent and the venture's management team is highly autonomous.

From his research, Killing (1983) argues that dominant joint ventures were easier to manage than shared joint ventures, because one parent was willing to play a passive role. Beamish (1984) applies Killing's scale analysis in an examination of joint ventures in developing countries. However, his results do not support Killing's findings. The main reasons associated with the extent of control are: (a) the percentage of equity committed by the partners; (b) the joint venture general manager's autonomy which tends to be controlled and influenced by how much the joint venture fits into the parent company's organizational structure; and (c) the balance of technology, management expertise and distribution network contributed by the partners.

(3) Focus

The focus of control describes the areas of the joint venture's operation in which control is exercised. It suggests that partners tend to seek control over specific activities rather than over the whole joint venture. Schaan (1983) explicitly defines control as "the process through which a parent company ensures that the way a joint venture is managed conforms to its own interest". He finds that partners may choose to exercise control over a relatively wide or narrow scope of the IJV's activities. Geringer's (1986) research of 90 joint ventures in developed countries, provides confirmation that selective control can be used when a parent exercises control over a joint venture. According to the literature, Geringer and Hebert (1989) note that effective control should emphasize selective control over those dimensions that a parent perceives as critical, rather than attempting to control the entire range of the joint venture's activities. In investigating the control and performance of IJVs in China, Luo, Shenkar and Nyaw (2001) clarify control into two constructs, namely, specific control and overall control. They claim that overall control is designed to monitor the entire range of an IJV's activities, whereas specific control emphasizes the selective areas which are strategically important for achieving a partner's objectives. From their empirical investigation, they found that

foreign partners achieve more overall and specific controls in joint ventures while Chinese parents have more specific control in joint ventures in order to acquire knowledge and skills from foreign partners.

Control involves various partners and each partner of an international joint venture has their own objectives; therefore, how to exercise control over its joint venture plays an important role in successful cooperation. However, little relevant literature on international joint ventures has been directed at the questions related to what constitutes control and what factors will affect the degree of control and also what is the relationship with the factors.

This study intends to add to the knowledge of international joint ventures by focusing on the nature of control exercised by Taiwanese parent firms over the joint ventures and the relationship between control and its antecedent factors, in terms of the parent's contributions, ownership, bargaining power and motivation.

3.4 The Antecedents of Control in International Joint Ventures

As noted previously, other researchers demonstrate that control is an important function of an international joint venture and it can be affected by various factors such as parent's contributions, ownership, bargaining power and motives. In this section, the links between control and its antecedents are briefly explained and will be discussed in detail in Chapter 4.

Substantial studies have investigated the relationship between ownership and control of IJVs (Child and Yan, 1999; Pan, 1997; Lin, 1995; Meier, Perez and Woetzel, 1995; Blodgett, 1991; Harrigan, 1986; Killing, 1983; Fagre and Wells, 1982; Youseff, 1975; Stopford and Wells, 1972) and most of these research results indicate that ownership is the main method for the IJV's parents to gain control over their joint ventures. Although

some studies have inconsistent results, the main argument of researchers suggests that equity ownership is not the only factor explaining the variations in control. Some other factors will complement minority equity shares and in turn affect control (Lecraw, 1984). Based on most research results, the relationship between control and ownership is proven by most researchers (Child and Yan, 1999; Pan, 1997; Lin, 1995; Meier, Perez and Woetzel, 1995; Blodgett, 1991; Harrign, 1986; Killing, 1983; Fagre and Wells, 1982; Youseff, 1975; Stopford and Wells, 1972). This also shows that there is a positive relationship between the parent ownership and their extent of control in joint ventures.

Previous research also suggests that the bargaining power of partners is a critical variable in determining patterns of control in joint ventures (Yan and Gray, 1994; Blodgett, 1991; Harrigan and Newman, 1990; Lecraw, 1984;). Cooperating partners have increased power to influence the outcome of a negotiation process (Brouthers and Bamossy, 1997; Schelling, 1956;), and in turn can affect control and the proportion of equity shares (Lecraw, 1984). Bargaining power stems from important advantages or assets such as technology, export potential ability or marketing capability which are important resources for each partner (Inkpen and Beamish, 1997; Yan and Gray, 1994; Grosse and Behrman, 1992; Blodgett, 1991; Eiteman, 1990; Gomes-Casseres, 1990; Harrigan and Newman, 1990; Fisher and Ury, 1987; Kobrin, 1987; Fagre and Wells, 1982). Some research results show that bargaining power will affect control of IJVs (Yan and Gray, 1994; Lecraw, 1984;). Based on prior studies, this study measures the relationship between bargaining power, control and ownership.

According to a resource-dependency perspective, the extent of control is affected by the resource contributions which are required for the international joint venture to succeed (Chalos and O'Connor, 2004; Child and Yan, 1999; Mjoen and Tallman, 1997; Lin, 1995; Killing, 1983). For example, Child and Yan's (1999) empirical investigations show parents contributing the necessary resources to a joint venture which will gain more control over the IJV subject. Various researchers find that different resource contributions by each partner will result in a different scope of control by each partner in exercising control to protect their assets and investments (Yan and Child, 2004; Chalos

and O'Connor, 2004; Yan and Ku, 1997; Lin, 1995). Some researchers also found that resource contributions to a joint venture may affect the proportion of parent's equity shares (Pan, 1996; Lin, 1995; Blodgett, 1991; Gomes-Casseres, 1990; Fagre and Wells, 1982). The resources contributed by each parent provide a different source of power and a different scope of influence on control and ownership. Thus, this study intends to explain the relationships between resource contribution, control and ownership.

The motives for forming an IJV has investigated by many researchers (Glaister, 2004; Yan and Luo, 2001; Pan and Tse, 1996; Glaister and Buckley, 1996; Sheth and Parvatiyar, 1992; Hung, 1992; Hennart, 1991; Contractor and Lorange, 1988; Kogut, 1988; Harrigan, 1985, 1988; Beamish, 1985; Mariti and Smiley, 1983). However, there are very few studies examining the relationship between motives and control simultaneously. Lin (1995) reported that different motives for joint venture formation have different extents of control and found that the partner who has learning motivation would have greater control in order to specifically acquire knowledge from foreign partners. Chalos and O'Connor (2004) describe the difference in partner perceptions of control mechanisms as determined largely by their respective motives. They found that knowledge dependency and asset specific transaction costs to be the determinants of varying degrees of control for each partner. When the partners have different objectives, normally they will exercise various modes of behaviour to achieve their objectives. One mode is exercising control over their ventures. Therefore, this study proposes that the motives for forming an IJV will affect its control, and will measure their relationship.

As an attempt to integrate the concepts of control, ownership, bargaining power, resource contribution, and motivation of forming IJVs, this study proposes a research framework to represent the main linkages which are drawn from the literature. The research framework of this study is shown in Figure 3.4.1.

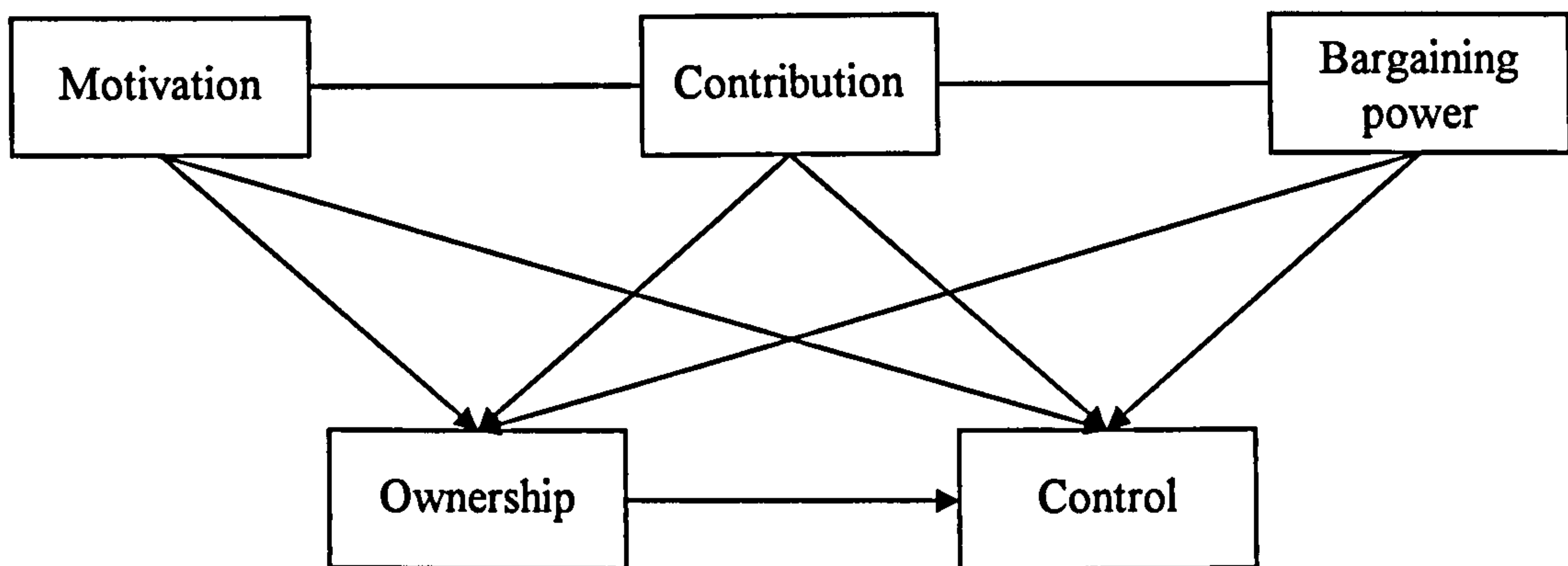


Figure 3.4.1 The Research Framework

In the framework, it is postulated that there are significant relationships between control and its antecedent factors, namely, motivation, contribution, bargaining power and ownership. Ownership is also a function of motivation, contribution and bargaining power. More details of relationships between permutations of the dimensions will be elucidated in Chapter 4.

3.5 Summary

This study mainly focused on the control of international joint ventures, and considered what antecedent variables will affect control. This chapter reviews the relevant literature with respect to the general theories of management control and the definition and types of control. In this study, the term “control” refers to “a process used by parents of international joint venture to affect the venture’s behaviour in order to ensure that the venture conforms to its organizational objectives (Schaan, 1983; Ding, 1997).”

The reviews of the prior literature provide examples of various types of management control. Most types of management control are grouped into one of three classes, i.e. action controls, results controls, and personnel/cultural controls (Groot and Merchant, 2000). Yan and Gray (1994, 2001) state that parent firms can exercise control in three

ways: strategic control, operational control; and structural control. This study adopts Yan and Gray's results: utilizing strategic control and operational control to discuss the control of international joint venture in Taiwan.

Due to the large number of studies on the issues of international joint ventures and this study only concentrate on the control of IJV; therefore, the relevant literatures on the control of IJV have been reviewed only and the antecedents of control associated with motives, parent's resource contributions, bargaining power, and ownership have been described briefly. In order to represent the relationship between control and its antecedent factors, a research framework is proposed and will be discussed in detail in Chapter 4.

Chapter 4

THE ANTECEDENTS OF CONTROL IN INTERNATIONAL JOINT VENTURES

Section

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- 4.1 Introduction
 - 4.2 Ownership of International Joint Ventures
 - 4.3 Bargaining Power of International Joint Ventures
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-

Chapter 4

THE ANTECEDENTS OF CONTROL IN INTERNATIONAL JOINT VENTURES

4.1 Introduction

Chapter 3 has reviewed briefly on the definitions of control and its antecedent factors in international joint ventures. In this chapter, we focus on the factors which affect the control of international joint ventures. Therefore, the following sections demonstrate the relevant literature associated with the antecedents of control in the context of the IJV in Taiwan. This chapter is organized into five sections. In each subsection, relevant literature is reviewed first and then hypotheses, in relation to the control of IJV, are proposed. Section 4.2 describes the ownership and discusses the determinants of equity ownership and its relationship with control. Section 4.3 explains the bargaining power and its relationship with control and ownership. Section 4.4 describes the contribution which is derived from parents and the type of resources contributed by parents. The effect of this contribution is discussed and the relationship among control, ownership, and bargaining power is expressed. Section 4.5 first examines alternative theoretical rationales for international joint venture and then moves onto the empirical literature relating to the motives for the formation of an IJV. The relationship between the motivation for formation of an IJV, control and other factors are discussed. Finally, a research framework of this study is proposed. In the next section, we start to describe the antecedents of control.

4.2 Ownership of International Joint Ventures

Funding is the basic resource for building a business. The issue of ownership is central to any theory of multinational enterprises and an important issue in international business

studies (Pan, 1996, 2002; Pan and Li, 2000; Hennart, 1991; Blodgett, 1991; Contractor, 1990; Gomes-Casseres, 1989, 1990;). For the international joint venture, the amount of investment in the venture represents the equity ownership in the ventures held by the partners. The equity ownership of a joint venture will affect the number of JV board of directors, which board members serve as a communication and information-processing channel between the parent, and the joint venture (Leksell and Lindgren, 1982) and so affect the important decisions of joint ventures. Therefore, equity ownership has a very important meaning for the parent of joint ventures. Under Taiwan's company law, the corporate control of a joint venture can be exercised through the voting rights of the shareholders, and the inherent powers of the board chairman. The amount and type of shares held determine voting rights in the company. Usually, one share has one vote; thus, the most effective method of gaining control is to gain shares.

4.2.1 The Determinants of Equity Ownership

In the pioneering work of Vernon (1971), Stopford and Wells (1972), and Franko (1971), four factors were seen as major determinants of the level of equity ownership of multinationals in their subsidiaries; (a) the desired ownership level of the multinational, (b) the bargaining power of the multinational, (c) the desired level of local equity participation of the host country, and (d) the bargaining power of the host government (including the bargaining power of locally-owned firms in the host country). Lecraw (1984) stated that the desired ownership structure of a multinational firm for its subsidiaries in LDCs is a function of its firm-specific advantages, internalization advantages, and host country advantages. He stresses that when the complexity of the managerial technology increases, the multinational increases its desire for a higher degree of equity ownership and control. Conversely, host governments may push for increased local equity participation in order to increase the management expertise of their entrepreneurs and managers.

Yan (1997) indicates that the ownership rights have three dimensions. The first is ownership rights associated with the range of resources valued as equity investments

committed by the owning companies. The second is the structure of a contract for the range of resources provided by the partners in terms which usually depend on the local legal system, social customs and the technical attributes of the assets involved. The third is the configuration of a range of resources provided on a non-contractual basis and which represent the level of commitment of the owning companies to their joint ventures. Yan and Gray (1994b, 1996) regard equity as the provision of a “capital resource” to a joint venture by its partner companies, typically finance and sometimes land and buildings. They distinguish and categorize the resources as “capital resource” and “non-capital resource”, the latter includes technology, management expertise, local knowledge, raw material procurement channels, product distribution and marketing channels, and global services support. On the study of the impact of country of origin on equity ownership, Yan (2002) finds that the equity ownership tends to be higher when the parent firms’ country of origin has a strong currency, low cost of borrowing, strong export capability and political stability.

In general terms, the choice of ownership structure for a subsidiary depends on MNE’s strategy and on the costs of different ways to implement this. Gomes-Casseres (1989) argues that various studies on the ownership structure of foreign subsidiaries suggest that the costs and benefits of different ownership structures depend on three types of factors. These factors are motivation for cooperation, transaction costs of cooperating through contractual means and the organization costs of equity joint ventures. These three types of factors are reflected implicitly in some empirical studies (Buckley and Casson, 1988; Hennart, 1988; Gomes-Casseres, 1985; Stopford and Wells, 1972; Tomlinson, 1970; Friedmann and Kalmanoff, 1961). Using the transaction cost perspective, Gomes-Casseres (1989) indicate that the ownership preferences of MNEs are driven by a combination of three factors. These are (a) the relevant capabilities of the MNEs and host country firms; (b) the transaction cost of transferring each partner’s capability to a cooperative venture; and (c) costs due to shirking by partners and conflicts between partners do not outweigh the benefits of joint ownership.

An examination of the literature suggests that the subsidiary ownership decision could be a very complex function of numerous factors spanning host country characteristics, industry characteristics, product characteristics and firm characteristics (Root, 1994; Gatignon and Anderson, 1988; Robinson, 1978). Erramilli (1996) explores the notion that a multinational’s nationality influences its foreign subsidiary ownership decisions. From their research sample, Stopford and Wells (1972) find that U.S. multinationals have a predominant preference for wholly owned subsidiaries. Weinstein (1977) finds that 62% of the subsidiaries are either fully or majority owned in his sample of American multinational advertising agencies. Gatignon and Anderson (1988) explore that American multinationals have an intrinsic tendency to prefer wholly owned subsidiaries, after testing a transaction cost model to explain the MNE’s degree of control over foreign subsidiaries. After analyzing the joint venture ownership in developed and developing countries, Beamish (1985) finds that the foreign firms have equal-equity ownership in developed countries and contrastingly have majority or minority equity ownership in developing countries, see Table 4.2.1.

Table 4.2.1 Joint Venture Ownership in Developed and Developing Countries

Countries		Frequency of equal-equity (50-50) ventures	Frequency of majority or minority equity ventures
Developed countries samples	Mergers &Acquisitions (153)	43	57
	Killing (40)	50	50
	Geringer (86)	70	30
Developing countries samples	Mergers &Acquisitions (47)	20	80
	Beamish(66)	10	90
	Reynolds (51)	20	80

Source: Beamish, P.W. (1988), Multinational Joint Ventures in Developing Countries, New York: Routledge, p.16.

Fagre and Wells (1982) and Lecraw (1984) explain that the wide variation in the ownership of foreign affiliates mainly lies in industry or firm-specific independent variables, as well as in country-specific variables (Kobrin, 1987). In his sample, Kobrin (1987) explores how host government-imposed limits and performance requirements induce a greater use of minority and 50-50 affiliate, particularly in the developing

countries. And larger market size increases the propensity to use 50-50 and minority affiliates, particularly in industrialized countries. Al-Saadon and Das (1996) develop a model to explain that the ownership shares are determined as the outcome of Nash bargaining between a multinational firm and a host country firm. They deem that the pattern of ownership distribution between the foreign parents and the host parent firms may be influenced by the tax/subsidy policy of the host country's government. Using the Nash bargaining model, they conclude that the equity share of the foreign parents is negatively related to the fixed cost of the JVs and positively related to the size of the market that the JV serves.

Using neural networks analysis in a Sino-foreign joint venture, Hu, Zhang and Chen (2004) found that equity ownership is basically a form of control that the foreign parent exercises over its overseas operations. Their results also revealed that the time commitment in terms of the duration of the joint venture and the regional growth rate could be the most significant factors for equity. They explained that the longer duration of the joint venture may create more economic uncertainty or risks; therefore, the partners would consider having greater ownership to compensate for these risks.

4.2.2 The Relationship between Ownership and Control

There is substantial research literature to describe the relationship between ownership and control; however, some research results are conflicting. Some research indicates that equity share is a predictor of the overall control held by IJV partners, and of their control over strategic decisions in particular (Child, 2002; Child et al., 1997; Yan and Gray, 1996; Lecraw, 1984; Killing, 1983; Yousseff, 1975). Equity ownership is regarded as the most direct means of gaining and exercising control over the IJV (Killing, 1983; Pan, 1997). Some researchers regard ownership as a proxy of control. For example, Stopford and Wells (1972), Fagre and Wells (1982), Blodgett (1991) all use ownership as a proxy for management control in joint ventures. Some studies found that the ability of one parent to influence the strategic decisions in IJVs is associated with the equity share (Yan and Gray, 1996) and results often recommended that the foreign partners

should hold 67% or more of the equity of an IJV (Meier, Perez and Woetzel, 1995). From the result of their investigation in China, Child and Yan (1999) indicate that equity share is the major lever for the exercise of strategic control and also influences operational control. They suggest that the company should acquire a larger equity share, because this can increase the parent's ability to influence the strategic direction of an international joint venture.

However, other researchers have inconsistent results. Mjoen and Tallman (1997) find no link between equity and strategic controls or between equity and operational controls. In his research sample, Lecraw (1984) finds that the link between the level of ownership and control may not be straightforward. It depends on the type of technology transferred, the capabilities of the local partners, and host government policies. Multinational enterprises may be able to control the operations of its subsidiary without majority ownership, or, conversely, may have little control over these operations despite majority ownership. In addition, Yan and Gray (1994) also argue that equity structure is not equivalent to management control, in their case study. Some researchers argue that partner equity is not the only independent variable explaining variation in the uses of behavioural control mechanisms (Chalos and O'Connor, 2004; Child and Faulkner, 1998). Chalos and O'Connor (2004) find that equity ownership seems to be more descriptive of actual JV control mechanisms rather than to be a determinant of specific management controls.

Harrigan (1986) demonstrates that multinational companies intend to obtain a greater control over joint ventures by committing to majority equity shares. In her study in the Taiwan context, Lin (1995) finds the level of ownership and control has a positive relationship. Greater ownership represents greater control over the ventures. From the Chinese viewpoint, the ownership of the venture means the power of control. On the basis of the alternative arguments, this study posits that ownership and control have a positive relationship. Therefore, the following hypotheses are represented.

H₁: There is a significantly positive relationship between the proportion of ownership and the extent of control.

H₁₋₁: The higher the proportion of equity ownership held by host country parents the stronger their control of operational decision-making activities in a joint venture.

H₁₋₂: The higher the proportion of equity ownership held by host country parents the stronger their control of the appointment of high-level managers in a joint venture.

4.3 Bargaining Power of International Joint Ventures

Prior studies have demonstrated that bargaining power can be used to affect the outcome of the negotiation process (Mamossy 1997; Lax and Sebenius 1986; Schelling, 1956;) and can be derived from some resource contributions (Inkpen and Beamish, 1997; Grosse and Behrman, 1992; Eiteman, 1990; Kobrin, 1987; Fisher and Ury, 1987; Fagre and Wells, 1982). Previous researchers also suggest that the bargaining power of partners is a critical variable in determining patterns of control in joint ventures (Blodgett, 1991; Harrigan and Newman, 1990; Lecraw, 1984). Therefore, this section stresses the sources of bargaining power first, and then discusses its relationship between control and ownership.

4.3.1 The Sources of Bargaining Power

The concept of bargaining power is related to a bargainer's ability to favourably change the "bargaining set" (Lax and Sebenius, 1986), to obtain accommodations from the other party (Dwyer and Walker, 1981), and to influence the outcome of a negotiation (Schelling, 1956). In their study, Brouters and Bamossy (1997) state that bargaining power exists when foreign and local parties possess power over each other that can be used to affect the outcome of the negotiation process. They describe bargaining power

as coming from three domains: (1) the bargaining resources of each party; (2) the importance of the agreement to each party; and (3) the degree of similarity of interests of each party (Inkpen and Beamish, 1997; Grosse and Behrman, 1992; Eiteman, 1990; Fisher and Ury, 1987; Kobrin, 1987; Fagre and Wells, 1982). They also find that the host government can cause changes in the levels of bargaining power of the participants due to the dependency of the IJV on the government (Tallman and Shenkar, 1994; Ghoshal and Bartlett, 1990; Lecraw, 1984).

The issue of the determinants of bargaining power has been presented by some studies. For example, Fagre and Wells (1982) find that the bargaining power of multinational firms is an increasing function of five elements which are the multinational's technological level, the product differentiation, the access provided to export markets, the invested sum, and the diversity of the firm's production line. Robinson (1969) stresses that partner contributions are important to the process of joint venture management because the contributions and expected benefits of the participating firms are continually adjusted to align with shifts in relative power between the partners.

In his study, Lecraw (1984) stresses that firm-specific advantages which include the proprietary product or technology, access to relatively inexpensive capital, access to export markets, and management expertise may give the multinational bargaining power over the host country and competing firms. He indicates that possession of a proprietary product or technology may increase a multinational's bargaining power over the host country, particularly if other multinationals or local investors cannot supply technology of the same type or level of advancement. Similarly, Kobrin (1987) indicates that the sources of MNE bargaining power can be derived from firm-specific advantages or assets. He has used several variables to represent the sources of MNE bargaining power, such as technology, parent size, subsidiary size, employment, and export potential. In their study of expectations and results of contractual joint ventures by US and UK MNCs, Paliwoda and Liebreinz (1984) indicate that the most powerful position for the MNCs was when firms hold a near monopolistic technology which could yield beneficial leverage at the beginning of negotiations. They summarize the elements which are useful

to the MNCs in maintaining control as, cutting-edge technologies, additional services such as marketing expertise or sales opening, a corporate trademark, or being the sole proprietor of certain technology.

Using bargaining power theory and transaction costs theory, Gomes-Casseres (1990) state that the investment size increases the MNE's bargaining power and the attractiveness of the territory strengthens the host country's bargaining power. He also suggests that the bargaining process is affected by several factors, such as R&D intensity, marketing intensity, and intra-system sales and that the outcome of ownership negotiations seems to be affected by the market attractiveness of the subsidiary.

Focusing on their domestic joint venture research, Harrigan and Newman (1990) state that the bargaining power of potential joint venture partners is determined primarily by what each partner brings to the venture. Blodgett (1991) identifies five resources that can give a firm bargaining power in a joint venture. These five elements are government persuasion, technology, knowledge of the local environment and/or marketing expertise, control of intra-system transfers, and financial capital.

With regard to the bargaining power of host parents, this mainly derives from their control of the environment in which the joint venture will operate. Lecraw (1984) states that bargaining power of the host country increased with the increasing attractiveness of its local market and the degree to which it controlled market access through tariffs, and the possession of scarce resources. He argues that the greater the country-specific advantages of the host country, the greater its bargaining power and the higher the level of local ownership it may gain for local investors. Kobrin (1987) demonstrates that the major bargaining power resources of the host country are the number of residents, and its size of Gross Domestic Product, its rate of growth, its per capita income, and its technological and managerial capacity. Inkpen and Beamish (1997) state that knowledge of the local environment is not only a key resource of local partners, but is also a key source of bargaining power.

Yan and Gray (1994) develop an integrative model of international joint ventures that encompass two context-based and seven resource-based components of bargaining power. The context-based components of bargaining power are stakes and availability of alternatives. A stake is a bargainer's level of dependence on a negotiation relationship and on its outcomes. The potential partner who has more alternatives is more powerful because it can threaten to walk away and exercise its best alternative to negotiate an agreement (Fisher and Ury, 1987). The components of resources-based bargaining power constitute the resources and capabilities committed by the partners to a joint venture. The more critical resources contributed to an organization by its partner, the greater power that partner has. Luo (2002) indicates that the market power of foreign firms in home or international markets can elevate the foreign firm's bargaining power stemming from the dependence of their local partners (Yan and Gray, 1994; Pfeffer and Salancil, 1978). From the above relevant empirical studies, the major determinants of bargaining power are summarized in Table 4.3.1.

Table 4.3.1 Major Determinants of Bargaining Power

Author	Year	Sources of bargaining power
Fagre and Wells	1982	<ul style="list-style-type: none"> • Technological level • Product differentiation • Access to export markets • Invested amount • Diversity of firm's production line
Lecraw	1984	<ul style="list-style-type: none"> • Proprietary product or technology • Access to relatively inexpensive capital • Access to export markets • Management expertise
Kobrin	1987	<ul style="list-style-type: none"> • Technology • Parent size • Subsidiary size • Employment • Export potential
Gomes-Casseres	1990	<ul style="list-style-type: none"> • Investment size • Attractiveness of the territory • R&D intensity
Harrigan and Newman	1990	<ul style="list-style-type: none"> • The source of each partner brings to the venture
Blodgett	1991	<ul style="list-style-type: none"> • Government suasion • Technology • Knowledge of the local environment and/or marketing expertise • Control of intra-system transfers • Financial capital critical resources
Yan and Gray	1994	<ul style="list-style-type: none"> • Context-based: stakes and availability of alternatives • Resources-based:
Inkpen and Beamish	1997	<ul style="list-style-type: none"> • local environment knowledge

Source: this study compiled from relevant articles.

In general, according to the pioneering work of researchers, bargaining power can be classified into three categories: (1) resource-based: bargaining power, which can stem from the contribution of critical resources, such as technology, marketing expertise, access to financial markets, control of internet network; (2) capability-based: when investing firms have the ability to affect outcomes or to get things done; (3) equity-based: when investing companies are characterized as having a strong preference for major ownership in their overseas subsidiaries, and in most cases their perceived relatively strong bargaining positions allow them to realize those ownership options.

4.3.2 The Relationship between Bargaining Power, Control and Ownership

Adopting the negotiations perspective to explain the distribution of control between the partners in a joint venture, previous researchers suggest that the bargaining power of partners is a critical variable in determining patterns of control in joint ventures (Blodgett, 1991; Harrigan and Newman, 1990; Lecraw, 1984). For example, using the perspective of bargaining power to discuss the control of IJV, Yan and Gray (1994) indicate that the bargaining power between parents will affect the control of IJV including the proportion of board membership, the nomination of general managers, structural control and perceived overall control.

Moreover, Lecraw (1984) finds a significant association between bargaining power and control. He finds bargaining power that was influenced by technical leadership, advertising intensity and export capability of the multinational partner had a significant contribution to control. On the basis of the alternative literature, this study posits that there is a relationship between bargaining power and control. Therefore, the hypothesis is represented as follows.

H₂: There is a significant relationship between bargaining power and the extent of control

Fagre and Wells (1982) use a bargaining power framework to explore the relationship between the multinational firms' characteristics and the percentage equity ownership position. They regard equity ownership as an outcome of negotiation, and a representation of relative power between participating interests. Also, it is influenced by the number of multinational competitors active in the industry.

In his empirical study, Lecraw (1984) finds that the bargaining power of multinational firms and host LDCs have a strong influence on the percentage equity ownership. He deems that the greater the country-specific advantages of the host country, the greater its bargaining power and the higher the level of local ownership it may gain for local investors. By following the bargaining approach, Lee (2004) assumes that the equity share of an IJV firm is negotiated between the MNC and the local government. Lee indicates that the multinational corporations will hold an equity share of IJV that is larger than its relative bargaining power, because the MNC has a cost advantage and superior technology over its local partner.

Based on alternative literature, this study posits that there is a relationship between bargaining power and ownership. Therefore, the hypothesis is represented as follow.

H₃: There is a significant relationship between bargaining power and the proportion of ownership.

4.4 Contributions of the Joint Venture Parents

A contribution is defined as any resource input from the foreign parent and host parent companies to the joint venture. Establishing an organization needs many kinds of resources such as capital, human resource, technology and know-how, etc.; and each of these resources has an important position in different situations. Kogut (1988) defines a joint venture as: "a joint venture occurs when two or more firms pool a portion of their resources within a common legal organization". For a joint venture, the needed

resources are derived from different parent entities. For example, capital must firstly be contributed from each parent when they decide to cooperate under different motives.

Many previous research points out that one of the motivations for forming a joint venture is resources dependence (Inkpen and Beamish, 1997; Harrigan, 1985; Beamish, 1985; Killing, 1983; Pfeffer and Salancik, 1978; Zald, 1970; Aiken and Hage, 1968; Thompson, 1967; Blau, 1964; Emerson, 1962; Selznick, 1948). In his sample of sixty-six joint ventures in less developed countries, Beamish's (1985) results showed that the reasons for creating a joint venture are skills acquisition and assets or attributes needed. Next, we will discuss what type of resources the parent contributes to joint ventures.

4.4.1 The Type of Resources Contributed by Parents

There is a wide range of resources that each parent might contribute to a joint venture and each type of resource potentially provides a different source of power and different scope of influence. Several categorisations of resource levels have been mentioned in the relevant literature. Grant (1991) identifies six categories of company resources: financial, physical, human, technological, reputation, and organisational. Barney (1991) groups the resources into three categories: physical, capital and human capital resources. Chatterjee and Wernerfelt (1991) identify resources into three categories: physical, invisible and financial.

Yan and Gray (1994) state that primary resources contributed by foreign partners generally involve technology, management expertise, and global support. For local partners, the main resource contribution is expertise in areas such as local sourcing, domestic distribution and personal management. Sharp and Barz (1997) indicate that the foreign parents typically provide two types of support to their joint ventures: (1) technical support which including process and product technology, and (2) managerial support which including entailing administrative know-how, managerial expertise, and marketing direction.

Referring to a survey of a hundred US MNEs, UNCTC (1987) ranked the order of the importance of local partner’s contributions as shown in Table 4.4.1.

Table 4.4.1 Rank Ordering of Local Partners’ Contributions to the Joint Venture

Rank	Contribution
1	Knowledge of the political situation, economy and customs of the country
2	General management
3	Access to markets for goods produced in the country
4	Marketing personnel and expertise
5	Local capital
6	Contacts and relationships with governments of host countries
7	Plants, facilities and land of local partners
8	Capability of recruiting local labor and dealing with labor unions
9	Access to local materials
10	Access to local financial institutions

Source: UNCTC (1987), Arrangements between Joint Venture Partners in Developing Countries, UNCTC, New York, p18.

UNCTC (1987) argues that the complementary contribution of resources by the partners provides a firm basis for a viable joint venture between firms from a developed and a developing country. The major contributions of the MNE are its manufacturing technology, product know-how, patents, business expertise, technical training and management development. The local partner’s main contributions include capital, management, knowledge of the local environment and country, contacts with host governments, financial institutions, local suppliers and labour unions and local marketing capabilities.

For local partners, Inkpen and Beamish (1997) also indicates that contributions revolve around an understanding of the local market, cultural, and environmental conditions. In the study of the effect of foreign partner contributions on IJV performance, Luo (2002) classifies the foreign partner attributes into three categories, namely strategic (technological capability, market power, and marketing expertise), organizational (managerial skills, international expertise and corporate reputation), and financial (cost control, capital allocation, and asset management). Luo (2002) argues that strategic attributes can improve a local partner’s operational skills and competitive resources (Geringer, 1991), technological and production capabilities (Dyer, 1997), and market

power and competitive position (Hamel, 1991). Organizational attributes contributed by a foreign partner may improve the local partner’s managerial efficiency, organizational legitimacy and corporate reputation. His research findings revealed that Chinese firms look for strategic or organizational attributes but not financial competency when they cooperate with foreign firms and suggested that Chinese firms are expansion-driven, rather than focused on maximizing returns or minimizing costs.

From the above relevant literatures, this study compiles the relevant results with regard to resource contribution of international joint ventures as shown in Table 4.4.2.

Table 4.4.2 Main Resource Contributed by Partners

Company resources	Author					
Variables	UNCTC (1987)	Grant (1991)	Barney (1991)	Chatterjee and Wernerfelt (1991)	Yan and Gray (1994)	Inkpen and Beamish (1997)
Financial	*	*	*	*		
Physical		*	*	*		
Human	*	*	*		*	
Technological	*	*			*	
Reputation		*				
Organisational	*	*			*	
Invisible	*			*		
Domestic distribution	*				*	
Global support					*	
Knowledge of the local environment	*					*

Source: this study compiled from relevant articles

With reference to the prior works of other researchers, this study chooses more common variables based on the variables in Table 4.4.2 above. Resource contributions can be classified into five categories: (1) Physical resources; (2) Invisible resources; (3) Financial resources; (4) Human resources; and (5) Organizational resources. This study will use these five resource categories to measure the resource contributions supplied by host country parents and foreign parents.

4.4.2 The Relationship between Contribution, Control, Ownership and Bargaining Power

Resource-dependence theory suggests that the extent of the stakeholders control depends on their ability to provide the resources needed for the international joint venture to succeed. Child and Yan (1999) suggest that the foreign-investing enterprise should provide key non-capital resources which can significantly increase the ability of a partner to influence the quality of the joint venture management process through an active managerial presence. From their empirical investigation, the results show that the resource dependence perspective has considerable theoretical power for predicting and explaining the control of international joint ventures when parents from developed and developing countries are involved. In such cases, it means the parent contributing the necessary resources will gain more control over the international joint venture entity.

Killing (1983) reported that the partners' respective contributions shaped the control structure of the joint venture. Lin (1995) found the contribution supplied by each partners not only affects the ownership but also the control. She also found that different contributions inputted by each partner resulted in a different scope of control by each partner. For example, one partner predominates in the marketing strategy; the other partner makes the manufacturing decisions. Mjoen and Tallman (1997) suggest that parents who supply the most critical resources and have greater expertise can have higher control over joint ventures. Chalos and O'Connor (2004) assert that the partner with greater specific assets in the venture is naturally more likely to exercise control over these assets. They found that specific asset investments which include employee development, supplier relationships, regulatory agency relationships, availability of alternative partners and local investment in land, buildings and special purpose machinery had significant effects on the control mechanisms from the perspective of the Chinese partners. Child, Yan and Ku (1997) also suggest that Chinese partners may focus on specific controls to protect their investments in the ventures. Yan and Child (2004) claimed that the ability of one party to provide better resources than its partners and/or control resources will give that party power over the IJV.

There is a wide range of resources that each parent might contribute to an international joint venture and each type of resource potentially provides a different source of power and different scope of influence. Thus, this study posits that there has a relationship between contribution and control. The hypotheses are represented as follows:

- H₄:** There is a significant relationship between resource contributions of host country parents and the extent of control they exercise in a joint venture
- H_{4-1a}:** Host country parents with higher physical resource contribution will have stronger control of operational decision-making activities in a joint venture
- H_{4-1b}:** Host country parents with higher physical resource contribution will have stronger control of the appointment of high-level managers in a joint venture
- H_{4-2a}:** Host country parents with higher invisible resource contribution will have stronger control of operational decision-making activities in a joint venture
- H_{4-2b}:** Host country parents with higher invisible resource contribution will have stronger control of the appointment of high-level managers in a joint venture
- H_{4-3a}:** Host country parents with higher financial resource contribution will have stronger control of operational decision-making activities in a joint venture
- H_{4-3b}:** Host country parents with higher financial resource contribution will have stronger control of the appointment of high-level managers in a joint venture
- H_{4-4a}:** Host country parents with higher human resource contribution will have stronger control of operational decision-making activities in a joint venture
- H_{4-4b}:** Host country parents with a higher human resource contribution to the venture will have a stronger control of the appointment of high-level managers in a joint ventures.
- H_{4-5a}:** Host country parents with a higher organizational resource contribution to the venture will have a stronger control of operational decision-making activity in a joint venture.
- H_{4-5b}:** Host country parents with a higher organizational resource contribution to the venture will have stronger control of the appointment of high-level managers in a joint venture.

Blodgett (1991) indicates that the type of expertise that a company contributes to a joint venture may affect the amount of equity it holds. The results of her study revealed that ownership patterns vary with the combination of resources contributed to a venture. Pan (1996) indicates that the foreign partner who is capable of contributing more to the initial

capital sum acquires stronger bargaining power for a higher equity share (Gomes-Casseres, 1990; Harrigan, 1985; Fagre and Wells, 1982). Lin (1995) demonstrates that the level of contribution supplied by each stakeholder will affect their proportion of ownership in the joint venture. Therefore, the proposed research hypothesis can be phrased as follows.

H₅: There is a significant relationship between the resource contribution of host country parents and their proportion of ownership in a joint venture

H₅₋₁: Host country parents with higher physical resource contribution will have a higher proportion of equity shares in a joint venture

H₅₋₂: Host country parents with higher invisible resource contribution will have a higher proportion of equity shares in a joint venture

H₅₋₃: Host country parents with a higher financial resource contribution to the venture will have a higher proportion of JV equity shares in a joint venture

H₅₋₄: Host country parents with a higher human resource contribution to the venture will have a higher proportion of JV equity shares in a joint venture

H₅₋₄: Host country parents with higher organizational resource contribution will have a higher proportion of equity shares in a joint venture

Gomes-Casseres (1987b) states that participants gain power from their commitment of various resources, such as technology, marketing expertise, control of intra-network sales, access to financial markets, and geographical or industrial experience. Robinson (1969) stresses that partner contributions are important in the process of joint venture management because the contributions and expected benefits of the participating firms are continually adjusted to align with shifts in relative power between the partners.

Blodgett (1991) suggests that a contributed resource is likely to result in greater bargaining power if the partner cannot easily appropriate it. She identifies five resource contributions that give a firm bargaining power in a joint venture as, government suasion, technology, knowledge of the local environment and/or marketing expertise, control of

intrasystem transfers, and financial capital. Lecraw (1984) indicates that possession of a proprietary product or technology may increase the bargaining position of a multinational over the host country. Kobrin (1987) indicates that the sources of MNE bargaining power can be derived from the firm-specific advantages or assets. Harrigan and Newman (1990) assert that the bargaining power of potential joint venture partners is determined primarily by what each partner brings to the venture.

Based on the alternative literature, this study posits that there is a relationship between contribution and bargaining power. Therefore, the hypothesis is represented as follows:

H₆: There is a significant relationship between resource contributions of host country parents and bargaining power

4.5 The Motives for Forming International Joint Ventures

The motives for engaging in international joint ventures are quite varied (Glaister, 2004; Glaister and Buckley, 1996; Contractor and Lorange, 1988). Why does one company want to cooperate with other firms? Several theoretical explanations of this particular form of inter-company cooperation have been proposed to explain why international joint ventures are formed. The principal theoretical perspectives regarding the motives or reasons for forming international joint venture relate to (a) resource dependence theory (Glaister, 2004; Harrigan, 1985; Pfeffer and Nowak, 1976), (b) transaction cost theory (Glaister, 2004; Hennart, 1988, 1991; Buckley and Casson, 1988), (c) strategic contingency theory (Teece, 1992; Contractor and Lorange, 1988; Harrigan, 1985, 1988), (d) organizational learning theory (Kogut, 1988; Hamel, 1991; Mody, 1993). In this section, a number of alternative theories for the motives for joint venture formation are described first, and then the relevant empirical studies relating to the motives of international joint ventures are reviewed. Finally, hypotheses in relation to the motives for the formation of international joint ventures are presented.

4.5.1 Alternative Theoretical Rationales for International Joint Ventures

This section first reviews the alternative theoretical rationales for international joint venture formation. There are a number of theoretical perspectives on IJV formation which are (a) resource dependence theory, (b) transaction cost theory, (c) strategic contingency theory, (d) organizational learning theory. Each theory will be described in the following sections.

4.5.1.1 Resource Dependence Theory

Resource dependence analysis concentrates on resource scarcity. It illustrates that organizations must assume some strategies when they face an uncertain environment in order to obtain resources that are required for survival but constrained by external organizations. Some international joint ventures are motivated by the belief that the parent of an international joint venture can better obtain the target resources through cooperation. This implies that the combined resources of the two companies can increase the organization's competition.

A number of authors (Pfeffer and Salancik, 1978; Zald, 1970; Thompson, 1967; Blau, 1964; Emerson, 1962; Selznick, 1948) have provided an integrated context of the resource dependence framework. Aiken and Hage (1968) indicate that cooperation between organizations results from resource dependence which creates a dependent relationship within organizations. Pfeffer and Salancik (1978) identify the command of critical resources as the basis for exercising power within and between organizations. Harrigan (1985) suggests joint ventures can be resource-aggregating and resource-sharing mechanisms, which allow investing companies to concentrate resources in those areas where they possess the greatest respective strengths. Studying the choice of foreign market entry mode, Agarwal and Ramaswami (1992) find that the smaller and less experienced multinational firms prefer entry into foreign markets through a joint

venture because they need to complement their resource needs with the host country firms. Inkpen and Beamish (1997) stated that dependence can be a source of power for controlling key resources because each firm can increase or withhold resources that are attractive to its partner (Bacharach and Lawler, 1980).

Utilising resource based theory, Glaister (2004) stresses that there are three mechanisms for acquiring resources and capabilities: (1) buying resources or hiring people with the required knowledge from other organisations, (2) internally creating them, and (3) through combinations of complementary resources and/or capabilities. However, Glaister (2004) mentions that internal development or acquisition methods are sometimes costly and problematic. Therefore, he suggests that an alliance is an attractive means which can provide access to certain capabilities, specific assets or systems. Madhok and Tallman (1998) also point out that there are three considerations in play when an alliance is formed. First, the firm does not have the resources and capabilities which can improve its competency and cannot develop them internally in an acceptable time or cost parameter. Second, markets cannot transmit organisational learning of embedded knowledge effectively. Third, acquiring and fully integrating another firm is not feasible. Therefore, if firms cannot create capabilities or possess the resources on their own, they can acquire the resources and capabilities through an alliance. Using data on US investment banking firms, Chung, Singh and Lee (2000) found that resource complementarity has a significant influence on the formation of alliances. They argue that the complementarity of capabilities implies the possibility of synergy when the partner's resources are pooled together, which thus enhances the likelihood of alliance formation.

From the perspective of a resource based rationale, the recognition of acquiring the resources and capabilities provides a strategic motive for JV formation. The collaboration provides the firm with access to complementary capabilities which are either not available through market transaction or are too costly or slow to generate internally.

4.5.1.2 Transaction Cost Theory

Transaction cost theory is concerned with the cost-effectiveness of organizing international economic activities. The origins of transaction cost economics are associated with the early writings of Coase (1937). Its framework has been most fully developed by Williamson (1975, 1985). Casson (1982) states that markets and hierarchies are alternative modes of governance that offers the transaction as the basic unit of analysis. Williamson (1975) argues that firms choose how to manage their transactions according to the criteria of minimizing the sum of production and transaction costs. Production costs may differ between firms due to the scale of operations, learning, and proprietary knowledge. Transaction costs refer to the expenses incurred in searching out new suppliers or customers, for writing, negotiating and enforcing contracts and for administering a transaction. Williamson (1985) employed the transaction cost framework to explain that a firm may choose to exercise more or less control over its investment.

Transaction cost theory is seen as a means to decide whether a joint venture is the best option according to the sum of production costs and transaction costs (Pan and Tse, 2000). According to Williamson's perspective, some theorists developed the internalization theory to explain the strategic contents of the wholly owned subsidiary, the joint venture and licensing. Transaction costs will affect the choice of entry mode into a foreign market (Belderbos, 2003; Yu and Tang, 1992; Gomes-Casseres, 1990; Hennart, 1988). Teece (1986) finds that firms adopt a joint venture as a cooperation mode when the transaction costs are less than the internal costs of a wholly owned subsidiary and a joint venture is the best option when a firm possesses high specific resources (Hennart, 1991; Kogut, 1988).

Transaction cost theory provides sound reasons for the formation of a joint venture; however, it sometimes incurs costs in another situation when pursuing the minimum transaction costs. Additionally, the measure of transaction costs has limitations in terms

of its ability to explain transaction cost theory. Kogut (1988) summarizes the argument on transaction costs and joint ventures as follows:

“The critical dimension of a joint venture is its resolution of high levels of uncertainty over the behaviour of the contracting parties when the assets of both parties are specialized to the transaction and the hazards of joint cooperation are outweighed by the higher production or acquisition costs of 100 percent ownership”. (Kogut, 1988, p 321)

4.5.1.3 Strategic Behaviour Theory

Strategic behaviour theory emphasises how strategic behaviour influences the competitive positioning of a firm. On studying the motivation of foreign direct investment, some researchers have suggested that the strategic motives for firms entering new international markets mainly relate to acquisition of resources or advantages that could improve their competitive position in the global marketplace (Randoy and Dibrell, 2002; Chandprapalert, 2000; Chen and Chen, 1998; Kim and Hwang, 1992; Sheth and Parvatiyar, 1992; Beamish and Banks, 1987). On the study of the IJV, researchers also find that firms using a joint venture strategy improve their competitive positioning in the market and maximizing profits (Contractor and Lorange, 1988) or increase the value of firms' assets (Kogut, 1988). Vernon (1983) views the joint venture as a form of defensive investment by which a firm hedges against strategic uncertainty, especially in industries of moderate concentration where collusion is difficult to achieve. Vickers (1985) considers joint ventures as a way to deter the entry of competitors through pre-emptive patenting, and shows that for small innovations, a joint venture is an effective mechanism to deter market-entry investment of competitors. For large innovations, it is in the interest of each firm to pursue its own research if the expected pay-off justifies the costs. Kogut (1988) indicates that the purpose of forming joint ventures is to prevent the entry of rivals or to enervate the competitive position of its rivals.

With regard to transaction cost and strategic behaviour perspectives, Kogut (1988) deems that these two perspectives are complementary rather than substitutive. He

explores that the differences between these theories are the motivation for cooperative and the standard for partner selection. Transaction cost theory predicts that matching between partners should reflect minimizing costs; in contrast, strategic behaviour theory predicts that joint venture partners will be chosen to improve the competitive positioning of the parties, whether through collusion or through depriving competitors of potentially valuable allies.

4.5.1.4 Organizational Learning Theory

Organizational learning theory views joint venture as a mode by which firms learn (or seek) to retain their capabilities. Several studies on IJVs show that the role of organizational learning is an important determinant for the formation of strategic alliances (Glaister, Huan and Buckley, 1998, 2003; Shenkar and Li, 1999; Inkpen and Beamish, 1997; Kogut and Zander, 1993; Hamel, 1991; Badaracco, 1991; Ciborra 1991; Kogut, 1988). Numerous studies have suggested that firms may enhance their competitive position through acquiring tacit experiential knowledge, new skills and capabilities from partner firms. Polanyi (1967) argues that joint ventures allow “tacit knowledge” to be transferred. The characteristics of tacit knowledge should be simultaneously valuable, difficult to imitate and limited in prevalence among the competitors (Barney, 1991). Robson, Leonidou and Katsileas (2002) identify knowledge as being useful to parent firms in three ways: (1) it can strengthen the strategic, operational, and tactical aspects of their businesses; (2) it can enhance experience in the design, implementation, and management of IJV business; and (3) it can be embedded in specific processes and outputs of the IJV and benefit the venture itself. Joint ventures are the most effective mode for transferring and integrating tacit knowledge since many employees from both parent companies are working together and are communicating frequently and directly and are able to share experience (Mowery et al., 1996; Hedlund, 1994; Parkhe, 1991; Hamel, 1991; Hennart, 1988; Kogut, 1988).

Kogut (1988) states that other forms of transfer, for example, licensing, are ruled out, not because of market failure or high transaction costs, but because the knowledge being

transferred is organizationally embedded. He argues that a joint venture is encouraged under two conditions: one or both firms desire to acquire the other's organizational know-how, or one firm wishes to maintain an organizational capability while benefiting from another firm's current knowledge or cost advantage.

Hamel (1991) argues that collaboration may provide an opportunity for one partner to internalize the skills of the other and thus improve its position both within and without the alliance. Nelson and Winter (1982) explore whether a firm may decide on a joint venture in order to retain its capability of organizing specific activities while benefiting from the superior production techniques of a partner. Therefore, a firm may choose a joint venture in preference to a less costly option, in order to exploit these capabilities at a later stage.

Harrigan (1984) argues that firms will cooperate in forming joint ventures only if the needs of each partner are great enough and if they can add resources which are complementary to the other's attributes. Luo (2002) indicates that Chinese firms perceive foreign partner competence in strategic and organizational attributes as significantly critical to achieving their goals of IJV formation. Chinese firms are more focused on market expansion and knowledge acquisition considerations rather than transaction cost concerns. By contrast, foreign companies often aim at market penetration in China. Swierczek and Dhakal (2004) define learning as the utilization of knowledge by joint ventures as demonstrated by the improved performance of joint venture in accomplishing its objectives. They assert that learning involves interaction among parent firms and a joint venture when an entity is built to achieve the parent firm's objectives and/or interests (Inkpen and Beamish, 1997).

In conclusion, transaction costs, strategic behaviour, resource dependence and organization learning provide distinct explanations of joint venture behaviour. Transaction costs and strategic behaviour theory are economic analysis perspectives; in contrast, resource dependence and organizational learning theory are resource-based aspects. Transaction costs theory views joint ventures as efficient solutions to the hazard

of economic transactions. Strategic behaviour theory places joint ventures in the context of competitive rivalry and collusive agreement to enhance market power. Resource dependence theory sees joint ventures as stemming from resource dependence, which creates a dependent relationship within organizations. Organization learning theory views joint ventures as a vehicle by which organizational knowledge is exchanged and imitated.

4.5.2 The Empirical Studies Relating to Motives for International Joint Venture Formation

The empirical finding of strategy motives in a variety of studies supports the theories of the formation of international joint ventures (Glaister, 2004; Yan and Luo, 2001; Pan and Tse, 1996; Glaister and Buckley, 1996; Sheth and Parvatiyar, 1992; Hung, 1992; Hannart, 1991; Contractor and Lorange, 1988; Kogut, 1988; Harrigan, 1985, 1988; Beamish, 1985; Mariti and Smiley, 1983). Mariti and Smiley (1983) identify a number of core strategic motives for joint venture formation. These are risk sharing, product rationalization, transfer of complementary technology and conformance to host government policy. Some researchers perceive risk sharing as a fundamental motive for cooperative alliances (Pan and Tse, 1996; Brouters and Wilkinson, 1995; Sheth and Parvatiyar, 1992; Harrigan, 1988). Pan and Tse (1996) classify the risk into two types: the contextual risks which mainly relate to the external macro-environment of the host country, and transactional risks which are associated with the internal nature of the cooperative partnership. They find that when the risks of the host country increase, foreign companies are more likely to cooperate with other partners in order to reduce the investment risk.

In his sample of thirty-four joint ventures in developed countries (DCs), Killing (1983) divides the reasons for creating a joint venture into three groups: (a) government suasion or legislation; (b) one partner's needs for another partner's skills; and (c) one partner's needs for the another partner's attributes or assets. Beamish (1985) compares his own findings, based on a sample of sixty-six joint ventures in less developed countries (LDCs),

with those of Killing and identifies different motivations between developed and less developed countries. Table 4.5.1 shows that government suasion/legislation is a significantly more important influence on joint venture formation in less developed countries than developed countries.

Table 4.5.1 Relationships of Stage of Development to Venture-Creation Rationales

Rationale	Developed country (%) ^a	Less developed country (%) ^b
government suasion /legislation	17	57
Skills needed	64	38
Assets or attributes needed	19	5

a Based on sample of 34 joint ventures by Killing

b Based on sample of 66 joint ventures by Beamish

Source: Derived from Beamish, P.W. (1985) “The Characteristics of Joint Ventures in Developed and Developing Countries”, Columbia Journal of World Business, Fall, 20(3), p.14.

Janger (1980) obtains a similar result in LDCs, noting that nearly half of the companies forming joint ventures stemmed from government requirement. Gullander (1976) adds that the political reason maybe why foreign companies in LDCs form joint ventures. Tomlinson (1970), in his sample of joint venture in India and Pakistan, also stresses that the main reason for using a joint venture structure is either explicit or implicit government pressures. In some cases government policies have given more lucrative incentives to encourage local firms in cooperating with foreign companies to acquire foreign technology (Contractor, 1989). In his study on the characteristics of joint ventures in China, Beamish (1993) found that joint ventures in China are frequently created due to government pressure. Similarly, in studying the strategic alliance of Chinese and Hungarian companies, Child and Markoczy (1993) and Child, Markoczy and Cheung (1994) found that strategic alliances between the host country and foreign partners have been encouraged by both governments. From these empirical studies, we can find one of the motivations for forming an IJV is government encouragement.

From the perspective of small business, Barrett (1992) suggests that the formation of an IJV can bring small firms some benefits which he groups into three categories. First, by sharing the development of an export program with an IJV partner, small company

owners can enhance growth prospects. Second, an international partner in an IJV can bring to the enterprise a range of cultural skills and knowledge required for trading in international markets, enhancing competitiveness. Third, small firms can overcome financial constraints when a number of government-assisted financing programs are available to form the export ventures.

Franko (1972), Robock and Simmonds (1983), and Killing (1983) all observe a similar pattern in joint ventures. They demonstrate that joint ventures are formed as a result of uncertainty concerning a new market; apparent learning about the market and need for a partner.

Daniels et al. (1985) indicate that investing companies engage in foreign direct investment for two main reasons. These are generally concerned with either expanding their markets by exporting abroad, or acquiring foreign resources. Berlew (1984) suggests that a small firm can choose a joint venture to establish itself overseas because the mode of joint venture brings advantages to a small firm, including (1) sharing in the venture's income and growth, (2) enjoying preferred treatment in developing countries, (3) having better access to the market, (4) keeping its capital contribution low by supplying technical expertise, (5) experiencing less drain on its managerial resources, and (6) creating equity value for the parent. Porter and Fuller (1986) identify four strategic benefits of joint venture formation which are reducing risks, economies of scale or learning, access to knowledge or ability, and shaping competition. They stress that joint ventures are seen as an attractive mechanism for hedging risk because neither partner bears the full risk and cost of the alliance activity.

Harrigan (1985) classifies the various uses of joint ventures into three broad categories shown as Table 4.5.2. There are: (a) internal uses associated mainly with cost reduction and the sharing of resources; (b) competitive uses aimed at improving the firms' strategic positions through forcing their industries' structures to evolve in a favourable manner, pre-empting competitors such as developing defensive strategies in mature industries;

and (c) strategic uses aimed at implementing changes in the firms’ strategic postures through access to new technology or diversification.

Table 4.5.2 Motivations for Joint Venture Formation

Internal uses	<div>1. Cost and risk sharing (uncertainty reduction)</div> <div>2. Obtain resources where there is no market</div> <div>3. Obtain financing to supplement firm’s debt capacity</div> <div>4. Share outputs of large minimum efficient scale plants<ul style="list-style-type: none">• avoid wasteful duplication of facilities• utilize by products, processes• shared brands, distribution channel, wide product lines, etc.</div> <div>5. Intelligence: obtain window on new technologies and customers<ul style="list-style-type: none">• superior information exchange• technological personnel interactions</div> <div>6. Innovative managerial practices<ul style="list-style-type: none">• superior management systems• improved communications among strategic business units (SBUs)</div> <div>7. Retain entrepreneurial employees</div>
Competitive uses	<div>1. Influence industry structure’s evolution<ul style="list-style-type: none">• pioneer development of new industries• reduce competitive volatility• rationalize mature industries</div> <div>2. Pre-empt competitors (first mover advantages)<ul style="list-style-type: none">• gain rapid access to better customers• capacity expansion or vertical integration• acquisition of advantageous terms, resources• coalition with best partners</div> <div>3. Defensive response to blurring industry boundaries and globalization<ul style="list-style-type: none">• ease political tensions (overcome trade barriers)• gain access to global networks</div> <div>4. Creation of more effective competitors<ul style="list-style-type: none">• hybrids possessing parents’ strengths• fewer, more efficient firms• buffer dissimilar partners</div>
Strategic uses	<div>1. Creation and exploitation of synergy</div> <div>2. Technology (or other skills) transfer</div> <div>3. Diversification<ul style="list-style-type: none">• toehold entry into new markets, products, or skills• rationalization (or divestiture) of investment• leverage-related parents’ skills for new uses</div>

Source: Harrigan, K.R. (1985), Strategies for Joint Ventures, Lexington Books, D.C. Heath & Co., Lexington, Mass., p28.

Hung (1992) studied 110 strategic business alliances between Canadian and Pacific Asia companies and identified 22 “motives and fundamental objectives”, which are shown in Table 4.5.3. Based on Hung’s study, Groot and Merchant (2000) refined Hung’s studies to four main categories of objectives: (1) reducing costs, (2) obtaining market access, (3) obtaining access to technological developments or expertise, or (4) reducing risks.

Table 4.5.3 The Main Categories of Objectives of Strategic Alliances

1. Gain access to local market	12. Increase contribution to the company's fixed investments
2. Become "global" more quickly	13. Gain political protection
3. Share the business risk	14. Reduce/share cost of research
4. Overcome trade barriers	15. Reduce competition
5. Develop cultural familiarity	16. Satisfy personal ambition
6. Minimize capital investment	17. Acquire foreign technology
7. Stabilize earnings	18. Gain knowledge on how other companies manage
8. Share regional markets	19. Circumvent investment restrictions
9. Reduce cost of product development	20. Integrate the company's operations
10. Make use of foreign labour	21. Make use of under-utilized equipment
11. Generate new ideas to stimulate internal innovation	22. Secure material supplies

Source: Groot, T.L.C. M. & Merchant, K.A., (2000), Control of International Joint Ventures, Accounting Organizations and Society, 25(6):579-607

Joint ventures are also deemed as an attractive mechanism for the sharing of risks. Contractor and Lorange (1988b) identify the ways in which a joint venture can reduce a partner's risk. These include: (a) spreading the risk of a large project over more than one firm; (b) enabling product diversification and the faster establishment of a presence in the market, which in turn allows a more rapid payback on investment; (c) cost sub-additivity, i.e. the cost of the partnership is less than the cost of investment undertaken by each firm alone. A joint venture can lower the total investment cost of a particular project or the assets at risk, by combining expertise and slack facilities in the parent firms.

Kogut (1988a) stresses the use of international joint ventures stems from theories on how strategic behaviour influences the competitive positioning of the firm. From the strategic behaviour perspective, he argues that joint ventures are a mode of organization that maximizes profits through improving a firm's competitive position.

Datta (1988) argues that there are a number of economic reasons why firms are increasingly required to accept and work with joint ventures. The motives for a multinational to enter into a joint venture agreement are: (a) to enter new and potentially profitable markets; (b) to share heightened economic risks in new business ventures; (c) to satisfy nationalistic demands and reduce the risks of expropriation; and (d) to pool organizational know-how and gain various synergistic benefits.

A study by the United Nations' Economic Commission for Europe (1988) identifies the range of potential objectives of foreign companies that enter into joint ventures with local partners to be: (a) to reduce the capital cost (and risk) of setting up a new capacity; (b) to penetrate a specific geographic market; (c) to acquire managerial know-how about local market conditions; (d) to enter a new field of business; (e) to achieve the vertical integration of existing products; (f) to acquire a manufacturing base or raw material sources; (g) to expand existing product lines; (h) to learn about newly developing market needs; (i) to acquire a means of distribution; (j) to improve the effectiveness of existing marketing; (k) to avoid cyclical or seasonal instability and (l) to take advantage of lower input costs.

Hagedoorn (1993) identifies the motives for strategic technology partnering as increased complexity and the intersectional nature of emerging technologies, technological synergies, access to scientific knowledge, complementary technologies, reduction and minimizing of uncertainty in R&D, capturing a partner's tacit knowledge and technology transfer. In studying the case of Chrysler and the Beijing jeep corporation, Aiello (1991) found that the Chinese partner's main strategy for entering into corporation with the West was to absorb as much technology and management skills as possible; in contrast, the foreign partner's main motive was to get access to the Chinese market.

Beamish et al. (1994) summarized four basic purposes that lead companies to the creation of joint ventures. These are: (a) to strengthen the firms' existing business; (b) to take the firm's existing products into new markets; (c) to obtain new products that can be sold in the firm's existing markets; (d) to diversify into a new business. Beamish and Inkpen (1995) find that a primary motive for forming an IJV is the need for access to specific local knowledge. This knowledge contribution of local partners has strategic value to the foreign partners, as they continue to depend on local partners for specialized local knowledge.

Mead (1994) demonstrates that forming an international joint venture (IJV) may give both partners opportunities to: (a) create greater market power by combining resources;

(b) reduce risk by sharing costs of investment and production (c) cooperate and avoid competition, which might incur greater costs than those incurred by forming the IJV and (d) cooperate with a potentially dangerous competitor.

Pennings (1981) indicates three types of motivation when organizations process the exchange: (a) efficiency driven—sharing cost and risk; (b) competitive driven—improving the competitive position; (c) resource driven—controlling scarce resources, enlarging present resources and finding complement resources.

Lin (1995) classifies the motivation for forming international joint ventures into three categories, as follows; (a) efficiency driven— based on transaction cost theory including sharing cost and risk, obtaining capital, overcoming legislation, acquiring economic scale of production or sale, etc.; (b) competitive driven---based on resource dependence theory and strategic behaviour theory including entering foreign or domestic markets, maintaining the partner's relationship, stabilizing supply of resource materials and components, shortening the time from the product design to market entry and increasing market share; (c) learning driven—based on organization learning theory including acquiring technology, management knowledge, marketing knowledge and educating employees in research and development.

Based on the relevant literature, Glaister and Buckley (1996) identify the most important motives relating to the strategic motivation for alliance formation which are (1) risk sharing, (2) product rationalization and economies of scale, (3) transfer of complementary technology / exchange of patents, (4) shaping competition, (5) conforming to host government policy, (6) facilitating international expansion, (7) vertical linkages, and (8) consolidation of market position. They also provide 16 strategic motives for alliance formation by UK firms with partners in Western Europe, the United States and Japan and group them into 5 categories which are configured as technology development, market power, market development, resource specialization and large project completion. The details of these motivations are shown in Table 4.5.4.

Table 4.5.4 Strategic Motivations for International Alliance Formation

Technology development	<ul style="list-style-type: none"> • Share R & D costs • Exchange of complementary technology • Exchange of patents/ territories
Market power	<ul style="list-style-type: none"> • Compete against common competitor • Maintain market position • Produce at lowest cost location • Reduce competition
Market development	<ul style="list-style-type: none"> • Facilitates international expansion • Faster entry to market • Gain presence in new market • Conform to foreign government policy
Resource specialization	<ul style="list-style-type: none"> • Concentrate on higher margin business • Economies of scale • Faster payback on investment
Large project completion	<ul style="list-style-type: none"> • Spread risk of large project • Product diversification

Source: Glaister, K.W. and Buckley, P.J. (1996). Strategic motives for international alliance formation, *Journal of Management Studies*, 33(3), pp301-332.

In the study of UK international joint ventures, Glaister, Husan and Buckley (1998) group the purposes underlying IJV formation into three classifications, namely, non-marketing- related, marketing-related and service provision. Their results revealed that most IJVs were formed in order to carry out a service activity (Glaister and Buckley, 1994).

Yan and Luo (2001) indicate that the primary reasons for JV formation for Chinese partners are the acquisition of the US partner’s knowledge which includes the technical, production, marketing and operational knowledge. Tidd and Izumimto (2002) claimed that a firm was likely to have multiple motives for an alliance. The reasons for collaboration include the reduction of cost and risk of technological or market development, to reduce time to market, and the exploitation of economies of scale. From the perspective of newly-industrializing country firms, Chen and Chen (2003) argue that the motive for the creation of strategic alliances with advanced-country firms is to gain market access and new technologies. Beamish and Berdrow (2003) also found that sharing risks and gaining market access are key motivations for IJV activity, but their results revealed that the accessing knowledge and learning new skills are secondary motives to market positioning and sharing risks.

Glaister (2004) examines the rationale for the formation of international equity joint ventures from the perspectives of the transactions cost and resource based theories, and his findings indicate that both aspects of the transactions cost and resource based views influence the decision to form a joint venture. He argues that the transactions cost and resource based perspectives on JV formation should be regarded as complementary views rather than substitute views (Tidd and Izumimoto, 2002).

From the relevant literature above, the major motivations for joint venture are identified as: cost sharing, risk reduction, economics of scale, resource implementation, market entry, shaping competition, legislation, organization learning, etc. Table 4.5.5 summarizes the core strategic motives for joint venture formation.

Table 4.5.5 Core Strategic Motives for Joint Venture Formation

		cost sharing	risk reducing	economies of scale	resource complementarity/contribution	skills transfer	entry market	organizational learning	legislation/	shaping competition	maximizing profit	product rationalization	diversification
Franko	1972				*		*	*					
Robock & Simmonds	1983				*		*	*					
Mariti & Smiley	1983		*		*				*			*	
Killing	1983				*	*			*				
Beamish	1985				*			*	*				
Daniels et al.	1985				*		*						
Harrigan	1985	*			*	*				*			*
Porter & Fuller	1986		*	*				*		*			
Contractor & Lorange	1988	*	*										*
Kogut	1988										*		
Datta	1988		*				*	*					
UNECE	1988	*	*		*		*	*					
Beamish et al.	1994						*						*
Lin	1995	*	*	*		*	*	*	*				

Source: this study compiled from relevant articles

According to above research of the motivation for the formation of joint ventures, there are some different results. These differences may stem from:

- (a) Different partner aspects: multinational firms and local firms in general have different objects. To the former, a joint venture may present a way into new markets, reduce risk and provide economies of scale. To the latter, a joint venture may be the way to acquire capital, to obtain technology skills, to learn management and marketing knowledge. Additionally, developed countries and less developed countries will have different objectives.
- (b) Different approach aspects: using different approaches will result in different results, for example, transaction cost theory emphasizes minimizing the transaction costs. In contrast, strategic behaviour theory concentrates on maximizing profits.
- (c) Differences in research sample: some research investigates the manufacturing industry only which provides different results.

In sum, there are many possible explanations of the motivation for forming international joint ventures. Many of these explanations; however, are variants of four theoretical

perspectives, namely, transaction costs, strategic behaviour, resource dependence, and organizational learning. From the literature review and the theories on international joint ventures, this study implies that different motivations encompass different meanings for the investors (the parents). Therefore, this study also attempts to identify the variables which measure the motivation for creating international joint ventures in a Taiwan context and discusses the relationship among motivation and other constructs.

4.5.3 The Relationship between Motivation, Control, Ownership and Contribution

Copious literature exists on the investigation of joint ventures solely in terms of an examination of either motivation or control (Mariti and Smiley, 1983; Beamish, 1985; Contractor and Lorange, 1988; Kogut, 1988; Harrigan, 1985, 1988; Hennart, 1991; Sheth and Parvatiyar, 1992; Hung, 1992; Pan and Tse, 1996; Glaister and Buckley, 1996; Yan and Luo, 2001; Glaister, 2004). Very few studies have examined the relationship between motivations and control simultaneously. Chalos and O'Connor (2004) describe partner differences in their perceptions of control mechanisms as determined largely by their respective motives. They found knowledge dependency and asset specific transaction costs to be the determinants of controls to varying degrees for each partner. Based on the study of US- Chinese joint ventures, they found that US partners have higher controls when they consider protecting their knowledge and have lesser control mechanisms to protect their specific asset investments. In contrast to the US partner, they found that Chinese partners increase their controls when their specific asset investments increase and have less controls when they are knowledge dependent on the foreign partners.

Lin (1995) reported that a different motivation for joint venture formation has a different extent of control. In her study, she found that the partner who has the learning motivation would have higher control in order to learn specific knowledge from a partner. Based on relevant research's results, this study posits that there is relationship between motivation and control. The hypothesis is presented as follows:

H₇: There is a significant relationship between the motivation of host country parents forming international joint ventures and their control over a joint venture

The parents of a joint venture usually have different backgrounds and different business operating strategies which affects the choice of ownership structure (Harrigan, 1985 ; Killing, 1983). Gomes-Casseres (1989) address the motivation for cooperation as the result of a different ownership structure of foreign subsidiaries. Lin (1995) also reported that different motivation for creating a joint venture will affect the proportion of ownership in such venture. She found that learning driven motivation has a higher proportion of ownership than competitive driven and efficiency driven motivation has a lower proportion of ownership. Thus, this study posits that there is a relationship between motivation and ownership. The hypothesis is represented as follows:

H₈: There is a significant relationship between the motivation of host country parents forming joint ventures and their ownership in a joint venture

Establishing an organization needs many kinds of resources such as capital, human resources, technology and know-how, etc.; and these resources have important positions in different situations. Kogut (1988) defines a joint venture thus: “a joint venture occurs when two or more firms pool a portion of their resources within a common legal organization”. For a joint venture, the needed resources are derived from different parent entities. For example, the capital must be firstly contributed from each parent when they decide to corporate under different motives. Therefore, firms will cooperate in forming joint ventures when they can benefit from another partner’s knowledge or advantages (Hamel, 1991; Badaracco, 1991; Ciborra, 1991; Kogut, 1988; Harrigan, 1984; Nelson and Winter, 1982).

Much existing research points out that one of the motivations for forming a joint venture is resource dependence (Inkpen and Beamish, 1997; Beamish, 1985; Harrigan, 1985; Killing, 1983; Pfeffer and Salancik, 1978; Zald, 1970; Aiken and Hage, 1968; Thompson, 1967; Blau, 1964; Emerson, 1962; Selznick, 1948). In his sample of sixty-six joint ventures in less developed countries, Beamish's (1985) results showed that the reasons for creating a joint venture are skills needed and assets or attributes needed. On the basis of the relevant literature's results, this study posits that there is a significant relationship between motivation for forming international joint ventures and resource contribution supplied by host country parents. The hypothesis is represented as follows:

H₉: There is a significant relationship between the motivation of host country parents forming international joint ventures and their resource contribution to a joint venture

As already noted previous research demonstrates that control is an important function in an international joint venture and it can be affected by its antecedent factors which are parent's contributions, ownership, bargaining power and motivations. Based on the previous discussion, this study proposes a research framework that links the control and the antecedent factors as shown in Figure 4.5.1.

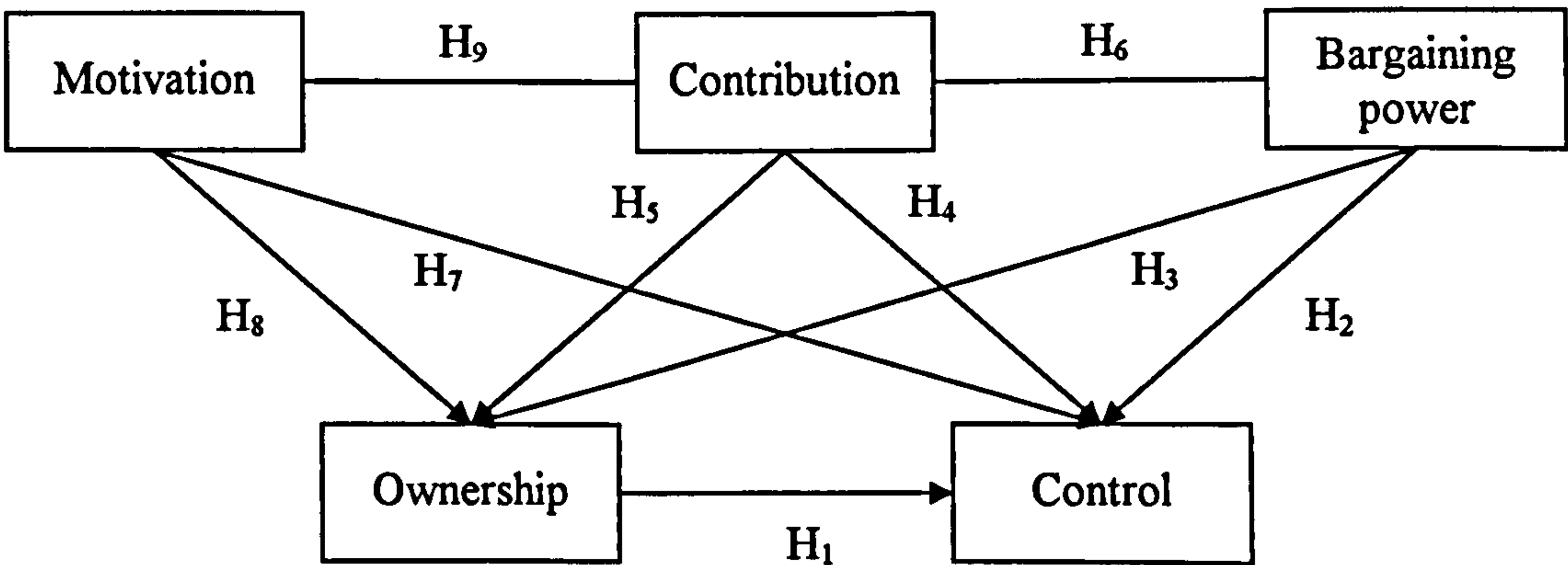


Figure 4.5.1 The Research Framework of this Study

In this framework, it is postulated that there is a significant relationship between control and its antecedent factors which are motivation, contribution, bargaining power and ownership. Ownership is also a function of motivation, contribution and bargaining power. The relationship between the motivation and contribution and bargaining power will be measured. Nine hypotheses are proposed to test their relationship between every two dimensions. These hypotheses are summary in Table 4.5.6.

Table 4.5.6 Summary of the Research Hypotheses

Research Constructs	Hypotheses
Ownership	H ₁ : There is a significantly positive relationship between the proportion of ownership and the extent of control
	H ₁₋₁ : The higher proportion of equity ownership held by host country parents the stronger their control of operational decision-making activities in a joint venture
	H ₁₋₂ : The higher proportion of equity ownership held by host country parents the stronger their control of the appointment of high-level managers in a joint venture
Bargaining	H ₂ : There is a significant relationship between bargaining power and the extent of control
	H ₃ : There is a significant relationship between bargaining power and the proportion of ownership
Contribution	H ₄ : There is a significant relationship between resource contribution of host country parents and the extent of control they exercise in a joint venture
	H _{4-1a} : Host country parents with higher physical resource contribution will have stronger control of operational decision-making activities in a joint venture
	H _{4-1b} : Host country parents with higher physical resource contribution will have stronger control of the appointment of high-level managers in a joint venture
	H _{4-2a} : Host country parents with higher invisible resource contribution will have stronger control of operational decision-making activities in a joint venture
	H _{4-2b} : Host country parents with higher invisible resource contribution will have stronger control of the appointment of high-level managers in a joint venture
	H _{4-3a} : Host country parents with higher finance resource contribution will have stronger control of operational decision-making activities in a joint venture
	H _{4-3b} : Host country parents with higher finance resource contribution will have stronger control of the appointment of high-level managers in a joint venture

Table 4.5.6 Summary of the Research Hypotheses (continued)

Contribution	<p>H_{4-4a}: Host country parents with higher human resource contribution will have stronger control of operational decision-making activities in a joint venture</p> <p>H_{4-4b}: Host country parents with higher human resource contribution will have stronger control of the appointment of high-level managers in a joint venture</p> <p>H_{4-5a}: Host country parents with higher organization resource contribution will have stronger control of operational decision-making activities in a joint venture</p> <p>H_{4-5b}: Host country parents with higher organization resource contribution will have stronger control of the appointment of high-level managers in a joint venture</p>
	<p>H₅: There is a significant relationship between the resource contribution of host country parents and their proportion of ownership in a joint venture</p> <p>H₅₋₁: Host country parents with higher physical resource contribution will have a higher proportion of equity shares in a joint venture</p> <p>H₅₋₂: Host country parents with higher invisible resource contribution to the venture will have a higher proportion of equity shares in a joint venture</p> <p>H₅₋₃: Host country parents with higher financial resource contribution will have a higher proportion of equity shares in a joint venture</p> <p>H₅₋₄: Host country parents with higher human resource contribution to the venture will have a higher proportion of equity shares in a joint venture</p> <p>H₅₋₅: Host country parents with higher organizational resource contribution to the venture will have a higher proportion of equity shares in a joint venture</p>
	<p>H₆: There is a significant relationship between the resource contribution of host country parents and bargaining power</p>
Motivation	<p>H₇: There is a significant relationship between the motivation of host country parents forming international joint ventures and their control over a joint venture</p>
	<p>H₈: There is a significant relationship between the motivation of host country parents forming international joint ventures and their ownership in a joint venture</p>
	<p>H₉: There is a significant relationship between the motivation of host country parents forming international joint ventures and their resource contribution to a joint venture</p>

4.6 Summary

This research mainly focuses on the issue of control in international joint ventures, and considers what antecedent variables affect control. Drawing on previous literature, this chapter reviews the relevant literature on international joint ventures and centres on the antecedents of control associated with motivation, parent's contribution, bargaining power, and ownership. The research framework is proposed after the literature reviews and hypotheses are developed to test the relationship between control and its antecedents which are motivation, parent's contribution, bargaining power, and ownership.

Hypotheses $H_{1.1}$ and $H_{1.2}$ are built to test the relationship between ownership and the control on operational decision-making activities and the appointment of high-level managers in joint ventures.

Hypotheses H_2 and H_3 are constructed to understand the relationship between the firm's bargaining power, control on operational decision-making activities, the appointment of high-level managers in joint ventures, and to test the relationship between the firm's bargaining power and ownership.

Hypotheses H_4 , H_5 and H_6 are posited to examine the relationship between the contribution supplied by host country parents and control, ownership and bargaining power.

Hypotheses H_7 , H_8 and H_9 are proposed to understand the relationship between the motivation for forming international joint ventures and control, ownership and contribution.

In the next chapter, an empirical investigative methodology is designed. The relevant topics of the research design are demonstrated in the following chapter.

Chapter 5

RESEARCH DESIGN

Section

-
- 5.1 Introduction
 - 5.2 An Overview of Research Process
 - 5.3 Research Design
 - 5.4 Summary of Research Design of this Study
 - 5.5 Data Analysis: the Profile of Sample Characteristics
 - 5.6 Summary
-

Chapter 5

RESEARCH DESIGN

5.1 Introduction

According to the research objectives indicated in Chapter 1, this study is designed to examine the issue of control in international joint ventures, and to test the relationship between control and its antecedents which discussed in Chapter 3 and Chapter 4). To achieve the goal of the study, a appropriate research design can lead to a success of the study. Therefore, the main objectives of this chapter are to discuss the research design employed in this study. It is organised into six sections. Section 5.2, an overview of the research process is examined first. In section 5.3, the research design is divided into ten subsections which included the purpose of the study, types of investigation, extent of researcher interference, time horizon, study setting, unit of analysis, sampling design, measurement, data collection and data analysis methods. Each of ten topics is examined in detail. Section 5.4 give a brief summary of the research design of this study. Section 5.5 examines the profile of the sample characteristics derived from this study. Finally Section 5.6 draws a brief conclusion.

5.2 An Overview of Research Process

What is business research? Sekaran (2003) defines the business research as “an organized, systematic, data-based, critical, objective, scientific inquiry or investigation into a specific problem, undertaken with the purpose of finding answers or solutions to it”. It can be described as a systematic and organized effort to investigate a specific problem or opportunity encountered in the work setting that needs a solution (Cavana, Delahaye and Sekaran, 2001). In essence, business research involves a series of scientific activities

designed and executed carefully. Thus, scientific research focuses on solving problems and pursues a step-by-step logical, organized, and rigorous method to identify the problems, gather data, analyze them, and draw valid conclusions there from (Sekaran, 2003).

In the research process, Hussey (1997) identifies six fundamental stages which are common to all scientifically based investigations. These research stages encompass: identify research topic, define research problem, determine how to conduct research, collect research data, analyze and interpret research data and write thesis which shown in Figure 5.2.1.

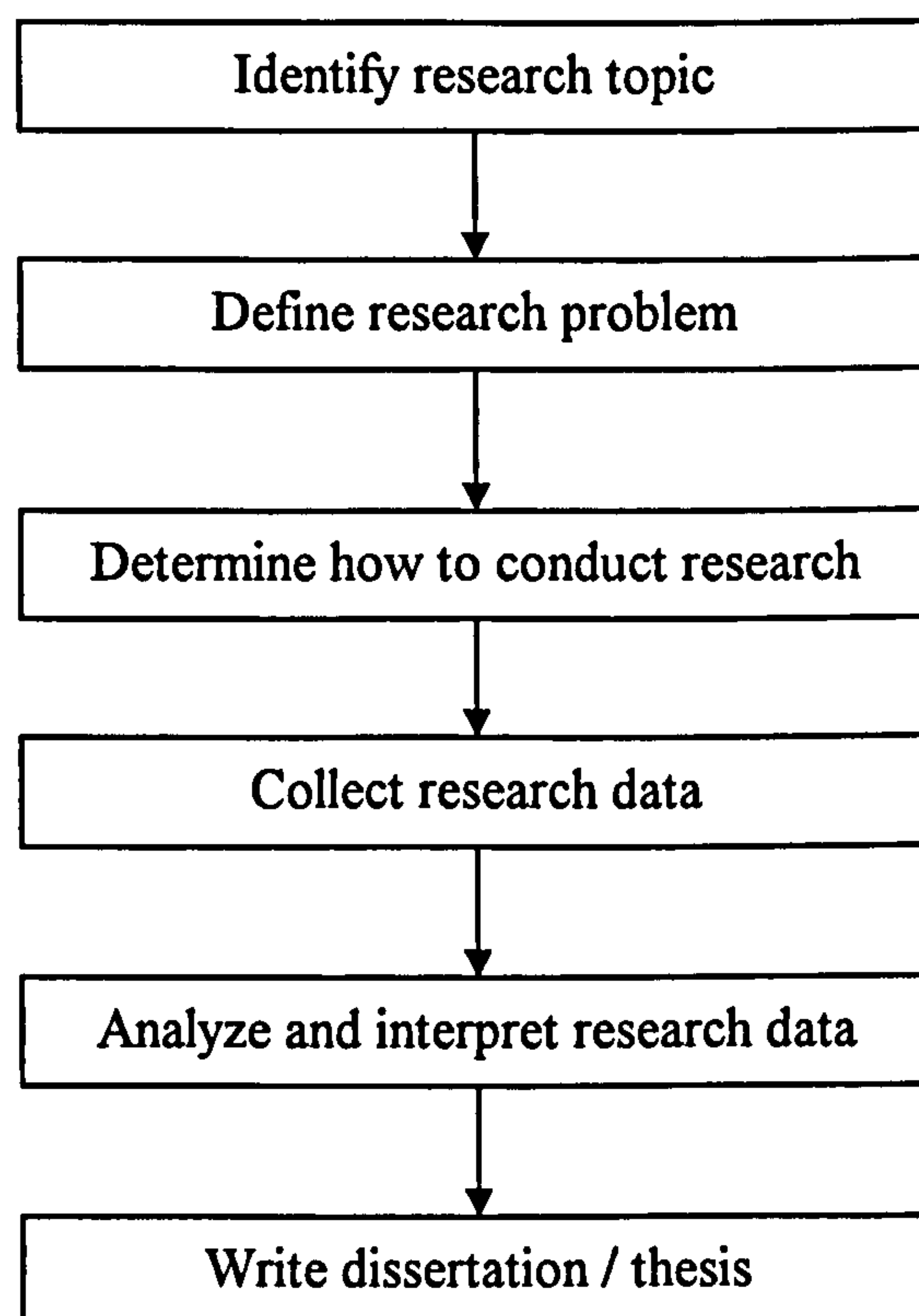


Figure 5.2.1 Stages in the Research Process

Source: Hussey, J. and Hussey, R., (1997).Business Research, Macmillan Press Ltd.

Frankfort-Nachmias and Nachmias (2000) identify seven main stages: problem definition, hypothesis, research design, measurement, data collection, and data analysis. They provide an overview of what is involved in the research process and depict key research activities and their interrelationships. Cavana, Delahaye and Sekaran (2001) state that business research involves 11 steps. These are the catalyst for research, preliminary information gathering and literature survey, problem definition, framework development, research objectives, research design, data collection, data analysis, interpretation of findings, report preparation and presentation and management action.

Kumar (2000) develops a general model of research process which includes eight main steps. There are: Step 1: to formulate a research problem, Step 2: to conceptualize a research design, Step 3: to construction an instrument for data collection, Step 4: to selecting a sample, Step 5: to write a research proposal, Step 6: to collection data, Step 7: to processing data, and Step 8: to writing a research report.

Similarly, Sekaran (2003) outlines the research process for basic and applied research in a systematic way which includes (1) the identification of the broad problem area; (2) preliminary information gathering, especially through unstructured and structured interviews and literature survey; (3) problem definition; (4) evolving a theoretical framework; (5) deriving testable hypotheses; (6) scientific research design; (7) data collection, analysis, and interpretation; (8) deduction the results; (9) report writing; (10) report presentation; (11) managerial decision making. These 11 phases are shown in Figure 5.2.2 (see next page).

The research process of this study follows the method Sekaran (2003) outlines. In the previous chapters, the research problems are identified, a research framework is evolved and testable hypotheses are derived. Following Sekaran's research process, the next phase is turned to the research design and data collection, data analysis and interpretation.

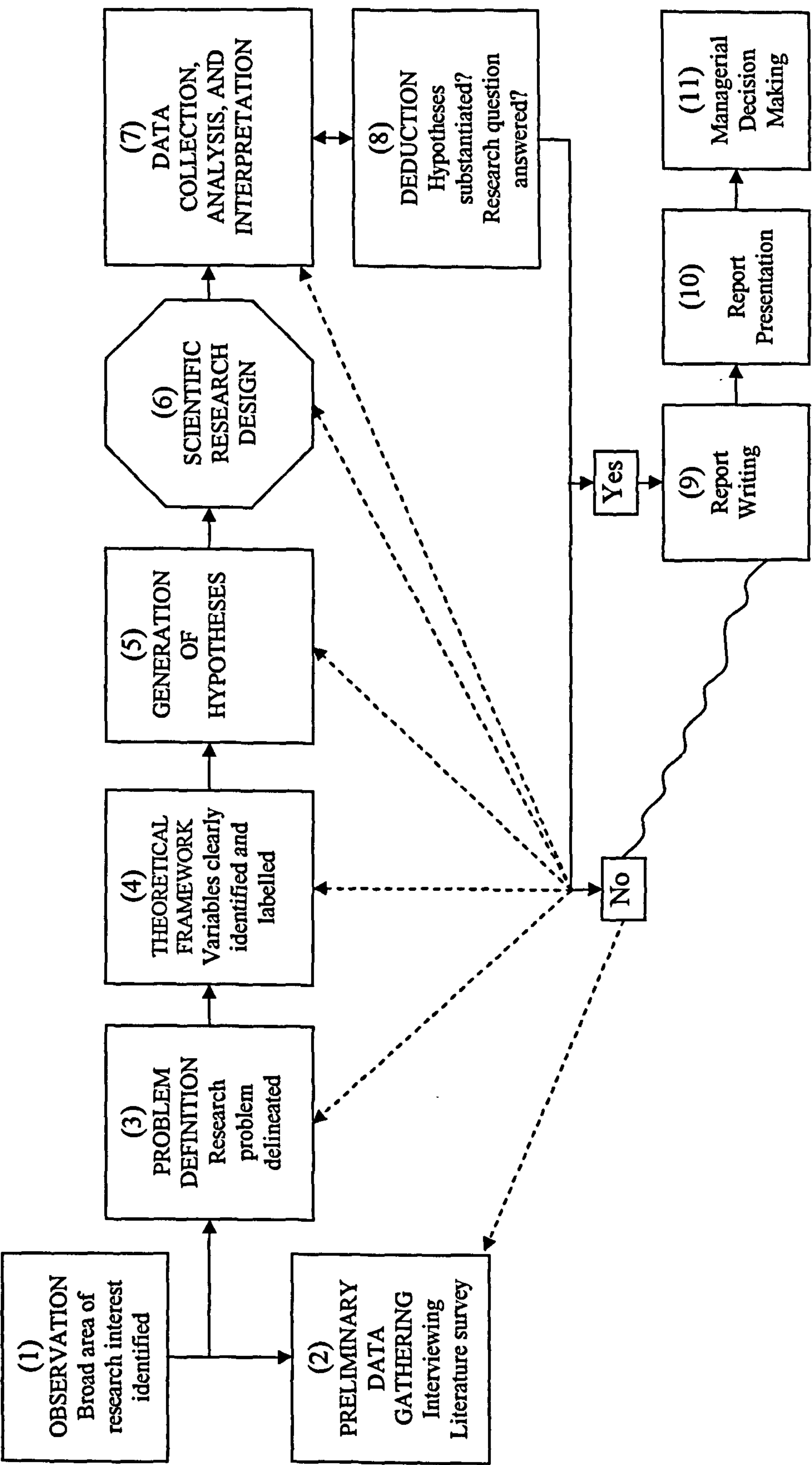


Figure 5.2.2 The Research Process for Basic and Applied Research
Source: Sekaran, Uma (2003). Research Methods for Business: A Skill Building Approach, pp. 56, New York: John Wiley & Sons.

5.3 Research Design

Research design is the “science (and art) of planning procedures for conducting studies so as to get the most valid findings” (Vogt, 1993). Frankfort-Nachmias and Nachmias (2000) define the research design as “the ‘blueprint’ that enables the investigator to come up with solutions to these problems and guides him or her in the various stages of the research” (p.89). Babbie (2002) indicates that the research design involves a set of decisions regarding what topic is to be studied among what population with what research methods for what purpose. In other words, research design involves a detailed plan which can guide the research methods to be employed. To provide a general introduction of research design, Sekaran (2003) outlines it in a systematic way shown in Figure 5.3.1(see next page).

As shown in Figure 5.3.1, the various issues involved in the research design include the key decisions. These are

- Purpose of the study: studies may be either exploratory in nature or descriptive, or may be conducted to test hypotheses.
- Type of investigation: what types of investigation employed in the study.
- Extent of researcher interference: how the researcher manipulates and controls the study.
- Study setting: where the study will be conducted.
- Time horizon: the temporal aspects of the study.
- Unit of analysis: the level at which the data will be analyzed.
- Sampling design: the types of sample to be used.
- Quantification and measures: how to measure the related variables.
- Data-collection method: how the data will be collected.
- Data analysis: how the concepts and variables will be analyzed.

The research design of this study adopted Sekaran’s model and each issue involved in the research design is described in the following subsections.

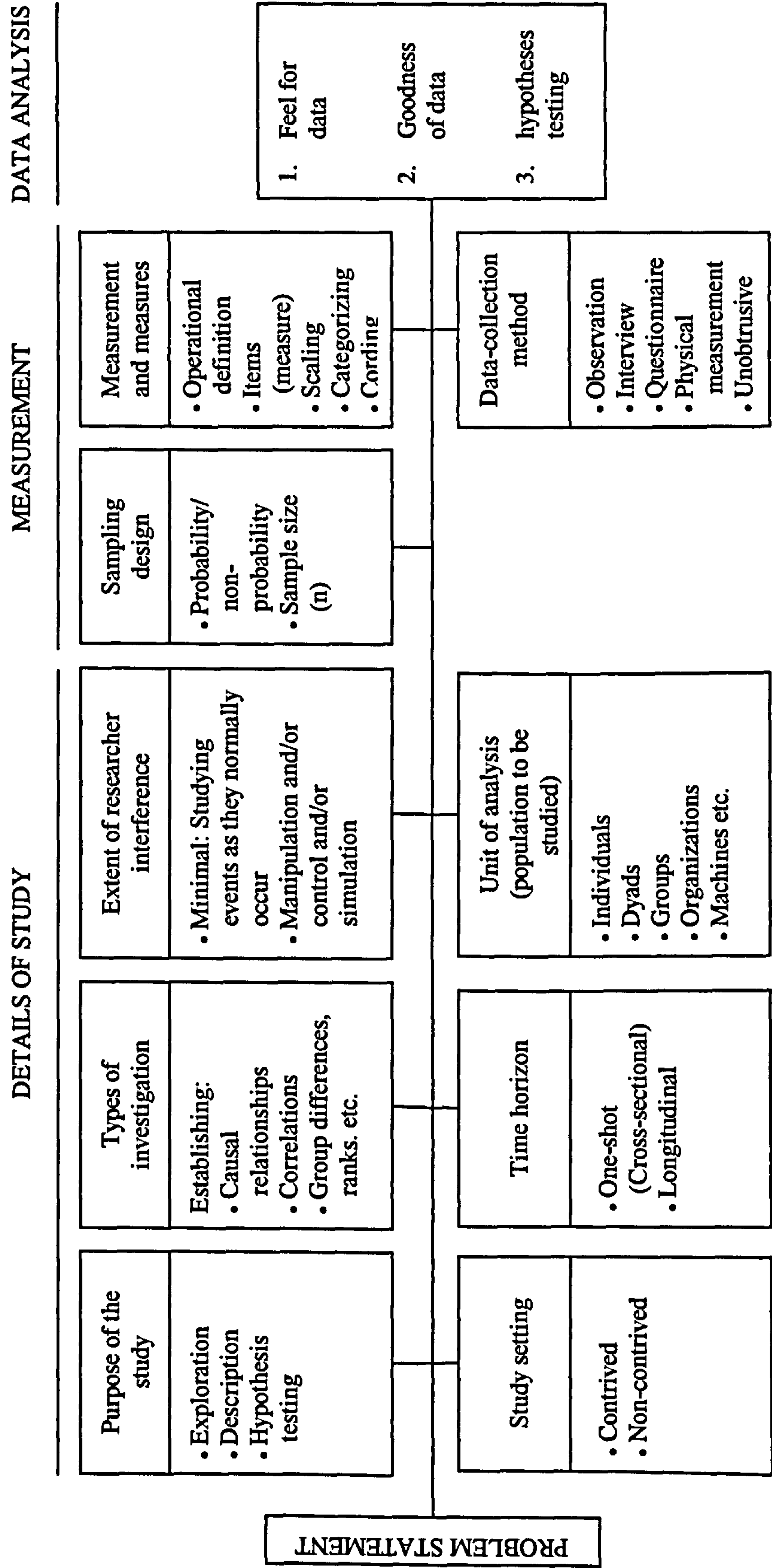


Figure 5.3.1 The Research Design
Source: Based on Sekaran, Uma (2003). Research Methods for Business: A Skill Building Approach, pp.118, New York: John Wiley & Sons.

5.3.1 The Purposes of the Study

In the field of social science, there are many reasons for research. For conducting empirical research, Kidder et al. (1986) classify the purpose of research into discovery, demonstration, refutation, and replication. According to the research purpose, Hussey (1997) classifies research into four types of research which are exploratory research, descriptive research, analytical research and predictive research. Churchill (1999) divides the research types into exploratory, descriptive, and causal (or explanatory) research. According to the nature of the study, Cavana, Delahaye and Sekaran (2001) classify the research into exploration study, description study, hypothesis-testing study and case study. In general, the most common and useful purposes of social research include exploration, description, and explanation. Often research studies combine more than one purpose (Babbie, 2002). Each type of research is examined below in order to understanding their characteristics.

Exploratory study is undertaken when a research problem or issue is novel or when no information can be referred from earlier studies. This approach typically occurs when a researcher examines a new interest or when the subject of study itself is relatively new (Babbie, 2002). The aim of this type of study is to look for patterns, ideas, or hypotheses, rather than testing or confirming a hypothesis (Hussey, 1997; Churchill, 1999). Babbie (2002) describes exploratory studies as the attempt to develop an initial, rough understanding of some phenomenon, which is done mostly for three purposes: (1) to satisfy the researcher's curiosity and desire for better understanding, (2) to test the feasibility of undertaking a more extensive study, and (3) to develop the methods to be employed in any subsequent study. Typical techniques used in exploratory research include case studies, observation and historical analysis. Such techniques are highly flexible, unstructured and qualitative. As such, exploratory study is particularly helpful to better comprehend the nature of the problem when initial ideas and insights into a research issue are required and it can give guidance on what type of future research should be conducted.

Descriptive study is used to identify and obtain information on the characteristics of a particular problem or issue, to describe the characteristics of certain groups, to estimate the proportion of people in a specified population who behave in a certain way, or to make a specific prediction (Churchill, 1999; Hussey, 1997). Basically, descriptive study is undertaken to ascertain and describe the characteristics of the pertinent issues. Babbie (2002) states that descriptive study is the precise measurement and reporting of the characteristics of some population or phenomenon under study. Therefore, the goal of a descriptive study is to offer a profile or to describe relevant aspects of the phenomenon of interest to the researcher from different perspectives. Quantitative and statistical techniques are usually used to collect the data, for example, surveys, field studies and content analysis, and also to summarize the information.

Explanatory study or hypotheses testing (cf. Sekaran, 2003) is used to understand phenomena by discovering and measuring causal relations among variables, to discover and report the relationships among different aspects of the phenomenon (Babbie, 2002). In other words, explanatory study is concerned with establishing cause-and-effect relationships in an attempt to explain the variance in the dependent variable or to predict organizational outcomes. Hypothesis testing can offer an enhanced understanding of the relationships the exist among variables and also can establish the cause and effect relationships (Cavana, Delahaye and Sekaran, 2001), and it can better explain the causal links between the characteristics.

The process of identifying and selecting the most appropriate research design for this study is driven by the nature of the research objectives. The purpose of this study is to explain the relationships between motivation, contribution, ownership, bargaining power and control in international joint venture issue. Therefore, an explanatory /hypothesis testing methodology was employed in this study. The next section turns to the different types of investigation.

5.3.2 Types of Investigation: Causal Versus Correlational

When deciding on the type of investigation, the researcher can consider whether a causal or a correlation study is needed. A correlation relationship indicates that at least two concepts or variables move simultaneously and a causal relationship indicates that one concept or variable causes a movement in another concept or variable (Cavana, Delahaye and Sekaran, 2001). In other words, when the researcher is intending to delineate the important variables that are associated with the problem, then it is a correlational study. In contrast, when the researcher wants to know how one variable causes or determines the values of other variables, then the study is called a causal study. However, it is important to bear in mind that it is not just one or more variables that cause a problem. At most times there are multiple factors that influence one another and the problem. Therefore, the researcher might identify the critical factors first which are associated with the problem, rather than establish a causal relationship. The cause and effect relationships can be established through certain types of correlation or regression analyses, such as cross-lagged correlations and path analysis (Sekaran, 2003).

The aim of this study is intended firstly to delineate the important variables which are associated with control. Once the variables associated with control are identified, then a causal relationship will be tested between those variables and control. Therefore, the correlation and causal study will be used in this study.

5.3.3 Extent of Researcher Interference

Sekaran (2003) indicates that there could be varying degrees of interference by the researcher in the manipulation and control of variables in the research study, either in the natural setting or in an artificial research setting. Exploratory and descriptive studies are conducted in the natural environment of the organization, the researcher usually interfering minimally with the normal flow of work. In addition, most correlation designs are carried out in natural settings with a normal flow of events; therefore, the extent of researcher interference can be reduced to the minimum.

This study is conducted in Taiwan by administering postal questionnaires to the companies who engage in international joint ventures. Thus, the research interference is minimised.

5.3.4 Study Setting

Business research can be conducted in the natural environment which is called a non-contrived setting or in an artificial environment which is called a contrived setting. According to Cavana, Delahaye and Sekaran's (2001) description, exploratory, descriptive studies are invariably conducted in non-contrived settings, whereas rigorous causal studies are undertaken in contrived lab settings. The above authors also examine the difference between a field study, a field experiment and a lab experiment. Description, exploratory, descriptive and some correlation studies undertaken in organizations are called "field studies" where research is conducted in non-contrived settings with minimal researcher interference. Research studies conducted to establish cause and effect relationships using the same natural environment where employees normally function are called "field experiments" which are conducted in a non-contrived setting but with researcher interference to a moderate extent. Experiment studies done to establish cause and effect relationships would create an artificial, contrived environment in which all the extraneous factors are strictly controlled. These studies are referred to as "lab experiments" which are conducted in a contrived setting with excessive researcher interference.

In this study, the survey of the sample of host country parents is undertaken by employing mailed questionnaires. Hence, it is a field study in a non-contrived setting with minimal researcher interference.

5.3.5 Time Horizon

In social science research, two studies with regard to time are usually used, namely cross-sectional studies and longitudinal studies. Hussey (1997) defines cross-sectional studies as a positivistic methodology designed to obtain information on variables in different contexts, but at the same time. Cavana, Delahaye and Sekaran (2001) also suggest that cross-sectional studies can be carried out in which the data is gathered just once over a period of days, weeks, or months. Babbie (2002) stresses that a cross-sectional study is based on observations made at one time and involves observations of a sample, or of a population or phenomenon that are made at one point in time.

On the other hand, a longitudinal study involves the study of variables or a group of subjects over a long period of time. The aim of longitudinal studies is to research the problem deeply by investigating the same situation or people several times over a period of time in which the problem runs its course. Longitudinal is often the best way to study changes over time (Babbie, 2002). Well-planned longitudinal studies could help to identify cause and effect relationships and take account of social processes instead of concentrating only on individuals and offer some good insights. However, longitudinal studies are very time-consuming and expensive to conduct compared with cross-sectional studies. Most of the field studies conducted is cross-sectional in nature because of the time, effort and costs involved in collecting data over several time periods. The researcher determines the appropriate decisions based on the problem definition, the research objectives and the time and cost considerations.

Due to the purpose of this research and the limited time and resources, this study is a cross-sectional study and it is conducted to gather data using questionnaires in a single-time frame.

5.3.6 Units of Analysis

The unit of analysis refers to the level of aggregation of the data collected during the subsequent stage of data analysis (Cavana, Delahaye and Sekaran, 2001). Hussey (1997) defines the term of unit of analysis as: “the kind of case to which the variables or phenomena under study and the research problem refer, and about which data is collected and analyzed.” Neuman (2000) demonstrates that the unit of analysis refers to the type of unit a researcher uses when measuring. Common units of analysis in social science research are the individual, the group, the organization, and nations (Wu and Lin, 2000; Bailey, 1993). The research objective will determines the unit of analysis which can be shifted from individuals to groups, organizations and nations. The unit of analysis has to be clearly identified because the data collection methods, sample size and the variables may sometimes be determined or guided by it. In addition, sampling plan decisions will also be governed by the unit of analysis. Therefore, the unit of analysis should be given serious consideration in the research design.

In this study, the unit of analysis is Taiwanese parent companies who engage in international joint ventures and where the secondary organization (the joint venture) locates in Taiwan.

5.3.7 Sampling Design

The survey is only useful and powerful in finding answers when the data is collected from the right people, events, or objects which can provide the correct answers. Therefore, selecting the right individuals, objects, or events for the study is very important. The process of selection is known as “sampling” and it is a fundamental element of a study. The relative terms of a sample have to be examined first. A population refers to a body of people or to any other items under consideration for research purposes (Hussey, 1997) or refers to the entire group of people, events, or things of interest that the research wishes to investigate (Sekaran, 2003). McDaniel and Gates (2001) define the term population or population of interest as the total group of people from whom we need to

obtain information. They also make a definition of the census and the sample. The term census refers to those situations where data are obtained from or about every member of the population (McDaniel and Gates, 2001). A sample is a subset of the population. Information is obtained from or about a subset of the population to make estimates about various characteristics of the total population. It comprises some members selected from the population.

McDaniel and Gates (2001) stress that the process of developing a sampling plan can be separated into seven steps which are (1) defining population of interest, (2) choosing the data collection method, (3) choosing the sampling frame, (4) selecting the sampling method, (5) determining the sample size, (6) developing and specifying the operational plan for selecting sample elements and (7) execute the operational sampling plan. The sampling frame (or population frame) is a listing of all the elements in the population from which all the sampling units are drawn (Cavana, Delahaye and Sekaran, 2001). Sampling is the process of selecting a sufficient number of elements from the population (Sekaran, 2003). It is important to ensure that the sample is not biased and is representative of the population from which it is drawn.

There are various methods which can be used to select a sample. Basically, there are two types of sampling designs: probability and non-probability sampling. The often used and useful probability sampling is simple random, systematic, stratified, and clustered sampling. Non-probability sampling can be divided into the broad categories of convenience sampling and purposive sampling which includes judgment sampling, snow ball sampling and quota sampling.

In this study, the data is collected from the entire qualified organizations because the sample is not very large relative to the international joint venture in Taiwan. Although there are the constraints of time, cost, and other human resources, this study still tries to overcome difficulties in order to produce more reliable results. In order to identify the population frame, some procedures are conducted which are described below.

The international joint venture in the sample varies in terms of pattern of cooperation. The research first designates a population of interest. According to the definition of the international joint venture, the main criteria used in the selection of an international joint venture are:

- International joint venture is formed by two or more partners;
- At least one of the parent's headquarters is located outside the joint venture's country of operation;
- At least two parents of different nationality hold at least five percent of the equity shares;

In Taiwan, a list of qualifying international joint ventures is not available. It is very difficult to collect identifying data on international joint ventures directly from any source. The researcher tried to create a database by getting a list of the firm's names that cooperate with foreign partners to establish a joint venture in Taiwan. There are two main sources that are used to identify the samples: (a) the 1999/2000 edition of the Directory of Business Groups in Taiwan, and (b) the 1999 edition of the Directory of Foreign Investment in Taiwan, published by the Investment Commission of the Ministry of Economic Affairs. For the directory of business groups, Taiwanese partners of international joint ventures are identified by using the criteria above. A business group usually invests in different areas or industries; therefore, the company will be eliminated when firms have duplicate investment. Finally, 66 of the parent companies whom engage in international joint ventures were identified.

More difficulties were encountered when identifying the potential respondents from the second source--the Directory of Foreign Investment in Taiwan. According to government regulations, all foreign investors must register and obtain an agreement when they plan to invest in Taiwan. The Investment Commission of the Ministry of Economic Affairs publishes the list of foreign investment each year. The researcher wrote a letter to request the database of that directory, but was rejected the first time. Then a formal letter was written from the department of Business Administration of National Kaohsiung University of Applied Sciences that is the researcher's home institute,

but the request was still rejected. Finally, a personal approach to senior government officials was used in order to request the database.

The database has been acquired. However, the list not only includes joint venture enterprises but also individual companies and contains all types of organization. A two-stage process was launched to ascertain whether or not a joint venture had been formed. At the first stage, the companies were eliminated when they did not meet the criteria that the shareholders hold less than five percent or over eighty percent. As a result, 2466 firms were selected from about 6300 organizations. All the firms were checked on the Internet that connected to the database of the Department of Commerce of the Ministry of Economic Affairs (MEA).

Several problems were encountered during the process. That was because the Directory of Foreign Investment is never amended by the government department. The government only records the application of foreign investment, but never follows up the result of these application cases. Therefore, there are some problems when we used the government data base. Firstly, some firms cancelled their application and some firms were dissolved. Secondly, in some cases, some of the companies were merged with other companies. Thirdly, some firms changed their addresses. Fourthly, some firms have the same address because of the same parent. Finally, some of the sample did not exist. After checking the detail of 2466 firms, a total of 1459 companies were finally verified.

The second stage was conducted to ascertain if these selected companies were joint ventures or not. A mailed questionnaire with pre-addressed/pre-paid envelopes was sent to a total of 1459 companies. A copy of the questionnaire is presented in Appendix II A. 354 completed questionnaires were received from respondents.

At stage 1, a large quantity of manpower and a substantial amount of the time was involved in checking the data. Stage 2, this phase involved printing, labelling, paper-clipping, inserting into the envelopes and sealing. This required a great deal of time, cost

and effort. The reason for all this effort is to collect as large a sample as possible in order to conduct a statistically significant analysis and to identify the correct sample with as much relevant data as possible which is crucial to the success of this research.

All the respondent questionnaires were checked against the Directory of Business Groups in order to eliminate the respondent with the same parent companies. Finally, a list of 227 firms were identified. Figure 5.3.2 shows the procedure of the sample identification.

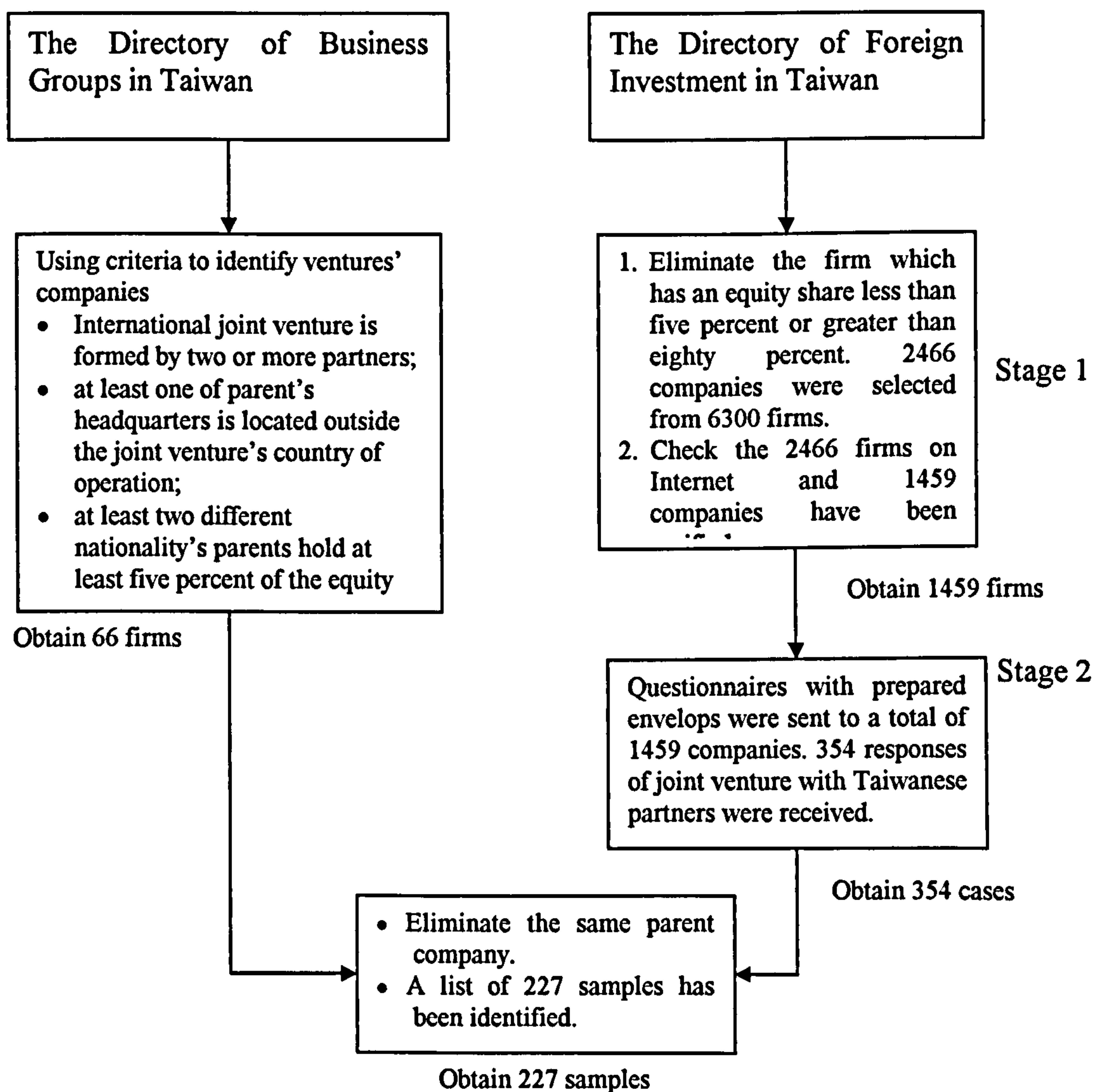


Figure 5.3.2 The Procedure of Sample Identification

In this section, we examine the sampling design decisions which are important aspects of research design. The population frame is used in this study in order to obtain more reliable results. Some procedures are used to identify the list of sample and cases for this study and a final list of sample frame is obtained. In the next section, we will discuss how the variables can be measured.

5.3.8 Measurement of Variables

Measurement of the variables is an integral part of research and is a fundamental aspect of quantitative research. Unless the variables can be measured precisely, the research hypotheses cannot be tested correctly to find the right answers to the research issues. Frankfort-Nachmias and Nachmias (2000) define the measurement as the assignment of numerals to variables, properties, or events according to a prescribed set of rules, of which a rule is to specify the procedure a researcher uses, to assign numerals or numbers to objects or events.

There are at least two types of variables: one can be objective and measured precisely such as blood pressure and body temperature; the other is more intangible and cannot be measured directly such as attitudes and perceptions. One technique is to reduce the unobservable concepts to observable behaviour or characteristics. This technique is called an operational definition. Frankfort-Nachmias and Nachmias (2000) define an operational definition as: a set of procedures a researcher can follow in order to establish the existence of the phenomenon described by a concept (p.29). When a phenomenon cannot be observed directly, the researcher needs to use the operational definition to reduce the concepts so that a phenomenon can be measured in a tangible way. In general, operational definitions specify how variables relevant to a concept will be measured (Babbie, 2002).

Once the concepts are defined operationally, then the measurement scales have to be developed to measure them. Scale classifications employ the characteristics of the real

numbers system. The most accepted and basic types of measurement scale are namely the nominal, ordinal, interval and ratio scale (Emory and Cooper, 1991). A researcher must choose from four types of measures that capture increasing amounts of information. The most appropriate level depends on the purpose of the measurement. As we move from the nominal scale to the ratio scale, we can obtain greater precision in quantifying the data and greater flexibility in using more powerful statistical tests.

According to above description, this study includes theoretical concepts which are motivation, contribution, bargaining power, ownership and control. Therefore, the operational definition of each variable or construct is described first and then the measurement is developed.

5.3.8.1 Control

On the basis of the literature reviewed in chapter 3, the operational definition of control refers to the process that one entity affects the behaviour and output of another organization through the use of power and authority in order to reach its objects (Yan and Gray, 1994; Das and Tsui, 1985; Ohchi, 1977; Arrow, 1974). Reviewing relevant literatures, Geringer and Hebert (1989) identify three dimensions of joint venture control that are the mechanism of control, the extent and the focus. These classifications of control are the most frequently mentioned and used in the studies of international joint ventures. Moreover, this study adopts these three dimensions to measure the concept of control.

5.3.8.1.1 The Mechanism and Focus of Control

Several empirical studies have attempted to directly or indirectly use Killing's (1983) framework in explaining the control of IJV with regard to the mechanism, the extent and the focus of control (Geringer, 1986; Beamish, 1984). Killing (1983) defines control in terms of the decision-making role of joint venture management on 37 joint ventures in developed countries and identifies nine types of decisions. The decision-making role of

the joint venture management and the appointment of high-level management are used to measure the focus and mechanisms of control over joint ventures.

The mechanism of control refers to the methods by which control is exercised over the joint venture. On the basis of the literature reviewed in chapter 3.3, the methods of exercising managerial control can be achieved through the appointment of the joint venture's general manager and key functional managers (Child and Yan, 1999; Child, 1984; Schaan, 1983, Killing, 1983; Gullander, 1976; Rafii, 1978). Therefore, the appointment of high-level managers such as general manager, vice general manager, production managers, marketing managers, financial managers, human resource managers, R&D managers and the head of engineering were ascertained by use of questionnaire in order to measure the mechanism of control over the joint venture.

The focus of control refers to the areas of the joint venture's operation in which control is exercised. Several researchers have found that effective control should emphasize selective control over the joint venture's activities (Jaussaud, Schaaper and Zhang, 2001; Geringer and Hebert, 1989; Geringer, 1986; Dunning and Cantwell, 1984; Schaan, 1983). The variables which Killing (1983) used to measure the focus of control are used in this study. These are pricing policy, product design, production scheduling, manufacturing process, quality control, sales targets, cost budgeting and capital expenditure. The focus of control is measured by the decision-making processes as made by whom in above 9 areas.

The measure scale of mechanism and focus of control are measured by these decision-making activities and appointment of high-level management as made by whom. These are

1. Taiwanese parent alone
2. Foreign parent alone
3. Joint venture alone
4. Taiwanese parent and joint venture
5. Foreign parent and joint venture

6. Taiwanese parent and foreign parent
7. Both parents and joint venture

This study uses the appointment of high-level managers as the mechanism of control and nine types of decisions are used to measure the focus of control. After identifying the variables for measuring the mechanism and focus of the control; next, we turn to examine the variables for the extent of control.

5.3.8.1.2 The Extent of Control

The extent of control refers to the degree to which a parent company exercises control over the joint venture at strategic and operational levels (Lyles and Reger, 1993; Geringer and Hebert, 1989; Dunning and Cantwell, 1984; Beamish, 1984; Killing, 1983; Tomlinson, 1970). On his empirical study of 37 joint ventures in developed countries, Killing(1983) identifies three types of control, namely, dominant parent, shared and independent control according to the decision-making role of joint venture management by using nine types of decisions(pricing policy, product design, production scheduling, manufacturing process, quality control, replacement of managers, sales targets, cost budgeting and capital expenditures) with each decision made by whom(the general manager alone, by the local parent alone, by the foreign parent alone, by the JV general manager with input from the local parent , or from the foreign parent , or from both parents).

Using Killing's results and considering the weight of the involvement by parents and joint venture, Wu (1994) identifies four kinds of control in his study, namely, dominant host parent, dominant foreign parent, shared management and independent control.

In his empirical study in Taiwan, Chang (1996) points out that Killing deems the importance of each decision as equal, but he argues that the control is not a dichotomous context; it is a continuant idea. Therefore he revises the method of clarification of control used by Killing. He clarifies four kinds of control in his study, namely, dominant

host parent, dominant foreign parent, shared management and independent control according to the degree that each activity will be effected by host parent and foreign parent and the weight of importance of each activity. Wu (1994), Chang (1996) and Chen (1999), in investigating the relationship between control, conflict management and satisfaction of IJV in Taiwan, they also clarify four kinds of control as dominant host parent, dominant foreign parent, shared management and independent control.

Based on the relevant literature, this study integrates Wu's (1994) and Chang's (1996) classification in which control can be divided into four types, described as follows.

1. Independent control: A joint venture has high freedom from both parents and has extensive decision making autonomy
2. Dominant Taiwanese parent control: A joint venture is controlled by the dominant host partner who makes all the venture's decisions and plays an active role in decisions. Foreign partners effectively delegate authority to host partners
3. Dominant foreign parent control: A foreign partner plays a strong role in decision making and with high authorization from host partners
4. Shared management control: Both parents play an active role in the management of the joint venture.

This study also adopts Wu's (1994) method to measure the extent of control.

The score of Taiwanese parent = $\sum S1j + 1/2\sum S4j + 1/2\sum S5j + 1/3\sum S7j$

The score of foreign parent = $\sum S2j + 1/2\sum S4j + 1/2\sum S6j + 1/3\sum S7j$

The score of joint venture = $\sum S3j + 1/2\sum S5j + 1/2\sum S6j + 1/3\sum S7j$

S1 to S7 represent the possible of decision maker.

j means the items of important decisions, $j = 1, 2, \dots, 9$

When

Max ① { score of joint venture, score of Taiwanese parent, score of foreign parent }
= the score of Taiwanese parent

Or ❷ score of Taiwanese parent equal score of joint venture

➔ Then the type of control is Dominant Taiwanese parent control

When

Max ❶ { score of joint venture, score of Taiwanese parent, score of foreign parent }
= the score of Foreign parent

Or ❷ score of foreign parent equal score of joint venture

➔ Then the type of control is Dominant Foreign parent control

When

Max ❶ { score of joint venture, score of Taiwanese parent, score of foreign parent }
= the score of joint venture

➔ Then the type of control is Independent control

When

Max ❶ { score of joint venture, score of Taiwanese parent, score of foreign parent }
= the score of Taiwanese parent equal score of foreign parent

➔ Then the type of control is Share management control

Based on above discussion, Table 5.3.1 below summarises the operational definition of control and measurement of variables.

Table 5.3.1 Operational Definition and Measurement of Control

Control	Operational Definition	Key relevant researchers	Measure Items	Measurement
Mechanism of control	control is exercised in which high-level managers are appointed	Killing (1983) Beamish(1984) Child(1984) Schann (1988) Geringer (1986) Child and Yan (1999)	Measuring the appointment of 8 functions managers made by whom	Nominal
Focus of control	control is exercised in which area of joint venture's operation	Killing (1983) Schaan (1983) Dunning and Cantwell (1984) Geringer (1986)	Measuring 8 decision-making made by whom	Nominal
Extent of control	the degree of control over a JV is exercised by	Killing (1983) Wu (1994) Chang (1996)	the score of control 4 type of control	Interval Nominal

	parents			
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Control is the main part of this study. According to the literature, it can be measured by the mechanism, the extent and focus of control. Using the above formula, it can be classified into four types namely; dominant Taiwanese parent control, dominant foreign parent control, shared management control, and independent control. In the following section we describe how ownership can affect the extent of control.

5.3.8.2 Ownership

In formal terms, ownership is the legal possession of assets. Therefore, the term ownership is measured by the percentage of equity.

Beamish (1985) finds that the foreign firms have equal-equity ownership in developed countries and contrastingly have majority or minority equity ownership in developing countries. Kobrin (1987) explores how host government-imposed limits and performance requirements induce a greater use of minority and 50-50 affiliate, particularly in the developing countries. Blodgett (1991) finds that most joint ventures are 50-50 joint ventures in his study of the form of equity.

The proportion of equity means the ownership of the joint venture held by a single parent. According to the classification of prior studies, this research classifies the equity shareholding into three groups: more than 50 level, 50-50 level and less than 50 level.

1. More than 50 level: Firms who hold more than 50 percent proportion of the equity of joint venture.
2. 50-50 level: Firms who hold equal percentage proportion of the equity of joint venture.
3. Less than 50 level: Firms who hold less than 50 percent proportion of the equity of joint venture.

Based on above discussion, Table 5.3.2 below summarises the operational definition and measurement of ownership.

Table 5.3.2 Operational Definition and Measurement of Ownership

Dimension	Operational Definition	Key relevant researchers	Measure Items	Measurement
Ownership	The share of equity held by the parents		<ul style="list-style-type: none">• The share of equity held by the host country parents• The share of equity held by the foreign parents	Measured as a percentage

Ownership was ascertained by asking respondents to indicate the percentage of equity shares they hold in the joint ventures. Then, the percentage of equity shares is classified into three groups according above criteria. The percentage of equity shares and the type of ownership are used in future analysis.

5.3.8.3 Bargaining power

Bargaining power is defined as a bargaining ability possessed by foreign and local parties that can be used to change the ‘bargaining set’, to obtain accommodations from the other party, and to affect the outcome of a negotiation (Mjoen and Tallman, 1997; Brouters and Bamossy, 1997; Yan and Gray, 1994; Blodgett, 1991; Lax and Sebinus, 1986; Dwyer, Orville and Walker, 1981).

Fagre and Wells (1982) indicate that the bargaining power of multinational firms can be increased through five elements which are the multinational technological level, the product differentiation, the access provided to export markets, the investment amount, and the diversity of the firm’s production line. Lecraw (1984) states that a firm will have bargaining power over the host country that stems from a proprietary product or technology, access to relatively inexpensive capital, access to export markets, and management expertise. Kobrin (1987) indicates that the MNE can derive bargaining

power from the firm-specific advantages or assets such as technology, parent size, subsidiary size, employment, and export potential.

Gomes-Casseres (1990) find that investment size and attractiveness of the territory affect bargaining power. He also suggests that the bargaining process is affected by several factors, such as the intensity of R&D, marketing intensity, and intrasystem sales. Blodgett (1991) identifies five resource contributions that give a firm bargaining power in the joint venture. The five elements are government lobbying, technology, knowledge of the local environment and/or marketing expertise, control of intrasystem transfers, and financial capital. Yan and Gray (1994) classify the bargaining power into context-based and resource-based components.

Basing on the review of relevant literature, this study referring to Fagre and Wells (1982), Yan and Gray (1994) and the results of the relevant literature, measures the bargaining power by the following variables: technological ability, innovative ability, investment amount, access to financial resources, level of equity share, management experience, knowledge of the local markets, access to export markets, access to sales distribution channels, the influence of the host government. Table 5.3.3 summarises the operational definition and measurement of bargaining power.

Table 5.3.3 Operational Definition and Measurement of Bargaining Power

Dimension	Operational Definition	Key relevant researchers	Measure Items	Measurement
Bargaining Power	The power that can be used to affect the outcome of the negotiations	Fagre and Wells (1982) Lecraw (1984) Kobrin (1987) Gomes-Casseres (1990) Yan and Gray (1994)	<ul style="list-style-type: none">• Technological ability• Innovative ability• Investment amount• Access to financial resources• Level of equity share• Management experience• Knowledge of the local markets• Access to export markets• Access to sales distribution channel• Influence of host government	5-points scale

These items affecting the bargaining power are measured on a scale of 1-5, with 5 = 'extremely strong', 4 = 'strong', 3 = 'average', 2 = 'weak', 1 = 'very weak'.

The respondents express their perceptions on each item using above scales.

5.3.8.4 Contribution

The contribution is defined as any resource input from the foreign parent firms and host parent companies to the joint venture. Several categories of resource levels have been mentioned in the relevant literature. Grant (1991) identifies six categories of company resources: financial, physical, human, technological, reputation, and organisational. Barney (1991) groups the resources into three categories: physical, capital resources and human capital resources. Chatterjee and Wernerfelt (1991) identify the resource into three categories which are physical, invisible and financial.

According to prior research, this study compiles the relevant results with regard to the IJV parent's resources contribution (see Chapter 3.4.3) and classifies the resources contributed from parents into five groups, namely, physical, invisible, financial, human resource, and organisational ability.

1. Physical resources: including two measured items: key components and raw material, and land, machinery and equipment
2. Invisible resources: including three items: brands or patent, know-how, and knowledge of management
3. Financial resources: including two measured items: financial resources and access to external capital
4. Human resources: including two measured items: high-level expertises and expertise of employees
5. Organisational resources: including seven measured items: marketing and operation ability, technology or R&D resources, access to public relations with local government, and access to environmental knowledge

Based on the review of the relevant literature, Table 5.3.4 summarises the operational definition and measurement of resource contribution.

Table 5.3.4 Operational Definition and Measurement of Resource Contribution

Dimension	Operational Definition	Key relevant researchers	Measure Items	Measurement
Resource Contribution	The any resources input from the foreign parent firms and host country parent firms	Grant (1991) Barney(1991), Chatterjee and Wernerfelt(1991) Yan and Gray (1994)	14 items including the 5 categories below: • Physical resources • Invisible resources • Financial resources • Human resources • Organisational resources	5-point scale

This study measures the resource contribution by the types of resources which are input to the joint venture from each parent. A five point scale is used to measure the 14 contribution items on the scale, with 5 = ‘extremely high’, 4 = ‘high’, 3 = ‘average’, 2 = ‘low’, 1 = ‘very low’ , 0 means no contribution from each parent.

Respondents were asked to assess the extent of resources that have been contributed into the joint venture and also asked to evaluate from their perceptions, what degree of resources have been contributed by foreign parents.

5.3.8.5 Motivation

The motivation of a joint venture indicates the main reason for companies to cooperate with other firms to establish a new firm in order to reach some goals. A variety of strategic objectives have been suggested to explain a firm’s motives for forming an international joint venture. From previous literature reviews (see chapter 3 and chapter 4), some empirical studies report the strategic motivations for forming an international joint venture. The principal theories relating to IJV formation are (1) resource dependence theory (Inkpen and Beamish,1997; Agarwal and Ramaswami,1992; Harrigan,1985; Bacharach and Lawler, 1980; Pfeffer and Salabcik, 1978), (2) transaction cost theory (Yu and Tang, 1992; Hennart, 1988, 1991; Kogut, 1988; Teece,1986; Williamson, 1975,1985; Casson,1982), (3) strategic behaviour theory (Contractor and

Lorange, 1988; Kogut, 1988; Vernon, 1983), (4) organizational learning theory (Hamel, 1991; Badaracco, 1991; Ciborra, 1991; Kogut, 1988).

Glaister and Buckley (1996) argue that the motivation for alliance formation cannot be straightforwardly mapped to the theoretical approaches directly, but can relate individual theoretical perspectives to motives indirectly. Based on the relevant literature, Glaister and Buckley (1996) identify the most important motives relating to the strategic motivation for alliance formation as, (1) risk sharing, (2) product rationalization and economies of scale, (3) the transfer of complementary technology / exchange of patents, (4) shaping of competition, (5) conforming to host government policy, (6) to facilitate international expansion, (7) vertical linkages, and (8) to consolidate market position. They also provide 16 strategic motives for alliance formation by UK firms with partners in Western Europe, the United States and Japan and group them into 5 categories which are configured as technology development, market power, market development, resource specialization and large project completion.

Based on prior empirical studies relating to motives for forming an IJV, this study compiles the relevant results (see Chapter 3.4.4) and classifies these motives into four groups according to their theoretical roots.

1. Resource dependence

- Sharing a large sum of fixed costs
- Spreading the financial risk
- Reducing the risk caused by environmental uncertainty
- Sharing the risk of the business cycle
- Acquiring low cost materials and components
- Acquiring sufficient capital
- Sharing partner's resource

2. Transaction cost explanations

- Technology transfer
- Acquiring technology

- Acquiring partner’s manufacturing technology
- Acquiring partner’s brands or patents
- Acquiring partner’s manufacturing equipment and technology
- Acquiring the economies of scale of production and sale

3. Strategic positioning

- Expanding the market and entering new markets
- Extending the range of products and services
- Reducing competition
- Maintaining or improving the competitive position
- Shortening the time from the product development to market entry
- Conforming to host government policy
- Facilitating diversified development

4. Organisational learning

- Learning international business knowledge
- Learning marketing knowledge
- Improving new product design ability from partner
- Learning management knowledge
- Learning partner’s human resource management
- Improving ability on developing new technology

Basing on the review of relevant literature, Table 5.3.5 summarises the operational definition and measurement of motivation of forming IJV.

Table 5.3.5 Operational Definition and Measurement of Motivation of Forming IJV

Dimension	Operational Definition	Key relevant researchers	Measure Items	Measurement
Motivation	The motives of companies to cooperate with other firms to establish a joint venture	Harrigan (1985) UNECE (1988) Lin (1995) Glaister & Buckley (1996) Groot & Merchant (2000)	26 items including the 4 categories below <ul style="list-style-type: none">• Resource dependence• Transaction cost explanations• Strategic positioning• Organizational learning	5-point scale

This study uses a scale of 1=5 to measure the 26 motivating factors with 5 = ‘extremely important’, 4 = ‘important’, 3 = ‘somewhat important’, 2 = ‘not important, and 1 = ‘not at all important’. The questions score responses at interval level of measurement to correspond to multivariate statistical approaches in data analysis.

In order to provide an overall view of the measurements used in this study, Table 5.3.6 summary the variables with reference sources, if any.

Once the measurement of variables is decided, the next step is identifying the sample which is elucidated in the following section.

Table 5.3.6 Operational Definition of Variables and Measurement

dimensions	Definition of variable	Items	Item descriptions	Key relevant researchers	Measurement
Mechanism of control	the control is exercised in which high-level managers are appointed	D1	• Pricing policy,	Killing (1983) Beamish(1984) Child(1984) Schann (1988) Geringer (1986)	Nominal scale Measuring 8 decision-making made by whom
		D2	• Product design,		
		D3	• Production scheduling,	Child and Yan (1999)	
		D4	• Manufacturing process,		
		D5	• Quality standards,		
		D6	• Sales targets,		
		D7	• Cost budgeting,		
		D8	• Capital expenditures.		
Focus of control	the control is exercised in which area of joint venture's operation	A1	• General management	Killing (1983) Schaan (1983) Dunning and Cantwell (1984) Geringer (1986)	Normal scale Measuring the appointment of high-level managers made by whom
		A2	• Vice general management		
		A3	• Production management		
		A4	• Marketing management		
		A5	• Financial management		
		A6	• Human resource management		
		A7	• R&D management		
		A8	• The head of engineer		
			• Taiwanese parent alone		
			• Foreign parent alone		
		DM_type	• Joint venture alone	Killing (1983) Wu (1994) Chang (1996)	Normal and interval scale Measuring the score and classifying into 4 type of control
		HL_type	• Taiwanese parent and joint venture		
Extent of control	the degree of control over a JV is exercised by parents		• Foreign parent and joint venture		
		Con_type	• Taiwanese parent and foreign parent		
			• Both parents and joint venture		

Table 5.3.6 Operational Definition of Variables and Measurement (continue)

Dimensions	Definition of variable	Items	Item descriptions	Key relevant researchers	Measurement
Ownership	The share of equity held by the Taiwanese and foreigner parents	Own_tp	<ul style="list-style-type: none">• The share of equity held by the host country parents		Measured as a percentage
		Own_fp	<ul style="list-style-type: none">• The share of equity held by the foreign parents		
Bargaining Power	The power that can be used to affect the outcome of the negotiation process	B1	<ul style="list-style-type: none">• Technological ability	Fagre and Wells (1982) Lecraw (1984) Kobrin (1987) Gomes-Casseres (1990) Yan and Gray (1994)	Using 5-point scale to measure 10 items
		B2	<ul style="list-style-type: none">• Innovative ability		
		B3	<ul style="list-style-type: none">• Investment amount		
		B4	<ul style="list-style-type: none">• Access to financial resources		
		B5	<ul style="list-style-type: none">• Level of equity shares		
		B6	<ul style="list-style-type: none">• Management experience		
		B7	<ul style="list-style-type: none">• Knowledge of the local markets		
		B8	<ul style="list-style-type: none">• Access to export markets		
		B9	<ul style="list-style-type: none">• Access to sale distribution channel		
		B10	<ul style="list-style-type: none">• Influence of host government		
Contribution	Any resource input from the foreign parent firms and host country parent firms	C1	<ul style="list-style-type: none">• Key components and raw material	Grant (1991) Barney(1991), Chatterjee and Wernerfelt(1991) Yan and Gray (1994)	Using 5-point scale to measure 14 items
		C2	<ul style="list-style-type: none">• Land, machinery and equipment		
		C3	<ul style="list-style-type: none">• Brands or patent		
		C4	<ul style="list-style-type: none">• Sharing Know-how		
		C5	<ul style="list-style-type: none">• Knowledge of management		
		C6	<ul style="list-style-type: none">• Financial resources		
		C7	<ul style="list-style-type: none">• Access to external capital		
		C8	<ul style="list-style-type: none">• Providing high-level expertises		
		C9	<ul style="list-style-type: none">• Expertise of employees		
		C10	<ul style="list-style-type: none">• Marketing and operation ability		
		C11	<ul style="list-style-type: none">• Technology or R&D ability		
		C12	<ul style="list-style-type: none">• Access to public relation with local government		
		C13	<ul style="list-style-type: none">• Access to environmental knowledge		
		C14	<ul style="list-style-type: none">• Total resource contribution		
		C15			

Table 5.3.6 Operational Definition of Variables and Measurement (continue)

Dimensions	Definition of variable	Items	Item descriptions	Key relevant researchers	Measurement
Motivation	The motives of companies to cooperate with other firms to establish a joint venture	M1	•Sharing a large sum of fixed costs	Harrigan (1985) UNECE (1988) Lin (1995) Glaister and Buckley (1996) Groot and Merchant (2000)	Using 5-point scale to measure 26 items
		M2	•Spreading the financial risk		
		M3	•Reducing the risk caused by environment uncertainty		
		M4	•Sharing the risk of business cycle		
		M5	•Acquiring low cost materials and components		
		M6	•Acquiring sufficient capital		
		M7	•Sharing partner's resource		
		M8	•Acquiring partner's brands or patents		
		M9	•Acquiring partner's manufacturing equipment and technology		
		M10	•Expanding the market and entering new markets		
		M11	•Extending the range of products and services		
		M12	•Reducing competition		
		M13	•Acquiring the economies of scale of production and sale		
		M14	•Conforming to host government policy		
		M15	•Facilitating diversified development		
		M16	•Maintaining or improving the competitive position		
		M17	•Learning international business knowledge		
		M18	•Learning marketing knowledge		
		M19	•Improving new product design ability from partner		
		M20	•Learning management knowledge		
		M21	•Learning partner's human resource management		
		M22	•Shortening the time from the product development to market entry		
		M23	•Acquiring technology		
		M24	• Technology transfer		
		M25	•Improving ability on developing new technology		
		M26	•Acquiring partner's manufacturing technology		

5.3.9 Data Collection

There are two main sources of data: original data and secondary. Original data is known as primary data, which is data collected at source. Secondary data is data which already exists, such as books, documents and films. Details are given below.

5.3.9.1 Secondary Data Collection

Secondary data are one of the cheapest and easiest means of access to information and can be obtained from various sources (Hussey and Hussey, 1997). This can be obtained from company's internal records, such as cost information, customer feedback, sales results, and external sources, such as data published by government, periodicals, books, standardized sources of marketing data, and the Internet. Based on different researchers' classifications for secondary data, Saunders, Lewis and Thornhill (2003) group the secondary data into three main subgroups: documentary data (ie, books, newspapers, reports), survey-based data (ie, government censuses and government surveys), and those compiled from multiple sources (ie, industry statistics and reports). The amount of secondary data available is overwhelming and researchers have to locate and utilize the data that are relevant to their research.

This study has used the secondary data such as the government censuses and government surveys data, which provide the main data set for this study. These government surveys data also can be compared with the findings of this study in the later chapter.

5.3.9.2 Primary Data Collection

There are three main data collection methods for primary data which are interviewing, administering questionnaires, and observing people. Observation is a method for collecting data associated with either a structured or non-structured methodology and can take place in a laboratory setting or in a natural setting. There are two ways in which observation can be conducted: non-participant and participant observation

(Saunders, Lewis and Thornhill, 2003; Hussey and Hussey, 1997). The purpose of non-participant observation is to observe and record what people do in terms of their actions and their behaviour without the researcher being involved. On the other hand, participant observation is a method of collecting data where the researcher is fully involved with the participants and the phenomena being researched.

Hussey and Hussey (1997) indicate that interviews are associated with both positivist and phenomenological methodologies. For the positivistic approach of interviews, the structured questions are prepared beforehand. By contrast, a phenomenological approach suggests unstructured questions. Interviews can be conducted either face to face or by telephone or online. Based on the level of formality and structure, Saunders, Lewis and Thornhill (2003) categorise the interviews into three types: structured interviews, semi-structured interviews, and unstructured interviews. Structured interviews use questionnaires based on a predetermined and standardised set of questions. By comparison, semi-structured interviews and unstructured interviews are more informal and non-standardised. Different types of interviews are useful for different research purposes. Structured interviews can be used in survey research and unstructured interviews are often used in qualitative research. The unstructured interviews were used in this study. Two companies which are the Talee-Isetan department store and COSTCO Warehouse Corporation (see Appendix I-A and Appendix I-B) were interviewed by the researcher to gather detailed information with regard to the management of international joint ventures and to obtain feedback from the company's perspective on the questionnaire.

Survey questionnaires are the most common method of collecting data and are a most useful method when large numbers of people are to be reached in different geographical regions and have the advantage of obtaining data more efficiently in terms of researcher time, energy, and cost (Sekaran, 2003). Survey questionnaires can be conducted either personally, or mailed to the respondents, or electronically distributed. The data obtained by observation are rich but this is expensive and time consuming. All of them have

advantages and disadvantages; the researcher has to choose the one which is the most profitable to their study.

A primary data collecting technique involves the gathering of data from a sample by questioning people and recording their responses. It is an efficient and economic method and can expand geographical coverage at a fraction of the cost and time required by other methods (Cooper and Emory, 1995).

As stated above, there is no “best” form of survey. Each method has a range of advantages and disadvantages. By considering the research objectives and the nature of this study, the postal questionnaire was strongly suited to collect primary data. First, this study has to identify the samples from very large numbers of cases which cover a wide geographical area and did not have correct records of company’s information.

Compared with personal interviews and telephone interviews, the postal questionnaire has a relatively low cost and best met the research objectives. As Hussey and Hussey (1997) stress that the questionnaire survey is cheaper and less time-consuming than conducting interviews and very large samples can be taken. Second, the nature of the data to be collected required reflection on the part of respondents. Respondents needed enough time to think about their replies and work through the questions. Especially, when the respondent is an inaccessible person, a mail questionnaire should be chosen because it allows respondents to complete questions at a later date. Third, a mail questionnaire can allow respondents to collect facts that they may not recall immediately or accurately. Therefore, the mail questionnaire was chosen to collect primary data from host country parents.

5.3.9.3 Questionnaire Design

Before designing the questionnaire, two personal interviews were conducted in order to capture the enterprise’s viewpoints on how the international joint venture was formed. Two international joint ventures were selected, COSTCO and Talee-Isetan. These two

cases provide the researcher some useful information about how joint ventures are formed and how they manage their joint ventures. The detailed information is described in appendix I-A and appendix I-B. Then the researcher starts to design the questions for this study. The questions within the questionnaire are suggested, in part, by reference to earlier and similar research, by consulting with experienced academic researchers and by my own knowledge of Taiwan's economic environment. For this study two questionnaires were compiled. The first questionnaire is designed to identify the joint venture samples in order to capture the host parent's information. The second questionnaire is the main questionnaire and consisted of two parts. The first part is a page of information for the respondent. This information indicates the purpose of this study and the meaning of international joint venture by giving an example. The information also requests the respondent to provide information relating to an international joint venture with which they are most familiar.

The second part of questionnaire is divided into six sections: motivation, contribution, bargaining power, decision making, manager's appointment, and company's background. The first section comprises 26 questions designed to provide responses with regard to the most important factor for the formation of international joint venture.

The second section contains 16 items related to the contributions from each parent to the joint venture. The contributions of the Taiwanese parent and its foreign partner are requested from the Taiwanese partner's viewpoint. The third section measures 11 variables which affect the bargaining power. The fourth and fifth sections deal with the strategic decisions and responsibility for the appointment of managers. And the final section consists of a number of questions designed to capture the company's background. All the questions are structured as appendix II-B and II-B.

5.3.9.4 Questionnaire Pre-Testing

Pre-testing (or Pilot testing) is usually considered in the trial investigations of specific research problems that will be treated more intensively at a later date. It is also

conducted to make sure that the questionnaire works and yields the data required. Emory and Cooper (1991) indicate that the pilot tests are conducted to detect weaknesses in the study's design, instrumentation, and procedures. They suggest that the size of the pilot group may range from 25 to 100 subjects depending on the method to be tested. They also give a warning that in very small populations the pilot testing has the risk of exhausting the supply of respondents. Thus, this study chose 20 companies as a pilot testing sample in order not to deplete the supply of respondents and also used two interview cases to detect any weakness for the purpose of refining of measuring instruments.

A random number table was used to select 20 Taiwanese's parent companies as the pilot survey sample. The questionnaires were posted to these companies. After ten days, 20 companies were followed up by telephone to confirm that the questionnaire has been received by the right department and person. But only two companies completed the questionnaire as requested. Two firms stated that their headquarters moved to a new location recently and the questionnaire had to be sent to the new office. Three firms said that they didn't receive the questionnaire and the researcher had to use Fax to send the questionnaire again. However, the questionnaire was still not received. Three companies stated that they receive many questionnaires every week and only choose a few simple questionnaires to answer. Some of the firms said that they did not answer questionnaires. Some of firms said that if the address and addressee are not correct, the questionnaire may simply be destroyed. In the pre-testing of 20 firms, 8 responses were received.

This pre-testing provides some valuable experiences. For example, the original version of questionnaire proved to be too long. Also, if most of the respondents hold a high position in the company they do not have the time or patience to complete the questionnaire. It is better to restructure the questionnaire in a simpler fashion and reduce the number of pages. As all researchers know, if there are many pages in a questionnaire, the risk of non-response will increase. On the other hand, if there is not enough information included in the questionnaire, the research cannot be employed successfully.

It has to be balanced on both sides. Four to six pages in a questionnaire is an appropriate size to obtain the data required.

Another useful experience from pre-testing was to make a phone call to identify the correct department and named person before the questionnaire was sent out. This ensures the questionnaire is going to the right respondent and will not be destroyed during the document exchange. It is also easy and helpful for the follow-up stage. This pre-testing provides many helpful experiences which serve in the final version of the questionnaire which was modified on the basis of comments received during the pre-testing phase.

5.3.9.5 Respondent Selection

The study requires respondents with specialised knowledge of all joint venture activities, from motives for the formation of international joint ventures, contributing resources to JV's companies, bargaining power of each parent, control and ownership over the JV. Those requirements identify respondents as managers of at least middle to senior positions in Taiwanese partner firms. To ensure good quality responses and to enhance the response rate, telephone contact was made with each Taiwanese partner in order to identify the name and position of the most appropriate senior manager in the organisation with intimate knowledge of the JV.

5.3.9.6 Survey Implementation

Since the potential samples have been identified, telephone contact was made to confirm the appropriate respondent and correct address. The questionnaires were sent out to a total of 227 companies in October 2001. The researcher used the facilities provided by the National Kaohsiung University of Applied Science. Each questionnaire is mailed by using the envelope with University's title. It made the questionnaires look more formal in order to increase the response rate. Also each questionnaire includes a pre-paid/pre-

addressed envelope and a cover letter which highlights the nature of the research and requested support from the respondent. A first round of 82 questionnaires was collected. Follow-up calls were made to firms that had not returned a completed questionnaire. By the end of December 2001, a second round of 32 completed questionnaires had reached the University. As a result, a total number of 114 completed questionnaires were collected. The total of 114 eligible respondents represents a 50.22% (114/227) response rate.

5.3.10 Data Analysis Methods

After the questionnaires were collected, the next step was to code the data and key into a computer program. Data analysis of the questionnaire was carried out using the SPSS statistical package. The general procedures employed included descriptive statistics, analysis of variance, correlation analysis, factor analysis and regression analysis.

5.3.10.1 Descriptive Statistics Analysis

Descriptive analysis refers to the transformation of the raw data into a form that will make for easy comprehension and interpretation (Zikmund, 1997). Descriptive statistics are used to express the most fundamental characteristics of location, spread, and shape of the variables and factors. Its purpose consists of understanding the contents and construction of samples, in order to utilize inference statistical analysis in the next stage. Descriptive statistics are provided by frequencies, measures of central tendency, and dispersion. The most common form of summarizing data is the average, frequency distributions, and percentage distributions ((Zikmund, 1997).

Frequencies simply refer to a numerical value which represents the total number of observations for a variable under study (Hussey, 1997). The frequencies may be summarised by calculating the average and/or the percentage frequencies and the information can also be presented in the form of a histogram or a bar chart. In business

research, frequencies are generally obtained for the nominal variables such as gender and educational level and ordinal variables such as attitudes or opinions.

Measures of central tendencies and dispersions enable individuals to get an idea of the basic characteristics of the data and are a convenient way of describing a large frequency distribution by means of a single value (Sekaran, 2003; Hussey, 1997). There are three measures of central tendencies: the mean, the median and the mode. The mean is the arithmetical average of a frequency distribution. The median is the mid-value in a frequency distribution which has been arranged in size order. The mode is the most frequently occurring value in a frequency distribution (Hussey, 1997).

A simple measure of central tendencies can not give us any idea of the profile of the data distribution; thus, the measure of dispersion can help us to describe the spread of values in a data distribution. The three measurements of dispersion are the range, the variance, and the standard deviation. The range refers to difference between the upper extreme (highest) values and the lower extreme (lowest) value in a set of observations. The variance is the term used to describe the mean of the deviations squared. Standard deviation is a very commonly used measure of dispersion, and is simply the square root of the variance.

In summary, descriptive statistics enable the researcher to summarize and organize data in an effective and meaningful way. The mean, median and mode can be useful measures of central tendencies, and the range and standard deviation are useful measures of dispersion. However, most of the time we would be interested to know the relationships or differences between two variables. We will need to know the inferential statistics which are described in the next section.

5.3.10.2 Inferential Statistical Analysis

Inferential statistics allow researchers to determine whether an expected pattern designated by the theory and hypotheses is actually found in the observations. When we

are interested to know: (1) the relationship between two variables; (2) differences in a variable among different subgroups; and (3) how several independent variables might explain the variance in a dependent variable, we need to employ inferential statistics to answer these questions (Sakaran, 2003). Cross-tabulation, Chi-square test, *t*-test, and Analysis of Variance (ANOVA), correlations, regression analysis and factor analysis are the most popular statistical tools for inferential statistics.

Cross-tabulation is a technique for comparing two classification variables, such as gender, age, and profession, etc. The purpose of categorization and cross-tabulation is to allow the inspection of differences among groups and to make comparisons ((Zikmund, 1997). It also can be constructed for statistical testing, referred to as contingency tables, and the test determines if the classification variables are independent.

The chi-square test is probably the most widely used nonparametric test of significance. It can be used to test the significance of nominal data or higher scales and can also help us to see whether or not two nominal variables are related. The chi-square test is useful not only in cases of one-sample analysis but also two-independent samples or *k* independent samples. But when using this technique, we have to be careful of three situations: (1) when the degree of freedom equals 1, each expected frequency in each cell should be at least 5 in size; (2) if the degree of freedom is greater than 1, but more than 20 percent of the expected frequencies are smaller than 5, then the Chi-square test should not be used; (3) when any expected frequency is less than 1, the Chi-square test should not be used.

Agresti (1996) indicated that the chi-squared approximation can be poor when the tables contain very small fitted values or about 20% of the cells have fitted values below 5. Agresti and Finlay (1997) mentioned that the chi-squared was frequently misused. A common misuse was to apply it when the expected frequencies are too small. In other words, when situation (2) happens but there has to be a significant value, the Chi-square test should not be used and the G^2 test can be used to solve the limit of Chi-square test. The G^2 statistic is obtained by the formula:

$$G^2 = 2 \sum n_{ij} \log \left(\frac{n_{ij}}{\hat{u}_{ij}} \right)$$

u_{ij} : the expected value of n_{ij} assuming independence.

\hat{u}_{ij} : estimated expected frequencies.

The t -test takes into consideration the means and standard deviations of the two groups on the variable and tests whether or not there is a significant mean difference in a dependent variable between two groups (Sekaran, 2003).

Analysis of Variance (ANOVA) is a technique for testing the null hypothesis that the means of several populations are equal. It breaks down the total variation among scores into between-groups and within-groups variance. The F ratio, the test statistic, determines if the differences are sufficiently large to reject the null hypothesis. Analysis of Variance can be extended from One-way Analysis of Variance to two-way and n-way Analysis of Variance.

5.3.10.3 Correlation Analysis

Correlation analysis is the statistical method to measure the direction and strength of the linear relationship between two quantitative variables. A Pearson correlation coefficient (γ) is a technique which can measure the direction, the strength and significance of association between two variables. But the coefficient does not distinguish between independent and dependent variables (Emory and Cooper, 1991). The correlation γ is always a number between -1 and 1. Positive γ indicates positive association between the variables, and negative γ indicates negative association (Hair et al., 1998).

When $\gamma=1$ represents a perfect positive linear association

$\gamma=0$ represents no linear association

$\gamma=-1$ represents a perfect negative linear association

Direction represents that large values on one variable are associated with large values on the other (and small values with small values), in other words, as one variable increases, the other also increases (Emory and Cooper, 1991). The values in between can be graded as

$|\gamma| > 0.7$, it indicates strong degree of linear relationship.

$0.3 \leq |\gamma| \leq 0.7$, it indicates middle degree of linear relationship.

$|\gamma| < 0.3$, it indicates low degree of linear relationship.

Correlation coefficients should be interpreted with care, since a correlation between two variables does not prove there is a causal link between them.

5.3.10.4 Factor analysis

Factor analysis refers to a diverse number of techniques used to discern the underlying dimensions or regularity in phenomena (Zikmund, 1997). There are two purposes in factor analysis: data reduction and substantive interpretation. The first purpose is used principally to summarize the important information in a set of observed variables by a fewer number of factors. This technique is usually referred to as “data reduction.” The second purpose is to discover the underlying constructs that explain the observed variance. This multivariate statistical technique is particularly suited to this study because it analyses the interrelationships among a large number of variables and then explains the relationships within the data. Four steps have to be addressed prior to the implementation of factor analysis.

The first step for running a factor analysis is to determine and extract the factors which will be used to describe the data set. The method this study used was Principle Components Analysis (PCA). The principal component technique is the most frequent

approach to construct a new set of principal components. Successive components explain progressively smaller portions of the total sample variance, and are all uncorrelated with each other.

The second step is to determine the number of factors necessary to account for the variation in the data. A number of rules have been advanced for deciding how many factors to retain for a factor analytic solution. The most popular is the latent root criterion. The latent roots criterion holds that the amount of variation explained by each factor must be greater than 1. Therefore, factors with an Eigenvalue more than 1 are selected.

The third step is selected a rotation procedure which is used to clarify the factors. There are two different types of rotation which can be employed, Orthogonal and Oblique. Orthogonal rotation refers to the procedure where the factors are uncorrelated to one another and preserves the right angles that exist among the factors axes. Oblique rotations allows for some correlation between the factors, which means that the factors themselves can be correlated. The orthogonal extraction method was carried out in this study. SPSS provides a number of alternative algorithms for orthogonal rotation. The most popular orthogonal rotation scheme is the Varimax method which attempts to minimise the number of variables which have a high loading on a factor and can enhance the interpretability of factors.

The final step was to assign a name or label to a factor that accurately reflects the greatest extent possible. In order to name the factors appropriately, the criteria of the significance of any factor loading has to be decided. The significance of any loading can be judged using statistical criteria. Statistical criteria mean that the loading is considered statistically significant at some specified alpha level, typically 0.05. For the samples of less than 100, the lowest factor loading to be considered as significant would have to be greater than 0.3 (Churchill and Iacobucci, 2002).

In addition, item-to-total is used to measure the correlation coefficient of each variable for each factor. This evaluation would be in terms of the variable's overall contribution to the factor. If the variable is of minor importance to the factor or less than 0.4, it should be eliminated. Then the Cronbach α coefficient was used to test the internal consistency of each factor.

5.3.10.5 General Linear Regression

Regression analysis refers to the techniques used to derive an equation that relates the dependent variable to one or more independent variables. It is a powerful analytical tool designed to explore all types of dependence relationships and is viewed as the foundation for business forecasting models (Hair et al., 1998). There are two kind of regression analysis, one is called simple regression analysis, and another one is multiple regression analysis. The classification between these two is according to the number of independent variables. Simple regression analysis is the analyzing method where there is only one independent variable in the regression formula. Multiple regression analysis is used to analyze the relationship between a single dependent variable and several independent variables in the regression formula. The objective of multiple regression analysis is to predict the changes in the dependent variable in response to changes in several independent variables.

The basic formulation of multiple regressions is shown as the below:

$$Y_i = \alpha + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n + \varepsilon_i$$

Where Y_i : is the dependent variable

X_i : is indepentent variables $i = 1, \dots, n$

β : is the regression coefficient in

ε : is the error associated with the i th observation

There are two methods to estimate α and β , one is called ordinary least squares method (OLSE); and the other one is called maximum likelihood method. The coefficient of determination is the number which serves as an evaluation to determine the fineness of the regression model. It is used to measure the overall closeness of the relationship, and the defining capability from the regression model. The coefficient of determination is denoted by R^2 .

The value of R^2 ranges from 0 and 1. When the value of R^2 is closer to 1, it means a high degree of variation from the total variation is attributed to the regression model.

Hair et al.(1998) described a simplified procedure to demonstrate the analysis of multiple regression which was represented in Figure 5.3.3. There are six steps in the analysis procedure. These are

- Step 1: Select the independent variables to examine: the correlation matrix can be used to identify which independent variables are most closely correlated with the dependent variable. The independent variable with the highest correlation with the dependent variable will be the first choice into the regression equation.
- Step 2: Explain the statistically significance of variation: R^2 is used to indicate the percentage of total variation of the dependent variable (Y) explained by independent variable (X).
- Step 3: Consider other available independent variables: when other potential independent variables remain available to add to the equation.
- Step 4: Select a new variable to be added to a predictive equation: partial correlations and t valued can be used to assess the potential contribution of other independent variables to improve the prediction of the dependent variable. The criterion of selecting variables is that the independent variable has the highest partial correlation with the dependent variable.
- Step 5: Assess whether the variance explained by all variables is significant or not: the t value of variables in the equation which measures the significance of the partial correlation of the variable to determine whether a variable should be dropped from the equation once a variable had been added.

Step 6: Drop non-significant independent variables: when the partial correlation of independent variables is very small and has no statistical significance, drop these non-significant independent variables.

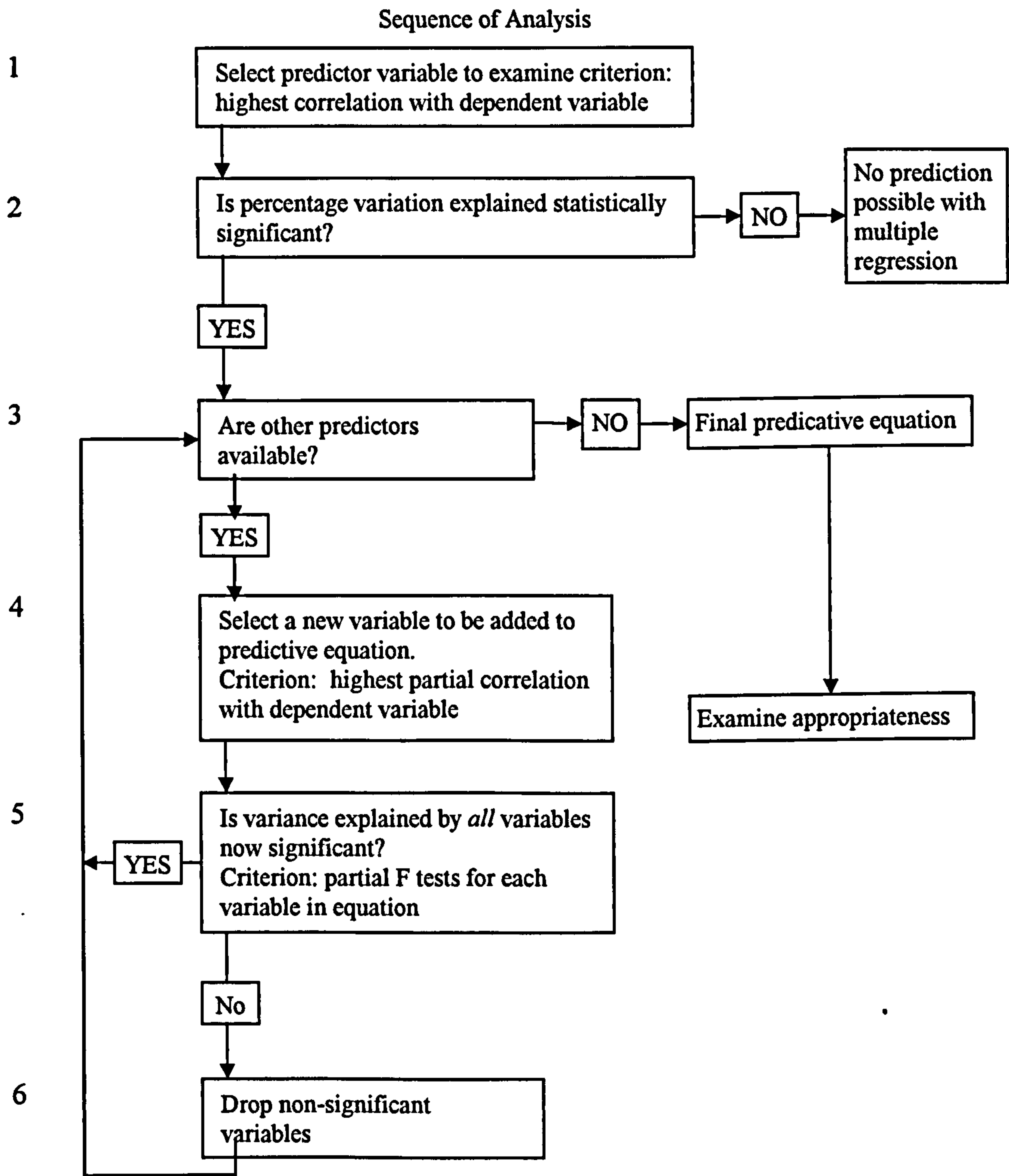


Figure 5.3.3 Simplified Stepwise Regression Procedure Used by HATCO
Source: Hair, et al. (1998), Multivariate Data Analysis with Readings, New York: Macmillan, p63.

The above procedure of analysis can provide very useful guidelines when employing multiple regression analysis. This study adopted this procedure throughout the regression analysis.

When exercising multivariate regression analysis, the researcher must be aware the impact of multi-collinearity which a term used to describe a situation where an independent variable is related to one or more of the other independent variables in the equation. Two measures are available for testing the impact of collinearity: (1) calculating the tolerance and the variance inflation factor (VIF) values, and (2) using the condition indices and decomposing the regression coefficient variance (Hair et al, 1998, p.74). The tolerance value is 1 minus the proportion of the variable's variance. As the tolerance value grows smaller, the independent variables become more highly collinear with the other variables. VIF is an indicator of the effect that other independent variables have on the variance of a regression coefficient. Large VIF values indicate a high degree of collinearity among the independent. There are a number of ways can be used to deal with the multicollinearity. These methods include (Hair et al, 1998):

- Collect more data. This is one of the best methods to reduce multicollinearity. But it is not practical or possible for a researcher to employ because the limits of cost, time and available samples.
- Omit one or more highly correlated independent variables and seek others to help the prediction.
- Use the simple correlations between each independent and the dependent variable to understand the independent-dependent variable relationship.
- Use the model with the highly correlated independent variables for prediction only.
- Use more sophisticated methods of analysis or regression on principle components to obtain a model that more clearly reflects the simple effects of the independent variables.

5.3.10.6 Reliability and Validity

Any test or questionnaire could be looked upon as the result of a measure from random sampling, whether the result is reliable or not. It is important to ensure the instrument

can measure the variable accurately. A well-designed instrument will ensure more accurate results, which in turn will enhance the scientific quality of the research. Hence, we need to be reasonably sure that the instruments we use in our research do indeed measure the variables and measure them accurately (Cavana, Delahaye and Sekaran, 2001). In social science research, the reliability and validity are most commonly used to assess the “good” of the measures developed. Sekaran (2003) states that validity and reliability of the measure certifies the scientific rigor and can be applied to the research study. She provides a Figure 5.3.4 (see next page) to describe the various forms of validity and reliability. There four methods can be used to measure the reliability which are test-retest reliability, parallel-form reliability, inter-item consistency reliability (or Cronbach’s alpha), and split-half reliability. The types of validity tests include the content validity, criterion-related validity, and construct validity. The next subsection will describe reliability and validity in detail.

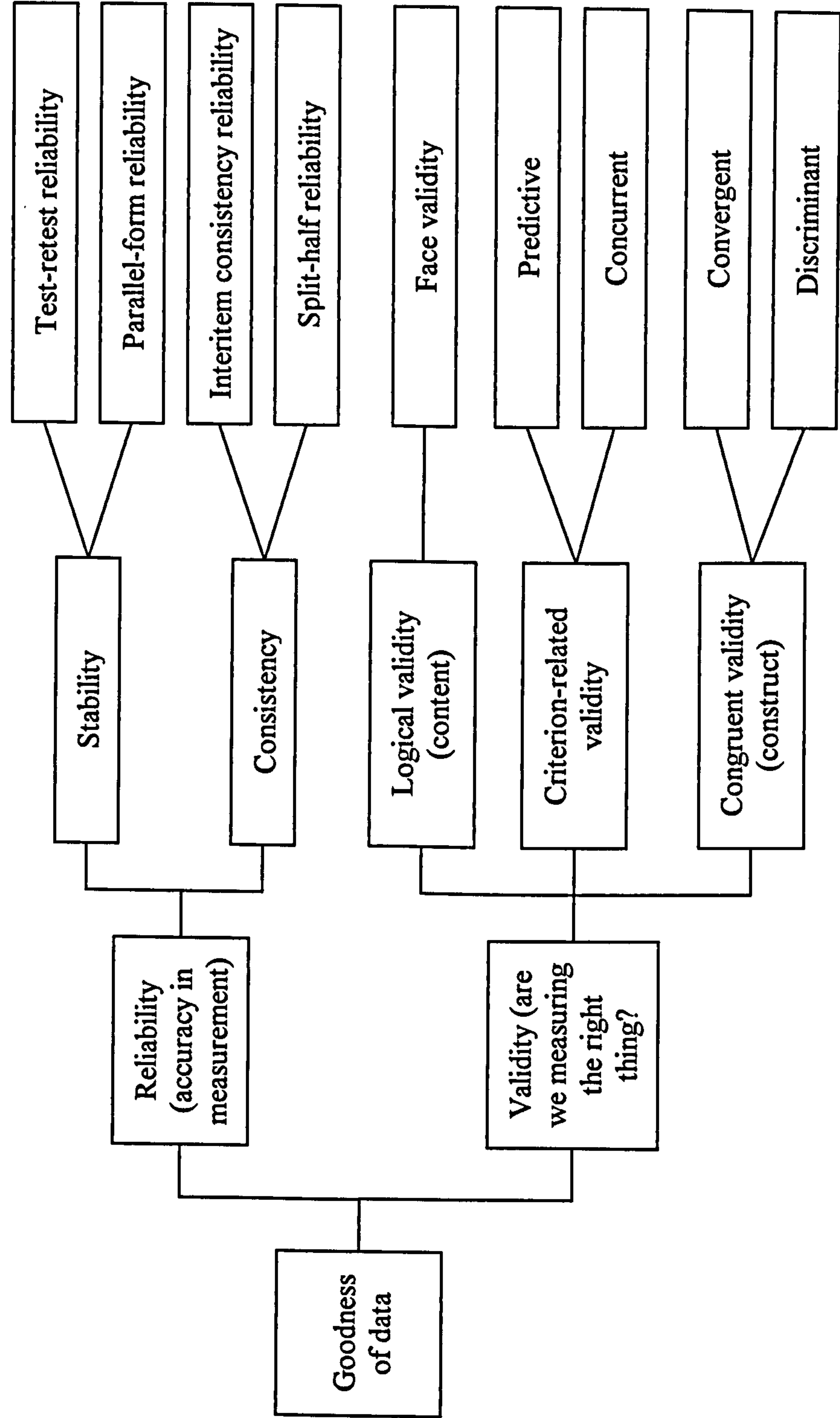


Figure 5.3.4 Testing Goodness of Measure: Forms of Reliability and Validity.
Source: Sekaran, Uma (2003). Research Methods for Business: A Skill Building Approach, p. 204, New York: John Wiley & Sons.

5.3.10.6.1 Reliability

The reliability of a measure indicates the extent to which the measure is without bias and hence offers a consistent measurement across time and across the various items in the instrument (Cavana, Delahaye, and Sekaran, 2001). Frankfort-Nachmias and Nachmias (2000) define the reliability as “the extent to which a measuring instrument contains variable errors, that is, errors that appear inconsistently between observations either during any one measurement procedure or each time a given variable is measured by the same instrument.” Sekaran (2003) also states that the reliability of a measure indicates the extent to which it is without bias (error free) and hence ensures consistent measurement across time and across the various items in the instrument. Wu and Lin (2000) define reliability as the extent of a measure without any errors; it also means the degree of stability and consistency of a measure.

Frankfort-Nachmias and Nachmias (2000) define reliability as a measuring tool which includes the extent of variable errors. The possible resources of measurement errors are:

1. The errors resulting from respondent: This kind of errors results from respondent. For example, because of different race and social level some respondents are unwilling to express true recognition or attitude.
2. The errors resulting from different circumstances: The resources of this kind of error are extensive; any matter which could affect the measure result can cause errors. For example, if there is another person beside person A when he is doing the questionnaire, this circumstance may adversely affect person A's responses.
3. The errors resulting from measurers: For example, the interviewer's explanation about the questionnaire may affect the interviewee's understanding.
4. The errors resulting from measuring instruments: A faulty measuring instrument can result in a measurement error. Or an error results from using the inappropriate measuring instrument to examine specific item.

Reliability could be explained by two implications, one is stability, and another one is internal consistency. The stability refers to whether we could get the same result by repeating the same measuring instruments on one particular object or not. And the

internal consistency refers to the degree of agreement between measurements that measure the same theoretical concept. There are two common methods of estimating stability reliability which are:

1. **Test-retest method:** Test-retest method is the method to let the same group of respondents to be tested twice on the same measure, and find the coefficient from the two tests. This coefficient is also called test-retest reliability.
2. **Parallel-form method:** The same group of respondents has to be tested twice with two similar but different instruments. The correlation coefficient of these two instruments is called coefficient of forms.

Internal consistency can be measured by using:

1. **Split-half method :** Split-half method is the method to split the questionnaire into halves, and compare the questions in each part. It estimates reliability by measuring each of two or more parts of a measuring instrument on a separate scale (Frankfort-Nachmias and Nachmias, 2000). If these two halves of an instrument correlate well, it indicates that the instrument has high reliability.
2. **Inter-item method:** This is a test of the consistency of respondents' answers to all the items in a measure. The most popular test of inter-item consistency reliability is the Cronbach's coefficient alpha. Cronbach (1951) brings up the famous coefficient alpha which overcomes some defects of the split-half method.

The formula of Cronbach alpha is shown below:

$$\alpha = \left[\frac{k}{k-1} \right] \left[\frac{S_T^2 - \sum S_i^2}{S_T^2} \right]$$

α : the estimated reliability

K: total questions in a measure

S_T^2 : is the total variation in a measure

S_i^2 : is the variation in each question

The Cronbach alpha reliability is quite commonly used in business research (Cronbach, 1955). The main reason is that either the test-retest method, the split-half method, or the equivalent-forms method has low practicality in testing in a real situation. Therefore, the Cronbach alpha is a useful method to investigate reliability. This study will use the Cronbach alpha to measure the reliability.

5.3.10.6.2 Validity

Validity indicates the extent to which an instrument can measures what it is supposed to measure. In other words, validity indicates whether the measurement is effective or not, according to the purpose, content and scope of the research. Several types of validity test are used to test the goodness of measures.

1. **Content validity:** Content validity is the extent to which a test measures an intended content area or is a function of how well the dimensions and elements of a concept have been delineated. There are at least three ways to achieve content validity –from literature, from qualitative research and from the judgement of a panel of experts. Face validity is usually tested by giving the questionnaire to a respondent to measure their reaction to the items. However, most researchers do not treat it as a valid component of content validity (Cavana, Delahaye and Sekaran, 2001). Because there are no precise, replicable procedures for evaluating the content validity of face validity and it is extremely difficult to repeat the evaluation procedure precisely and it entirely relies on subjective judgements (Frankfort-Nachmias and Nachmias, 2000).
2. **Criterion-related validity:** Criterion-related validity is the ability of a test or other measure to produce results in keeping with those of the same criterion observed within the same time frame. Criterion validity can be either concurrent validity or predictive validity (Sekaran, 2003; Neuman, 2000). Concurrent validity refers to the criterion that exists at the same time as the measure, whereas predictive validity indicates the ability of the measuring instrument to differentiate among individuals on a future criterion.

3. Construct validity: Frankfort-Nachmias and Nachmias (2000) indicate that construct validity is established by relating the measuring instrument to a general theoretical framework within which the researcher conducts their studies in order to determine whether the instrument is logically and empirically tied to the concepts and theoretical assumptions they are employing. Construct validity is used to measure how well the results obtained from the use of the measure fit the theories around which the test is designed (Sekaran, 2003). Two specific forms of construct validity are convergent and discriminant validity. Convergent validity is established when the scores obtained by two different instruments measuring the same concept are highly correlated. Discriminant validity is established when two variables are predicted to be uncorrelated, and the scores obtained by measuring them are indeed empirically found to be so (Cavana, Delahaye and Sekaran, 2001).

Some of the methods in which the above forms of validity can be established are through:

1. **Correlational analysis:** which can be used in the case of establishing concurrent and predictive validity or convergent and discriminant validity.
2. **Factor analysis:** a multivariate technique would confirm the dimensions of the concept that have been operationally defined, as well as indicate which of the items are most appropriate for each dimension. In factor analysis, we need to calculate the factor structure matrix (not pattern matrix) in the questionnaire; then ascertain whether the construct validity good or bad could be determined from the score of factor loading. In the same construct, if the score of factor loading is ascending, (usually, the particular item is maintained if its score is more than 0.5, otherwise the item is deleted and the factor analysis is rank again), it means a higher level of convergent validity
3. **Multi-traits multi-methods:** The application of multi-traits multi-methods is to test the same group of samples (or interviewees) twice with the same hetero-traits measuring implements in a different method. Sekaran (2003) indicates that the multitrait, multimethod matrix of correlations derived from measuring concepts by different forms and different methods, additionally establishes the robustness of the measure.

In summary, the goodness of measures can be obtained through different kinds of validity and reliability. The researcher needs to use well-validated and reliable measures to ensure the results of the measures. After discussing the relative methods in terms of validity and reliability, next we examine the reliability and validity of the questionnaire derived from this empirical survey.

5.3.10.6.3 Reliability and Validity of this Questionnaire

The aims of this subsection is to analyze the reliability and validity of questionnaire derived from this empirical survey. This study includes motivation, contribution, bargaining power, ownership and control constructs. Most constructs are measured by multi-questions except ownership.

All of the concepts in this research and the hypotheses for the theory construction are mainly referred from previous research, and partly from practical observation; therefore, it meets the requirements of content validity. In addition, this study uses factor analysis to affirm the measuring validity of motivation and bargaining power. As mentioned above, factor analysis would confirm the dimensions of the concept that have been operationally defined, as well as indicate which of the items are most appropriate for each dimension. In this study, the construct validity of motivation and bargaining power are measured by using factor analysis. The results are shown in Table 5.3.7.

Table 5.3.7 The Summary of Construct Validity of Motivation and Bargaining Power

Concepts	Factors	Variables	Factor loading	Eigenvalue	% of variance	Cumulated % of Variance
Motivation	F1	M24	0.953	6.02	23.15	82.56
		M25	0.949			
		M23	0.949			
		M22	0.932			
		M17	0.922			
		M26	0.896			
	F2	M15	0.910	3.91	15.06	
		M13	0.907			
		M12	0.891			
		M16	0.855			
		M14	0.630			
	F3	M2	0.920	3.32	12.76	
		M1	0.887			
		M4	0.884			
		M3	0.829			
	F4	M8	0.902	3.12	12.00	
		M7	0.845			
		M9	0.752			
		M10	0.726			
	F5	M21	0.856	2.85	10.95	
		M19	0.797			
		M20	0.782			
		M18	0.762			
	F6	M5	0.804	2.25	8.64	
		M6	0.794			
		M11	0.786			
Bargaining Power	F1	B1	-0.928	3.89	38.91	80.41
		B2	-0.922			
	F2	B9	0.927			
		B6	0.891			
	F3	B4	0.880	2.67	26.68	
		B5	0.868			
		B10	0.824			
	F4	B7	0.917	1.48	14.82	
		B3	0.905			
		B8	0.644			

After employing factor analysis, the factors of motivation and bargaining power are obtained and the analysis process of these two concepts is discussed in detail in the next chapter. The results of factor analysis for motivation obtained six factors and for bargaining power have four factors. Most factors loading of each variable is over 0.7. Both concepts have a total cumulated percentage of variance of over 80 percent. These results indicate that there is good construct validity of the measures used in this empirical study.

As described in the above section, the reliability of empirical measurement can be obtained by four methods: the test-retest method, parallel-form method, inter-item consistency method (or Cronbach’s alpha), and split-half method (Sekaran, 2003). This study uses the SPSS to analyze the data and the reliability of the concepts in this study is calculated through their Cronbach efficient alpha. The results of the reliability of motivations, contributions and bargaining power are shown in Table 5.3.8.

Table 5.3.8 Summaries of Reliability of Research Constructs

Constructs	Factors	Cronbach α
Motivation	Technological Acquiring(6 items)	0.9802
	Knowledge Learning (5 items)	0.9005
	Risk Sharing (4 items)	0.9117
	Competitive Strategy (3 items)	0.8641
	Resource Complementarity (4 items)	0.8222
	Market Expanding (3 items)	0.8380
Contribution	Physical Resources (2 items)	0.9112
	Invisible Resources (3 items)	0.8987
	Financial Resources (2 items)	0.9034
	Human Resources (2 items)	0.9383
	Organization Resources (5 items)	0.8443
Bargaining Power	Technological Capability (2 items)	0.9689
	Management Capability (2 items)	0.8894
	Financial Capability (3 items)	0.8564
	Marketing Capability (3 items)	0.7045

As shown in Table 5.3.4, the results indicate that the Cronbach’s alpha of all the factors is over 0.8 except the marketing capability of bargaining power which for Cronbach’s alpha is 0.7045. Sekaran (2003) suggests that reliabilities of less than 0.6 are considered to be poor, those in the 0.7 range are acceptable, and those over 0.8 are good. Therefore, the internal consistency reliability of the measures used in this study can be considered to be good.

In summary, the research design can enable the researcher to obtain the data they desired. Research deign involves a detailed plan and includes many key decisions such as the purpose of the study, type of investigation, extent of researcher interference, studying setting, time horizon, unit of analysis, sampling design, measurement and measures, data collection method, an data analysis. Each of key decisions with respect to the research

design is described in detail in this section and it can guide the research to be employed. In the next section we start to analysis the data which was derived from this empirical survey.

5.4 Summary of Research Design of this Study

In this chapter we begin with the description of research process which is used to guide the study from its concept through the final analysis, recommendation, and ultimate action (Kumar, Aaker and Day,2002). A research process can provides a systematic, planned approach to the research project. This study adopted a Sekaran's (2003) step-by-step process to ensure that all aspects of this study are consistent with re research purpose and objectives. Sekaran (2003) outlines the research process includes 11 steps which are: (1) the identification of the broad problem area; (2) preliminary information gathering, especially through unstructured and structured interviews and literature survey; (3) problem definition; (4) evolving a theoretical framework; (5) deriving testable hypotheses; (6) scientific research design; (7) data collection, analysis, and interpretation; (8) deduction the results; (9) report writing; (10) report presentation; (11) managerial decision making. Following Sekaran's research process, the research problems are identified (see Chapter 1), a research framework is evolved and testable hypotheses are derived (see Chapter 4).

For the research design step, it is very important step because a poor research design will lead to a failure of the study. A research design is the detailed blueprint to guide the research study towards its objectives. The research design of this study adopted Sekaran's model and each issue involved in the research design is described in the following.

- Purpose of this study: There are three basic types research, namely exploratory, descriptive and causal (hypothesis testing). The purpose of this study is to explain the relationships between motivation, contribution, ownership, bargaining power and

control in international joint venture issue. Therefore, an explanatory /hypothesis testing methodology was employed in this study.

- **Type of investigation:** Because the aim of this study is first to delineate the important variables which are associated with control. If the variables are associated with control, then a causal relationship will be tested between the variables and control. Therefore, the correlation and causal study will be used in this study.
- **Extent of researcher interference:** This study is conducted in Taiwan by administering questionnaires to the companies, thus, the research interference was kept to the minimum.
- **Study setting:** In this study, the survey of the sample of host country parents is undertaken by employing postal questionnaires. Hence, it is a field study in a non-contrived setting with minimal researcher interference.
- **Time horizon:** Due to the purpose of this study and the limited time and resources, this study is cross-sectional study and it is conducted to gather data using questionnaires in a single-time frame.
- **Unit of analysis:** In this study, the unit of analysis is Taiwanese parent companies who engage in the international joint ventures with the child (the joint venture) located in Taiwan.
- **Sampling design:** Basically, there are two types of sampling designs: probability and non-probability sampling. In this study, the data is collected from the entire population because the sample is not very large relative to international joint ventures in Taiwan. Two main sources were used to identify the samples: (a) the 1999/2000 edition of the Directory of Business Groups in Taiwan, and (b) the 1999 edition of the Directory of Foreign Investment in Taiwan. A list of 227 firms have identified in this study.
- **Quantification and measures:** This study includes theoretical concepts of motivation, contribution, bargaining power, ownership and control. Therefore, the operational definition of each variable or construct is described first and then the measurements are developed (see Chapter 5.3.8).
- **Data-collection method:** There are three main primary data collection methods which are interviewing, administering questionnaires, and observing people. By considering

the research objectives and the nature of each survey method, the mail questionnaire was chosen to collect primary data from host country parents. In addition, two company interviews which are COSTCO company and Talee-Isetan company were conducted to capture the enterprise's viewpoints on how the IJV was form.

- **Data analysis:** The general procedures employed included descriptive statistics which include mean, median, mode, standard deviation and inferential statistics. Statistics methods used in this study include cross-tabulation, Chi-square test, *t*-test, and Analysis of Variance (ANOVA), correlations, regression analysis and factor analysis, etc.

Following the research design, the next section starts to analyze the data which was collected from this study.

5.5 Data Analysis: the Profile of Sample Characteristics

After data was collected from the population, the next step is analysis. Sekaran (2003) indicates that there are three objectives in data analysis, namely, getting a feel for the data, testing the goodness of data, and testing the hypotheses. Getting a feel for the data is a necessary first step in all data analysis. Therefore, this section begins to analyse characteristics of the sample derived from this empirical survey. The unit of analysis in this study is a firm. Thus, the firm's profiles are the industry in which they are involved, the size as measured by capital, sales volume and the number of employees, the ages of parents and the joint ventures and the number of board members. Each is described in following sections.

5.5.1 Industry Characteristics

The industries in which the host country parents are involved are quite varied, thus it is necessary to categorize industries into main industry sectors. This study classifies the

industry into 19 sectors which are Electronic, Plastics, Trade/General Merchandise, Machinery Equipment, Electrical Equipment/Cable, Banking & Insurance, Textile, Automobiles, Chemicals, Food, Steel, Construction, Transportation, Mining, Glass/Ceramic, Paper Product & Printing, Rubber Products, Tourism and Others. The number of host country parents of international joint ventures formed across industries is ranked in the descending order of frequency and is shown in Table 5.5.1.

Table 5.5.1 Descriptive Statistics of Industry of Respondents Involved

Industry	Frequency	Percent
Electronic	15	13.20
Plastics	12	10.50
Trade/General Merchandise	11	9.60
Machinery Equipment	9	7.90
Electrical Equipment/Cable	9	7.90
Banking & Insurance	9	7.90
Textile	8	7.00
Automobiles	7	6.10
Chemicals	6	5.30
Food	5	4.40
Steel	5	4.40
Others	5	4.40
Construction	4	3.50
Transportation	4	3.50
Mining	1	0.90
Glass/Ceramic	1	0.90
Paper Product & Printing	1	0.90
Rubber Products	1	0.90
Tourism	1	0.90
Total	114	100.00

As shown in Table 5.5.1, the Electronics industry has the greatest proportion of international joint ventures with 15 cases which is 13.2 % of the sample. Second is the Plastics industry with 12 cases, 10.5% of the sample .Third is the Trade/General merchandise industry with 11 cases, 9.6% of the sample. Machinery Equipment, Electrical Equipment/Cable, Banking & Insurance have 27 cases together, each 7.9% of

the sample. The other industries with over 4 cases are Textile, Automobiles, Chemicals, Food, Steel, Construction, Transportation and others.

From the government report, the major recipients of foreign investment between 1952 and 2003 are Electronic and Electrical Products (24.67%), Banking and Insurance (16.26%) Services (11.35%), Chemical Products (8.03%), and Wholesaling and Retailing (7.62%) (Described detailed in Chapter 2).

Compared with the results of the government’s report and the survey of this study, the major industries receiving foreign investment are almost the same, shown in Table 5.5.2. But the reader should bear in mind that the result of the government report is derived from all the foreign investment and the result of this study is derived from a part of foreign investment and only focuses on cases of international joint venture.

Table 5.5.2 Major Industries of Foreign Investment: Compared with the Government Report and the Results of this Study

The major industries of international joint ventures derived from this study	The major industries of foreign investment derived from government report
Electronic	Electronic and Electrical Products
Plastics	Banking and Insurance
Trade/General Merchandise	Services
Banking & Insurance	Chemical Products
Electrical Equipment/Cable	Wholesaling and Retailing
Machinery Equipment	
Textile	
Automobiles	
Chemicals	

However some industries such as Mining, Glass/Ceramic, Paper Product & Printing, Rubber Products, Tourism industry only have one case, it might be because the industry sector in this study is rather scattered. Therefore, to consider the analysis method of statistics, the industry sector is aggregated into two groups: manufacturing and service group. As shown in Table 5.5.3, a 75 % of the total international joint ventures involved manufacturing enterprises and accounts for 25% by service companies.

Table 5.5.3 Descriptive Statistics of Respondents by Industry Group

Industry Group	Frequency	Percent
Manufacturing Group	85	74.60
Service Group	29	25.50
Total	114	100.00

From the above description, these results indicate that most international joint ventures in Taiwan occurred in the manufacturing group. This probably reflects that the economic development under the Government’s guidance in Taiwan was more focused on the manufacturing industry since 1960. So, prior to 1990 most foreign investment in Taiwan is in manufacturing. Nevertheless, the government of Taiwan implemented an open policy on the service industry after 1990 which resulted in a structural change in foreign investment. The ratio of foreign investment in manufacturing industries steadily declines, while the ratio of foreign investment in the service industries increases rapidly in recent years.

5.5.2 Nationality Characteristics

With which nationality of foreign partners do Taiwanese companies cooperate to form an international joint venture? In Table 5.5.4, the result shows that the major nationality of foreign partners is Japan, which accounts for 59.6% of total cases or over a half of total foreign partners. American partners present 19.3% of the sample, followed by Singapore which has 5.3% of the sample.

Again, there are several cells with fewer than five percent, thus the nationality data is divided into five regions which are Japan, American, European countries, Asian countries and others. As shown in Table 5.5.5, Japan and other Asian countries together account for 67.5 % of total cases. The next is American which has 22 cases, 19.3 % of the sample. The third is European Countries which has 12 cases, 10.5% of the sample.

Table 5.5.4 Descriptive Statistics of Nationality of Foreign Partners

Nationality	Frequency	Percent
Japan	68	59.60
American	22	19.30
Singapore	6	5.30
Holland	5	4.40
United Kingdom	4	3.50
France	3	2.60
Hong Kong	3	2.60
Others	3	2.60
Total	114	100.00

Table 5.5.5 Descriptive Statistics of Respondents by Nationality and Area

Nationality	Frequency	Percent
Japan	68	59.60
American	22	19.30
European countries	12	10.50
Asian countries	9	7.90
Others	3	2.60
Total	114	100.00

These results indicate that most international joint venture events in Taiwan are heavily involved with Asian countries. There are probably three main reasons. Firstly, because of the location, historical background and culture, Japan and other Asian countries have a higher percentage of foreign investments. Some of the leaders or chief executive officers have close relationship with the leader or managers of Japan’s enterprises because they were educated in the Japanese education system in Taiwan or had studied in Japan in an earlier period. That experience helps the cooperation later on.

Secondly, the cultural distance between Japan and Taiwan is low and both parent companies have built trust in their prior cooperation which in turn influences the opportunities for future investments. As Gill and Butler (2003) found, for the Japanese the main driver for joint venture stability is trust. They and some other researchers have

found that trust and personal relations are the key factors which influence future cooperation (Aulakh, Kotabe and Sahay, 1996). Some other studies have also found that joint ventures with Japanese companies tend to last longer than ones between US or British partners. The above empirical study's results can provide an explanation of why Japanese enterprises have the highest proportion of foreign investments in Taiwan.

Thirdly, most Taiwanese companies obtained technology or import machinery or components from Japan in an earlier period, they are used to Japanese products or are limited by Japanese's specifications of special key products; thus, they have to continue to cooperate with Japanese enterprises.

Although Japanese enterprises have the highest proportion of foreign investment in Taiwan, other countries have increased their investments in recent ten years. For example, American partners represent the second highest proportion of foreign investment. As discussed in Chapter 2.4, American countries are the main and fastest growth area in terms of the amount of inbound foreign investment in Taiwan since 1998.

5.5.3 Size of the Host Country Parents

The host country parents represented in the sample varied in size, as measured by capital, sales volume and the number of employees. Based on the company's capital, the scale of host country parents is classified into four groups shown as Table 5.5.6. The greatest numbers of host country parents which hold capital from five hundred million NT dollars to five thousand million NT dollars represent 37.7 % of the sample. The second group of companies which holds capital of more than ten billions NT dollars constitutes 32.5% of the sample. The third group of companies holds capital of less than five hundred million NT dollars equals 15.8% of the sample.

Table 5.5.6 Descriptive Statistics of the Capital of Host Country Parents Hold Unit: NT\$ million

Capital						
Mean	Std.	Minimum	Maximum	Category	Frequency	Percent
16405.0	38962.1	10	330000	less than 500 million	18	15.8
				501 - 5,000 million	43	37.7
				5,001 - 10,000 million	16	14.0
				more than 10,000 million	37	32.5
				Total	114	100

According to the revised definition of small and medium enterprises promulgated by Ministry of Economic Affairs in 2000, the enterprise in the manufacturing industry with paid-in capital of less than NT\$80 million or has regular employees numbering less than 200 will be referred to as a small and medium enterprise(SME). The enterprise in the services industry which has sales volume less than NT\$100 million in last year or less than 50 regular employees is defined as an SME. This means the company in the manufacturing industry which has more than 200 regular employees or a company in the service industry with more than 50 regular employees is classified as a big enterprise. Therefore, the results indicate that most of the international joint ventures occur within large companies in Taiwan.

Based on the company’s sales volume, the host country parents are also classified into four groups shown as Table 5.5.7. The largest group of host country parents which hold sales volumes of more than ten billions NT dollars represents 40.4% of the sample. The second group which achieves sales volumes from five hundred million NT dollars to five thousand million NT dollars presents 32.5 % of the sample. The smallest group which has sales volumes of less than five hundred million NT dollars amounts to 13.2% of the sample. Companies whose sales volumes are over five thousand million NT dollars represent in total 54.4%, or more than half the sample. These results also indicate that most of the international joint ventures occur within high sales volume companies in Taiwan.

Table 5.5.7 Descriptive Statistics of Sales Volume of Host Country Parents

Unit: NT\$ million

Business Volume						
Mean	Std.	Minimum	Maximum	Category	Frequency	Percent
23278.4	63468.5	16	485202	less than 500 million	15	13.2
				501 - 5,000 million	37	32.5
				5,001 - 10,000 million	16	14.0
				more than 10,000 million	46	40.4
				Total	114	100

The results of calculating the size of host country parents by the number of employees is shown in Table 5.5.8. The largest group of employees of more than one thousand people represents 41.2%, or two-fifths of the sample. The second group is 21.1% of the sample, with five hundreds to one thousand employees. The smallest group is 18.4% of the sample, with employees numbering less than two hundreds. Counted together companies with employees of more than five hundreds represent 62.3% of the sample. These results also indicate that most host country parents are big companies.

Table 5.5.8 Descriptive Statistics of the Number of Employees of Host Country Parents

Number of employees						
Mean	Std.	Minimum	Maximum	Category	Frequency	Percent
2266.9	4624.1	20	31421	less than 200	21	18.4
				201 - 500	22	19.3
				501-1000	24	21.1
				more than 1000	47	41.2
				Total	114	100

With regard to capital, sales volume and the number of employees, these results show that most host country parents involved in international joint ventures are very successful companies which have a high reputation in Taiwan and that would be the reason why foreign companies choose them as partners. In addition, some studies have indicated that a firm’s size may act as a proxy measure for the quantity of resources available (Glauster abd Buckley, 1997; Hill, Heang and Chan, 1990; Caves and Mehra, 1986). In

studying the characteristics of IJVs in Japan, Burton and Saelens (1982) found that larger firms tend to establish their first affiliates comparatively earlier than smaller companies. This implies that large Japanese firms had earlier access to sparsely available technology. Foreign partners may like to cooperate with firms who have different resources available to complement their own resources. In general, large firms have more ability to provide resources. This might explain the results of this study in that most Taiwanese parents are large companies.

5.5.4 Ages of the Host Country Parents and the Joint Ventures

Do the companies engaged in an international joint venture have long-standing history? From the empirical result shown in Table 5.5.9, the average age of host country parents is 32.9 years. Over half (60.5%) of the total number of host country parents have been established for more than 30 years. Only 5.3% of host country parents are less than 10 years old. It is clear that the host country parents tend to be companies that have more business experience.

Table 5.5.9 Descriptive Statistics of Ages of Host Country Parents

Ages of Host country parents						
Mean	Std.	Minimum	Maximum	Category	Frequency	Percent
32.9	13.2	3	74	1-5 years	2	1.8
				6-10 years	4	3.5
				11-20 years	15	13.2
				21-30 years	24	21.1
				more than 30 years	69	60.5
				Total	114	100

As described in Chapter 2.2, the government has strongly encouraged Taiwanese enterprises to cooperate with foreign investors and since 1954 has promulgated relative legal statutes to encourage foreign investment. These results indicate that most host country parents operate their company successfully and they have more resources and abilities to attract foreign investors to cooperate in an IJV. This infers that the older the

company the more experiences and abilities it has, and in turn more opportunities to cooperate with foreign investors.

Next we turn to look at the ages of the joint ventures. As shown in Table 5.5.10, the average age of a joint venture is 14.2 years. The greatest group is 35.1% of the sample, with ages of 11 to 20 years. The second group and third group have nearly equal percentage of the ages, 22.8% for the age from 6 to 10 years and 21.1% for the age from 1 to 5 years. Over half (56.1%) of the total number of ventures were established for more than 10 years. Especially, 14 cases of ventures, 12.28% of the sample, were formed for more than 30 years.

Table 5.5.10 Descriptive Statistics of Ages of the Joint Ventures

Ages of the Joint Venture						
Mean	Std.	Minimum	Maximum	Category	Frequency	Percent
14.2	10.5	1	49	1-5 years	24	21.1
				6-10 years	26	22.8
				11-20 years	40	35.1
				21-30 years	10	8.8
				more than 30 years	14	12.3
				Total	114	100

The ages of joint ventures represent the number of years that host country parents have cooperated with foreign parents. The older the joint venture, the longer their cooperation. From the literature, we know that international joint ventures are formed by more than two companies which have different cultures, objectives, and management styles, etc.; and this will cause a high failure rate (Dacin, Hitt and Levitas, 1997; Parkhe, 1993; Kogut, 1989; Beamish, 1988). It is difficult to maintain the relationship when there is conflict between the partners. The age of joint ventures, imply that host country parents have very good relationships with foreign parents and these good relationships will affect opportunities for future cooperation with foreign companies. This result might explain a phenomenon that was found in this study during the sample identification, that one parent is involved in many international joint ventures. For example; the Uni-

President company participates in 18 international joint ventures. These results reveal that good relationships between the partners will affect cooperation in the future.

5.5.5 Number of Board Members

Prior researches have found that the number of board members in joint ventures will be affected by the equity share of joint ventures held by parents. The board directors serve as a communication and information processing channel between the parents and the child (or joint ventures). It is also the way that parents exert their control over the ventures. The number of board members represented by parents is shown in Table 5.5.11, the mean score of the number of board members that the host country parents represent in the joint venture is 4.2 and 3.9 for foreign parents respectively. When counted by the percentages shown in Table 5.5.12, host country parents have 57% and foreign parents have 43%. The host country parents have a higher percentage of board members in joint ventures than foreign parents. The paired samples test shows that there is a significant difference in the percentage of board members in joint ventures between the host country parents and foreign parents.

Table 5.5.11 Number of Board Members in Joint Ventures Represented by Parents

Parents	No.	Mean	Std.	Minimum	Maximum
Host country parents	114	5.2	2.2	0	13
Foreign parents	114	3.9	1.9	0	9

Table 5.5.12 Percentage of Board Members in Joint Ventures Represented by Parents

Percentage of board members	Mean	Std. Deviation	t	df	Sig. (2-tailed)
Percentage of Taiwanese parent represented in JV's board members	0.57	0.18	4.4033	113	0.0000 *
Percentage of Foreign parent represented in JV's board members	0.43	0.18			

* $p < 0.05$

The findings reveal that host country parents have more seats on the board of directors of joint ventures. As discussed in Chapter 3, prior research results suggest that partners

can use participation in the joint venture's board of directors to exert effective control over the activities of the joint venture (Jaussaud, Schaaper and Zhang, 2001; Kumar and Seth, 1998; Geringer and Hebert, 1989; Schaan, 1983). Therefore, this study infers that host country parents might have more control over the joint venture than foreign parents if they have to vote when different objectives and conflicts occurred among the parents. The relationship between the number of board members and control will be discussed in Chapter 6.

In the majority of the sample, 70% of the total sample as shown in Table 5.5.13, most of the joint venture's general manager is Taiwanese. Researchers suggest that holding the key executive positions can ensure the parent's objectives be achieved (Jaussaud, Schaaper and Zhang, 2001; Child and Yan, 1999; Schaan, 1983). This result also implies that the host country parents might have greater control than its partners by having more general managers.

Table 5.5.13 Descriptive Statistics of Nationality of JV's General Manager

Nationality of JV's general manager	Frequency	Percent
Taiwanese	80	70.18
Foreigner	34	29.82
Total	114	100.00

All the characteristics of the sample derived from this empirical survey are summarized in Table 5.5.14.

Table 5.5.14 Descriptive Statistics of the Sample Characteristics

Variables		Frequency	Percent
Industry Group	Manufacturing Group	85	74.6
	Service Group	29	25.9
Nationality/ Region	Japan	68	59.60
	American	22	19.30
	European countries	12	10.50
	Asian countries	9	7.90
	Others	3	2.60
Capital	less than 500 million	18	15.8
	501 - 5,000 million	43	37.7
	50,001 - 10,000 million	16	14.0

	more than 10,000 million	37	32.5
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Table 5.5.14 Descriptive Statistics of the Sample Characteristics (continued)

Variables		Frequency	Percent
Sales volume	less than 500 million	15	13.2
	501 - 5,000 million	37	32.5
	50,001 - 10,000 million	16	14.0
	more than 10,000 million	46	40.4
Number of employees	less than 200	21	18.4
	201 - 500	22	19.3
	501-1000	24	21.1
	more than 1000	47	41.2
Ages of Host country parents	1-5 years	2	1.8
	6-10 years	4	3.5
	11-20 years	15	13.2
	21-30 years	24	21.1
	more than 30 years	69	60.5
Ages of the joint ventures	1-5 years	24	21.1
	6-10 years	26	22.8
	11-20 years	40	35.1
	21-30 years	10	8.8
	more than 30 years	14	12.3
Percentage of board members in joint ventures	Host country parents	0.57	
	Foreign parents	0.43	
Nationality of JV's general manager	Taiwanese	80	70.18
	Foreigner	34	29.82

In Table 5.5.14, a frequency distribution is obtained for all the sample's data or classification variables. The greatest number of parents of international joint ventures is present in the manufacturing group and most of the foreign partners come from Japan. According to the size of host country parents as measured by capital, sales volume, and the number of employees, it was found that most belong to big companies. About 60% of host country parents have been in business for over 30 years and only 5% of host country parents have run the business for less than 10 years. About 66% of international joint ventures have been established for over 10 years. Host country parents hold about

57% of board members in joint ventures and about 70% of the joint venture's general manager is Taiwanese.

5.6 Summary

This chapter examines the methods associated with the empirical approach employed for this study. An overview of research processes which is described as a systematic and organized effort to investigate a specific problem or issues (Cavana, Delahaye and Sekaran, 2001) has been demonstrated briefly first.

Then the research design which specifies the procedures for collecting and analyzing the data has been explained properly. Research design involves a systematic plan which can guide the research to be employed. Sekaran (2003) outlines the research design into various critical topics which include the purpose of the study , types of investigation, extent of researcher interference, time horizon, study setting, unit of analysis, sampling design, measurement and measures, data collection method and data analysis. The research design of this study adopts Sekaran's model and each issue involved in the research design is described in the relevant sections.

There are three basic types research, namely exploratory, descriptive and causal (hypothesis testing). The process of identifying and selecting the most appropriate research design for this study is driven by the nature of the research objectives. According to the purpose of this study which is to explain the relationships between motivation, contribution, ownership, bargaining power and control in international joint ventures, a descriptive study and hypotheses testing are employed in this study.

The type of investigation of this study includes correlation and causal study. Because the aim of this study is first to delineate the important variables which are associated with control. If the variables are associated with control, then a causal relationship will be tested between the variables and control. Therefore, the correlation and causal study will be used in this study.

Sekaran (2003) indicates that the extent of interference by the researcher is depended on what kind of study is undertaken. This study is conducted in Taiwan by administering questionnaires to the companies, thus, the research interference was kept to the minimum.

Business research can be conducted in non-contrived settings or contrived settings. Cavana, Delahaye and Sekaran's (2001) describe the difference among a field study, a field experiment and a lab experiment which is based on the study undertaken in a particular environment. In this study, the survey of the sample of host country parents is undertaken by employing postal questionnaires. Hence, it is a field study in a non-contrived setting with minimal researcher interference.

With regard to time, there are usually two kinds of study, ie. cross-sectional studies and longitudinal studies. The aim of longitudinal studies is to research the problem deeply by investigating the same situation or people several times over a period of time in which the problem runs its course. A cross-section study is a study that collects data just once over a period of days or weeks. Due to limited time and resources, this study is cross-sectional study and it is conducted to gather data using questionnaires in a single-time frame.

The unit of analysis refers to the level of aggregation of the data collected during the subsequent data analysis stage (Cavana, Delahaye and Sekaran, 2001). The research objectives will determines the unit of analysis which can be shifted from individuals to groups, organizations and nations. In this study, the unit of analysis is Taiwanese parent companies who engage in the international joint ventures with the child (the joint venture) located in Taiwan.

Basically, there are two types of sampling designs: probability and non-probability sampling. The often used and useful probability sampling is simple random, systematic, stratified, and cluster sampling. Non-probability sampling can be divided into the broad categories of convenience sampling and purposive sampling which includes judgment

sampling, snow ball sampling and quota sampling. In this study, the data is collected from the entire population because the sample is not very large relative to international joint ventures in Taiwan. In order to identify the population frame for this study, some procedures were conducted. A list of Taiwanese international joint venture enterprises was obtained by using two main sources: (a) the 1999/2000 edition of the Directory of Business Group in Taiwan, and (b) the 1999 edition of the Directory of Foreign Investing in Taiwan. A two-stage process was launched to identify the sample and a total of 227 cases were identified as the sample frame for this study.

Frankfort-Nachmias and Nachmias (2000) define the measurement as the assignment of numerals to variables, properties, or events according to a prescribed set of rules where a rule is used to specify the procedure a researcher uses to assign numerals or numbers to objects or events. When a phenomenon cannot be observed directly, the researcher needs to use the operational definition to reduce the concepts so that a phenomenon can be measured in a tangible way. This study includes theoretical concepts of motivation, contribution, bargaining power, ownership and control. Therefore, the operational definition of each variable or construct is described first and then the measurements are developed.

There are three main data collection methods which are interviewing, administering questionnaires, and observing people. All of them have advantages and disadvantages; the researcher has to choose the one which is the most appropriate for their study. Questionnaires are the most common method of collecting data and are a most useful method which can be administered either personally, mailed to the respondents, or electronically distributed (Sekaran, 2003). By considering the research objectives and the nature of each survey method, the mail questionnaire was chosen to collect primary data from host country parents. Questionnaire pre-testing was conducted to make sure that the questionnaire worked and yielded the data required for this study. After the pre-testing, a total of 227 questionnaires were sent out and 114 valid responses were received, representing a 50.22% effective response rate.

Data analysis of the questionnaire was carried out using the SPSS statistical package. The general procedures employed included descriptive statistics which include mean, median, mode, standard deviation and inferential statistics which include cross-tabulation, Chi-square test, *t*-test, and Analysis of Variance (ANOVA), correlations, regression analysis and factor analysis, etc.

The goodness of measures can be obtained through the different kinds of validity and reliability. This study includes motivation, contribution, bargaining power, ownership and control constructs. Most constructs are measured by multi-questions except ownership. Thus the analysis of reliability and validity of motivation, contribution, and bargaining power are launched and the results were considered to be good.

After data was collected from the sample, the next step was to analyze them. The unit of analysis in this study is a firm. Thus, the characteristics of companies are analyzed in order to get a feel for the data. The company's profiles include the industry in which they are involved, the size as measured by capital, sales volume and the number of employees, the ages of the parents and the ventures and finally the number of board members. The results reveal that the greatest number of parents of international joint ventures is involved in the manufacturing group and most of its foreign partners are from Japan. The size of host country parents measured by the capital, sales volume, and the number of employees indicates that most are big companies. Most host country parents have run the business for over 30 years and most of international joint ventures have existed for over 10 years. Host country parents hold about 57% of board members in joint ventures and in about 70% of the joint ventures, the general manager is Taiwanese.

This study includes five main dimensions; (a) control, (b) ownership, (c) bargaining power, (d) contribution, and (e) motivation. Each dimension will be examined first and the relationship between these dimensions and the sample characteristics will be tested in the following chapter.

Chapter 6

**DESCRIPTIVE ANALYSIS OF CORE
RESEARCH DIMENSIONS**

Section

6.1	Introduction
6.2	Descriptive Analysis of Core Research Dimensions
6.3	Summary

Chapter 6

DESCRIPTIVE ANALYSIS OF CORE RESEARCH DIMENSIONS

6.1 Introduction

According to the research framework proposed in Chapter 4, there are five core research dimensions in this study which are control, ownership, bargaining power, contribution and motivation. Following the research design steps indicated in Chapter 5, the data was collected from this empirical survey of Taiwanese international joint ventures. The purpose of this chapter is to begin the analysis of the data and also to describe the general descriptive results. Each core research dimension is examined in its empirical results and its relationship with the characteristics of the sample. Three sections are organized in this chapter. Section 6.2 describes the descriptive analysis of each core research dimension. The characteristics of the sample encompass nationality or region, industry, size of the host country parents, ages of the host country parents and the joint ventures, and the number of board members in the joint ventures. Section 6.3 demonstrates the important results derived from each core research dimension of this empirical survey and provides a brief conclusion.

6.2 Descriptive Analysis of Core Research Dimensions

This study consists of five core dimensions viz, control, ownership, bargaining power, contribution and motivation. As described in chapter 5.3.10, descriptive statistics are used to express the most fundamental characteristics of variables before doing inferential statistics. Sekaran (2003) also indicates that one of the objectives of data analysis is getting a feel for the data which can help the researcher have a basic understanding of the data.

derived from an empirical survey. Therefore, this section starts to analysis each core research dimension and their relationship with the characteristics of the sample.

6.2.1 The Control of International Joint Ventures

Control is a crucial core dimension in this study. The perspective of this section is to present the empirical results of the nature of control exercised by Taiwanese parent companies over the joint ventures. From relevant literature, three constructs have been identified to describe the control of international joint venture (Geringer and Hebert, 1989). They are the mechanism of control, the extent of control and the focus of control. Thus, the first subsection starts to present the joint venture activities over which the host country parents exert control. The second subsection describes what kinds of mechanisms are employed by parents over the activities of the joint ventures. The third subsection examines the extent to which the host country parents have control compared with foreign parents, and to classify the type of control. The final subsection elucidates the relationship between the control and characteristics of the sample.

6.2.1.1 Focus of Control

From the review of the prior literature, the parents can seek control over the whole range of a joint venture's activities or instead concentrate on controlling specific activities of a joint venture. Killing (1983) identifies nine decisions in terms of product design, pricing policy, production scheduling, manufacturing process, quality control, replacement of managers, sales targets, cost budgeting and capital expenditures. He uses six categories to investigate whether each decision is made by the general manager alone, by the local parent alone, by the foreign parent alone, by the JV general manager with input from the local parent, by the JV general manager with input from the foreign parent, or by the JV general manager with input from both parents.

This study adopts Killing's scale by asking host country parents to assess decisions, but a question about the replacement of managers is not included. Eight categories are utilised including Killing's six categories plus another two categories which are decisions made by both parents and not applicable in any case.

The results are shown in Table 6.2.1.1. Most of the decisions relating to production scheduling, manufacturing processes, quality standards, and cost budgeting are taken by the joint ventures alone, especially they have nearly 50% of the decision-making on production scheduling; however, on the other side, they have the lowest percentage on the decision of capital expenditures, only 0.88% of the sample. 29.82% of foreign parents in the sample took the decision regarding product design and actively exercise control on the product design decision. This might be because most of the foreign parents regard product design as their area of expertise and competitive advantage.

Table 6.2.1.1 Decision-Making of JV's Operating Activities Made by Whom

	Your company alone		Foreign Partner alone		JV alone		Your Co. & foreign partner		Your company & JV		Foreign Partner & JV		Your Co. & foreign partner & JV		Not applicable	
	N0	%	N0	%	N0	%	N0	%	N0	%	N0	%	N0	%	N0	%
1.Product design	12	10.53	34	29.82	15	13.16	30	26.32	11	9.65	11	9.65	1	0.88	0	0.00
2.Pricing policy	14	12.28	8	7.02	25	21.93	22	19.30	26	22.81	15	13.16	4	3.51	0	0.00
3.Production scheduling	2	1.75	2	1.75	53	46.49	0	0.00	12	10.53	11	9.65	0	0.00	34	29.82
4.Manufacturing process	3	2.63	2	1.75	36	31.58	2	1.75	16	14.04	19	16.67	2	1.75	34	29.82
5.Quality standards	10	8.77	24	21.05	39	34.21	12	10.53	15	13.16	13	11.40	1	0.88	0	0.00
6.Cost budgeting	8	7.02	1	0.88	40	35.09	7	6.14	35	30.70	18	15.79	5	4.39	0	0.00
7.Sales targets	12	10.53	0	0.00	6	5.26	25	21.93	26	22.81	14	12.28	31	27.19	0	0.00
8.Capital expenditures	14	12.28	0	0.00	1	0.88	39	34.21	6	5.26	3	2.63	51	44.74	0	0.00

However, these results reveal that both parents exercise their control more on the sales targets and capital expenditure decisions. This may be because these two decisions largely involve the financial investment and performance of joint ventures. It may be presumed that parents focussing their control on particular activities of the joint venture partly reflect the parent's concerns and their competencies. For example, when foreign

parents took more responsibility on a product design decision, it could mean that they are more concerned about the issue and have more competence on product design.

Next, we calculate the frequencies of operational decision-making activities made by host country parents, foreign parents or joint ventures. The results are shown in Table 6.2.1.2 reveal that host country parents have an extremely high percentage on capital expenditure decisions and foreign parents also attach the most importance to this. On the other hand, joint ventures have extremely high percentage on decision-making, on production scheduling and manufacturing processes. This might be because these two activities are highly related to the joint venture's environment and have to fit the joint venture's daily operating strategies.

Table 6.2.1.2 Decision-Making of JV's Operating Activities Made by Whom

	Host country parents		Foreign parents		Joint venture	
	No	%	No	%	No	%
1.Product design	54	47.37	76	66.67	38	33.33
2.Pricing policy	66	57.89	49	42.98	70	61.40
3.Production scheduling	14	12.28	13	11.40	76	66.67
4.Manufacturing processes	23	20.18	25	21.93	73	64.04
5.Quality standards	38	33.33	50	43.86	68	59.65
6.Cost budgeting	55	48.25	31	27.19	98	85.96
7.Sales targets	94	82.46	70	61.40	77	67.54
8.Capital expenditure	110	96.49	93	81.58	61	53.51

The descriptive results indicate the decision-making on JV's operating activities influence a broad set of controls. But there are some differences among host country parents, foreign parents and the joint ventures. The host country parents perceive decision-making responsibility in terms of capital expenditure and sales targets activities, whereas foreign parents take more responsibility for production design decisions. Other decisions regarding production scheduling, manufacturing processes, cost budgets, pricing policy, and quality standards are taken by varying combinations of parents and joint ventures, but most of these decisions are taken primarily by joint ventures.

Consistent with the evidence of control in relevant studies, these findings are confirmed Schaan (1983), Geringer (1986), Geringer and Hebert (1989) and Glaister's (1994)

suggest that parents tend to seek control over particular activities rather than over the whole range of a joint venture's activities. From the above analysis, one can conclude that the joint venture's parents concentrate on controlling specific activities instead of controlling all the activities of the joint ventures.

6.2.1.2 Mechanism of Control

Child and Yan's (1999) research results suggest that parents could exercise effective control through the appointment of board members and key executive positions. Jaussaud, Schaaper and Zhang (2001) also suggest that partners could use several mechanisms to exert effective control over the activities of joint ventures, for example, active participation in the joint venture's board of directors or by holding key function directorship positions. Killing (1983) uses the responsibility for the appointment of high-level management to measure the mechanisms of control over joint ventures. This study adopts Killing's scale by asking host country parents to assess the responsibility for the appointment of high-level managers.

The results are shown in Table 6.2.1.3. In this study, about one-third of host country parents appointed the general manager by themselves, and just over 30% of foreign parents were responsible for the general manager appointments. But on the other hand, more than one-third of the general managers were appointed by both parents. None of the general managers were appointed by the joint ventures.

These findings are very reasonable, when the parents make the agreement to form a new company, they have taken into consideration who is going to take all the responsibility for the joint ventures and how to make sure the joint venture could achieve the parent's objectives. Basically, the general manager is the main decision maker in the joint venture company, and he also acts as the communication bridge to the parent companies. Thus, the general manager is always appointed by the host country parents or foreign parents or even both partners.

These findings concur with Child and Yan (1999) and Jaussaud, Schaaper and Zhang (2001), who suggest that the parents use the appointment of the joint venture's board of directors to control the venture. On the basis of the above discussion, one concludes that the parents exercise effective control through the appointment of key executive members of the joint ventures.

Table 6.2.1.3 Appointment of High-Level Management of Joint Ventures Made by Whom

	Your company alone		Foreign Partner alone		JV alone		Your Co. & foreign partner.		Your company. & JV		Foreign Partner & JV		Your Co. & foreign partner & JV		Not applicable	
	N0	%	N0	%	N0	%	N0	%	N0	%	N0	%	N0	%	N0	%
1. General manager	39	34.21	35	30.70	0	0.00	40	35.09	0	0.00	0	0.00	0	0.00	0	0.00
2. Vice general manager	48	42.11	3	2.63	29	25.44	29	25.44	1	0.88	2	1.75	1	0.88	1	0.88
3. Production manager	8	7.02	7	6.14	30	26.32	6	5.26	17	14.91	12	10.53	0	0.00	34	29.82
4. Marketing manager	10	8.77	4	3.51	69	60.53	7	6.14	15	13.16	9	7.89	0	0.00	0	0.00
5. Financial manager	37	32.46	4	3.51	33	28.95	16	14.04	19	16.67	4	3.51	1	0.88	0	0.00
6. Personnel manager	10	8.77	3	2.63	70	61.40	6	5.26	17	14.91	8	7.02	0	0.00	0	0.00
7. R & D manager	6	5.26	20	17.54	20	17.54	11	9.65	10	8.77	11	9.65	0	0.00	36	31.58
8. Head engineer	2	1.75	6	5.26	45	39.47	0	0.00	9	7.89	5	4.39	0	0.00	47	41.23

However, Table 6.2.1.3, shows that most of the vice general managers were appointed by the host country parents, i.e. 42 % of the sample. Either the parents or the joint venture are responsible for the vice general manager appointment with the same percentage, at 25.44%. The foreign parents have the lowest percentage regarding the appointment of the vice general manager. These results indicate that the appointment of the vice general manager is not always so important to the foreign parents if the general managers originate from the foreign parents. Another possible reason might be the control mechanism must be finely balanced between the host country parents and the foreign partners and they had agreements that the general managers were appointed by foreign partners and the vice general managers originated from host country parents. Normally, the vice general managers have to take more responsibility on local markets or

operational issues, therefore the vice general managers have to be more familiar with local markets or dealing with daily operations. Thus, the vice general managers were better appointed by host country parents who are familiar with local environments.

According to the above discussion, host country parents were positively and strongly associated with the appointment of vice general managers. In addition, vice general managers were more focused on the operational matters of the joint ventures. Accordingly, the joint ventures also took more responsible for the vice general manager appointment.

Table 6.2.1.4 Appointment of High Level Management of Joint Ventures Made by Parents and Joint Ventures

	Taiwanese parent		Foreign Parent		Joint Venture	
	No	%	No	%	No	%
1. General manager	79	69.30%	75	65.79%	0	0.00%
2. Vice general manager	79	69.91%	35	30.97%	33	29.20%
3. Production manager	31	38.75%	25	31.25%	59	73.75%
4. Marketing manager	32	28.07%	20	17.54%	93	81.58%
5. Financial manager	73	64.04%	25	21.93%	57	50.00%
6. Personnel manager	33	28.95%	17	14.91%	95	83.33%
7. R & D manager	27	34.62%	42	53.85%	41	52.56%
8. Head engineer	11	16.42%	11	16.42%	59	88.06%

Table 6.2.1.4, considers the key function directors but except the general and vice general managers, it shows that the host country parents command stronger control over the appointment of financial directors. This result is consistent with the findings in Table 6.2.1.2, where it reveals that Taiwan headquarters also have stronger power over the capital expenditure decisions. Both findings shown in Table 6.2.1.4 and Table 6.2.1.2 indicate that the host country parents had high intervention in capital expenditure decisions and the appointment of financial directors in their invested company. One possible reason that could explain this phenomenon is that fiscal affairs are an important issue for the host country parents to estimate the performances of their subsidiaries and are also a way to control their resources. Therefore, they had higher intervention in that area.

In the appointment of R&D managers, we also find that the foreign parents have stronger control on this issue; additionally, they also have stronger control in the decision-making regarding product design which is explained in the above section. One possible reason is that foreign parents have better professional skills and superiority in competition of production design and research. Therefore, they master a stronger control in R&D.

On the other aspect, the joint ventures have more power in production, marketing, and the appointment of personnel managers and head engineers. This means that the joint venture has more autonomy in these areas. One possible reason is that these positions involve daily operating actions, and it is more appropriate to let the subsidiary companies deal with this matter, because they require someone who has more practical experience in the operational activities of the company. These results concur with the result of Van Den Bulcke (1986) who finds that the subsidiary has more autonomy on the matter of production and personnel management, but has less autonomy on financial issues •

From the above analysis, one can conclude that most parents appoint personnel to the general manager and vice general manager positions. The purpose of this is to ensure that the policies of the joint venture are followed up and are well practiced by the subsidiary company. From this empirical survey, it is clear that host country parents command stronger control over the appointment of general managers, vice general managers, and financial managers.

However, the foreign parents are the most active in the appointment of R&D managers and general managers. The joint venture companies have more autonomy on the appointment in terms of production, marketing, personnel managers and head engineers. Schaan (1983) argues that parents might choose to exercise control over a relatively broader or narrower scope of the joint venture's activities. Geringer and Hebert (1989) note that effective control should emphasize selective control over some important dimensions rather than attempting to control the entire range of joint venture's activities.

Again, these findings have supported the results suggested by Schaan (1983), Geringer (1986), Geringer and Hebert (1989) and Glaister's (1994) that the joint venture's partners tend to seek control over particular activities of the joint ventures rather than over the whole range of the joint venture's activities.

6.2.1.3 Extent of Control

Killing (1983) defines control in terms of the decision-making role of joint venture management and identifies three types of control, namely, dominant parent, share and independent control. Wu (1994) and Chang (1996) revise the method of clarification of control used by Killing and clarify four kinds of control in their studies, namely, dominant host parent, dominant foreign parent, shared management and independent control. This study adopts Wu (1994) and Chang's (1996) classification to represent the extent of control.

According to following equations and the identification method described in chapter 5.3.8.1.2, the type of control is classified into the following four categories, dominant Taiwanese parent, dominant foreign parent, shared management and independent control.

The score of Taiwanese parent = $\sum S_{1j} + 1/2\sum S_{4j} + 1/2\sum S_{5j} + 1/3\sum S_{7j}$

The score of foreign parent = $\sum S_{2j} + 1/2\sum S_{4j} + 1/2\sum S_{6j} + 1/3\sum S_{7j}$

The score of joint venture = $\sum S_{3j} + 1/2\sum S_{5j} + 1/2\sum S_{6j} + 1/3\sum S_{7j}$

S_1 to S_7 represent the possibilities of decision maker.

j stands for the items of important decisions, $j = 1, 2, \dots, 9$

The results shown in Table 6.2.1.5 compare the percentage of decision-making activities among host country parents, foreign parents and joint ventures. The results show that "Independent control" has the highest percentage, at 42.12%; the next is "Dominant Taiwanese parent control" at 30.7% of the sample. "Dominant foreign parent control"

accounts for 24.6% of the sample. “Shared management control” has the lowest percentage which is only 3.5%.

Table 6.2.1.5 Type of Control Identified by Decision-Making of the Joint Ventures

Decision-making	Frequency	Percent	Cumulative Percent
Dominant Taiwanese parent control	35	30.7	30.7
Dominant Foreign parent control	28	24.6	55.3
Independent control	47	41.2	96.5
Share management control	4	3.5	100
Total	114	100	100

On the other hand, as shown in Table 6.2.1.6, comparing the appointment of high-level managers among host country parents, foreign parents and joint venture, we also find that “Independent control “has the highest percentage at 49.1% of the sample. The second is “Dominant Taiwanese parent control” with 28.9%. “Dominant foreign parent control” represents 20.2% of the sample. The lowest is ”Shared management control”, which is only 1.8%.

Table 6.2.1.6 Type of Control Identified by the Appointment of High-Level Managers of the Joint Ventures

Appointment of high-level manager	Frequency	Percent	Cumulative Percent
Dominant Taiwanese parent control	33	28.9	28.9
Dominant Foreign parent control	23	20.2	49.1
Independent control	56	49.1	98.2
Share management control	2	1.8	100
Total	114	100	100

These results regarding the types of control identified by the appointment of high-level managers are very similar to the results identified by decision-making in the joint venture’s activities. But the factors of “Dominant Taiwanese parent control” and “Dominant Foreign parent control” have a slightly lower percentage when based on the high-level manager appointment than that based on the decision-making of operating activities.

Because the number of “Shared management control” has fewer than five observations, it could not be tested by inferential statistical analysis. To overcome this analysis problem, the data is reclassified into three types of control according to who has the power to appoint the general manager. If the joint venture’s general manager is appointed by the host country parents, in this case it is re-classified to “Dominant Taiwanese parent control”. Using the same criteria, if the type of control in decision-making and the appointment of the high-level manager of the joint venture is re-categorized, the results are shown in Table 6.2.1.7.

Table 6.2.1.7 Type of Control after Reclassification

Type of Control	Decision-making of operating activities		Appointment of high-level managers	
	Frequency	Percent	Frequency	Percent
Dominant Taiwanese parent control	37	32.5	34	29.8
Dominant Foreign parent control	30	26.3	24	21.1
Independent control	47	41.2	56	49.1
Total	114	100	114	100

From the empirical results shown in Table 6.2.1.7, “Independent control” has the highest score on both decision-making of operating activities and the appointment of high-level managers with 41.2% and 49.1% respectively. “Dominant Taiwanese parent control” has about 30% of the sample and “Dominant foreign parent control” has just over 25 percent of the sample on decision-making of operating activities and around 20% on high-level manager’s appointment.

Previous empirical studies indicate that the parents work as “partners” with their joint ventures and seek to control particular activities which they perceive to be critical issues. These results are not consistent with some prior studies and some other studies have different conclusions on this issue (Glaister, 1994; Geringer and Hebert, 1989; Geringer, 1986; Schaan, 1983). The results are puzzling. There are some possible explanations. One possible explanation might be that the different research context resulted in a different management culture in toward their subsidiaries.

Another possible explanation might be assigned to the measurement of control. As argued by Chang (1996), Killing (1983) deems the importance of each decision is equal, but Chang argues that control is not a dichotomous context, it is a continuant idea. Parents seek to control particular activities which they perceive as critical dimensions. Therefore, each decision or activity should be weighted by its importance. This study uses a different method to measure the extent of control by modifying Killing's method and considering the weighting of each activity in which the parents and the joint venture are involved at the same time.

In addition, another possible reason might explain the different results. The joint venture is an independent organization, it has its own objectives and management structures even though the parents are involved in some important decisions. The joint venture still has to be responsible for all the results of its activities. As most joint ventures have been viable for more than 10 years, this might encourage the parents to have trust and credit them to have more autonomy. On the basis of the above analysis, one could conclude that in most international joint ventures in Taiwan, the joint venture has high autonomy to manage the company.

6.2.1.4 The Analysis of Variance between Control and Sample Characteristics

The main goals of this subsection are to analyze the variance between the type of control and the sample characteristic derived from this survey. The sample characteristics include nationality or region, industry, size and the age of host country parents, and the number of board members represented in the joint ventures. Tests are approached using appropriate statistical techniques.

6.2.1.4.1 Nationality / Regions

Logically, different nationalities of foreign parents are expected to exert different types of control in their respective joint ventures. Child et al. (1994b) found in their study of IJV'S in China, Hungary, America, Germany, and Japan that foreign parents of different nationalities tend to exercise control over different activities of joint ventures. For

example, they found that Chinese managers focus more on the production targets of joint ventures. From a study of UK joint ventures with partners from Western Europe, USA and Japan, Glaister (1995) finds that American parent companies tend to have tighter control than European or Japanese companies. Osland (1994), in studying the US-China joint venture's performance, also found that the nationality of foreign partners will affect the extent of control in joint ventures. Thus, it is assumed that the nationality of foreign parents will affect the types of control they exercise over their joint ventures (Glaister, 1995; Osland, 1994; Child et al, 1994b)

The results of this survey are shown in Table 6.2.1.8, based on the type of control identified by decision-making. We find that when the foreign parents are from Singapore, the host country parents have tighter control over the joint ventures. The foreign parents from Hong Kong and Holland have less control over the joint ventures. French foreign parents have tighter control over their joint ventures. When the foreign partners are from the United Kingdom, it shows that either "Dominant foreign parent control" or "Independent control" is adopted by the foreign parents.

When the foreign partners are from Japan and America which represent most of the cases in the sample, there is not a big difference among these three types of control but "Independent control" has a slightly higher preponderance than another two types of control. For example, in the case of Japan which represents the largest proportion of this sample the results show that when the foreign partner is Japanese, the type of control leans more to "Independent control" and followed by "Dominant Taiwanese parent control" and less toward "Dominant Foreign parent control."

Table 6.2.1.8 Cross-tabulation of the Type of Control identified by Decision-Making and Nationality

Nationality	Type of Control Identified by Decision-making			Total
	Dominant Taiwanese parent control	Dominant Foreign parent control	Independent control	
Japan	22(32.35%)	19(27.94%)	27(39.71%)	68
America	8(36.36%)	5(22.73%)	9(40.91%)	22
United Kingdom	0(0.00%)	2(50.00%)	2(50.00%)	4
Hong Kong	1(33.33%)	0(0.00%)	2(66.67%)	3
Singapore	5(83.33%)	0(0.00%)	1(16.67%)	6
Holland	1(20.00%)	1(20.00%)	3(60.00%)	5
Others	0(0.00%)	1(33.33%)	2(66.67%)	3
Total	37(32.46%)	30(26.32%)	47(41.23%)	114

The results are very fragmentary. It might be because some foreign parents only represent few of the examples in this survey, excepting Japan and American. Therefore, from these findings it is not possible make a clear conclusion on the relationship between the type of control and the foreign parent’s nationality.

Since some of the cells have less than 5 samples, some tests could not be performed. This study regroups the countries into three regions according to geographical features and the new result is shown in Table 6.2.1.9. The results are very similar to Table 6.2.1.8.

Table 6.2.1.9 Cross-tabulation of the Type of Control Identified by Decision-Making and Regions
Location of Foreign Partners

Regions	Type of Control identified by Decision-making			Total
	Dominant Taiwanese parent control	Dominant Foreign parent control	Independent control	
Asian countries	28(36.36%)	19(24.68%)	30(38.96%)	77
American countries	8(36.36%)	5(22.73%)	9(40.91%)	22
European countries	1(6.67%)	6(40%)	8(53.33%)	15
Total	37(32.46%)	30(26.32%)	47(41.23%)	114
Chi-Square= 5.4230 D.F. = 4 Significance= 0.2466				

After regrouping, the Chi-Square test could be performed and the null hypothesis (H_0) and alternative hypotheses (H_1) is presented as follows.

H_0 : The origin of foreign parents and the type of control identified by decision-making is independent

H₁: The origin of its foreign parents and the type of control identified by decision-making is associated

The value of χ^2 statistic is 5.423 and the significance is great than 0.05, so the null hypothesis can not be rejected. One could conclude that there is no significant difference between the country of origin of foreign parents and the type of control identified in relation to decision-making.

Same analytical processes are utilised to test the relationship between the type of control in relation to the appointment of high-level managers for the joint ventures and the nationalities of foreign parents. From Table 6.2.1.10, the results are very similar to the results which are described with respect to the type of control identified by decision-making of international joint ventures. But apart from these results, France has the highest control over its joint ventures in terms of the appointment of high-level managers. The two main sources of countries of foreign investment in Taiwan, Japan and America still have a higher proportion on “Independent control”, followed by “Dominate Taiwanese parent control” and have least on “Dominate foreign parent control”. United Kingdom is split equally on “Dominate foreign parent control” and “Independent control.”

Table 6.2.1.10 Cross-tabulation of the Type of Control Identified by High-Level Manager Appointment and Nationality of Foreign Partners

Country	Type of Control identified by High-level Manager Appointment			Total
	Dominant Taiwanese parent control	Dominant Foreign parent control	Independent control	
Japan	21 (30.88%)	15(22.06%)	32(47.06%)	68
American	7(31.82%)	4(18.18%)	11(50.00%)	22
United Kingdom	0(0.00%)	2(50.00%)	2(50.00%)	4
France	0(0.00%)	3(100.00%)	0(0.00%)	3
Hong Kong	1(33.33%)	0(0.00%)	2(66.67%)	3
Singapore	4(6.67%)	0(0.00%)	2(33.33%)	6
Holland	1(20.00%)	0(0.00%)	4(80.00%)	5
Others	0(0.00%)	0(0.00%)	3(100.00%)	3
Total	34(29.82%)	24(21.05%)	56(49.12%)	114

Because some of cells have less than five examples, countries have again been regrouped into three regions. After regrouping the sample the results shown in Table 6.2.1.11 are very similar to the table above. The main source regions of foreign investors, Asian countries and American countries have a higher proportion on “Independent control” followed by “Dominant Taiwanese parent control”. In contrast, European countries have the highest proportion of “Independent control” comparing with Asian countries and American countries, followed by “Dominant Foreign parent control”. The reason might be the distance as described before. Therefore, parents from European countries let their joint ventures have more autonomy or they exercise “Dominant foreign parent control” over their joint ventures.

After regrouping the sample, the Chi-Square test was performed. The value of χ^2 statistic is 4.8315 and the significance is greater than 0.05; therefore, one could conclude that the type of control identified by appointment of high-level managers to international joint ventures and regional location of foreign parents is independent.

Table 6.2.1.11 Cross tabulation of Type of Control Identified by High-level Manager Appointment and Regions Location of Foreign Partners

Regions	Type of Control identified by High-level Manager Appointment			Total
	Dominant Taiwan parent control	Dominant Foreign parent control	Independent control	
Asian countries	26(33.77%)	15(19.48%)	36(46.75%)	77
American countries	7(31.82%)	4(18.18%)	11(50.00%)	22
European countries	1(6.67%)	5(33.33%)	9(60.00%)	15
Total	34(29.82%)	24(21.05%)	56(49.12%)	114
Chi-Square= 4.8315 D.F. = 4 Significance= 0.3050				

From the Chi-Square test, it is therefore concluded that nationalities or regional location of foreign parents is not associated with the type of control, or the control which is identified by decision-making of operating activities and the appointment of high-level managers of international joint ventures.

These results are not consistent with Child and Glaister’s results that the nationalities of foreign parents have different preferences on the joint venture’s control. However, from

this empirical investigation, we find when the foreign parents come from Asian and American countries, the joint ventures have higher autonomy. One possible explanation is the foreign parents from Asia and America have long term cooperative experiences and a close relationship with the host country parents, thus they have replicated their management procedures in Taiwanese companies. Therefore, they have the trust and the confidence to let the joint ventures have more autonomy. In fact, in Taiwan, most company's management skills are learned and replicated from American and Japanese companies. Thus, in the Taiwan context, the nationalities of foreign partners do not affect the type of control exercised over the joint ventures.

6.2.1.4.2 Industry

The relationship between the industry that host country parents involved and the type of control identified by decision-making and high-level manager appointment are tested. The same analytical processes as described above are employed for all the following subsections. In order to launch the Chi-square test for the industry variable, it is classified into two industry groups, namely manufacturing and service. The result from the Chi-square test relating to the industry group of host country parents, and the type of control identified by decision-making is represented in Table 6.2.1.12.

Both of the industry groups of the host country parents have the greatest number of "Independent control", however, the service group has slightly higher percentage than manufacturing group. The value of χ^2 is 1.3216 and the significance is great than 0.05; therefore, it is concluded that the industry groups of the host country parents is not associated with the type of control identified by decision-making.

Table 6.2.1.12 Cross-tabulation of the Type of Control Identified by Decision-Making and the Industry Groups of the Host Country Parents Involved

Industry groups	Type of Control identified by Decision-making			Total
	Dominant Taiwanese parent control	Dominant Foreign parent control	Independent control	
Manufacturing group	30(35.29%)	22(25.88%)	33(38.82%)	85
Service group	7(24.14%)	8(27.59%)	14(48.28%)	29
Total	37(32.46%)	30(26.32%)	47(41.23%)	114
Chi-Square=1.3216 D.F. = 2 Significance= 0.5164				

With regard to the type of control identified by the appointment of high-level managers and the industry group of host country parents, the output from a Chi-square test is depicted in Table 6.2.1.13. The results also show that both industry groups of host country parents have the greatest number of “Independent control”. Also, host country parents from the service industry have the highest percentage on the “Independent control”. The value of χ^2 is 4.19 and the significance is greater than 0.05; therefore, it is concluded that the industry groups of the Taiwanese parents is not associated with the type of control identified by a high-level manager appointment.

Table 6.2.1.13 Cross- tabulation of the Type of Control Identified by High-level Manager Appointment and the Industry Groups of the Host Country Parents Involved

Industry Classification	Type of Control identified by High-level Manager Appointment			Total
	Dominant Taiwanese parent control	Dominant Foreign parent control	Independent control	
Manufacturing group	28(32.94%)	20(23.53%)	37(43.53%)	85
Service group	6(20.69%)	4(13.79%)	19(65.52%)	29
Total	34(29.82%)	24(21.05%)	56(49.12%)	114
Chi-Square=4.1900 D.F. = 2 Significance= 0.1231				

On the basic analysis of the Chi-Square test, one could conclude that the industry group of the host country parents is not associated with the type of control identified by decision-making of operating activities or the appointment of high-level managers of international joint ventures. However, host country parents in the service industry have a higher percentage on the “Independent control” than those in the manufacturing group.

6.2.1.4.3 Size of the Host Country Parents

In this subsection, we conduct an analysis on whether the size of the host country parents would affect the type of control over the joint venture. The size of the host country parents encompasses the three variables of capital, sales volume and the number of employees. The relationship between the type of control and these variables is explained in detail. Firstly, we conduct an analysis of the relationship between the Taiwanese

parent’s capital and the type of control related to decision-making. The output from the Chi-square test is represented in Table 6.2.1.14.

Table 6.2.1.14 Cross-tabulation of the Type of Control Identified by Decision-Making and the Capital of Host Country Parents

Capital Unit: NT\$	Type of Control identified by Decision-making			Total
	Dominate Taiwanese parent control	Dominate Foreign parent control	Independent control	
less than 500 million	6(33.33%)	3(16.67%)	9(50.00%)	18
501 - 5,000 million	10(23.26%)	11(25.58%)	22(51.16%)	43
5,001 - 10,000 million	5(31.25%)	6(37.50%)	5(31.25%)	16
more than 10,000 million	16(43.24%)	10(27.03%)	11(29.73%)	37
Total	37(32.46%)	30(26.32%)	47(41.23%)	114
Chi-Square=6.8110 D.F. = 6 Significance= 0.3387				

As to the results in Table 6.2.1.14, the value of χ^2 is 6.811 and the significance is greater than 0.05; therefore, it is concluded that the Taiwanese parent’s capital was not associated with the type of control identified by decision-making.

But even though the result is not significant, there is a trend showing that host country parents who invest higher capital appear to exercise the “Dominant Taiwanese parent control” more than others. On the other hand, the companies who provide less capital tend to let their joint ventures have more autonomy. Where the host country parents input higher capital this normally signifies that they have more resources and abilities to manage the business by themselves. When they form international joint ventures with foreign partners, they have their special strategic motivations. Therefore, this study infers that at the time when they are exercising higher control over the joint venture, this means that they are ensuring that their strategic objectives are observed and achieved.

Next, we conduct an analysis between the Taiwanese parent’s capital and the type of control identified by the appointment of high-level managers. The output from Chi-square test is presented in Table 6.2.1.15.

Table 6.2.1.15 Cross-tabulation of the Type of Control Identified by High-Level Manager Appointment and the Capital of Host Country Parents

Capital Unit: NT\$	Type of Control identified by High-level Manager Appointment			Total
	Dominant Taiwanese parent control	Dominant Foreign parent control	Independent control	
less than 500 million	7(38.89%)	4(22.22%)	7(38.89%)	18
501 - 5,000 million	8(18.60%)	8(18.60%)	27(62.79%)	43
5,001 - 10,000 million	5(31.25%)	5(31.25%)	6(37.50%)	16
more than 10,000 million	14(37.84%)	7(18.92%)	16(43.24%)	37
Total	34(29.82%)	24(21.05%)	56(49.12%)	114
Chi-Square=6.8422 D.F. = 6 Significance= 0.3357				

The value of χ^2 is 6.8422 and the significance is greater than 0.05; therefore, it is concluded that the Taiwanese parent’s capital is not associated with the type of control in relation to the appointment of high-level managers.

Although the result is not significant and very similar to the result of analysis conducted on the decision-making of operating activities, there reveals part of a different trend. Table 6.2.1.15 shows that at the time when Taiwanese parent’s capital increase, the type of “Independent control” is exercised more, but there is an exception when the companies who are in the NT\$ 501-5,000 million capital group have the highest percentage on “Independent control”.

Secondly, we conducted an analysis between the Taiwanese parent’s sales volume and the type of control identified in relation to decision-making. The output from the Chi-square test is presented in Table 6.2.1.16.

Table 6.2.1.16 Cross-tabulation of the Type of Control Identified by Decision-Making and the Sales Volume of Host Country Parents

Sales Volume Unit: NT\$	Type of Control on Decision-Making			Total
	Dominant Taiwanese parent control	Dominant Foreign parent control	Independent control	
less than 500 million	4(26.67%)	4(26.67%)	7(46.67%)	15
501 - 5,000 million	5(13.51%)	10(27.03%)	22(59.46%)	37
5,001 - 10,000 million	8(50.00%)	4(25.00%)	4(25.00%)	16
more than 10,000 million	20(43.48%)	12(26.09%)	14(30.43%)	46
Total	37(32.46%)	30(26.32%)	47(41.23%)	114
Chi-Square=12.9163 D.F. = 6 Significance= 0.0444* 3 cells (25.0%) have expected count less than 5.				

From the analysis of Table 6.2.1.16, we find that the host country parents who achieved more than 5,001 million NT dollars of sales volume appeared to exercise greater “Dominant Taiwanese parent control” than others. The companies whose sales volume is less than 5,000 million NT dollars tend to adopt a greater degree of “Independent control”.

The value of χ^2 is 12.9163 and the significance is slightly less than 0.05. However, there are 25% of the cells whose expected count is less than 5. Therefore, the G -Square Test is used instead of the Chi-Square Test detailed in chapter 5.3.10.2. The G^2 statistic is obtained by the formula and will be used in the relevant sections.

$$G^2 = 2 \sum n_{ij} \log \left(\frac{n_{ij}}{\hat{u}_{ij}} \right)$$

u_{ij} : the expected value of n_{ij} assuming independence.

\hat{u}_{ij} : estimated expected frequencies.

As shown in Table 6.2.1.17, the value of G^2 statistic is 13.6402 and the significance is less than 0.05. Therefore, it is concluded that the Taiwanese parent’s sales volumes are associated with the type of control in relation to decision-making. The host country parents with higher sales volumes tend to have higher control over the joint venture. In other words, the host country parents who have lower sales volume have more “Independent control”. One possible reason might be the same as described in the discussion relating to the capital provided by the host country parents. Host country parents might have their special objectives for forming international joint ventures and therefore desired stronger control over their joint ventures to ensure their objectives are achieved.

Table 6.2.1.17 G-Squared Test of the Type of Control of Host Country Parents Identified by Decision-Making and Sales Volumes of Host Country Parents

Sales Volume Unit: NT\$		Type of Control on Decision-Making		
		Dominant Taiwanese parent control	Dominant Foreign parent control	Independent control
less than NT\$500 million	Count	4	4	7
	Expected Count	4.87	3.95	6.18
NT\$501 - 5,000 million	Count	5	10	22
	Expected Count	12.01	9.74	15.25
NT\$5,001 - 10,000 million	Count	8	4	4
	Expected Count	5.19	4.21	6.60
more than NT\$10,000 million	Count	20	12	14
	Expected Count	14.93	12.11	18.96
G-Square=13.6402 D.F. = 6 Significance= 0.0339*				

Regarding the type of control identified by the appointment of high level managers and the sales volume of the host country parents, the output from Chi-square test and G-square test is represented in Table 6.2.1.18.

Table 6.2.1.18 Cross-tabulation of the Type of Control Identified by High-Level Manager Appointment and the Sales Volume of Host Country Parents

Sales volume Unit: NT\$	Type of Control identified by High-level manager Appointment			Total
	Dominant Taiwanese parent control	Dominant Foreign parent control	Independent control	
less than 500 million	6(40.00%)	5(33.33%)	4(26.67%)	15
501 - 5,000 million	3(8.11%)	8(21.62%)	26(70.27%)	37
5,001 - 10,000 million	8(50.00%)	3(18.75%)	5(31.25%)	16
more than 10,000 million	17(36.96%)	8(17.39%)	21(45.65%)	46
Total	34(29.82%)	24(21.05%)	56(49.12%)	114
Chi-Square=16.8147 D.F. = 6 Significance= 0.0100*				
4 cells (33.3%) have expected count less than 5.				
G-Square=16.6645 D.F. = 6 Significance= 0.0048*				

The value of G^2 is 16.6645 and the significance is less than 0.05; therefore, we might conclude that the Taiwanese parent’s sales volumes are associated with the type of control identified by a high-level manager appointment.

Thirdly, we conducted an analysis of the number of employees of the host country parents and the type of control identified in relation to Decision-making. The output from the Chi-square test is represented in Table 6.2.1.19.

Table 6.2.1.19 Cross-tabulation of Type of Control Identified by Decision-Making and Taiwanese Parent’s Employee Numbers

Number of employee	Type of Control identified by Decision-making			Total
	Dominant Taiwanese parent control	Dominant Foreign parent control	Independent control	
less than 200	4(19.05%)	4(19.05%)	13(61.90%)	21
201 - 500	4(18.18%)	7(31.82%)	11(50.00%)	22
501-1000	8(33.33%)	8(33.33%)	8(33.33%)	24
more than 1000	21(44.68%)	11(23.40%)	15(31.91%)	47
Total	37(32.46%)	30(26.32%)	47(41.23%)	114
Chi-Square=0.9293 D.F. = 6 Significance= 0.1277				

The value of χ^2 is 0.9293 and the significance is greater than 0.05; therefore, it is concluded that the number of employees in the Taiwanese parent company is not associated with the type of control identified in relation to decision-making. Although the result is not significant, Table 6.2.1.18 shows that most host country parents exercise “Independent control” over their joint ventures.

With regard to the type of control identified by the appointment of high-level managers and the number of employees in the Taiwanese parent company, the output from the Chi-square test is represented in Table 6.2.1.20.

Table 6.2.1.20 Cross-tabulation of the Type of Control Identified by High-Level Manager Appointment and Taiwanese Parent’s Employee Numbers

Number of employee	Type of Control identified by High-level Manager Appointment			Total
	Dominant Taiwanese parent control	Dominant Foreign parent control	Independent control	
less than 200	4(19.05%)	4(19.05%)	13(61.90%)	21
201 - 500	5(22.73%)	4(18.18%)	13(59.09%)	22
501-1000	8(33.33%)	6(25.00%)	10(41.67%)	24
more than 1000	17(36.17%)	10(21.28%)	20(42.55%)	47
Total	34(29.82%)	24(21.05%)	56(49.12%)	114
Chi-Square=4.0560 D.F. = 6 Significance= 0.6691				

The value of χ^2 is 4.056 and the significance is greater than 0.05; therefore, it is concluded that the number of employees in the Taiwanese parent company is not associated with the type of control identified by high-level manager appointment. Again, the result is not significant; however, it shows that all the host country parents exercised “Independent control” over their joint venture. Also, there is a trend apparent when the number of employees in the Taiwanese parent company increased a smaller proportion of “Independent control” is exercised.

In sum, from the above analysis on the relationship between the capital, sales volume, the number of employees and the type of control identified in relation to decision-making and the appointment of high-level managers, most of the results are not significant except for the sales volume. Therefore, according to the above analysis, one can conclude that the size of the host parent company did not affect the type of control they exercised over their joint ventures. The results of this survey show that when the host country parents are bigger, the less “Independent control” they employ and more “Dominant Taiwanese parent control” they possess.

6.2.1.4.4 Ages of the Host Country Parents and Joint Ventures

This subsection conducted an analysis of whether the age of the host country parents affects the type of control they exercise over the joint ventures and whether the age of a joint venture affects its parent’s control. First, we conducted an analysis between the Taiwanese parent’s ages and the type of control identified in relation to decision-making. The output from the Chi-square test is represented in Table 6.2.1.21.

Table 6.2.1.21 Cross-tabulation of the Type of Control Identified by Decision-Making and Ages of Host Country Parents

Age of the host country parents	Type of Control identified by Decision-making			Total
	Dominant Taiwanese parent control	Dominant Foreign parent control	Independent control	
1-5 years	1(50.00%)	0(.00%)	1(50.00%)	2
6-10 years	1(25.00%)	2(50.00%)	1(25.00%)	4
11-20 years	4(26.67%)	2(13.33%)	9(60.00%)	15
21-30 years	5(20.83%)	9(37.50%)	10(41.67%)	24
more than 30 years	26(37.68%)	17(24.64%)	26(37.68%)	69
Total	37(32.46%)	30(26.32%)	47(41.23%)	114
Chi-Square=7.333 D.F. = 8 Significance= 0.5011				

As the results of Table 6.2.1.21 show, the value of χ^2 is 7.333 and the significance is greater than 0.05; therefore, it is concluded that the age of Taiwanese parents ages is not associated with the type of control identified by decision-making. However, the results show that there is a trend that host country parents who have a longer history appear to have less “Independent control” than others. The companies who are younger tend to let their joint ventures have more autonomy.

Next, we analyzed the relationship between the age of the Taiwanese parents and the type of control identified relative to the appointment of high-level managers. The output from the Chi-square test is represented in Table 6.2.1.22.

Table 6.2.1.22 Cross-tabulation of the Type of Control Identified by High-Level Manager Appointment and Ages of Host Country Parents

Ages of the host country parents	Type of Control identified by High-Level manager appointment			Total
	Dominant Taiwanese parent control	Dominant Foreign parent control	Independent control	
1-5 years	1(50.00%)	1(50.00%)	0(0.00%)	2
6-10 years	1(25.00%)	2(50.00%)	1(25.00%)	4
11-20 years	2(13.33%)	1(6.67%)	12(80.00%)	15
21-30 years	6(25.00%)	6(25.00%)	12(50.00%)	24
more than 30 years	24(34.78%)	14(20.29%)	31(44.93%)	69
Total	34(29.82%)	24(21.05%)	56(49.12%)	114
Chi-Square=11.106 D.F. = 8 Significance= 0.1958				

The value of χ^2 is 11.106 and the significance is greater than 0.05; therefore, it is concluded that the Taiwanese parent’s age is not associated with the type of control identified by high-level manager’s appointment. However the results show that when the Taiwanese parent’s age increases, “Independent control” is exercised more, except for the companies that are younger than 5 years.

Then, we conducted the analysis of the relationship between the age of joint ventures and the type of control identified in relation to decision-making. The output from Chi-square test is represented in Table 6.2.1.23.

The value of χ^2 is 4.113 and the significance is greater than 0.05; therefore, it is concluded that the joint venture's ages was not associated with the type of control identified by decision-making. However, the results reveal that when the age of joint ventures increases, more "Independent control" is exercised by its parents.

Table 6.2.1.23 Cross-tabulation of the Type of Control identified by Decision-Making and Ages of the Joint Ventures

Ages of the Joint Ventures	Type of Control identified by Decision-making			Total
	Dominant Taiwanese parent control	Dominant Foreign parent control	Independent control	
1-5 years	7(29.17%)	7(29.17%)	10(41.67%)	24
6-10 years	9(34.62%)	7(26.92%)	10(38.46%)	26
11-20 years	14(35.00%)	11(27.50%)	15(37.50%)	40
21-30 years	4(40.00%)	3(30.00%)	3(30.00%)	10
more than 30 years	3(21.43%)	2(14.29%)	9(64.29%)	14
Total	37(32.46%)	30(26.32%)	47(41.23%)	114
Chi-Square=4.113 D.F. = 8 Significance= 0.8468				

With regard to the type of control identified by the appointment of high-level managers and the age of joint ventures, the output from the Chi-square test is represented in Table 6.2.1.24.

Table 6.2.1.24 Cross-tabulation of the Type of Control Identified by High-Level Manager Appointment and Ages of the Joint Ventures

Ages of the Joint Ventures	Type of Control identified by High-level Manager Appointment			Total
	Dominant Taiwanese parent control	Dominant Foreign parent control	Independent control	
1-5 years	5(20.83%)	5(20.83%)	14(58.33%)	24
6-10 years	7(26.92%)	7(26.92%)	12(46.15%)	26
11-20 years	13(32.50%)	7(17.50%)	20(50.00%)	40
21-30 years	4(40.00%)	3(30.00%)	3(30.00%)	10
more than 30 years	5(35.71%)	2(14.29%)	7(50.00%)	14
Total	34(29.82%)	24(21.05%)	56(49.12%)	114
Chi-Square=3.3946 D.F. = 8 Significance= 0.8665				

The value of χ^2 is 3.3946 and the significance is greater than 0.05; therefore, it is concluded that the joint ventures' age were not associated with the type of control identified by high-level manager appointment. However, the results show all the joint

ventures have relatively high autonomy, except for the companies who are in the 21-30 years group.

6.2.1.5 The Number of Board Members

This subsection examines the relationship between the control of host country parents in relation to decision-making, the appointment of high-level managers and the number of board members in joint ventures. The number of board members percentage was recalculated based on the number of the Taiwanese parent’s, or foreign parent’s board members divided by the total number of board members. The percentage of Taiwanese parent’s and foreign parent’s seats on the board is equal to one. In order to launch the suitable statistical methods, the percentage of board members were classified into the following three groups: less than 50%, equal 50%, and more than 50%. The Chi square test was launched and the results are shown in Table 6.2.1.25 and Table 6.2.1.26.

Table 6.2.1.25 Cross-tabulation of Control Type of Host Country Parents Identified by Decision-Making and the Percentage of Board Members in Joint Ventures

Percentage of board members	Type of Control identified by decision-making			Total
	Dominant Taiwanese parent control	Dominant Foreign parent control	Independent control	
less than 50%	7(25.93%)	16(59.26%)	4(14.81%)	27
equal 50%	8(30.77%)	10(38.46%)	8(30.77%)	26
more than 50%	22(36.07%)	4(6.56%)	35(57.38%)	61
Total	37(32.46%)	30(26.32%)	47(41.23%)	114
Chi-Square= 31.381 D.F. = 4 Significance= 0.0000* 0 cells (.0%) have expected count less than 5.				

In Table 6.2.1.25, the value of χ^2 is 31.381 and the significance is less than 0.05. These results indicate that the Taiwanese parent’s control has a significant relationship to the percentage of board members in joint ventures. When the percentage is less than 50%, this group has the highest proportion of “Dominant Foreign parent control”. When percentage is equal to 50%, these groups have a slightly higher proportion of “Dominant Foreign parent control,” while the “Dominant Taiwanese parent control” and “Independent control” have the same proportion. If the percentage is more than 50%, then “Independent control” has the highest proportion. These results reveal that the

higher the percentage of board members that host country parents have, the more they exercise “Independent control” over the joint venture.

Table 6.2.1.26 Cross-tabulation of Control Type of Host Country Parents Identified by High-level Manager Appointment and the Percentage of Board Members in Joint Ventures

Percentage of board members	Type of Control identified by high-level manager appointment			Total
	Dominant Taiwanese parent control	Dominant Foreign parent control	Independent control	
less than 50%	5(18.52%)	11(40.74%)	11(40.74%)	27
equal 50%	6(23.08%)	8(30.77%)	12(46.15%)	26
more than 50%	23(37.70%)	5(8.20%)	33(54.10%)	61
Total	34(29.82%)	24(21.05%)	56(49.12%)	114
Chi-Square= 14.491 D.F. = 4 Significance= 0.0059* 0 cells (.0%) have expected count less than 5.				

In Table 6.2.1.26, the value of χ^2 is 14.491 and the significance is less than 0.05. These results indicate that the Taiwanese parent’s control type as identified by a high-level manager appointment has a significant relationship with the percentage of board members in joint ventures. No matter how high the percentage of board members of the host country parents, most allow “Independent control” over the joint venture.

From Table 6.2.2.25 and Table 6.2.2.26, we find that there is a significant relationship between Taiwanese parent control types and the percentage of board members in their joint ventures. The higher the percentage of board members that host country parents have, the more “Independent control” they exercise over joint ventures. The phenomenon could be explained by host country parents letting joint ventures have more autonomy but at the same time, they use their representatives among the joint venture’s board members to control the joint venture.

A summary of analysis results between the Taiwanese parent’s control and the sample characteristics is provided in Table 6.2.2.27.

Table 6.2.2.27 Summary of the Relationship between the Taiwanese Parent’s Control and Sample Characteristics

Sample Characteristics	Host country parents	
	Type of control identified by decision-making	Type of control identified by high-level manager appointment
Regions of foreign partners Asian countries American countries European countries	No association	No association
Industry groups Manufacturing group Service group	No association	No association
Size Sales Volume Capital Number of employees	$G^2=13.6402$ $p=0.0339^*$ No association No association	$G^2=18.6645$ $p=0.0048^*$ No association No association
Age Host country parents Joint ventures	No association No association	No association No association
Number (percentage) of board members	$\chi^2=14.491$ $P=0.0059^*$	$\chi^2=31.381$ $P=0.0000^*$

As a whole, the results of this empirical survey have indicated that there are associations between the Taiwanese parent’s control, the sales volumes of host country parents, and the percentage of parent’s board members in joint ventures. Although, there are no associations between the Taiwanese parent’s control and the host country parent’s industry category, the region of the foreign partners, the capital or the number of employees of the host country parents and the ages of the host country parents and the joint ventures.

From the above analysis, the relationship between the sample characteristics and the type of control in relation to decision-making and the appointment of high-level managers, in summation, most of the results are not significant, except the sales volume of host country parents and the percentage of board members.

These results reveal that the Taiwanese parent’s sales volumes are associated with the type of control identified by decision-making and a high-level manager appointment. Higher sales volume the host country parents have, higher “Dominant Taiwanese parent control” they exercise over the joint venture. The result indicates that the host country

parents tend to have stronger control over the joint ventures. In other words, the host country parents who have smaller sales volumes, have greater “Independent control”.

The results also reveal that there is a significant relationship between Taiwanese parent control types and the percentage of their board members in their joint ventures. The higher the percentage of board members, the more “Independent control” host country parents exercise in joint ventures.

These results could partly explain why some important sample characteristics have an important influence on the control types employed by host country parents over joint ventures. Next, we conducted an analysis of ownership and its relation with sample characteristics.

6.2.2 Empirical Results of Ownership

The extent of host country parent’s and foreign parent’s equity in joint ventures is examined first in this subsection, and a test is employed to measure the different extent of both parents’ equity shares in joint ventures. The relationship between the Taiwanese parent’s equity share and the sample characteristics are tested. The results of the relevant statistical tests are described in the relevant subsections.

6.2.2.1 Empirical Results

Beamish (1985) classifies three categories of ownership of multinational joint venture in developing countries. This study applies his classification of ownership and categorises the equity shareholding into three groups, namely, majority equity (more than 50), equal equity (50-50) and minority equity (less than 50). The degree of Taiwanese parent’s equity shareholding in international joint ventures is shown in Table 6.2.2.1.

Table 6.2.2.1 Paired-Samples T Test of Equity Shareholding of Parents

Equity Shareholding	Cases	Mean	Std Dev	t	df	2-Tail Sig.
Host country parents	114	41.15	16.72	-2.135	113	0.035*
Foreign parents	114	46.64	16.02			

* $\alpha = 0.01$

The mean equity shareholding of host country parents is 41.15% and the mean equity shareholding of foreign parent is 46.64%. The computed value of *t* test shows that the mean equity shareholding is significantly different between the host country parents and foreign parents ($p < 0.05$), but both parents have minority shareholdings in the ventures.

Next, equity shareholding is classified into three groups: majority equity (greater than 50), equal equity (50-50) and minority equity (less than 50). The results of Table 6.2.2.2, show that either host country parents or foreign parents have less than 50 %of equity shareholding in joint ventures, about a half of the sample. Both only have one quarter of the sample with more than 50 % equity shareholding in joint ventures. The proportion of 50-50 equity shareholding in joint ventures is the lowest percentage for both parents.

Table6.2.2.2 Descriptive Statistics of Equity Shareholding of Parents

Equity Shareholding	Host country parents		Foreign parents	
	Frequency	Percent	Frequency	Percent
less than 50	67	58.80	57	50.00
50=50	18	15.80	22	19.30
more than 50	29	25.40	35	30.70
Total	114	100.00	114	100.00

These results are similar to the results of the survey which was conducted by the Investment Commission of the Ministry of Economic Affairs on the equity structure of all the overseas and foreign investments in Taiwan. This government report indicates that most equity structures of overseas Chinese and foreign investors are joint ventures and most of them hold less than 50% equity shareholding in joint ventures. The results of this empirical survey are consistent with the results of the government report. Thus,

we conclude that most parents have minority shareholdings (less than 50%) in the joint ventures, but the host country parents have slightly less equity shareholding than the foreign parents.

6.2.2.2 The Analysis of Variance between Equity Share and Sample Characteristics

The main goals of this subsection are to analyze the variance between equity share of host country parents and the sample characteristics. The characteristics include regions, industry, size, age of host country parents and the number of individuals on the boards in the joint ventures. Appropriate statistical techniques are employed to test their relationship.

6.2.2.2.1 Regions

As described in chapter 5.5.4.2, the three major nationalities of foreign partners are Japanese, American and Singaporean. Asian countries were the major regional sources of foreign investment in Taiwan. When host country parents cooperated with these foreign partners, does ownership create a significant difference among different nationalities? An analysis was conducted to answer the question. The ANOVA test was employed and the results are shown in Table 6.2.2.3.

Table 6.2.2.3 ANOVA Test of Taiwanese Parent’s Equity Shareholding in Joint Ventures and the Source Regions of Foreign Parents

Regions	Taiwanese parent's equity shareholding in joint ventures				
	No	Mean	Std. Deviation	F	Sig.
Asian countries	77	42.4681	16.5901	0.9236	0.4001
American countries	22	39.7859	16.7050		
European countries	15	36.3707	17.5455		
Total	114	41.1482	16.7239		

From the results shown in Table 6.2.2.3, we find that host country parents who cooperate with Asian partners have a higher equity shareholding in joint ventures than

partners from other region’s countries. No matter which foreign partner the host country parents cooperates with, the average equity shareholding in joint ventures is less than 50%. From the output of the ANOVA computation, the significance is greater than 0.05; therefore, it is concluded that the origin of the foreign partner’s and equity shareholding held by host country parents, is independent. In other words, the nationalities or origins of foreign parents do not affect the equity shareholding of host country parents.

The same analytical procedures were undertaken to measure the relationship between foreign parent’s equity shareholding in joint ventures and the origins of foreign parents. The results are shown in Table 6.2.2.4.

Table 6.2.2.4 ANOVA test of Foreign Parent’s Equity Shareholding in Joint Ventures and Source Regions of Foreign Parents

Regions	Foreign parent's equity shareholding in joint ventures				
	No	Mean	Std. Deviation	F	Sig.
Asian countries	77	46.4335	16.7152	0.1057	0.8998
American countries	22	46.1464	12.3488		
European countries	15	48.4000	17.9157		
Total	114	46.6368	16.0158		

As shown in Table 6.2.2.4, the results indicate that the significance is greater than 0.05; therefore, there isn’t any relationship between the foreign parent’s equity shareholding in joint ventures and the origins of foreign parents. From the Table 6.2.2.4, for those foreign parents from European countries, the average of the foreign parent’s equity shareholding in joint ventures is higher than for other countries. One possible explanation for these results is that European countries are far from Taiwan and parents from European countries have entered the Taiwan market late, so they might have higher equity shareholding in joint ventures in order to control the joint ventures to achieve their objectives.

The above analysis is based on the parent’s equity shareholding in joint ventures and the results reveal that there is no significant difference between the parent’s equity shareholding and nationalities or origins of foreign partners.

The next analysis is based on the ownership type of the host country parents in joint ventures. The results are shown in Table 6.2.2.5, the value of χ^2 statistic is 10.5909 and the significance is less than 0.05; therefore, it was concluded that the origins of foreign partners is associated with the ownership type of host country parents.

Table 6.2.2.5 Cross-tabulation of the Type of Ownership of Host Country Parents and Regions of Foreign Partners

Regions	Type of ownership of Host country parents			Total
	Minority equity	Equal equity	Majority equity	
Asian countries	44(57.14%)	8(10.39%)	25(32.47%)	77
American countries	12(54.55%)	7(31.82%)	3(13.64%)	22
European countries	11(73.33%)	3(20.00%)	1(6.67%)	15
Total	67(58.77%)	18(15.79%)	29(25.44%)	114
Chi-Square= 10.5909 D.F. = 4 Significance= 0.0316* 3 cells (33.3%) have expected count less than 5. G-Square= 10.9156 D.F. = 4 Significance= 0.0275*				

From Table 6.2.2.5, we could find that no matter which regions its foreign partners come from, the occurrence of the minority equity type of host country parent has the highest percentage. However, when the foreign partners are from the European region, the host country parents have a higher proportion of minority equity type than other two types. For the foreign partners from the American region, the host country parents have around 32% on equal equity type. When foreign partners are from Asian countries, the host country parents have the highest proportion of minority equity and follow by the majority equity.

The Chi-Square Test was employed and the results shown in Table 6.2.2.6. The value of χ^2 statistic is 10.7728 and the significance is less than 0.05. However, there are 33.3% of cells that have an expected count of less than 5. Therefore, the G-Square Test was employed.

Table 6.2.2.6 G-Squared Test of the Type of Ownership of Host Country Parents and Regions of Foreign Partners

		Minority equity	Equal equity	Majority equity	Total
Asian countries	Count	44	8	25	77
	Expected Count	45.25	12.16	19.59	77
American countries	Count	12	7	3	22
	Expected Count	12.93	3.47	5.60	22
European countries	Count	11	3	1	15
	Expected Count	8.82	2.37	3.82	15
G-Square= 10.9156 D.F. = 4 Significance= 0.0275*					

As shown in Table 6.2.2.6, the value of the G^2 statistic is 10.7728 and the significance is less than 0.05. Thus, it was concluded that the source regions of foreign parents are associated with the ownership type of Taiwan parents. In other words, Taiwanese parent's ownership type is different when their foreign partners are from different regions.

Next, the same analytical process was launched to measure the relationship between the source regions of foreign parents and the type of ownership of foreign parents. The results are shown in Table 6.2.2.7.

Table 6.2.2.7 Cross-tabulation of the Type of Ownership of Foreign Parents and Regions of Foreign Partners

Regions	Type of ownership of foreign parents			Total
	Minority equity	Equal equity	Majority equity	
Asian countries	42(54.55%)	9(11.69%)	26(33.77%)	77
American countries	11(50.00%)	7(31.82%)	4(18.18%)	22
European countries	4(26.67%)	6(40.00%)	5(33.33%)	15
Total	57(50.00%)	22(19.30%)	35(30.70%)	114
Chi-Square= 10.7728 D.F. = 4 Significance= 0.0292* 3 cells (33.3%) have expected count less than 5.				

In Table 6.2.2.7, the results show that foreign parents who came from European countries had the highest proportion of the equal equity type. On the other hand, foreign parents coming from Asian countries have a higher proportion of the minority equity type and follow by the majority equity type. Furthermore, foreign parents from

American countries had the highest proportion of the minority equity type and followed by equal equity type.

As described above, there are 33.3% of cells that have an expected count of less than 5; therefore, the *G*-Square Test was employed. The result of the *G*-Square Test is shown in Table 6.2.2.8.

Table 6.2.2.8 *G*-Squared Test of the Type of Ownership of Foreign Parents and Regions of Foreign Partners

		less than 50	50=50	more than 50	Total
Asian countries	Count	42	9	26	77
	Expected Count	38.50	14.86	23.64	77
American countries	Count	11	7	4	22
	Expected Count	11.00	4.25	6.75	22
European countries	Count	4	6	5	15
	Expected Count	7.50	2.89	4.61	15
<i>G</i> -Square= 10.5797 D.F. = 4 Significance= 0.0317*					

As shown in Table 6.2.2.8, the value of the *G*² statistic is 10.5797 and the significance is less than 0.05. Thus, we concluded that the source regions of foreign parents are associated with the type of ownership of foreign parents. In other words, foreign parent’s ownership types are different when foreign partners are from different regions.

6.2.2.2.2 Industry

This subsection analyzes the relationship between the Taiwanese parent’s equity shareholding in joint ventures and industry groups in which host country parents are involved. This study reclassifies industries into manufacturing and service groups. The results are shown in Table 6.2.2.9.

Table 6.2.2.9 ANOVA test of the Taiwanese Parent’s Equity Shareholding in Joint Ventures and Industry Groups

Industry groups	Taiwanese parent's equity shareholding in joint ventures				
	No	Mean	Std. Deviation	F	Sig.
Manufacturing group	85	40.5161	17.5672	0.4750	0.4921
Service group	29	43.0007	14.0768		
Total	114	41.1482	16.7239		

From the results shown in Table 6.2.2.9, we found that the average Taiwanese parent’s equity shareholding in joint ventures is less than 50%, no matter in which industry group they are involved. The output of the ANOVA computation, shows that the significance is greater than 0.05; therefore, one could conclude that the Taiwanese parent’s equity shareholding and their industry group are independent.

Next, the relationship between the industry groups and the type of ownership of host country parents was tested. The type of ownership was classified into majority equity, equal equity, and minority equity. The results are shown in Table 6.2.2.10.

Table 6.2.2.10 Cross-tabulation of the Type of Ownership of Host Country Parents and Industry Groups

Industry groups	Type of ownership of Host country parents identified by equity shareholding in joint ventures			Total
	Minority equity	Equal equity	Majority equity	
Manufacturing group	51(60.00%)	15(17.65%)	19(22.35%)	85
Service group	16(55.17%)	3(10.34%)	10(34.48%)	29
Total	67(58.77%)	18(15.79%)	29(25.44%)	114
Chi-Square= 2.0666 D.F. = 2 Significance= 0.3558				

The value of the χ^2 statistic is 2.0666 and the significance is greater than 0.05; therefore, it was concluded that the type of ownership of the host country parents is not associated with their industry group.

From the above analysis, we conclude that the Taiwanese parent’s equity shareholding in joint ventures and their industry group is not associated. Also the most common type of ownership stake employed by the host country parents is minority equity.

6.2.2.2.3 Size of Host Country Parents

This subsection conducted the relationship analysis between the size of host country parents and their equity shareholding in joint ventures. The size of host country parents is analyzed using capital, sales volume and the number of employees. The ANOVA test was launched to test the relationship between the size of host country parents and their equity shareholding in joint ventures. The results are shown in Table 6.2.2.11, Table 6.2.2.12 and Table 6.2.2.13.

Table 6.2.2.11 The ANOVA Test of Taiwanese Parent’s Equity Shareholding in Joint Ventures and its Capital

Capital Unit: NT\$	Taiwanese parent's equity shareholding in joint ventures				
	No	Mean	Std. Deviation	F	Sig.
less than 500 million	18	39.2956	14.4072	2.0148	0.1160
501 - 5,000 million	43	37.1830	18.3604		
5,001 - 10,000 million	16	47.3238	13.7004		
more than 10,000 million	37	43.9870	16.2071		
Total	114	41.1482	16.7239		

Table 6.2.2.12 The ANOVA Test of Taiwanese Parent’s Equity Shareholding in Joint Ventures and its Sales Volume

Sales Volume Unit: NT\$	Taiwanese parent's equity shareholding in joint ventures				
	No	Mean	Std. Deviation	F	Sig.
less than 500 million	15	36.5813	15.0160	6.6057	0.0004*
501 - 5,000 million	37	33.6786	17.5997		
5,001 - 10,000 million	16	51.6638	10.4633		
more than 10,000 million	46	44.9878	15.5137		
Total	114	41.1482	16.7239		

Table 6.2.2.13 The ANOVA Test of Taiwanese Parent’s Equity Shareholding in Joint Ventures and its Number of Employees

Number of employees	Taiwanese parent's equity shareholding				
	No	Mean	Std. Deviation	F	Sig.
less than 200	21	37.5010	15.7854	2.4126	0.0706
201 - 500	22	37.4791	18.9683		

501-1000	24	38.0413	16.8600		
more than 1000	47	46.0817	15.1632		
Total	114	41.1482	16.7239		

The results of the ANOVA computation shown in Table 6.2.2.11, Table 6.2.2.12 and Table 6.2.2.13, show only the sales volume and the Taiwanese parent’s equity shareholding has a strong relationship, the significance is less than 0.05. The host country parents whose sales volume is between NT\$5,001 - 10,000 million, have the highest equity shareholding in their joint ventures. In other words, they have the majority equity type of ownership. Host country parents in other sales volume groups had the minority ownership type.

These results reveal that the capital and the number of employees are not associated with the Taiwanese parent’s equity shareholding in joint ventures. However, when we analyzed the average of equity shareholding, we found that there was a trend. The bigger the capital, sales volume and the greater the number of employees in the host country parent company, the higher the equity shareholding they hold in joint ventures.

Next, we examined the relationship between the ownership type of host country parents and their capital, sales volume, and number of employees. The results are shown in Table 6.2.2.14, Table 6.2.2.15, and Table 6.2.2.16.

The output of X^2 tests from the three tables above, shows that the significance of each is greater than 0.05. The results reveal that the capital, sales volume and the number of employees are not associated with the ownership types of Taiwanese parent. From these three tables, we only found a rough phenomenon that the smaller host country parents have more minority equity types, and the larger host country parents have more minority equity types and majority types.

Table 6.2.2.14 The ANOVA Test of Taiwanese Parent’s Equity Shareholding in Joint Ventures and its Capital

Capital Unit: NT\$	Type of ownership of Host country parents			Total
	Minority equity	Equal equity	Majority equity	
less than 500 million	11(61.11%)	2(11.11%)	5(27.78%)	18

501 - 5,000 million	30(69.77%)	7(16.28%)	6(13.95%)	43
5,001 - 10,000 million	7(43.75%)	4(25.00%)	5(31.25%)	16
more than 10,000 million	19(51.35%)	5(13.51%)	13(35.14%)	37
Total	11(61.11%)	2(11.11%)	5(27.78%)	18
Chi-Square= 6.9478 D.F. = 6 Significance= 0.3257				

Table 6.2.2.15 The ANOVA Test of Taiwanese Parent’s Equity Shareholding in Joint Ventures and its Sales Volumes

Sales Volumes Unit: NT\$	Type of ownership of Host country parents			Total
	Minority equity	Equal equity	Majority equity	
less than 500 million	10(66.67%)	2(13.33%)	3(20.00%)	15
501 - 5,000 million	27(72.97%)	5(13.51%)	5(13.51%)	37
5,001 - 10,000 million	6(37.50%)	3(18.75%)	7(43.75%)	16
more than 10,000 million	24(52.17%)	8(17.39%)	14(30.43%)	46
Total	67(58.77%)	18(15.79%)	29(25.44%)	114
Chi-Square= 8.1467 D.F. = 6 Significance= 0.2276				

Table 6.2.2.16 The ANOVA Test of Taiwanese Parent’s Equity Shareholding in Joint Ventures and its Number of Employees

Number of employees	Type of ownership of Host country parents			Total
	Minority equity	Equal equity	Majority equity	
less than 200	15(71.43%)	2(9.52%)	4(19.05%)	21
201 - 500	13(59.09%)	4(18.18%)	5(22.73%)	22
501-1000	18(75%)	2(8.33%)	4(16.67%)	24
more than 1000	21(44.68%)	10(21.28%)	16(34.04%)	47
Total	67(58.77%)	18(15.79%)	29(25.44%)	114
Chi-Square= 8.0736 D.F. = 6 Significance= 0.2328				

From the above analysis, one concludes that the Taiwanese parent’s equity shareholding in the joint venture and their sales volumes is associated. The higher the sales volume of host country parents, the higher equity shareholding in joint ventures they hold. Additionally, host country parents with bigger capital and a larger number of employees also have higher equity shareholding in their joint ventures. However, there is no association between the equity types of host country parents and the capital, sales volumes, and the number of their employees.

6.2.2.2.4 Ages of the Host Country Parents and Joint Ventures

This subsection conducted the analysis of whether the age of host country parents and their joint ventures has a relationship to the Taiwanese parent’s equity shareholding in their joint ventures or not. Firstly, the relationship between age of host country parents

and their equity shareholding in joint ventures was tested. The results of the ANOVA test are shown in Table 6.2.2.17, and the significant is greater than 0.05. Thus, one concludes that the Taiwanese parent’s equity shareholding in joint venture and their ages was not associated.

Table 6.2.2.17 The ANOVA Test of Taiwanese Parent’s Equity Shareholding in Joint Ventures and its Ages

Age of host country parents	Taiwanese parent's equity shareholding in joint ventures				
	No	Mean	Std. Deviation	F	Sig.
1-5 years	2	52.5000	3.5355	0.5202	0.7211
6-10 years	4	45.3750	12.3381		
11-20 years	15	37.8707	18.9209		
21-30 years	24	39.4867	19.0770		
more than 30 years	69	41.8645	15.8862		
Total	114	41.1482	16.7239		

Next, the relationship between the age of joint ventures and their Taiwanese parent’s equity shareholding was tested. The results of the ANOVA test are shown in Table 6.2.2.18, and the significant is also greater than 0.05. Thus, one concludes that the Taiwanese parent’s equity shareholding in the joint venture and the age of their joint ventures was not associated.

Table 6.2.2.18 The ANOVA Test of Taiwanese Parent’s Equity Shareholding and its Joint Venture’s Ages

Ages of Joint Ventures	Taiwanese parent's equity shareholding				
	No	Mean	Std. Deviation	F	Sig.
1-5 years	24	44.2179	14.4605	1.2425	0.2972
6-10 years	26	36.3623	19.5436		
11-20 years	40	43.4155	17.2774		
21-30 years	10	43.5580	9.1810		
more than 30 years	14	36.5743	16.3330		
Total	114	41.1482	16.7239		

However, when we analyze the mean of equity shareholding, the ages of host country parents and their joint ventures, we found that there was a trend. The younger the companies, the higher the equity shares that host country parents held in joint ventures. Especially, in the 1-5 years group, host country parents and joint ventures had the highest mean of equity shares.

Next, the analysis defined the type of ownership of host country parents in joint ventures and the relationship with the ages of host country parents and joint ventures. The results are shown in Table 6.2.2.19 and Table 6.2.2.20.

Table 6.2.2.19 Cross-tabulation of the Type of Ownership of Host Country Parents and Ages of Host Country Parents

Ages of host country parents	Type of ownership of Host country parents			Total
	Minority equity	Equal equity	Majority equity	
1-5 years	0(0.00%)	1(50.00%)	1(50.00%)	2
6-10 years	2(50.00%)	1(25%)	1(25%)	4
11-20 years	9(60%)	1(6.67%)	5(33.33%)	15
21-30 years	16(66.67%)	4(16.67%)	4(16.67%)	24
more than 30 years	40(57.97%)	11(15.94%)	18(26.09%)	69
Total	67(58.77%)	18(15.79%)	29(25.44%)	114
Chi-Square= 5.5739 D.F. = 8 Significance= 0.6948				

Table 6.2.2.20 Cross-tabulation of the Type of Ownership of Host Country Parents and Ages of Joint Ventures

Ages of Joint Ventures	Type of ownership of Host country parents			Total
	Minority equity	Equal equity	Majority equity	
1-5 years	11(45.83%)	6(25.00%)	7(29.17%)	24
6-10 years	16(61.54%)	5(19.23%)	5(19.23%)	26
11-20 years	22(55.00%)	5(12.50%)	13(32.50%)	40
21-30 years	6(60.00%)	1(10.00%)	3(30.00%)	10
more than 30 years	12(85.71%)	1(7.14%)	1(7.14%)	14
Total	67(58.77%)	18(15.78%)	29(25.44%)	114
Chi-Square= 8.4128 D.F. = 8 Significance= 0.3942				

As shown in Table 6.2.2.19, the value of the χ^2 statistic is 5.5739 and the significance is greater than 0.05; therefore, it was concluded that the ages of host country parents was not associated with their type of ownership in a joint venture. From Table 6.2.2.20, the results also reveal that there is no association between the age of joint ventures and the Taiwanese parent's equity type.

From the above analysis, one concludes that the Taiwanese parent’s equity shareholding in a joint venture, their ages and the joint venture’s ages are independent. However, the younger parents would have a higher equity shareholding in their joint ventures.

6.2.2.2.5 The Number of Board Members

This subsection is focused on the relationship between ownership of host country parents and the number of board members in joint ventures. The number of board members was recalculated as a percentage based on the number of board members of the Taiwanese parent’s or foreign parent divided by the total number of board members. The percentage of Taiwanese parent’s and foreign parent’s board is equal to one. In order to launch the suitable statistical methods, the percentage of board members was classified into three groups, which are less than 50%, equal to 50%, and more than 50%. The ANOVA test was launched and the results are shown in Table 6.2.2.21 and Table 6.2.2.22.

Table 6.2.2.21 The ANOVA Test of Equity Shareholding of Host Country Parents and the Percentage of Board Members in Joint Ventures

Percentage of Taiwanese parent’s board members	N	Mean	Std. Deviation	F	Sig.
less than 50	27	37.0867	14.4706	3.4940	0.0340*
Equal 50	26	36.5146	16.7199		
more than 50	61	44.9208	16.9803		
Total	114	41.1482	16.7239		

Table 6.2.2.22 The ANOVA Test of Equity Shareholding of Foreign Parents and the Percentage of Board Members in Joint Ventures

Percentage of foreign parent’s board members	N	Mean	Std. Deviation	F	Sig.
less than 50	60	37.349	12.6854	37.8812	0.0000*
Equal 50	26	52.8846	11.1511		
more than 50	28	60.7378	13.0869		
Total	114	46.6368	16.0158		

From Table 6.2.2.21 and Table 6.2.2.22, the results showed that there were significant differences between the percentage of board member and the ownership of both parents. The parents who had a higher percentage of board members in joint ventures had higher equity shares. However, foreign parents have a stronger statistically significant difference than host country parents. Basically, the representation of board members and the equity shares could represent the rights on important decisions relating to joint ventures. The higher percentage of board members could imply higher ownership. We infer that foreign parents are not located in Taiwan; therefore, they could participate actively on the JV’s board to ensure their objectives are achieved and to protect their rights.

Next, the associations between the percentage of Taiwanese parent’s board members in joint ventures and the type of ownership of host country parents was tested. The results are shown in Table 6.2.2.23.

Table 6.2.2.23 Cross tabulation of the Type of Ownership of Host Country Parents and the Percentage of Board Members in Joint Ventures

Percentage of board members	Type of ownership of host country parents			Total
	Minority equity	Equal equity	Majority equity	
less than 50%	22(81.48%)	3(11.11%)	2(7.41%)	27
equal 50%	14(53.85%)	10(38.46%)	2(7.69%)	26
more than 50%	31(50.82%)	5(8.2%)	25(40.98%)	61
Total	67(58.77%)	18(15.79%)	29(25.44%)	114
Chi-Square= 26.663 D.F. = 4 Significance= 0.0000*				
2 cells (22.2%) have expected count less than 5.				
G-Square= 26.1785 D.F. = 4 Significance= 0.0000*				

The value of G^2 is 26.1785 and the significance is less than 0.05. These results indicated that the type of the Taiwanese parent’s ownership has a significant relationship with the percentage of board members in joint ventures. When the percentage is more than 50% group, most host country parents have a majority equity ownership. In other words, the higher the percentage of board members that host country parents have, the greater their majority equity ownership.

The relationship between the percentage of foreign parent’s board members in joint ventures and the type of ownership they have was tested. The results are shown in Table 6.2.2.24. The value of X^2 is 758817 and the significance is less than 0.05. These results indicated that the type of foreign parent’s ownership has significant relation with the percentage of board members in joint ventures. In the group with more than 50%, most foreign parents have a majority equity ownership. In the group less than 50%, most foreign parents have a minority equity ownership. These results reveal that the greater the percentage of board members that foreign parents have, the more majority equity type they have.

Table 6.2.2.24 Cross-tabulation of the Type of Ownership of Foreign Parents and the Percentage of Board Members in Joint Ventures

Percentage of board members	Type of ownership of foreign parents			Total
	Minority equity	Equal equity	Majority equity	
less than 50%	49(81.67%)	5(8.33%)	6(10.00%)	60
equal 50%	5(19.23%)	14(53.85%)	7(26.92%)	26
more than 50%	3(10.71%)	3(10.71%)	22(78.57%)	28
Total	57(50.00%)	22(19.30%)	35(30.70%)	114
Chi-Square= 75.8817 D.F. = 4 Significance= 0.0000* 2 cells (22.2%) have expected count less than 5.				

From Table 6.2.2.21 to Table 6.2.2.24, we found that there was a significant relationship between the Taiwanese parent’s ownership, and foreign parent’s ownership and the percentage of board members in their joint ventures. The higher percentages of board members from host country parents and foreign parents, the higher the equity shareholding they hold in joint ventures; and the more majority equity type they have. The parents who have more ownership would normally have more power in terms of board member’s representation. Leksell and Lindgren (1982) indicated that the equity ownership of the joint ventures would affect the number of joint venture’s board directors. The results of this study echo Leksell and Lindgren’s (1982) results. We conclude that the higher the ownership that parents hold in joint ventures, the higher the percentage of board members they hold.

A summary of the analysis of the results between the Taiwanese parent’s ownership and the sample characteristics, is provided in Table 6.2.2.25. To view it as a whole, the results of this empirical survey indicated that there are associations between the Taiwanese parent’s equity shareholding, the sales volumes of the host country parents, and the percentage of the parent’s board members in the joint ventures. There are no associations between the Taiwanese parent’s equity shareholding, industry of the host country parents, the origin of foreign partners, capital and the number of employees of host country parents, and the ages of host country parents and joint ventures.

Table 6.2.2.25 Summary the Relationship between the Taiwanese Parent’s Equity Shareholding and Type of Ownership and Sample Characteristics

Sample Characteristics	Host country parents	
	Equity shares	Type of ownership
Regions of foreign partners Asian countries American countries European countries	No association	$G^2=10.9156$ $P=0.0275^*$
Industry groups Manufacturing group Service group	No association	No association
Sizes Sales volume Capital Number of employees	$F=6.6057$ $p=0.0004^*$ No association No association	No association No association No association
Age Host country parents Joint ventures	No association No association	No association No association
Number (percentage) of board members	$F=3.3490$ $P=0.034^*$	$G^2=26.1785$ $P=0.0000^*$

From Table 6.2.2.5, the Taiwanese parent’s ownership type is different when their foreign partners come from different regions. When the foreign partners are from the European region, the host country parents had a higher proportion of the minority equity type than the other two types. For the foreign partners from the American region, the host country parents have a preponderance of an equal equity type. When foreign partners come from Asian countries, the host country parents have the highest proportion of minority equity.

The results also reveal that the Taiwanese parent's equity shareholding in the joint venture and their sales volumes is associated. The higher the sales volume of the host country parents, the higher their equity shareholding in joint ventures.

There is a significant relationship between the Taiwanese parent, the foreign parent's ownership, and the percentage of board members in their joint ventures. The higher the percentage of board members from the host country parents and foreign parents, the higher the equity shareholding they hold in joint ventures and the more majority equity type. These results are consistent with Pedersen and Thomsen's (1997) in their study of corporate ownership patterns, which they found that industry and company size influence ownership structures.

These results partly explain why some important sample characteristics had an important influence on the percentage equity share of host country parents in joint ventures.

Next, we conducted an analysis on bargaining power and its relation with sample characteristics in the following section.

6.2.3 Empirical Results of Bargaining Power

In this section, the variables which affect bargaining power are analyzed first. Then, the relationship between bargaining power and sample characteristics is tested. The relative importance of bargaining power is discussed first in the following subsection.

6.2.3.1 The Relative Importance of Bargaining Power

This section aims to analyze which variable assumed the greatest importance for partners in obtaining bargaining power when they decided to cooperate and build a joint venture. Firstly, the variables of bargaining power are ranked and the results are shown in Table 6.2.3.1.

From the results shown in Table 6.2.3.1, the most important variable is the level of equity shares with a mean value of 4.38. When two, or more than two companies want to cooperate and establish another new subsidiary, equity share is a fundamental and critical resource. This indicates that ownership is a very important variable for partners. In addition, the equity shares in joint ventures also affected the number of the JV board of directors who represented their parents, and in turn affected the important decisions of joint ventures. Basically, through the acquisition of equity shares, the company could obtain control over the joint venture in order to ensure that its organizational goal can be reached.

Therefore, equity ownership has a very important meaning for a joint venture's parents. The amount of equity shares affect the bargaining power of partners; thus, the most effective method of gaining bargaining power is to gain more equity shares.

Table 6.2.3.1 The Rank Order of Bargaining Power

Variables	Mean	Std Dev.	Rank
10. The level of equity shares	4.38	0.62	1
4. Access to export markets	4.25	0.58	2
9. Knowledge of the local markets	3.71	0.95	3
1. Technological ability	3.57	1.53	4
5. Access to financial resources	3.51	0.60	5
6. Management experience	3.28	0.94	6
2. Innovative ability	3.08	1.36	7
7. Access to sale distribution channel	3.02	0.92	8
3. Investment amount	2.73	0.88	9
8. The influence of host government	1.87	0.67	10

The following two important variables are “access to export markets” and “the knowledge of the local markets”. Their mean scores are 4.25 and 3.71 respectively. The results indicate that the market is a fairly important variable for bargaining power. With a mean score of 1.87, the least important variable is “the influence of host government”. The results indicate that the influence of the host government does not have a significant

effect on the company’s bargaining power. Taiwan is a democratic county and the government encourages enterprises to cooperate with foreign companies by offering some assistance. It is not like other developing countries where the government oversees cooperative activities and has a strong effect on bargaining power. Therefore, in the Taiwan context, the government has the least influence on bargaining power.

The mean values of “technological ability” and “innovative ability” are 3.57 and 3.08 respectively. They ranged between “fairly important” and “important”. These results indicate that technology is an important variable for a company to obtain more bargaining power and implies that technology could enhance the control available to the partners. These results echo those found in previous studies.

6.2.3.2 Factor Analysis of Bargaining Power

After the primary ranking of bargaining power, this subsection examines the factor analysis of bargaining power. Factor analysis is used to identify the structure underpinning bargaining power for international joint ventures. This analysis summarizes important information contained in these 10 variables into a smaller set of new factors, with a minimum loss of information. Principal components analysis is used to extract a new set of core data. The rotated principal components analysis for bargaining power is shown in Table 6.2.3.2.

Table 6.2.3.2 The Eigenvalue after Rotation for Bargaining Power

Factor	Eigenvalue	% of Variable	Cumulated %
1	3.8911	38.9114	38.9114
2	2.6680	26.6803	65.5917
3	1.4822	14.8219	80.4136

The results of factor analysis for bargaining power have provided the Eigenvalues which represent the amount of variance in each factor. Each of the three extracted factors has an Eigenvalue greater than 1. The total cumulated percentage of variance is 80.41%.

In order to achieve a clearer factor structure, the Varimax method was used to rotate the initial factor solution. The Varimax rotated analysis factor loading matrix for bargaining power is presented in Table 6.2.3.3.

Table 6.2.3.3 Rotated Component Matrix of Factor Analysis of Bargaining Power

Variables	Factor 1	Factor 2	Factor 3
1. Technology ability	-0.9279	-0.2240	0.0665
2. Innovative ability	-0.9224	-0.2056	0.0347
9. Knowledge of the local markets	0.9270	-0.0035	0.1019
6. Management experience	0.8910	0.0174	-0.0680
4. Investment amount	0.1806	0.8801	-0.2201
5. Access to financial resources	0.1245	0.8680	0.0658
10. The level of equity shares	0.0291	0.8241	-0.3488
7. Access to sale distribution channel	-0.0219	-0.0816	0.9174
3. Access to export markets	0.0896	-0.1221	0.9047
8. The influence of host government	-0.0881	-0.1399	0.6441

The rotated factor matrix provided a different factor loading for each variable as against each of the three extracted factors. The interpretation of the rotated factor matrix is calculated on the basis that a factor loading greater than ± 0.5 is considered as significant. All the factor loadings are greater than 0.6, which indicates that all the factor loadings are significant.

However, we found that factor 1 has four significant loadings where two factor loadings with positive scores related to management knowledge and the other two factor loadings with negative scores related to technology. One factor includes two different and contradictory subjects. We exercised the second order factor analysis again in order to eliminate the intervention between variables. The Varimax rotated analysis factor loading matrix for these four variables is presented in Table 6.2.3.4. The results also indicate all the factor loadings are greater than ± 0.5 and are considered as significant.

Table 6.2.3.4 Rotated Component Matrix of Four Variables for Bargaining Power

Variables	Factor 1	Factor 2
2. Innovative ability	0.8924	-0.4226
1. Technological ability	0.8679	-0.4606
6. Management experience	-0.3831	0.8919
9. The knowledge of the local markets	-0.5509	0.7562

In addition, in considering the significance of factor loadings, the reliability of each factor construct was also tested using the Cronbach coefficient alpha in order to measure the internal consistency of each factor. The results are shown in Table 6.2.3.5. These results represent very high Cronbach alpha scores for the factors of bargaining power. Thus, one concludes that the factor of bargaining power has very high reliability.

Table 6.2.3.5 Factor Loadings and Reliability of Factors

Factor	Variables	Factor loading	Cronbach α
Factor 1	2. Innovation ability	0.8924	0.9689
	1. Technological ability	0.8679	
Factor 2	6. Management experience	0.8919	0.8894
	9. Knowledge of the local markets	0.7562	
Factor 3	4. Investment amount	0.8801	0.8564
	5. Access to financial resources	0.8680	
	10. The level of equity shares	0.8241	
Factor 4	7. Access to sale distribution channel	0.9174	0.7045
	3. Access to export markets	0.9047	
	8. The influence of host government	0.6441	

After measuring each factor’s reliability, we identified the label for each factor according to the meanings of the variables in each one. Each factor is elucidated in the following description.

Factor 1: Technological Capability

Factor 1 has two significant loadings and the variables mainly related to innovative ability and technological ability, with respective loadings of 0.8924 and 0.8679. All the significant variables have positive signs. This indicates that technology is a very important factor as a source of bargaining power. Therefore, Factor 1 is labeled as “Technological capability”.

Factor 2: Management Capability

Factor 2 has two significant loadings, and the variables mainly related to management knowledge, which is management experience and the knowledge of the local markets, with respective loadings of 0.8919 and 0.7652. Therefore, factor 2 is labeled as “Management Capability”.

Factor 3: Financial Capability

Factor 3 has three significant loadings, and the variables mainly related to financial ability. These variables are investment amount, access to financial resources and the level of equity shares, with respective loadings of 0.8801, 0.8680 and 0.8241. All these variables have positive signs. Thus, this factor is labeled as “Financial Capability”.

Factor 4: Marketing Capability

Factor 4 has three positively significant loadings, and the variables mainly related to marketing access which included access to sales distribution channel, access to export markets and the influence of host government, with respectively loadings of 0.9174, 0.9047 and 0.6441. Therefore, this factor is labeled as “Marketing Capability”.

According to the above factor analysis, the 10 variables were summarized into four main dimensions which related to the bargaining power for international joint ventures in Taiwan.

These results are not the same as Yan and Gray’s (1994) results which classify the components of bargaining power into context based and resource based. However the results of this empirical survey echoed related research findings (Blodgett, 1991; Gomes-Cassores, 1990; Kobrin, 1987; Lecraw, 1984; Fagre and Wells, 1982). Bargaining power stems from critical resources, such as technology, marketing expertise, access to financial markets, access to export or local markets and investment amount. The important variables relating to bargaining power are analyzed and four factors of bargaining power are obtained. Next, we turn to analyze the relation between these factors and the sample characteristics.

6.2.3.2 Bargaining Power and Characteristics of Sample

The main goals of this subsection are to analyze the variance between the sources of bargaining power and sample characteristics which include industry, size and age of host country parents. This analysis is conducted in two ways. Firstly, the rank order of bargaining power is examined over a number of characteristics of the sample. Secondly, the relationship between factors of bargaining power and the characteristics of the sample are examined. The relative statistical methods are used to test the relationships.

6.2.3.2.1 Industry

This subsection attempts to test whether there is any difference in bargaining power in different industry groups. The *t* test was employed and the result is shown in Table 6.2.3.6.

Table 6.2.3.6 t-Test of Variables of Bargaining Power and Industry Group of Host Country Parents Involved

Variables	Service group		Manufacturing group		t	Sig.
	Mean	Std. Deviation	Mean	Std. Deviation		
1. Technological ability	2.5517	1.3252	3.9176	1.4410	20.2078	0.0000*
2. Innovative ability	2.2414	1.2437	3.3647	1.2803	16.8831	0.0001*
3. Access to export markets	2.5172	0.7847	2.8000	0.8971	2.2822	0.1337
4. Investment amount	4.5172	0.6336	4.1647	0.5311	8.6153	0.0040*
5. Access to financial resources	3.6552	0.6695	3.4588	0.5681	2.3543	0.1278
6. Management experience	3.8276	0.9662	3.0941	0.8539	14.9093	0.0002*
7. Access to sale distribution channel	2.8276	0.8892	3.0824	0.9285	1.6623	0.2000
8. The influence of host government	1.7586	0.5766	1.9059	0.7007	1.0388	0.3103
9. The knowledge of the local market	4.3103	0.9298	3.5059	0.8677	17.9210	0.0000 *
10. The level of equity shares	4.5517	0.6317	4.3176	0.6018	3.1900	0.0768

From the results shown in Table 6.2.3.6, we found that part of the results have a significant difference between the industry groups, while part of results are not significant. The significant variables included technological ability, innovative ability,

investment amount, management experience and the knowledge of the local markets. The manufacturing group has higher mean values than the service group in terms of technological ability, innovative ability and investment amount. On the other hand, the service group has higher mean values than the manufacturing group in management experience and the knowledge of the local markets.

These results explained that the service group was involved with more invisible assets and focuses more on markets and management. However, the manufacturing group has involved more strongly on the technological issues and has invested large amounts on equipment and machines.

Next, the analysis focuses on the factors of bargaining power. From the aspect of factor constructs, Table 6.2.3.7 shows that there are significant differences between industry groups in terms of technological capability, management capability and financial capability, but there is no significant difference in marketing capability. The manufacturing group shows technological capability as a higher influence on bargaining power with a mean of 3.64. For the service group, management capability and financial capability with means of 4.17 and 4.24, have a higher influence on obtaining bargaining power.

Table 6.2.3.7 t-Test of Bargaining Power Factors and the Industry Group of Host Country Parents

Factors	Service group		Manufacturing group		t	Sig.
	Mean	Std. Deviation	Mean	Std. Deviation		
Technological capability	2.3966	1.2634	3.6412	1.3399	19.1898	0.0000*
Management capability	4.0690	0.8937	3.3000	0.8099	18.4865	0.0000*
Financial capability	4.2414	0.5835	3.9804	0.4916	5.5293	0.0204*
Marketing capability	2.3678	0.5999	2.5961	0.7239	2.3325	0.1295

On the basis of the above results, we found that different industries have different characteristics and core competitive advantages. Normally, the company which has more industry competitive advantages would have more negotiating power than its partners. Therefore, we conclude that the sources of bargaining power would be different in the

industry group. Bargaining power is more affected by technological capability in the manufacturing group; on the other hand, it is more affected by management capability and financial capability in the service group.

6.2.3.2.2 Size of Host Country Parents

This subsection looks at the relationship between sources of bargaining power and the size of the host country parents. The size of host country parents is discussed separately in relation to capital, sales volume and the number of employees. The ANOVA tests were performed. The results are shown in Table 6.2.3.8, Table 6.2.3.9 and Table 6.2.3.10 and are indicated separately below.

Table 6.2.3.8 ANOVA Test of Factors of Bargaining Power and Capital of Host Country Parents

Factors	Capital of host country parents				F	Sig.
	less than NT\$500 million	NT\$501 - 5,000 million	NT\$5,001 - 10,000 million	more than NT\$10,000 million		
Technological capability	2.92	3.12	4.09	3.43	2.5257	0.0613
Management capability	3.78	3.49	3.19	3.50	1.2412	0.2983
Financial capability	3.78	4.09	3.98	4.15	2.3509	0.0763
Marketing capability	2.78	2.53	2.60	2.40	1.2690	0.2886

As shown in Table 6.2.3.8, there are no significant differences between the factors of bargaining power and the capital of host country parents. However technological capability and financial capability had the lowest significant value at 0.06 and 0.07 respectively. There was a trend that the company who had higher capital seemed to have a stronger relationship with financial capability. It is reasonable that the companies with more capital have more power when negotiating with their partners.

Next, we turn to analyze the relationship between the factors of bargaining power and the sales volume of host country parents. The results are shown in Table 6.2.3.9.

Table 6.2.3.9 ANOVA Test of Factors of Bargaining Power and Sales Volumes of Host Country Parents

Factors	Sales volumes of host country parents				F	Sig.
	less than NT\$500 million	NT\$501 - 5,000 million	NT\$5,001 - 10,000 million	more than NT\$10,000 million		
Technological capability	2.90	3.14	3.50	3.55	1.1482	0.3330
Management capability	3.83	3.53	3.50	3.36	1.0920	0.3557
Financial capability	3.62	4.07	4.21	4.11	4.3518	0.0062*
Marketing capability	2.69	2.56	2.52	2.48	0.3526	0.7873

As the results in Table 6.2.3.9 show, there is only one significant difference between the financial capability and the sales volume of the host country parents. The companies who have higher sales volume seemed to have a higher relationship with financial capability power. This result is very similar to the relationship between the capital of the host country parents and the factors of bargaining power.

Thirdly, the relation between the employee numbers of host country parents and the factors of bargaining power was tested. The result is shown in Table 6.2.3.10.

Table 6.2.3.10 The ANOVA Test of Factors of Bargaining Power and Employee Numbers of Host Country Parents

Factors	Employee numbers of host country parents				F	Sig.
	less than 200	201 - 500	501-1000	more than 1000		
Technological capability	2.74	3.27	3.56	3.49	1.6598	0.1799
Management capability	3.64	3.57	3.54	3.37	0.5511	0.6485
Financial capability	4.06	4.02	3.90	4.13	1.0023	0.3947
Marketing capability	2.54	2.67	2.54	2.48	0.3689	0.7756

From Table 6.2.3.10, the results reveal that there are no significant differences between the factors of bargaining power and the employee numbers of host country parents.

In summary, the size of host country parents which relate to capital, sales volume and the number of employees do not have a significant relationship with sources of bargaining

power. There is only one exception, i.e., the financial capability and sales volume of host country parents had a significant association. Taiwanese companies who have higher sales volume seemed to have a stronger relationship with financial capability with regard to bargaining power.

6.2.3.2.3 Age of Host Country Parents

This subsection conducted the relationship analysis between the ages of the host country parents and factors of bargaining power. The results are shown in Table 6.2.3.11.

Table 6.2.3.11 The ANOVA Test of Factors of Bargaining Power and Ages of Host Country Parents

Factors	Age of host country parents					F	Sig.
	1-5 years	6-10 years	11-20 years	21-30 years	more than 30 years		
Technological capability	3.25	3.38	2.70	3.04	3.56	1.4478	0.2232
Management capability	2.75	3.75	3.70	3.67	3.40	1.0504	0.3848
Financial capability	2.83	4.00	4.24	3.99	4.06	3.5917	0.0086*
Marketing capability	2.33	2.67	2.47	2.54	2.55	0.1179	0.9759

As the results of Table 6.2.3.1 show, there is only one significant difference between the bargaining power of financial capability and the ages of the host country parents. The result is similar to the sales volume and the number of employees. The companies who are older have a stronger relationship with the bargaining power of financial capability.

To review it as a whole, the results reveal that there are no associations between bargaining power and capital, and the Taiwanese parent’s employee numbers, and the ages of host country parents. There are only a few exceptions namely the industry group and the age of the host country parents. A summary of the analysis results between bargaining power and the sample characteristics is provided in Table 6.2.3.12.

Table 6.2.3.12 Summary of the Relations between the Bargaining Power and Sample Characteristics

Sample Characteristics	Bargaining Power			
	Technological capability	Management capability	Financial capability	Marketing capability
Industry groups Manufacturing group Service group	F=19.190 p=0.0000*	F=18.487 p=0.0000*	F=5.503 p=0.0204*	No association
Sizes Sales volume Capital Number of employees	No association No association No association	No association No association No association	F=6.606 p=0.0004* No association No association	No association No association No association
Age Host country parents	No association	No association	F=3.592 p=0.0086*	No association

On the basis of the above results, there is little evidence in the study of any statistical variation in the sources of bargaining power across the characteristics of the sample. The major exception is the industries in which Taiwan parents are involved. Different industries have different core competitive advantages; therefore, companies focus on different characteristics and different resources. The results of this study show that the possible sources of bargaining power are different between industry groups. The bargaining power is more affected by technological capability in the manufacturing group, while it is more affected by management capability and financial capability in the service group. Apart from financial capability, however, there appears to be no other significant differences between the factors of bargaining power and the age of the host country parents. Next, we turned to analyze the dimension of resource contributions.

6.2.4 Empirical Results of Resource Contributions

In Chapter 5.4, several categorisations of resource types have been discussed in this study in relation to relevant literature. There is a wide range of resources that each parent might contribute to a joint venture and each type of resource potentially provides a different source of power and different scope of influence. This study gathers together the most common variables to measure the contributions of the host country parents and foreign parents. The resources contributed by parents are classified into five categories

viz, physical resources, invisible resources, financial resources, human resources, and organisation ability resources.

This section considers the resource contributions from both parents. The relative importance of a set of resources is identified first. The relation between resource contribution by both parents and a number of characteristics of the sample are tested. The results of this empirical survey are described in the following subsections.

6.2.4.1 Resource Contributions by Parents

This subsection first demonstrates the resource contributions by host country parents and foreign parents. The rank order of resource contributions by parents is shown in Table 6.2.4.1.

Table 6.2.4.1 Rank Order of resource contributions by Host Country Parents and Foreign Parents

Variables	Taiwanese parent			Foreign parent		
	Mean	Std	Rank	Mean	Std	Rank
1. Financial resource	3.51	1.01	6	3.81	0.87	1
2. Key components and raw material	1.48	1.51	14	3.42	1.73	5
3. Land, machinery, equipment	1.78	1.51	12	2.46	1.51	13
4. Providing high-level expertise	3.15	1.06	8	3.05	1.08	9
5. Marketing and operation ability	3.62	1.12	4	3.32	1.18	6
6. Marketing channel	3.97	1.23	3	2.67	0.87	12
7. Technological or R&D ability	1.75	1.44	13	2.97	1.44	10
8. Access to external capital	3.51	0.83	5	3.25	0.82	7
9. Expertise of employees	2.72	1.08	9	3.25	1.12	8
10. Access to public relation with local government	4.35	0.53	1	1.63	0.52	14
11. Access to environmental knowledge	4.11	0.96	2	2.91	0.82	11
12. Sharing brands or patent	2.20	1.33	10	3.58	1.24	2
13. Sharing know-how	1.87	1.29	11	3.43	1.20	4
14. Sharing the knowledge of management	3.37	0.98	7	3.45	1.14	3
16. In general, what degree is contributed by each partner?	3.75	1.12		3.85	0.99	

From the results in Table 6.2.4.1, for the host country parents, “Access to public relation with the local government” and “Access to environmental knowledge” are the most significant resources which contributed to the joint venture. One reason that international joint ventures are formed is because foreign companies want to expand into overseas markets. However, they might not be familiar with the local environment of the host country; therefore, they try to cooperate with a local company. Thus, local parents usually play an important role in access to local government and knowledge of the local environment. The results of this empirical survey are consistent with the results of UNCTC (1987) and Inkpen and Beamish (1997). The local partner’s contributions are more on knowledge of the local environment and the access to government relation.

In addition, the results show that the least resources contributed by host country parents are “Key components and raw material” and “Technological or R&D ability”. Taiwan is a small island and doesn’t have natural resources; therefore, most Taiwanese companies import raw material from other countries. For some industries, the key components are also controlled by other foreign companies; for example, Japanese companies control the key motor components of the motor industry. Most Taiwanese companies have very strong strengths in manufacturing, but have weaknesses in technology or R&D ability. Thus, they would cooperate with foreign companies to obtain or improve their technology or R&D ability.

On the other hand, the first three resources contributed by foreign parents are “financial resources”, “sharing brands or patent” and “sharing the knowledge of management”. Foreign parents from the developed countries usually have a very strong financial capability, technological capability, and global brands. Technology, brands and patent, management knowledge are the most important resources for developing countries. Therefore, forming an international joint venture is a useful method to fit each other’s demand and in turn to benefit from the complementarity. The results of this survey are consistent with the results of Wu (1994) and Chang (1986). Host country parents contribute more resources with regard to the local market and their main objectives are obtaining the foreign parent’s technology and brands or patent.

The above discussion shows that the analysis of resource contribution is based on the rank order of each variable. The Paired-Samples test is used to test whether the resource contribution by each parent has a significant difference. The results are shown in Table 6.2.4.2.

Table 6.2.4.2 Paired-Samples Tests of Resource Contribution by Host Country Parents and Foreign Parents

Variables	Paired Differences		t	Sig. (2-tailed)
	Mean	Std. Dev.		
1. Financial resource	-0.30	1.50	-2.12	0.0365*
2. Key components and raw material	-1.94	2.17	-9.53	0.0000*
3. Land, machinery, equipment	-0.68	1.87	-3.86	0.0002*
4. Providing high-level expertise	0.10	1.69	0.61	0.5441
5. Marketing and operation ability	0.31	1.94	1.69	0.0942
6. Marketing channel	1.31	1.54	9.09	0.0000*
7. Technology or R&D ability	-1.23	1.62	-8.10	0.0000*
8. Access to external capital	0.25	1.22	2.23	0.0277*
9. Expertise of employees	-0.53	1.73	-3.26	0.0015*
10. Access to public relation with local government	2.72	0.76	38.28	0.0000*
11. Access to environmental knowledge	1.20	1.31	9.78	0.0000*
12. Sharing brands or patent	-1.38	1.96	-7.50	0.0000*
13. Sharing Know-how	-1.56	1.85	-9.02	0.0000*
14. Sharing the knowledge of management	-0.08	1.73	-0.49	0.6261
16. In general, what degree is contributed by each partner?	-0.11	1.71	-0.66	0.5113

From Table 6.2.4.2, we could find that most of the variables are significant except “Providing high-level expertise”, “Marketing and operating ability”, “Sharing the knowledge of management” and “In general, what degree is contributed by each partner?” These results indicate that the host country parents and foreign parents contribute different degrees of resources into joint ventures. As to prior discussion, the host country parents concentrate on the relationship with local government and local markets, while foreign parents contribute more in financial resources and brands or patents.

On the other hand, there are no significant differences on human resources, marketing and operating ability, or management knowledge. However, both parents might focus on different issues. For example, foreign parents might contribute high-level managers or special experts to joint ventures, but the host country parents provide more resources on basic management or day-to-day management. Both contribute to human resources, but in different areas. To sum up, these results indicate that both parents contribute different resources to joint ventures from the complementary resource aspect.

Next, the analysis was employed based on the factor of resources contributed by host country parents and foreign parents. The Paired-Sample test is used to test the difference between both parents. The results are shown in Table 6.2.4.3 and Table 6.2.4.4.

Table 6.2.4.3 Factors of Resources Contributed by Host Country Parents and Foreign Parents

Factors	Host country parents			Foreign parents		
	Mean	Std	Rank	Mean	Std	Rank
Physical resources	1.63	1.45	5	2.94	1.51	4
Invisible resources	2.48	1.11	4	3.49	1.02	2
Financial resources	3.51	0.88	2	3.53	0.77	1
Human resources	2.93	1.04	3	3.15	1.07	3
Organization resources	3.56	0.86	1	2.70	0.70	5

Table 6.2.4.4 Paired-Sample Tests of Factors of Resource Contribution by Host Country Parents and Foreign Parents

Variables	Paired Differences		t	Sig. (2-tailed)
	Mean	Std. Dev.		
Physical resources	-0.30	1.50	-7.401	0.000*
Invisible resources	-1.94	2.17	-6.475	0.000*
Financial resources	-0.68	1.87	-0.179	0.858
Human resources	0.10	1.69	-1.382	0.170
Organization resources	0.31	1.94	7.831	0.000*

From the Table 6.2.4.3, it is clear that the host country parents contribute more on organization resources, and foreign parents make the least contribution. On the other hand, foreign parents contribute more in invisible resources, but host country parents have less contribution in this area. In general, foreign parents have a higher mean value on resource contribution, excepting the mean on organizational resources.

Table 6.2.4.4 shows that there are significant differences in most factors of resources except financial resources and human resources. This might be because human resources and financial resources are basic resources that parents have to contribute to joint ventures. Therefore, there is no significant difference between parents in financial and human resources.

In summary, these results reveal that both patents contribute different resources to joint ventures according to their expert resources. Host country parents contribute more on organizational resources, human resources, and local market knowledge. Foreign parents contribute more on the key components, brands or patents, and technologies. Both parents contribute complementary resources to joint ventures and benefit from the synergy of cooperation. Next, we tested the relationship between resource contributions and sample characteristics.

6.2.4.2 Resource Contributions and Characteristics of Sample

The main goals of this subsection are to analyze the variance between the resource contribution by parents and the sample characteristics including regions, industry, size and age of the host country parents. The analysis is conducted in two ways. Firstly, the factors of resource contribution are examined over a number of characteristics of the sample. Secondly, the relationship between the factors of resources and the characteristics of the sample are described. The relative statistical methods are used to test their relationship.

6.2.4.2.1 Regions

This subsection attempted to test whether foreign parents from different origins would contribute different resources into joint ventures. The results are shown in Table 6.2.4.5.

Table 6.2.4.5 ANOVA Test between Contribution of Foreign Parents and Regions

Factors	Regions of Foreign Parents			F	Sig.
	Asian countries	American countries	European countries		
F_Physical resources	3.1364	2.8636	2.0333	3.5143	0.0331*
F_Invisible resources	3.3939	3.7727	3.5333	1.1961	0.3062
F_Financial resources	3.4545	3.6591	3.7333	1.2128	0.3013
F_Human resources	3.0649	3.2727	3.4000	0.8002	0.4518
F_Organization resources	2.7273	2.6727	2.6000	0.2257	0.7983

The results reveal that there is only one significant difference between the resource factor contributed by foreign parents and the origin of foreign parents. From Table 6.2.4.5, we find that foreign parents from Asian countries had more contributions in physical resources than those from American or European countries. Although other factors have no significant differences in relation to the origins of foreign parents, the results showed that foreign parents from American countries had a higher contribution in invisible resources and parents from European countries had a higher contribution in financial resources.

These results are consistent with the background of Taiwan, in that Taiwan has a closer relationship with America and has greater cooperative experience with American companies. Most American companies contributed more in brands or patent when they cooperated with Taiwanese companies. For parents who are from European countries, they contributed more in financial resources. The reasons as discussed before might be the distance and the cultural differences between countries.

6.2.4.2.2 Industry

This subsection conducted an analysis of the relationship between industry groups and resource contribution by host country parents. The results are shown in Table 6.2.4.6.

Table 6.2.4.6 t-Test between Contribution Factors of Host Country Parent and Industry Group

Factors	Industry		t	Sig.
	Manufacturing group	Service group		
Physical resources	1.9765	0.6207	22.6794	0.0000*
Invisible resources	2.6078	2.1034	4.6498	0.0332*
Financial resources	3.4529	3.6724	1.3416	0.2492
Human resources	3.0000	2.7414	1.3520	0.2474
Organization resources	3.6588	3.2759	4.3860	0.0385*

There are significant differences between the industry groups and the physical resources, invisible resources and organizational resources that the host country parents contributed. In part of the results there is no significant difference in financial resources or human resources.

The results reveal that host country parents who are in the manufacturing group, have higher resource contributions to the joint venture than parents from the service group. Thus, the manufacturing group has a higher resource contribution on all the resource factors excepting financial resources. They also have significant differences in physical resources, invisible resources and organizational resources.

Although there is no difference in financial resources, the result shows that the service industry received a higher financial contribution than the manufacturing group. The reason might be because the service industry is not largely involved in productive equipments or visible assets, it is mainly involved in the investment of money.

6.2.4.2.3 Size of Host Country Parents

This subsection conducted the relationship analysis between the size of the host country parents and their resource contributions to joint ventures. The size of the host country parents is discussed separately in relation to capital, sales volume and the number of employees. The ANOVA test was executed. The results are shown in Table 6.2.4.7, Table 6.2.4.8 and Table 6.2.4.9 and are discussed separately below.

Table 6.2.4.7 ANOVA Test of Contribution Factors of Host Country Parents and the Capital of Host Country Parents

Factors	Capital of host country parents				F	Sig.
	less than NT\$500 million	NT\$501 - 5,000 million	NT\$5,001 - 10,000 million	more than NT\$10,000 million		
Physical resources	1.4444	1.3023	2.0313	1.9324	1.8260	0.1466
Invisible resources	2.1481	2.2248	2.7083	2.8378	2.9742	0.0348*
Financial resources	3.4444	3.3372	3.7813	3.6216	1.2939	0.2802
Human resources	3.1389	2.6628	2.9063	3.1622	1.8610	0.1404
Organization resources	3.3889	3.3860	3.6875	3.7946	1.8897	0.1355

As shown in Table 6.2.4.7, there is only one significant difference between the invisible factor and the capital of the host country parents. Apart from invisible resources, however, there appears to be no other significant differences between the resource factors of contribution and the capital of the host country parents.

When we compare the mean value among the capital groups of the host country parents, there is a significant difference between the capital in the “less than NT\$5,000 million group and those in the more than NT\$ 5,000 million group. The companies with higher capital contribute more on invisible resources. These results reveal that the companies who have higher capital contributed more on invisible resources. One possible reason might be because the brands or patents always are supported by the companies who have the ability and resources to develop these invisible assets. In the business world, the brands or patents always cost a lot of money to build. This result implies that the companies who have the ability to contribute these invisible resources are the big companies of high reputation in the world.

The results of the ANOVA test relating to the resource factors and sales volumes of host country parents are shown in Table 6.2.4.8.

Table 6.2.4.8 ANOVA Test of Contribution Factors of Host Country Parents and the Sales Volumes of Host Country Parents

Factors	Sales volumes of host country parents				F	Sig.
	less than NT\$500 million	NT\$501 - 5,000 million	NT\$5,001 - 10,000 million	more than NT\$10,000 million		
Physical resources	1.4333	1.1216	2.0000	1.9783	3.0111	0.0332 *
Invisible resources	2.1333	2.0450	2.7083	2.8623	4.9313	0.0030 *
Financial resources	3.3000	3.1757	4.0625	3.6522	5.0279	0.0026 *
Human resources	3.0000	2.5405	3.1250	3.1630	2.8658	0.0399 *
Organization resources	3.2533	3.3027	3.7375	3.8087	3.4355	0.0195 *

The results show that there are significant differences between all the resource factors and the sales volume of the host country parents. These results indicate that the companies who have higher sales volumes contributed more resources to joint ventures. The higher sales volumes of the host country parents, the higher ability and more resources they have; therefore, the big companies contribute more resources to a joint venture.

The results of the ANOVA tests relating to the resource factors and employee numbers of the host country parents are shown in Table 6.2.4.9. As shown in Table 6.2.4.9, part of the result is significant differences between the resources factors and the employee numbers of the host country parents. The significant factors are physical resources, invisible resources and organizational resources. There are no differences in financial resources and human resources. In general, no matter whether it is significant or not, the companies who have more employees contributed more resources into joint ventures. These results indicate that the bigger companies have greater ability to contribute resources to their joint ventures.

Table 6.2.4.9 ANOVA Test of Contribution Factors of Host Country Parents and the Employee Number of Host Country Parents

Factors	Employee number of host country parents				F	Sig.
	less than 200	201 - 500	501-1000	more than 1000		
Physical resources	0.8095	1.2500	1.9167	2.0319	4.7120	0.0039 *
Invisible resources	1.7302	2.1515	2.7500	2.8298	6.8341	0.0003 *
Financial resources	3.3810	3.2500	3.4375	3.7234	1.7935	0.1526
Human resources	2.6429	2.5909	3.0417	3.1702	2.3387	0.0774
Organization resources	3.0762	3.2455	3.6583	3.8766	6.1191	0.0007*

In summary, the size of host country parents relating to capital, sales volume and the number of employees, has a significant influence on the resource contribution, especially, the sales volume of parents. These results indicate that bigger companies with higher capability and resources seemed to have more abilities and resources to support their joint ventures.

6.2.4.2.4 Ages of Host Country Parents

This subsection conducted the relationship analysis between the ages of the host country parents and the resources contributions of host country parents. The results of the ANOVA tests are shown in Table 6.2.4.10.

As Table 6.2.4.10, shows there is no significant difference between the resource contributions and the ages of the host country parents. Therefore, it was concluded that the resource contributions of the host country parents is not associated with ages of the host country parents

Table 6.2.4.10 ANOVA Test of Contribution Factors of Taiwanese Parent and Age of Host Country Parents

Factors	Age of host country parents					F	Sig.
	1-5 years	6-10 years	11-20 years	21-30 years	more than 30 years		
Physical resources	3.5000	1.1250	1.0000	1.5833	1.7609	1.8758	0.1198
Invisible resources	2.8333	3.0000	2.0000	2.3472	2.5894	1.2463	0.2957
Financial resources	4.0000	3.5000	3.3667	3.2708	3.6087	0.9067	0.4628
Human resources	4.2500	3.8750	2.6667	2.7708	2.9565	2.1197	0.0832
Organization resources	4.0000	4.0500	3.2400	3.4583	3.6261	1.1589	0.3330

In sum, the age of the host country parents does not affect the resource contributions of host country parents to joint ventures.

On the whole, the results of this empirical survey reveal that there are some associations between contribution factors, and some of the sample characteristics such as Taiwanese parent’s size. A summary of analysis results is provided in Table 6.2.4.11.

Table 6.2.4.11 Summary the Relations between the Contribution and Sample Characteristics

Sample Characteristics	Resource contribution				
	Physical	Invisible	Finance	Human	Organization
Regions of foreign partners Asian countries American countries European countries	F=3.514 p=0.0331*	No association	No association	No association	No association
Industry groups Manufacturing group Service group	t=22.6794 p=0.0000*	t=4.6498 p=0.0332*	No association	No association	t=4.3860 p=0.0385*
Size Sales volumes Capital Number of employees	F=3.011 p=0.0332* No association F=4.712 p=0.0039*	F=4.931 p=0.0030* F=2.974 p=0.0348* F=6.834 p=0.0003*	F=5.028 p=0.0026* No association No association	F=2.866 p=0.0399* No association No association	F=3.436 p=0.0195* No association F=6.120 p=0.0007*
Age Host country parents	No association	No association	No association	No association	No association

On the basis of the above results, there is some evidence of statistical variation with respect to the resource contribution factors and sample characteristics. The results reveal that foreign parents from Asian countries make more contribution on physical resources than those from American or European countries. The results also show that the host country parents in the manufacturing group had a higher resource contribution to the joint venture than the parents from the service group.

The size of the host country parents relating to capital, sales volume, and the number of employees had a significant influence on the resource contribution, especially on the sales volume of the parents; and also the sales volumes of the host country parents. The higher sales volumes of the host country parents meant that they had higher ability the more resources they own, in this case, the big companies are willing to contribute more resources to joint ventures. Next, we turn to analyze the dimension of motivation for forming international joint ventures.

6.2.5 Empirical Results of the Motivation for International Joint Venture Formation

The main objectives of this section are to analyze the motives for the formation of an international joint venture. The relative importance of a set of motives is identified in chapter 5.5. In this section, the relative importance of different motives as held by Taiwanese enterprises, is discussed first. Factor analysis of many motives for international joint venture formation is presented in the second subsection. The relationship between motivation and a number of characteristics of the sample is tested and indicated in relevant subsections.

6.2.5.1 The Relative Importance of Motivation for International Joint Venture Formation

This subsection aims to indicate what motives for international joint venture formation assumed the greatest importance for Taiwanese enterprises. The rank order of motives for forming the international joint venture is shown in Table 6.2.5.1.

Table 6.2.5.1 Rank Order of Motivation of International Joint Ventures

Variables	Mean	Std	Rank
6. Extending the range of products and service	3.89	0.87	1
11. Facilitating diversified development	3.89	0.93	2
5. Expanding the market and entering new markets	3.75	0.85	3
21. Acquiring partner's brands or patents	3.75	1.20	4
10. Maintaining or improving the competitive position	3.70	0.62	5
20. Sharing partner's resource	3.68	0.63	6
18. Acquiring low cost materials and components	3.59	1.44	7
25. Technology transfer	3.13	1.62	8
24. Acquiring technology	3.12	1.62	9
8. Acquiring the economies of scale of production and sale	3.09	0.82	10
14. Improving new product design ability from partner	3.05	0.81	11
22. Acquiring partner's manufacturing equipment and technology	3.03	1.49	12
19. Acquiring sufficient capital	3.01	0.68	13
15. Learning management knowledge	2.96	1.05	14
7. Reducing competition	2.91	0.69	15
13. Learning marketing knowledge	2.82	1.06	16
17. Learning partner's manufacturing technology	2.79	1.20	17
23. Improving ability on developing new technology	2.77	1.44	18
3. Reducing the risk caused by environment uncertainty	2.60	0.75	19
2. Spreading the risk of finance	2.58	0.82	20
12. Learning international business knowledge	2.58	0.85	21
4. Sharing the risk of the business cycle	2.55	0.77	22
9. Conforming to government policy	2.48	0.64	23
1. Sharing a large sum of fixed costs	2.47	0.79	24
26. Shortening the time from the product designment to market entry	2.36	1.21	25
16. Learning partner's human resource management	2.18	0.67	26

From the results shown in Table 6.2.5.1, the most important motives are “Extending the range of products and service”, “Facilitating diversified development”, “Expanding the market and entering new markets”, and “Acquiring partner’s brands or patents”. The mean values are 3.89 and 3.75. These motives range between “important” and “fairly important”. This indicates that market expansion and diversified development were

considered fairly important motives for Taiwanese enterprises to form an international joint venture. The results are consistent with those found in previous empirical studies (Lin, 1995; Beamish et al, 1994; Datta, 1988; Daniels et al., 1985).

The least important variables are “Learning partner’s human resource management” with the mean value of 2.18. These results indicate that human resource management is not an important variable for Taiwanese companies when they consider cooperating with foreign companies. The reason might be because the human resource management must fit the local situation and cannot be copied from other companies without any adjustment. Thus, the human resource management variable is not important to Taiwanese companies.

All the motives are identified from the relevant studies; however, this shows too many variables on the motivation for international joint venture formation. From the review of the literature, we find that various authors use a broadly similar set of motivation variables. Consequently, these 26 motives represent a number of overlapping perspectives on the motivation for international joint venture formation. In order to have a clearer profile of motivation, factor analysis was employed to identify a smaller number of motives for this sample. The following subsection indicates the factor analysis of motivation.

6.2.5.2 Factor Analysis of Motivations

The potential conceptual and statistical overlapping factor analysis was launched to identify the structure underpinning the motivation for international joint venture formation. This subsection deals with the factor analysis of the motivation for international joint venture formation. This analysis summarizes the important information contained in the 26 variables into a smaller set of new factors with a minimum loss of information. Principal components analysis is used to extract a new set of core data. The rotated principal components analysis factor loading matrix for motives is shown in Table 6.2.5.2.

Table 6.2.5.2 The Eigenvalue after Rotation and Iteration of Motivation for International Joint Venture Formation

Factor	Eigenvalue	% of Variable	Cumulated %
1	6.02	23.15	23.15
2	3.91	15.06	38.20
3	3.32	12.76	50.97
4	3.12	12.00	62.97
5	2.85	10.95	73.92
6	2.25	8.64	82.56

The factor analysis results for motives of international joint venture formation indicated that the six extracted factors account for 82.56 % of the total variance for the motivation. Each factor of these six extracted factors has an Eigenvalue greater than 1.

In order to achieve a clearer factor structure, the Varimax method is used to rotate the initial factor solution. The Varimax rotated analysis factor loading matrix for the motivation is presented in Table 6.2.5.3. Each of these six extracted factors has different factor loadings for each variable. A factor loading of greater than ± 0.5 is considered as significant. All the factor loadings are greater than 0.6. These results indicate that all the factor loadings are significant.

After consideration of the significance of the factor loadings, the reliability of each factor construct was tested using the Cronbach coefficient alpha in order to measure the internal consistency of each factor. The results are shown in Table 6.2.5.4. The Cronbach alpha score for each factor of motivation for international joint venture formation is greater than 0.8. These results represent very high internal consistency in each factor. Thus, we conclude that the factor of motivation has very high reliability.

Table 6.2.5.3 Rotated Component Matrix of Factor Analysis of Motivation for International Joint Venture Formation

Variables	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
24. Acquiring technology	0.9528	-0.1337	-0.0181	0.0554	0.1577	-0.0975
25. Technology transfer	0.9491	-0.1499	-0.0195	0.0644	0.1617	-0.1237
23.Improving ability on developing new technology	0.9491	-0.0397	-0.0126	0.1030	0.1492	-0.1120
22.Acquiring partner’s manufacturing equipment and technology	0.9315	-0.1294	-0.0418	0.0880	0.2216	-0.0826
17.Learning partner’s manufacturing technology	0.9220	0.0016	-0.0349	0.1073	0.0102	0.0278
26.Shortening the time from the product design to market entry	0.8958	-0.0141	0.0295	0.1343	0.1494	-0.1006
15. Learning management knowledge	-0.1807	0.9098	0.0883	0.0309	-0.0331	0.0438
13. Learning marketing knowledge	-0.2105	0.9070	0.0677	0.0643	-0.1268	0.0886
12.Learning international business knowledge	-0.0879	0.8912	0.0232	0.0387	-0.1953	0.1264
16.Learning partner’s human resource management	0.0057	0.8546	0.1406	0.0747	0.0258	0.0631
14.Improving new product design ability from partner	0.5481	0.6297	-0.0216	0.1522	0.0708	-0.0387
2. Spreading the risk of finance	0.0072	0.0686	0.9200	-0.0547	0.0074	0.1308
1. Sharing a large sum of fixed costs	0.0780	0.0417	0.8866	0.0103	0.0562	0.1319
4. Sharing the risk of business cycle	-0.0498	0.0797	0.8836	0.0871	-0.0086	0.0154
3.Reducing the risk caused by environment uncertainty	-0.1021	0.0952	0.8293	0.1427	-0.0729	-0.0131
8. Acquiring the economies of scale of production and sale	0.1477	0.0007	0.0035	0.9015	0.1155	-0.0796
7. Reducing competition	0.1868	0.0268	-0.0068	0.8467	0.0237	0.1069
9. Conforming to government policy	0.0635	0.2411	0.1295	0.7519	0.0597	0.2405
10.Maintaining or improving the competitive position	0.1284	0.0378	0.0973	0.7255	-0.0628	0.3700
21.Acquiring partner’s brands or patents	0.2046	-0.0853	-0.2063	0.0144	0.8553	0.0489
19. Acquiring sufficient capital	0.0243	0.1127	0.1333	-0.0032	0.7973	-0.0822
20. Sharing partner’s resource	0.2532	-0.1161	0.1410	0.0865	0.7819	0.0427
18.Acquiring low cost materials and components	0.3100	-0.3284	-0.1779	0.0393	0.7622	-0.0851
5.Expanding market and entering to new market	-0.0872	0.0784	0.0659	0.3989	-0.1290	0.8040
6.Extending the range of product and service	-0.1441	0.0254	0.0706	0.4496	-0.1049	0.7939
11.Facilitating diversified development	-0.2758	0.2329	0.1784	-0.0840	0.1590	0.7861

Table 6.2.5.4 Factor loadings and reliability of Factors of Motivation for International Joint Venture Formation

Factor	Variables	Factor loading	Cronbach α
Factor 1	24. Acquiring technology	0.9528	0.9802
	25. Technology transfer	0.9491	
	23. Improving ability on developing new technology	0.9491	
	22. Acquiring partner's manufacturing equipment and technology	0.9315	
	17. Learning partner's manufacturing technology	0.9220	
	26. Shortening the time from the product design to market entry	0.8958	
Factor 2	15. Learning management knowledge	0.9098	0.9005
	13. Learning marketing knowledge	0.9070	
	12. Learning international business knowledge	0.8912	
	16. Learning partner's human resource management	0.8546	
	14. Improving new product design ability from partner	0.6297	
Factor 3	2. Spreading the risk of finance	0.9200	0.9117
	1. Sharing a large sum of fixed costs	0.8866	
	4. Sharing the risk of business cycle	0.8836	
	3. Reducing the risk caused by environment uncertainty	0.8293	
Factor 4	8. Acquiring the economies of scale of production and sale	0.9015	0.8641
	7. Reducing competition	0.8467	
	9. Conforming to government policy	0.7519	
	10. Maintaining or improving the competitive position	0.7255	
Factor 5	21. Acquiring partner's brands or patents	0.8553	0.8222
	19. Acquiring sufficient capital	0.7973	
	20. Sharing partner's resource	0.7819	
	18. Acquiring low cost materials and components	0.7622	
Factor 6	5. Expanding the market and entering a new market	0.8040	0.8380
	6. Extending the range of product and service	0.7939	
	11. Facilitating diversified development	0.7861	

After the measurement of each factor's internal consistency, we constructed the label for each factor according to the meanings of the variables in each factor. Each factor of motivation for international joint venture formation is indicated in the following description.

Factor 1: Technological Acquisition

Factor 1 has six significant loadings and the variables are mainly related to the technological component. These variables are acquiring technology, exchanging the technology and transfer, improving the ability to develop new technology, acquiring partner's manufacturing equipment and technology, learning partner's manufacturing technology, and shortening the time from the product design to market entry. All these variables have positive signs and very high factor loading scores. This indicates the technological capability is a very important factor for the motivation for forming an international joint venture. Thus, this factor is labeled as "Technological Acquisition".

Factor 2: Knowledge Learning

Factor 2 has five high positively significant loadings and the variables are mainly related to knowledge learning which includes learning management knowledge, learning marketing knowledge, learning international business knowledge, learning partner's human resource management and improving new product design ability from partner. Thus, this factor is labeled as "Knowledge Learning".

Factor 3: Risk Sharing

Factor 3 has four significant loadings and the variables are mainly related to the risk sharing component. These variables are spreading the risk of finance, sharing a large sum of fixed costs, sharing the risk of the business cycle and reducing the risk caused by environment uncertainty. All these variables have positive signs. This factor is therefore labeled as "Risk Sharing".

Factor 4: Competitive Strategic Consideration

Factor 4 has four significant loadings and the variables are mainly related to competitive strategy consideration, which includes acquiring the economies of scale of production and sale, reducing competition, conforming to government policy and maintaining or improving the competitive position. All these variables have positive signs. Thus, this factor is labeled as "Competitive Strategic Consideration".

Factor 5: Resource Complementarity

Factor 5 has four significant loadings and the variables are mainly related to resource acquisition. These variables are acquiring partner's brands or patents, acquiring sufficient capital, sharing partner's resource and acquiring low cost materials and components. All these variables have positive signs. This factor is therefore labeled as "Resource Complementarity".

Factor 6: Market Expanding

Factor 6 has three significant loadings and the variables are mainly related to market expansion which includes expanding the market and entering a new market, extending the range of products and services and facilitating diversified development. All these variables have positive signs. Thus, this factor is labeled as "Market Expanding".

According to the above factor analysis, the 26 variables were summarized into six main factors, which relate to the motives for international joint venture formation in Taiwan. These are technological acquisition, knowledge learning, risk sharing, competitive strategy consideration, resource complementarity and market expansion. These factors of motivation are obtained from the factor analysis and each factor is labeled. The relationship between the motivation factors and sample characteristics were tested and are described next.

6.2.5.3 Motivations and Characteristics of Sample

The main goals of this subsection are to analyze the variance between the motivation for international joint venture formation and the characteristics of the sample which includes regions, industry, size, and ages of the host country parents. The analysis was conducted in two ways. Firstly, the factors of motivation for forming IJVs are examined over a number of characteristics of the sample. Secondly, the relation between the motivation factors and the sample characteristics are tested and elucidated. The relevant statistical methods were used to test their relationship.

6.2.5.3.1 Regions

The relation between the motivation factors of the host country parents to form the international joint ventures and the regions of foreign partners were tested. The ANOVA test was employed and the results are shown in Table 6.2.5.5.

Table 6.2.5.5 ANOVA Test of Taiwanese Parent’s Motivation Factors and Regions of Foreign Partners

Factors	Regions of foreign partners			F	Sig.
	Asian countries	American countries	European countries		
Technological Acquisition	2.9675	3.2045	1.8556	5.3148	0.0062*
Knowledge Learning	2.6545	2.7636	2.9600	1.0653	0.3481
Risk Sharing	2.4870	2.6250	2.7667	1.1782	0.3117
Competitive strategic Consideration	3.0844	3.0795	2.8000	1.5370	0.2196
Resource Complementarity	3.5942	3.3182	3.3167	1.3459	0.2645
Market Expanding	3.8268	3.8636	3.8889	0.0506	0.9507

As shown in Table 6.2.5.5, the results reveal that there are no significant differences between the motivational factors of host country parents and the regions of foreign partners, except for the technological acquisition motivation factor. From the mean value, we find that at the time when international joint ventures were formed to acquire technologies, most of their foreign partners are from American countries, followed by Asian countries. American countries are viewed as the original place of initial and high technology in the world, and Taiwan has a very close relationship with them. Therefore, the results are consistent with Taiwan’s historical background that some local companies cooperated with American enterprises to acquire technologies. For the Asian countries, especially Japan as described in Chapter 2, most Taiwanese companies also have a close relationship with Japanese companies. Thus, host country parents obtained technologies through cooperation with Japanese firms. These results are very consistent with the background of Taiwan’s economic growth.

6.2.5.3.2 Industry

The relative importance of different cooperative motives may be connected with the background industry of Taiwanese parents. Therefore, this subsection attempts to test whether a different industry group has different motives for forming an international joint venture. The results are shown in Table 6.2.5.6.

Table 6.2.5.6 t Test of Taiwanese Parent’s Motivation and Industry Group they Involved

Factors	Industry		t	Sig.
	Manufacturing group	Service group		
Technological Acquisition	3.17	1.98	4.3495	0.0000*
Knowledge Learning	2.66	2.87	-1.2579	0.2111
Risk Sharing	2.51	2.66	-1.0179	0.3109
Competitive strategic Consideration	3.12	2.82	2.4702	0.0150*
Resource Complementarity	3.58	3.28	1.6343	0.1050
Market Expanding	3.75	4.11	-2.2502	0.0264*

From the results of *t*- test shown in Table 6.2.5.6, we find that part of the results have a significant difference between the industry groups, but on the other hand, part of the results are not significant. The significant differences between industry groups and motivation factors are technological acquisition, competitive strategic consideration and market expanding. The manufacturing group has higher mean values than the service group in terms of technological acquisition and strategic consideration. On the other hand, the service group has higher mean values than the manufacturing group in market expansion.

These results explain that the firms in the service group view the primary benefit of forming an international joint venture as being expanding the market. Normally, companies in the service industry would not invest significantly in fixed assets and they mostly conduct market expansion to achieve the firm’s growth. As a result, firms in the service industry focus more on market expanding motives. On the other hand, technological acquisition is the most important issue for firms in manufacturing group. Most tacit technology could not be obtained from the market. It needs to be transferred

through cooperation with other companies. Thus, for manufacturing companies, there are incentives in technological acquisition and strategic consideration motives.

6.2.5.3.3 Size of Host Country Parents

This subsection conducted the analysis of whether the motives for forming an international joint venture would be different because of the Taiwanese parent’s size. The size of the host country parents is discussed separately in relation to capital, sales volume, and the number of employees. The ANOVA test was performed to test their relationship. The results are shown in Table 6.2.5.7, Table 6.2.5.8, and Table 6.2.5.9 and are indicated separately below.

Table 6.2.5.7 ANOVA Test of Taiwanese Parent’s Motivation and Capital

Factors	Capital				F	Sig.
	less than NT\$500 million	NT\$501 - 5,000 million	NT\$5,001 - 10,000 million	more than NT\$10,000 million		
Technological Acquisition	2.53	2.73	3.75	2.81	2.8670	0.0399*
Knowledge Learning	3.03	2.73	2.50	2.63	1.6572	0.1805
Risk Sharing	2.61	2.44	2.47	2.68	0.9130	0.4372
Competitive strategic Consideration	3.10	2.95	3.16	3.09	0.6951	0.5570
Resource Complementarity	3.22	3.64	3.72	3.39	1.6226	0.1883
Market Expanding	4.37	3.64	3.75	3.86	4.1893	0.0075*

As shown in Table 6.2.5.7, part of the results show a significant difference while part of the results show no significant difference between the motivational factors and the capital of the host country parents. There are significant differences on technological acquisition and market expansion. For the technological acquisition factor, it shows that the medium to biggest companies who have capital between NT\$5,001 to NT\$ 10,000 million, have a higher mean value on technological acquisition motivation. Those companies who have capital of less than NT\$ 5,000 million do not seem to have high motivation for acquiring technology when forming an international joint venture.

For the market expanding factor, the results show that the smallest companies who just have less than NT\$ 500 million in capital have the highest mean on the market expanding factor. This indicates that market expanding is the most important motive to small size enterprises. The reason might be because small companies do not have enough resources and capability to expand their business to other areas or countries. Therefore, they seem to regard forming an international joint venture as an effective mode to expand their market.

Next, the relation between the motivation factors and the sales volumes of the host country parents was examined. As shown in Table 6.2.5.8, there are no significant differences between the motivational factors of international joint venture formation and the sales volumes of host country parents. This indicates that the amount of sales volume of the host country parents did not affect their motives for forming international joint ventures.

Table 6.2.5.8 ANOVA Test of Taiwanese Parent's Motivation and Sales Volumes

Factors	Sales volume				F	Sig.
	less than NT\$500 million	NT\$501 - 5,000 million	NT\$5,001 - 10,000 million	more than NT\$10,000 million		
Technological Acquisition	2.56	2.69	3.04	3.05	0.7990	0.4970
Knowledge Learning	3.05	2.78	2.61	2.59	1.6459	0.1830
Risk Sharing	2.55	2.61	2.23	2.61	1.3297	0.2684
Competitive strategic Consideration	3.13	2.90	3.17	3.09	1.2404	0.2986
Resource Complementarity	3.08	3.57	3.59	3.56	1.4521	0.2317
Market Expanding	4.27	3.75	3.73	3.82	1.8785	0.1374

As shown in Table 6.2.5.9, the results of the ANOVA test show that there is only one significant difference between the motivational factors of international joint venture formation and the employee numbers of host country parents. The result is similar to the relationship between motivational factors and the capital of host country parents. Small size enterprises have more incentives for market expanding motivation.

Table 6.2.5.9 The ANOVA Test of Taiwanese Parent’s Motivation and Number of Employees

Factors	Number of employees				F	Sig.
	less than 200	201 - 500	501-1000	more than 1000		
Technological Acquisition	2.54	2.84	2.78	3.07	0.7746	0.5106
Knowledge Learning	3.01	2.88	2.60	2.57	2.2548	0.0860
Risk Sharing	2.76	2.36	2.43	2.61	1.5556	0.2043
Competitive strategic Consideration	3.00	3.07	2.93	3.12	0.6065	0.6121
Resource Complementarity	3.37	3.72	3.23	3.61	1.7488	0.1613
Market Expanding	4.32	3.91	3.51	3.77	4.7676	0.0037*

In summary, the size of host country parents related to capital, sales volume and the number of employees, has little significant difference on the motivational factors for international joint venture formation. However, the results reveal that small sized companies had a higher incentive motivation in the market expanding factor. The medium sized companies had more incentive on the technology acquisition.

6.2.5.3.4 Age of Host Country Parents

This subsection conducted analysis on whether the age of host country parents would affect the motives for international joint venture formation. The results of the ANOVA tests are shown in Table 6.2.5.10.

As the results show in Table 6.2.5.10, there is no significant difference between the motivation factors and the ages of the host country parents. Therefore, we conclude that the motivation for forming an international joint venture is not associated with the age of host country parents

Table 6.2.5.10 ANOVA Test of Taiwanese Parent’s Motivation and Ages of Host Country Parents

Factors	Ages of Host country parents					F	Sig.
	1-5 years	6-10 years	11-20 years	21-30 years	more than 30 years		
Technological Acquisition	3.67	2.13	2.37	2.49	3.13	2.0932	0.0866
Knowledge Learning	2.40	2.95	2.67	2.73	2.72	0.1937	0.9412
Risk Sharing	3.38	2.25	2.85	2.61	2.46	2.0266	0.0957
Competitive strategic Consideration	3.88	3.19	2.88	2.92	3.09	1.8063	0.1328
Resource Complementarity	3.50	2.56	3.23	3.48	3.63	2.0697	0.0897
Market Expanding	4.50	3.92	4.18	3.85	3.74	1.3876	0.2430

Based on the above analyses, the results of this empirical survey reveal that there are some associations between motivation factors and a number of sample characteristics such as the Taiwanese parent’s size. A summary of the analysis results is provided in Table 6.2.5.11.

Table 6.2.5.11 Summary the Relations between Motivations and Sample Characteristics

Sample Characteristics	Motivation of forming international joint ventures					
	Technological acquisition	Knowledge learning	Risk reduction	Strategic consideration	Resource complementarity	Market expanding
Regions of foreign partners Asian countries American countries European countries	F=5.315 p=0.0062*	No association	No association	No association	No association	No association
Industry groups Manufacturing group Service group	t=4.349 p=0.0000*	No association	No association	t=2.470 p=0.0150*	No association	t=-2.250 p=0.0264*
Size Sales volumes	No association	No association	No association	No association	No association	No association
Capital	F=2.867 p=0.0399*	No association	F=2.974 p=0.0348*	No association	No association	F=4.189 p=0.0075*
Number of employees	No association	No association	No association	No association	No association	F=4.768 p=0.0037*
Age Host country parents	No association	No association	No association	No association	No association	No association

On the whole, there is little evidence in the study of any statistical variation in the motivational factors across the various characteristics of the sample. The relevant results are outlined below.

The results show that one of the important motivations for forming international joint ventures is technological acquisition. Most host country parents cooperated with foreign partners; especially American and Japan companies, in order to acquire technologies. One of the reasons for these results might be the influence of historical background. Another possible reason is that most pioneer technologies are developed by American and Japanese companies. Therefore, host country parents have more cooperation with both countries’ firms in order to obtain high technologies.

The results showed that there are significant differences between industry groups and the motivational factors such as technological acquisition, strategic consideration and market expansion. The companies in the manufacturing group had more incentive for the technological acquisition and strategic consideration motivation. On the other hand, the companies in the service group had more incentive for market expansion.

The results also reveal that the size of host country parents, related to capital, sales volume and the number of employees had a small significant difference on the motivational factors for forming an international joint venture. There were significant differences in technological acquisition and market expansion factors. The results show that small size companies have higher incentive motivation on market expansion. The medium sized companies had more incentive on the technological acquisition factor.

6.3 Summary

This chapter examined the results of statistical analysis regarding core research dimensions and the relationship between the research dimensions and the sample characteristics. There are five core dimensions which were controlled namely; ownership, bargaining power, contribution and motivation in this study. Each was examined separately and the results have provided insight into the nature of each dimension.

The extent of control is measured by the responsibility for decision-making and high-level manager appointment. The results reveal that host country parents perceive the decision-making responsibility in terms of capital expenditures and sales target activities. Foreign parents take more responsibility on the production design decisions. Most of the decisions relating to production scheduling, manufacturing process, quality standards, and cost budgeting are taken by the joint ventures themselves. To sum up, the parents concentrate on controlling specific activities instead of controlling all the activities of the joint venture and exercise effective control through the appointment of key executive

members of the joint venture. However, the results reveal that most joint ventures had high autonomy to manage the company.

The results of equity shares held by the host country parents and foreign parents show that both parents have minority shareholding in the joint ventures, but the host country parents had slightly less equity than the foreign parents

Bargaining power can stem from critical resources such as technology, marketing expertise, investment amount, and access to export markets. In this study, four constructs of bargaining power are identified which are technological capability, management capability, financial capability, and marketing capability.

There is a wide range of resources that each parent might contribute to joint ventures. In this study, the results reveal that both parents contribute different resources to joint ventures according to their expert resources. The host country parents contribute more on organization resources, human resources, and local market knowledge. The foreign parents contribute more on the key components, brands or patents, and technologies. Both parents contribute complementarity resources to joint ventures and thus obtain the synthesis of cooperation.

There are many possible explanations regarding the motivation for forming an international joint venture. This study identifies six factors of motivation from 26 variables. These factors of motivation are technological acquisition, knowledge learning, risk sharing, competitive strategic consideration, resource complementarity and market expanding. The most important motivation for the host country parents were “Extending the range of products and services”, “Facilitating diversified development”, “Expanding the market and entering a new markets”, and “Acquiring partner’s brands or patents”. The results indicate that the companies in the manufacturing group had more incentive for technological acquisition and strategic consideration motivation. On the other hand, the companies in the service group had more incentive for market expansion.

The relationship between each core research dimension and the characteristics of the sample was examined in the relevant sections. We only summarize the most significant results here. The size of the host country parents and the percentage of board members representing parents, had a strong effect on the control that they exercised over the joint venture. The percentage of board members also had a strong influence on the equity share of joint ventures held by parents. The size of host country parents had a significant influence on their resource contribution to a joint venture. The results indicate that the big companies can contribute more resources to their joint ventures.

- ¹ The operating conditions investigation of overseas and foreign investment and the contribution to economic development of Taiwan—The Analysis Report, Investment Commission of the Ministry of Economic Affairs, 2003, p.5.

Chapter 7

RESEARCHING FINDINGS: CORRELATION AND REGRESSION ANALYSIS

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Chapter 7

RESEARCHING FINDINGS: CORRELATION AND REGRESSION ANALYSIS

7.1 Introduction

Chapter 6 has analyzed and discussed the descriptive analysis of core research dimensions. In this chapter, the relationships between control and the core dimensions of ownership, bargaining power, contribution, and motivation are analyzed and described. All the hypotheses posited by this study are tested. There are four sections organized in this chapter. Section 7.2 analyses the relationship between all the core research dimensions which encompass control, ownership, bargaining power, contribution, and motivation. The correlation analyses are exercised between each pair of dimensions. Section 7.3 draws a brief conclusion.

7.2 Correlation Analysis and Regression Analysis

In this section, we launch the correlation analysis and regression analysis. Relevant theories in terms of correlation and regression analysis are described in Chapter 5.3.10.3 and Chapter 5.3.10.5. As discussed previously, before we employ the regression analysis, we have to assess whether there are high associations between variables or not. In other words, we have to assess the collinearity or multi-collinearity between independent variables. At a time when multi-collinearity occurs, it has substantial effects on the results of the regression analysis. It will limit the size of the coefficient of determination and increases the difficulty in assessing the contribution of each independent variable and distorts the results substantially. Thus, the researcher has to assess the effects of multi-collinearity when exercising the regression analysis. The simplest and most obvious

method of identifying collinearity or multi-collinearity is to examine of the correlation matrix for the independent variables (Hair et. al, 1998). Hair et al. (1998) provides a step-by-step procedure of regression analysis details of which are described in chapter 5.3.10.5. In this section, this study applies his procedure when exercising the regression analysis. Therefore, correlation analysis is conducted through all the following sections.

7.2.1 The Analysis of Relationship between Ownership and Control

As discussed in Chapter 5.2, ownership is seen as a proxy for management control in joint ventures (Blodgett, 1991; Fagre and Wells, 1982; Stopford and Wells, 1972;). From their research results in China, Child and Yan (1999) suggest that the company can increase strategic control and influence operational control over joint ventures through acquiring a larger equity share. In her study in the Taiwan context, Lin (1995) finds that the greater the ownership the parents have, the greater the control they exercise over the joint ventures. Thus, this study posits that ownership and control have a positive relationship and the hypotheses are tested.

H₁: There is a significantly positive relationship between the proportion of ownership and the extent of control

H₁₋₁: The higher the proportion of equity ownership held by host country parents the stronger their control of the operational decision-making activities in a joint venture

H₁₋₂: The higher proportion of equity ownership held by host country parents the stronger their control of the appointment of high-level managers in a joint venture

A Pearson correlation matrix is obtained and shown in Table 7.2.1. The correlations between host country parent's equity share, control of decision-making activities, and high-level manager's appointment in joint ventures are significant and positive. Therefore, one can conclude that ownership is significantly correlated to the level of control over the operational decision-making activities and the appointment of high-level

managers in joint ventures. The simple regression analysis is then conducted to test the hypotheses.

Table 7.2.1 Correlations between Taiwanese Parent’s Ownership and Control of Decision-Making Activities and High-Level Manager Appointment in a Joint Venture

	Taiwanese Parent's Ownership	Decision-Making Activities	Appointment of High-Level Managers
Taiwanese Parent's Ownership	1.00		
Decision-Making Activities	0.60**	1.00	
Appointment of High-Level Managers	0.60**	0.74**	1.00

** Correlation is significant at the 0.01 level (2-tailed).

The hypotheses are tested by using simple regression analysis and the results are shown in Table 7.2.2 and Table 7.2.3. As shown in Table 7.2.2, the relationship between ownership and the control on decision-making activities shows a significant relationship with an R² value of 0.360. The F-value of 62.97 is significant at the 0.05 level. This implies that hypothesis 1-1 is substantiated. In other words, the higher proportion of equity ownership held by host country parents, the stronger control they exercise in the operational decision-making activities over the joint ventures. The equation is written as

The control of host country parents on DM = -0.043 + 0.008 TP_Equity

Table 7.2.2 Regression Analysis of Taiwanese Parent’s Ownership and the Control of Decision-Making Activities in a Joint Venture

Model	Sum of Square	Df	Mean Square	F	Sig.	R ²	Adjusted R ²
Regression	2.07	1	2.07	62.97	0.000*	0.360	0.354
Residual	3.68	112	0.03				
Model	Unstandardised Coefficients		Standardized Coefficients	t	Sig.		
	B	Std. Error	Beta				
(Constant)	-0.043	0.045	.	-0.952	0.343		
TP_Equity	0.008	0.001	0.600	7.935	0.000*		

Predictors: (Constant), TP Equity

Dependent Variable: TP_DM

* Significant at p<0.05

The same procedure is again conducted based on the appointment of high-level managers. From Table 7.2.3, the relationship between ownership and control of the high-level manager appointment in joint ventures has a significant relationship with an R² value of 0.359. The F-value of 62.84 is significant at the 0.05 level. In other words, there is a significant relationship between ownership and control in a high-level manager appointment in joint ventures. Therefore, hypothesis H₁₋₂ is also substantiated. The equation is written as

The control of host country parents on the HL manager appointment

$$= -0.022 + 0.009 \text{ TP_Equity}$$

Table 7.2.3 Regression Analysis of Taiwanese Parent’s Ownership and the Appointment of High-Level Managers in a Joint Venture

Model	Sum of Square	Df	Mean Square	F	Sig.	R ²	Adjusted R ²
Regression	2.34	1	2.32	62.84	0.000*	0.359	0.354
Residual	4.14	112	0.04				
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.		
	B	Std. Error	Beta				
(Constant)	-0.022	0.048		-0.463	0.644		
TP_Equity	0.009	0.001	0.600	7.927	0.000*		

Predictors: (Constant), TP Equity

Dependent Variable: TP_HL

* Significant at p<0.05

Overall, there are significant and positive relationships between the Taiwanese parent’s proportion of ownership and control of decision-making activities and also the appointment of high-level managers in joint ventures. This reveals that the higher the equity share of ownership held by host country parents, the more control on decision-making activities and high-level manager appointment they can exercise in joint ventures. These results are consistent with most researchers’ studies (Child and Yan, 1999; Lin, 1995; Blodgett, 1991; Fagre and Wells, 1982; Stopford and Wells, 1972). This indicates

that parents can gain more control through obtaining higher equity shares of joint ventures.

7.2.2 The Analysis of Relationship between Bargaining Power and Control

Previous literature demonstrates that bargaining power can be used to affect the outcome of the negotiation process (Lax and Sebenius 1986; Schelling 1956). Also it was reported that the bargaining power of partners is a critical variable in determining patterns of control in joint ventures (Blodgett, 1991; Harrigan and Newman, 1990; Lecraw, 1984). For example, Yan and Gray (1994) indicate that the proportions of bargaining power between parents will affect the control of IJV, including the percentage of board membership, nomination of general managers, structural control and perceived overall control. Moreover, Lecraw (1984) finds that bargaining power, which is influenced by technical leadership, advertising intensity and export capability of the multinational partner has a significant contribution to control. On the basis of the relevant literature, this study posits that there is relationship between bargaining power and the degree of control. Therefore, the hypothesis is presented as follow:

H₂: There is a significant relationship between bargaining power and the extent of control

In Chapter 6.2.3, we demonstrate relevant importance variables which will affect the ability of host country parents to gain power over its partners. Factor analysis was launched to extract a new set of bargaining power factors, such as technological capability, management capability, financial capability, and marketing capability. A correlation analysis between the factors of bargaining power and control was then conducted. The results are shown in Table 7.2.4.

Table 7.2.4 Correlations between Bargaining Power and the Control of Decision-Making Activities and Appointment of High-Level Managers in a Joint Venture

	DM_TP	HL_TP	B_Fina	B_Mark	B_Tech	B_Mana
Decision-Making	1.00					
Appointment of H-L Managers	0.74**	1.00				
Financial capability	-0.18	-0.05	1.00			
Marketing capability	0.26**	0.29**	0.00	1.00		
Technological capability	0.18	0.10	-0.31**	0.05	1.00	
Management capability	-0.07	-0.09	-0.16	0.03	0.00	1.00

** Correlation is significant at the 0.01 level (2-tailed)

The correlations between bargaining power factors and control identified by the decision-making and high-level managers’ appointment has a limited association. It shows that only the bargaining power of marketing capability has a positive relationship with control in terms of decision-making and high-level managers’ appointment in a joint venture.

The next step was to conduct a multiple regression (the Stepwise method is used) and the results are shown in Tables 7.2.5 and Table 7.2.6. From Table 7.2.5, the results indicate that only the bargaining power of marketing capability is included in the equation. The relationship between bargaining power and the extent of control in operational decision-making activities over joint ventures has a significant relationship with an R² value of 0.069. The F-value of 8.26 is significant at the 0.05 level. The equation is written as

The control of host country parents on the JV’s DM activities= 0.290 + 0.059 B_Mark

Table 7.2.5 Multiple Regression Analysis of Bargaining Power and Control of Decision-Making Activities in a Joint Venture

Model	Sum of Square	Df	Mean Square	F	Sig.	R ²	Adjusted R ²	
Regression	0.40	1	0.40	8.26	0.0049*	0.069	0.06	
Residual	5.36	112	0.05					
Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Variable not in the equation		
	B	Std. Error	Beta			Partial correlation	t value	Sig.
(Constant)	0.290	0.020		14.154	0.343			
B_Mark	0.059	0.021	0.262	2.873	0.000*			
B_Tech						0.169	1.807	0.074
B_Manage						-0.077	-0.818	0.415
B_Finan						-0.184	-1.971	0.051

Predictors: (Constant), B_Mark
Dependent Variable: TP_DM
* Significant at p<0.05

The same procedure was conducted based on the high-level manager appointment. From Table 7.2.6, the results also indicate the bargaining power of marketing capability is included in the equation. The relationship between the bargaining power of marketing capability and the control on the JV’s high-level manager appointment has a significant relationship with an R² value of 0.087. The F-value of 10.672 is significant at the 0.05 level. The equation is written as

The control of host country parents on the HL manager appointment

$$= 0.331 + 0.071 \text{ B_Mark}$$

Table 7.2.6 Multiple Regression Analysis of Bargaining Power and Control of High-Level Manager Appointment over Joint Ventures

Model	Sum of Square	Df	Mean Square	F	Sig.	R ²	Adjusted R ²	
Regression	0.563	1	0.563	10.672	0.001*	0.087	0.079	
Residual	5.903	112	0.053					
Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Variable not in the equation		
	B	Std. Error	Beta			Partial correlation	t value	Sig.
(Constant)	0.331	0.022		15.376	0.000*			
B_Mark	0.071	0.022	0.295	3.267	0.001*			
B_Tech						0.091	0.962	0.338
B_Manage						(0.107)	(1.138)	0.258
B_Finan						(0.052)	(0.544)	0.588

Predictors: (Constant), B_Mark
Dependent Variable: TP_HL
* Significant at p<0.05

Although the R² value is considerably low (0.069 and 0.087), indicating that the bargaining power of marketing capability explains very little of the control of decision-making activities and high-level manager appointment in the joint venture. Statistically, it is still a significant and positive predictor. Thus, an increase in the bargaining power of marketing capability may increase the extent of control over the joint venture. Other variables which are not included in the equation do not have any influence on the extent of control. Overall, the findings provide very little support for hypothesis H₂.

In summary, bargaining power and control are not closely associated. Only the bargaining power of marketing capability and control has a modest and positive relationship. Therefore, hypothesis H₂ is only partially substantiated. These results are not consistent with some other researchers' results. One possible explanation is that bargaining power affects the outcome of the negotiation process, but it does not guarantee any direct influence on control. The parents exercising their control over joint ventures are normally affected by many possible factors such as their equity share and resources which they contribute to the joint venture. Equity share and resources are

more measurable items. However, bargaining power cannot be measured easily regarding the nature of its concepts, as it involves the process of negotiation procedure. Therefore, it might affect control but not directly. Therefore, most factors of bargaining power do not have a relationship with control.

7.2.3 The Analysis of Relationship between Contribution and Control

Resource-dependency theory suggests that the resources provided by the partners can increase a partner's control over the joint venture. From their empirical investigation, the contributions supplied by each partner significantly affect control over the venture (Child and Yan, 1999; Killing, 1983; Lin, 1995). Lin (1995) also finds that different resource contributions result in different scopes of control by each partner.

Based on the relevant literature, this study posits that the degree of control and resource contributions supplied by the host country parents has a positive relationship and the hypotheses will be tested. This study classifies resource contribution into five main resource factors which are physical resources, invisible resources, financial resources, human resources, and organizational resources. Control is also identified by decision-making activities and high-level managers' appointment. Thus, the hypotheses are presented separately.

H₄: There is a significant relationship between resource contribution of host country parents and the extent of control they exercise in a joint venture

H_{4-1a}: Host country parents with higher physical resource contribution will have stronger control of operational decision-making activities in a joint venture

H_{4-1b}: Host country parents with higher physical resource contribution will have stronger control of the appointment of high-level management in a joint venture

H_{4-2a}: Host country parents with higher invisible resource contribution will have stronger control of operational decision-making activities in a joint venture

- H_{4-2b}: Host country parents with higher invisible resource contribution will have stronger control of the appointment of high-level management in a joint venture
- H_{4-2a}: Host country parents with higher invisible resource contribution will have stronger control of operational decision-making activities in a joint venture
- H_{4-2b}: Host country parents with higher invisible resource contribution will have stronger control of the appointment of high-level management in a joint venture
- H_{4-3a}: Host country parents with higher financial resource contribution will have stronger control of decision-making activities in a joint venture
- H_{4-3b}: Host country parents with higher financial resource contribution will have stronger control of the appointment of high-level management in a joint venture
- H_{4-4a}: Host country parents with higher human resource contribution will have stronger control of operational decision-making activities in a joint venture
- H_{4-4b}: Host country parents with higher human resource contribution will have stronger control of the appointment of high-level management in a joint venture
- H_{4-5a}: Host country parents with higher organizational resource contribution will have a stronger control of operational decision-making activities in a joint venture
- H_{4-5b}: Host country parents with higher organizational resource contribution will have stronger control of the appointment of high-level management in a joint venture

A Pearson correlation matrix is obtained as shown in Table 7.2.7. The correlations between the Taiwanese parent's resource contributions, control of decision-making activities and the appointment of high-level managers in joint ventures are strong and positive. The results indicate that all the factors of resource contribution and control have significant relationships. Therefore, one can conclude that resource contribution and control are significantly associated.

Table 7.2.7 Correlations between Resource Contribution and Control of Decision-Making Activities and the Appointment of High-Level Managers in a Joint Venture

	TP_DM	TP_HL	Physical	Invisible	Finance	Human	Organiz
TP_DM	1.00						
TP_HL	0.74**	1.00					
Physical	0.66**	0.65**	1.00				
Invisible	0.68**	0.66**	0.73**	1.00			
Finance	0.58**	0.57**	0.49**	0.63**	1.00		
Human	0.67**	0.66**	0.70**	0.85**	0.67**	1.00	
Organization	0.70**	0.63**	0.75**	0.89**	0.61**	0.87**	1.00

**Correlation is significant at the 0.01 level (2-tailed)

From Table 7.2.7, the results reveal that organizational resources are the strongest influence on the control of decision-making in joint ventures, followed by invisible resources and human resources. Control of the appointment of high-level managers, human resources and invisible resources are the strongest influences, followed by physical resources. In summary, all the contribution factors have a very strong and positive association with control of decision-making activities and high-level manager appointment.

However, correlation matrix displays show that there are multi-collinearity problems between resource factors. One of the methods which could be used to solve the problem of multi-collinearity is to use the simple correlation between each independent and dependent variable. From that, we could understand the predictor-dependent variable relationships (Hair et al., 1998). Thus, simple regression analysis for these five resource factors was exercised, and hypotheses were tested separately. The regression analysis of the Taiwanese parent's resource contributions and control of decision-making in the venture are shown in Table 7.2.8.

From Table 7.2.8, the overall F value and the p-value are statistically significant. The R square for these regressions is quite high and has relatively explanatory value with R² (most of them are over 0.4). These results show that relationships between contribution factors of physical, invisible, financial, human, and organizational ability resource and

control of decision-making activities over joint ventures are significant. In other words, the resource contributions supplied by host country parents do have an effect on control of decision-making activities in the venture. Therefore, H_{4-1a} , H_{4-2a} , H_{4-3a} , H_{4-4a} , and H_{4-5a} are substantiated. The equations are written as

The control of host country parents on the JV's DM = $0.123 + 0.103 \text{ TP_Physical}$

The control of host country parents on the JV's DM = $-0.057 + 0.140 \text{ TP_Invisible}$

The control of host country parents on the JV's DM = $-0.227 + 0.147 \text{ TP_Finance}$

The control of host country parents on the JV's DM = $-0.140 + 0.147 \text{ TP_Human}$

The control of host country parents on the JV's DM = $-0.359 + 0.182 \text{ TP_Organ}$

Table 7.2.8 Regression analysis of Host Country Parent’s Resource Contributions and Control of Decision-Making Activities in a Joint Venture

Dependent Variable	Sum of Squares	df	Mean Square	F	Sig.	R ²	\hat{R}^2	Predictors	Unstandardized Coefficients			t	Sig
									B	Std. Error	Beta		
TP_DM	Regression	2.485	1	2.485	85.125	0.000*	0.432	(Constant)	0.123	0.024		5.066	0.000*
	Residual	3.269	112	0.029			0.427	Physical	0.103	0.011	0.657	9.226	0.000*
TP_DM	Regression	2.699	1	2.699	98.945	0.000*	0.469	(Constant)	-0.057	0.038		-1.489	0.139
	Residual	3.055	112	0.027			0.464	Invisible	0.140	0.014	0.685	9.947	0.000*
TP_DM	Regression	1.911	1	1.911	55.695	0.000*	0.332	(Constant)	-0.227	0.071		-3.180	0.002*
	Residual	3.843	112	0.034			0.326	Finance	0.147	0.020	0.576	7.463	0.000*
TP_DM	Regression	2.603	1	2.603	92.510	0.000*	0.452	(Constant)	-0.140	0.047		-2.953	0.004*
	Residual	3.151	112	0.028			0.447	Human	0.147	0.015	0.673	9.618	0.000*
TP_DM	Regression	2.794	1	2.794	105.745	0.000*	0.486	(Constant)	-0.359	0.065		-5.530	0.000*
	Residual	2.959	112	0.026			0.481	Organization	0.182	0.018	0.697	10.283	0.000*

Predictors: (Constant), Physical, Invisible, Finance, Human, Organization resource

Dependent Variable: TP_DM

* Significant at p<0.05

Overall, these results reveal that the more resource contributions supplied by host country parents into joint ventures, the more control on decision-making activities they exercise over joint ventures. These results are consistent with most researcher’s studies (Child and Yan, 1999; Lin, 1995; Killing, 1983).

The same procedures of regression analysis were performed on the relationship between resource contribution and the control of high-level manager appointment in the joint venture. The results are shown in Table 7.2.9.

From Table 7.2.9, the overall F value and the p-value are statistically significant. The R squares for these regressions are quite high and have relatively explanatory value with R² (most of them are over 0.4). These results also show that relationships between contribution factors and control of high-level manager appointment in joint ventures are significant and positive. Therefore, one can conclude that resource contributions supplied by host country parents do have an effect on control of high-level manager appointment in the ventures. The H_{4-1b}, H_{4-2b}, H_{4-3b}, H_{4-4b}, and H_{4-5b} are substantiated. The equation is written as

The control of host country parents on the JV’s HL = 0.155 + 0.108 TP_Physical

The control of host country parents on the JV’s HL = -0.022 + 0.142 TP_Invisible

The control of host country parents on the JV’s HL = -0.209 + 0.154 TP_Finance

The control of host country parents on the JV’s HL = -0.114 + 0.152 TP_Human

The control of host country parents on the JV’s HL = -0.295 + 0.176 TP_Organ

Table 7.2.9 Regression Analysis: of Host Country Parent’s Resource Contribution and Control of the Appointment of High-Level Managers in a Joint Venture

Dependent Variable	Sum of Squares	df	Mean Square	F	Sig.	R ²	\hat{R}^2	Predictors	Unstandardized Coefficients			t	Sig
									B	Std. Error	Beta		
TP_HL	Regression	2.745	1	2.745	82.635	0.425	0.419	(Constant)	0.155	0.026		5.992	0.000*
	Residual	3.721	112	0.033				Physical	0.108	0.012	0.652	9.090	0.000*
TP_HL	Regression	2.792	1	2.792	85.137	0.432	0.427	(Constant)	-0.022	0.042		-0.528	0.598
	Residual	3.673	112	0.033				Invisible	0.142	0.015	0.657	9.227	0.000*
TP_HL	Regression	2.080	1	2.080	53.099	0.322	0.316	(Constant)	-0.209	0.076		-2.736	0.007*
	Residual	4.386	112	0.039				Finance	0.154	0.021	0.567	7.287	0.000*
TP_HL	Regression	2.789	1	2.789	84.947	0.431	0.426	(Constant)	-0.114	0.051		-2.235	0.027*
	Residual	3.677	112	0.033				Human	0.152	0.016	0.657	9.217	0.000*
TP_HL	Regression	2.601	1	2.601	75.368	0.402	0.397	(Constant)	-0.295	0.074		-3.983	0.000*
	Residual	3.865	112	0.035				Organization	0.176	0.020	0.634	8.681	0.000*

Predictors: (Constant), Physical, Invisible, Finance, Human, Organization resource

Dependent Variable: TP_HL

* Significant at p<0.05

Both results reveal strong and positive association of the relationships between contribution factors and control of decision-making activities and high-level manager appointment. Overall, the more resource contributions supplied by host country parents to the joint venture, the more control they exercise over the venture. These results are consistent with most studies (Child and Yan, 1999; Lin, 1995; Killing 1983). The control of host country parents can be derived through the resource contribution, no matter what kind of resources they provide to the joint venture.

7.2.4 The Analysis of Relationship between Motivation and Control

Plenty of literature has investigated the objectives for the international joint venture's formation, and research results have revealed many possible explanations. These explanations are variants according to the four theoretical perspectives of transaction cost, strategic behaviour, resource dependency, and organizational learning (Lin, 1995; UNECE, 1988; Datta, 1988; Contractor and Lorange, 1988; Kogut, 1988; Porter and Fuller, 1986; Daniels, 1985; Harrigan, 1985; Beamish, 1984; Maniti and Smiley, 1983; Killing, 1983).

However, very few studies have examined the relationship between motivation for forming international joint ventures and the control the parents exercise over joint ventures. From her study in the Taiwan context, Lin (1995) reports that different motivations have a different level of control over the ventures when forming international joint ventures. She indicates that the host country parents who have learning motivation have higher control in the joint ventures, in order to specifically learn knowledge from foreign partners. From her research results, we cannot explain the relationship between other motivations and control very well. Adopting her research results, this study intends to investigate the relationship between the motivation for international joint venture formation and control, using different analysis methods. This study posits that the motivation of the Taiwanese parent in forming international joint ventures and control has a positive relationship and the hypotheses will be tested.

H 7: There is a significant relationship between the motivation of host country parents forming international joint ventures and the extent of control they exercise over a joint venture

In Chapter 6.2.5, we elucidate the relatively important variables of motivation for international joint venture formation and launched factor analysis to extract a new set of motivational factors which are technological acquisition, knowledge learning, risk sharing, competitive strategic consideration, resource complementarity and market expanding. The correlation analysis was carried out using those motivational factors and the results are shown in Table 7.2.10.

Table 7.2.10 Correlations between Motivation Factors and Control of Decision-Making Activities and the Appointment of High-Level Managers in a Joint Venture

Constructs	TP_DM	TP_HL	M_Tech	M_Know	M_Risk	M_Strat	M_Reso	M_Mark
TP_DM	1.00							
TP_HL	0.74**	1.00						
M_Tech	0.10	0.02	1.00					
M_Know	-0.11	-0.01	0.00	1.00				
M_Risk	-0.12	-0.16	0.00	0.00	1.00			
M_Strat	0.29**	0.33**	0.00	0.00	0.00	1.00		
M_Resou	-0.20*	-0.10	0.00	0.00	0.00	0.00	1.00	
M_Mark	-0.29**	-0.28**	0.00	0.00	0.00	0.00	0.00	1.00

**Correlation is significant at the 0.01 level (2-tailed)
*Correlation is significant at the 0.05 level (2-tailed)

The results are shown in Table 7.2.10. A limited number of significant correlations apply to the relationship between the motivation factors of host country parents, control of decision-making activities, and the appointment of high-level managers in joint ventures. Strategic consideration motivation has a modest positive relationship on the venture’s decision-making activities and high-level manager’s appointment, but market expanding motivation has a negative relationship to control. Resource complementarity only has a weak relationship to control of a joint venture’s decision-making activities. Other factors such as the technological acquisition, knowledge learning, and risk sharing do not have

associations with control of decision-making and a high-level manager’s appointment in a joint venture.

In the next step, a multiple regression (the Stepwise method is used) was exercised and the results are shown in Table 7.2.11 and Table 7.2.12. From Table 7.2.11, the results indicate that the market expansion motive, strategic consideration motive, and resource complementarity motive are all included in the equation. The relationship between motive and the extent of control in the operational decision-making activities in joint ventures has a significant relationship with an R² value of 0.203. The F-value of 9.355 is significant at the 0.05 level. The strategic consideration motive and the extent of control have a positive relationship; however, the relationships between the market expanding motive and resource complementarity motive and the extent of control have a negative relationship. The equation is written as

The control of host country parents on the JV’s DM activities

$$= 0.461 - 0.123 \text{ TP_MARK} + 0.155 \text{ TP_STRAT} - 0.049 \text{ TP_RESO}$$

Table 7.2.11 Multiple Regression Analysis of Motivation and Control of Decision-Making Activities in a Joint Venture

Model	Sum of Square	Df	Mean Square	F	Sig.	R ²	Adjusted R ²	
Regression	1.170	3	0.390	9.355	0.000*	0.203	0.182	
Residual	4.584	110	0.042					
Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Variable not in the equation		
	B	Std. Error	Beta			Partial correlation	t value	Sig.
(Constant)	0.461	0.144		3.192	0.002*			
TP_MARK	(0.123)	0.028	(0.419)	(4.440)	0.000*			
TP_STRAT	0.155	0.036	0.403	4.280	0.000*			
TP_RESO	(0.049)	0.023	(0.183)	(2.109)	0.037*			
TP_TECH						(0.008)	-0.085	0.932
TP_KNOW						(0.130)	-1.364	0.175
TP_RISK						(0.130)	-1.372	0.173

Predictors: (Constant), TP_MARK, TP_STRAT, TP_RESO
Dependent Variable: TP_DM
* Significant at p<0.05

From Table 7.2.12, the results indicate that the motives for market expansion and strategic consideration are included in the equation. The relationship between motivation and control on the high-level manage appointment over joint ventures has a significant relationship with an R² value of 0.168. The F-value of 11.246 is significant at the 0.05 level. The motive of strategic consideration and the extent of control have a positive relationship; however, the motive for market expansion and control has a negative relationship. The equation is written as

The control of host country parents on the JV’s HL manager appointment

$$= 0.254 + 0.162 \text{ TP_STRAT} - 0.109 \text{ TP_MARK}$$

Table 7.2.12 Multiple Regression Analysis of Motivation and Control of High-Level Manager Appointment in a Joint Venture

Model	Sum of Square	Df	Mean Square	F	Sig.	R ²	Adjusted R ²	
Regression	1.089	2	0.545	11.246	0.000*	0.168	0.154	
Residual	5.376	111	0.048					
Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Variable not in the equation		
	B	Std. Error	Beta			Partial correlation	t value	Sig.
(Constant)	0.254	0.128		1.989	0.049*			
TP_STRAT	0.162	0.039	0.398	4.208	0.000*			
TP_MARK	(0.109)	0.029	(0.350)	(3.701)	0.000*			
TP_TECH						(0.147)	(1.557)	0.122
TP_KNOW						0.017	0.180	0.858
TP_RISK						(0.152)	(1.611)	0.110
TP_RESO						(0.127)	(1.338)	0.184

Predictors: (Constant), TP_MARK, TP_STRAT
Dependent Variable: TP_DM
* Significant at p<0.05

Consistent with the correlation results, the multiple regression analyses reveal a limited number of significant correlations between the motives of host country parents and the control of decision-making activities, as well as the appointment of high-level managers

in joint ventures. The motive of strategic consideration does have a modest positive relationship on the venture's decision-making activities and high-level manager's appointment. However, the motive for market expansion has a negative relationship to control. The resource complementarity motive has only a weak negative relationship with the extent of control of a joint venture's decision-making activities. Therefore, the findings only provide partial support for hypothesis H₇.

One possible explanation is the strategic consideration which seems to be the main concern when Taiwanese companies form a joint venture with foreign partners. Taiwanese companies seem not to pursue tight control over their joint ventures in order to attain their objectives. For example, from the joint venture case of Talee-Isetan department store described in Appendix I-A, this Taiwanese parent adopts the "with the safe to make safe" strategy to achieve its objective and it does not get very involved in the management of its subsidiary. Another example which might be able to be explained the market expansion motivation is the COSTCO joint venture formed by the American COSTCO Corporation and the President Department Group (see Appendix I-B). For the host parent, it has its own warehouse stores, but it adopts the mode of joint venture to expand its business field. It also does not intervene in the management of the child and let its foreign partner take over all the management activity.

Of course, these two examples cannot represent all cases, but they can provide some information about the relationship between motivation and control. The reader should bear in mind that the objectives for the formation of international joint ventures have many possible explanations with respect to four theoretical perspectives, namely, transaction cost, strategic behaviour, resource dependency, and organizational learning. Therefore, it is difficult to find direct or single associations between motivation and control.

7.2.5 The Analysis of the Relationship between Bargaining Power and Ownership

Lecraw (1984) finds that the bargaining power of multinational firms and the host of LDCs has a strong influence on the percentage of equity ownership. When the host country has the country-specific advantages, the local investors (host parents) have the greater bargaining power and higher ownership. Fagre and Wells (1982) use a bargaining power framework to explain the relationship between the multinational firm’s characteristics and equity ownership. Theoretically, when the partners have higher bargaining power, they can have higher opportunity and capability to obtain greater equity shares. Thus, this study posits the hypothesis as follows:

H ₃: There is a significant relationship between bargaining power and the proportion of ownership

The correlations analysis between these bargaining power factors and the ownership were conducted. The results of the correlation are shown in Table 7.2.13.

Table 7.2.13 Correlations between Taiwanese Parent’s Bargaining Power and Equity Share of Host Country Parents Held in a Joint Venture

	Financial capability	Marketing capability	Technological capability	Management capability	Host country Parent Ownership
Financial capability	1.00				
Marketing capability	0.00	1.00			
Technological capability	-0.31**	0.05	1.00		
Management capability	-0.16	0.03	0.00	1.00	
Host country Parent Ownership	-0.03	0.23**	0.11	-0.04	1.00

**Correlation is significant at the 0.01 level (2-tailed)

The results are shown in Table 7.2.13. The relationship between the factors of bargaining power and equity shares of joint ventures held by host country parents reveal only one significant correlation. The marketing capability factor has a modest relationship with ownership. But overall, the results show very weak correlations

between bargaining power factors and the equity shares in joint ventures held by host country parents.

Next, a multiple regression was conducted to measure the relationship between ownership and bargaining power. The results are shown in Table 7.2.14. From Table 7.2.14, the results indicate that only the bargaining power of marketing capability is included in the equation. The relationship between bargaining power and the proportion of equity shares held by host country parents has a significant relationship with an R² value of 0.054. The F-value of 6.372 is significant at the 0.05 level. The equation is written as

The equity shares held by the of host country parents = 41.148 + 3.880 B_Mark

Table 7.2.14 Multiple Regression Analysis of Bargaining Power and the Proportion of Ownership

Model	Sum of Square	Df	Mean Square	F	Sig.	R ²	Adjusted R ²	
Regression	1701.367	1	1701.367	6.372	0.013*	0.054	0.045	
Residual	29903.541	112	266.996					
Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Variable not in the equation		
	B	Std. Error	Beta			Partial correlation	t value	Sig.
(Constant)	41.148	1.530		26.888	0.000*			
B_Mark	3.880	1.537	0.232	2.524	0.013*			
B_Tech						0.097	1.024	0.308
B_Manage						(0.051)	(0.541)	0.590
B_Finan						(0.035)	(0.367)	0.715

Predictors: (Constant), B_Mark
Dependent Variable: TP_DM
* Significant at p<0.05

As mentioned in the previous section, although the R² value is considerably low (0.054), which indicates the the bargaining power of marketing capability explains very little in terms of the proportion of equity shares held by host country parents. Statistically, it is

still a significant and positive predictor. Thus, the bargaining power of marketing capability and ownership has a significant and positive relationship which is consistent with the correlation results, but other variables which are not included in the equation do not have any influence on ownership. Overall, the findings provide very little support for hypothesis H₃.

In summary, bargaining power and ownership are not closely associated. A higher bargaining power variable is expected to have greater influence on equity shares. However, the findings have provided very little support for hypothesis H₃. We can only conclude that bargaining power cannot be used to predict the degree of ownership of parents. From the previous section, one possible reason is because bargaining power will affect the outcome of the negotiation process, but does not guarantee direct influence on ownership. Bargaining power has a lot of involvement in processes throughout the negotiation procedure and the outcome of negotiation is not always represented by ownership. It may be represented on the non-capital contractual resources. Thus, only a small part of the relationship between bargaining power and ownership could be explained. There might be other variables that can be used to better explain their relationships.

7.2.6 The Analysis of the Relationship between Contribution and Ownership

Based on the existing literature, some researchers deem that resource contributions to joint ventures will affect the amount of equity shares (Fagre and Wells, 1982; Harrigan, 1985; Gomes-Casseres, 1990; Blodgett, 1991; Lin, 1995; Pan, 1996). When parents contribute resources to joint ventures, they can acquire certain equity shares of joint ventures. Theoretically, the more resources provided by the parent, the more power they can acquire from a greater number of equity shares. Therefore, this study posits that the contribution supplied by host country parents and the equity shares they hold in joint ventures have a positive relationship and the following hypotheses were tested.

- H_{5.1}: Host country parents with higher physical resource contribution will have a higher proportion of equity shares in a joint venture
- H_{5.2}: Host country parents with higher invisible resource contribution will have a higher proportion of equity shares in a joint venture
- H_{5.3}: Host country parents with higher financial contribution will have a higher proportion of equity shares in a joint venture
- H_{5.4}: Host country parents with higher human resources contribution will have a higher proportion of equity shares in a joint venture
- H_{5.5}: Host country parents with higher organizational resource contribution will have a higher proportion of equity shares in a joint venture

The correlations analysis between these contribution factors and ownership were carried out. The results of correlation analysis are shown in Table 7.2.15 which shows that the correlations between the Taiwanese parent’s resource contribution and the proportion of equity shares are strong and positive. Therefore, one can conclude that resource contributions provided by host country parents and ownership in joint ventures are closely associated.

Table 7.2.15 Correlations between Taiwanese Parent’s Resource Contributions and the Proportion of Equity Shares in a Joint Venture

	Taiwanese Parent's Ownership	C_Phys	C_Invi	C_Fin	C_Hum	C_Org
Taiwanese Parent's Ownership	1.00					
C_Phys	0.50**	1.00				
C_Invi	0.61**	0.73	1.00			
C_Fin	0.90**	0.49	0.63	1.00		
C_Hum	0.63**	0.70	0.85	0.67	1.00	
C_Org	0.57**	0.75	0.89	0.61	0.87	1.00

**Correlation is significant at the 0.01 level (2-tailed)

In Table 7.2.15, the results indicate that financial resources have a nearly perfect correlation with the ownership. It is clear that financial resources are always related to equity shares. Additionally, human resources, invisible resources, organisational resources and physical resources also have strong relations with ownership.

Again, because of the high multi-collinearity among resources factors the relationships apply between resource factors and ownership as explained in section 7.2.3, simple regression analyses was carried out separately and hypotheses were tested. The results of Taiwanese parent's resource contribution and the proportion of equity shares are shown in Table 7.2.16.

From Table 7.2.16, the overall F value and the p-value are statistically significant. The R square for these regressions is quite high and has relative explanatory value with R^2 . These results show that the relationships between contribution factors supplied by Taiwanese and ownership of joint ventures are significant and positive. Therefore, H_{5-1} , H_{5-2} , H_{5-3} , H_{5-4} , and H_{5-5} are all substantiated. The equations is written as

The equity shares held by host country parents = $31.75 + 5.76 \text{ TP_Physical}$

The equity shares held by host country parents = $18.12 + 9.29 \text{ TP_Invisible}$

The equity shares held by host country parents = $-18.74 + 17.07 \text{ TP_Finance}$

The equity shares held by host country parents = $11.40 + 10.14 \text{ TP_Human}$

The equity shares held by host country parents = $1.8 + 11.05 \text{ TP_Organ}$

The results reveal that resource contributions supplied by host country parents have an effect on the ownership of joint ventures. The results are consistent with most researcher studies (Pan, 1996; Lin, 1995; Blodgett, 1991; Gomes-Casseres 1990; Harrigan, 1985; Fagre and Wells, 1982). The more resources contributed by host country parents the higher their proportion of JV's equity shares.

Table 7.2.16 Regression Analysis: of Taiwanese Parent’s Resource Contributions and the Proportion of Equity Shares

Dependent Variable	Sum of Squares	df	Mean Square	F	Sig.	R ²	\hat{R}^2	Predictors	Unstandardized Coefficients			t	Sig
									B	Std. Error	Beta		
TP_Own	Regression	7837.31	1	7837.31	36.932	0.000*	0.248	(Constant)	31.75	2.06		15.390	0.000*
	Residual	23767.60	112	212.21				Physical	5.76	0.95	0.50	6.077	0.000*
TP_Own	Regression	11905.40	1	11905.40	67.687	0.000*	0.377	(Constant)	18.12	3.06		5.916	0.000*
	Residual	19699.50	112	175.89				Invisible	9.29	1.13	0.61	8.227	0.000*
TP_Own	Regression	25631.18	1	25631.18	480.553	0.000*	0.811	(Constant)	-18.74	2.82		-6.653	0.000*
	Residual	5973.73	112	53.34				Finance	17.07	0.78	0.90	21.922	0.000*
TP_Own	Regression	12460.24	1	12460.24	72.895	0.000*	0.394	(Constant)	11.40	3.69		3.088	0.003*
	Residual	19144.66	112	170.93				Human	10.14	1.19	0.63	8.538	0.000*
TP_Own	Regression	10270.85	1	10270.85	53.920	0.000*	0.325	(Constant)	1.80	5.51		0.327	0.744
	Residual	21334.06	112	190.48				Organization	11.05	1.50	0.57	7.343	0.000*

Predictors: (Constant), Physical, Invisible, Finance, Human, Organization resource
Dependent Variable: TP_Ownership
* Significant at p< 0.05

7.2.7 **The Analysis of the Relationship between Motivation and Ownership**

Gomes-Casseres (1989) elucidates that the motivation for cooperation will result in a different ownership structure for foreign subsidiaries. From her empirical investigation, Lin (1995) finds that a different motivation for international joint venture formation will affect the proportion of ownership held by host country parents. She also finds that Taiwanese companies with learning driven motivation have a higher proportion of ownership than for other kinds of motives. Thus, this study posits a hypothesis as follow.

H₈: There is a significant relationship between the motivation of host country parents forming international joint ventures and their ownership in a joint venture

The results of correlation analysis are shown in Table 7.2.17. It reveals no significant associations at all about the relationship between Taiwanese parent’s motives for forming international joint ventures and the proportion of equity ownership. Therefore, hypothesis 8 is not substantiated. In other words, there is no relationship between motivation for a joint venture’s formation and the proportion of ownership.

Table 7.2.17 Correlations between Taiwanese Parent’s Motivations for Forming Joint Ventures and the Proportion of Ownership

	M_Tech	M_Know	M_Risk	M_Stra	M_Reso	M_Mark	TP_Own
M_Tech	1.00						
M_Know	0.00	1.00					
M_Risk	0.00	0.00	1.00				
M_Stra	0.00	0.00	0.00	1.00			
M_Reso	0.00	0.00	0.00	0.00	1.00		
M_Mark	0.00	0.00	0.00	0.00	0.00	1.00	
Taiwanese Parent's Ownership	0.10	-0.07	-0.15	0.13	0.00	-0.16	1.00

One possible reason is that the motivation of joint venture formation has very wide and varied explanations, depending on the objectives of the parents. On the other hand, when host country parents and foreign partners have an agreement to form an international joint venture, ownership is a basic and initial resource which they have to

invest in joint ventures. Therefore, no matter what kind of motivation the parents have, they all have to put capital into joint ventures and the rights of equity shares. The findings can give us a different way to think about the cooperation between the partners based on the objectives of parents.

7.2.8 The Analysis of the Relationship between Contribution and Bargaining Power

The issue of the determinants of bargaining power have been presented by some studies and research results indicate that the bargaining power of parents can be increased when parents contributed resources to joint ventures (Inkpen and Beamish, 1997; Yan and Gray, 1994; Gomes-Casseres, 1990; Kobrin, 1987; Lecraw, 1984; Fagre and Wells, 1982). Yet what kind of resource contribution has a strong influence on bargaining power, the results vary. For example, Fagre and Wells (1982) find that the bargaining power of the multinational firm is an increasing function of five elements which are the multinational's technological level, the product differentiation, the access provided to export markets, the invested sum, and the diversity of the firm's production line. In his study, Lecraw (1984) stresses that firm-specific advantages, which include proprietary products or technology, access to relatively inexpensive capital, access to export markets, and management expertise, may give the multinational bargaining power over the host country and competing firms. Kobrin (1987) has used several variables to represent the MNE bargaining power sources, such as technology, parent size, subsidiary size, employment, and export potential.

Gomes-Casseres (1990) suggests that the bargaining process is affected by several factors, such as R&D intensity, marketing intensity, and intra-system sales and the outcome of ownership negotiations seems to be affected by the market attractiveness and the type of subsidiary. Harrigan and Newman (1990) show that the bargaining power of potential joint venture partners is determined primarily by what each partner brings into the venture. Blodgett (1991) identifies five resources which are government suasion, technology, knowledge of the local environment and/or marketing expertise, control of

intra-system transfers, and financial capital that can give a firm bargaining power in a joint venture. Inkpen and Beamish (1997) state knowledge of the local environment is not only a key resource of local partners, but it is also a key source of bargaining power. Yan and Gray (1994) indicate that the components of resources-based bargaining power encompass two context-based and seven resource-based components of bargaining power.

In general, according to the pioneering work of researchers, bargaining power can be affected by the parent’s resource contributions. On the basis of the alternative literature, this study posits that resource contributions supplied by parents and bargaining power has a positive relationship and the hypothesis will be tested.

H ₆: There is a significant relationship between resource contribution of host country parents and bargaining power.

The correlation matrix provides the answer to the hypotheses. The results of correlation analysis are shown in Table 7.2.18.

Table 7.2.18 Correlations between Taiwanese Parent’s Resource Contributions and Bargaining Power

	B_Fin	B_Mark	B_Tech	B_Mana
C_Phys	-0.20*	0.30**	0.33 **	-0.24*
C_Invi	-0.25**	0.39 **	0.35 **	0.06
C_Fin	0.00	0.27**	0.15	0.03
C_Hum	-0.22*	0.35**	0.28 **	0.07
C_Org	-0.13	0.31**	0.30**	0.00

**Correlation is significant at the 0.01 level (2-tailed)

*Correlation is significant at the 0.05 level (2-tailed)

Part of the significant associations to the correlations between resources contributions supplied by host country parents and bargaining power are shown in Table 7.2.13. The results reveal that of all resource contributions which have strong and positive relationships with the bargaining power of marketing capability and also have positive relationships with the bargaining power of technological capability, the exception is financial resources. Physical resource contributions have a modest but negative

relationship with the bargaining power of management capability. However, physical resources, invisible resources, and human resource contributions have modest but negative relationships with the bargaining power of financial capability.

The results confirm that the resources contributed by host country parents are correlated with bargaining power, but not all resources have the same direct relationships with bargaining power. Different resources will have different influences on bargaining power. For example, the result reveals that all the resource factors have a positive correlation with the bargaining power of marketing capability. That is, the greater the resources contributed by the host country parents, the more these resources influence bargaining power in terms of marketing-capability.

However, there are negative correlations between the resources and bargaining power of finance capability. This indication is shown when host country parents contribute more non-financial resources to joint ventures which might result in less influence on financial-based bargaining power. It is reasonably to say that parents supplying non-financial resources such as technological know-how, management skills, and brands or patents, can complement the weakness of few equity shares held in joint ventures.

In sum, these results can confirm that the resource contributions and bargaining power are associated. Therefore, hypothesis 6 is partially substantiated.

7.2.9 The Analysis of Relationship between Motivation and Contribution

In chapter 5.5 the alternative theories for forming international joint ventures are reviewed. The principal theories relating to the motives for forming an international joint venture are (a) resource dependency theory, (b) transaction cost theory, (c) strategic contingency theory, (d) organizational learning theory.

From the aspect of resource dependency theory, international joint ventures are motivated by the belief that the parent of the international joint venture can better obtain the target's resources through cooperation. Harrigan (1985) suggests that joint ventures can be resource-aggregating and resource-sharing mechanisms, which allow investing companies to concentrate resources in those areas where they possess the greatest respective strengths. Inkpen and Beamish (1997) state dependence can be a source of power to control key resources, because each firm can increase or withhold resources which are attractive to its partner (Bacharach and Lawler, 1980).

Transaction cost theory is concerned with the cost-effectiveness of organizing international economic activities and is seen as a means to decide whether a joint venture is the best option according to the sum of production costs and transaction costs. Teece (1986) finds that a joint venture is the best option when firms possess high specific resources (Hennart 1991; Kogut 1988).

Strategic behaviour theory emphasizes how strategic behaviour influences the competitive position of a firm. Kogut (1988) indicates that the purpose of forming joint ventures is to prevent the entry of rivals or to enervate the competitive position of rivals.

Organizational learning theory views a joint venture as a mode by which firms learn (or seek) to retain their capabilities. Firms will cooperate in forming joint ventures when they can benefit from another partner's knowledge or advantages (Hamel, 1991; Badaracco, 1991; Ciborra, 1991, Hamel, 1991; Kogut, 1988; Harrigan, 1984; Nelson and Winter, 1982;). Based on alternative literature, many previous research point out that one of the motivations for forming a joint venture is resource dependence (Inkpen and Beamish, 1997; Harrigan, 1985; Beamish, 1985; Killing, 1983; Pfeffer and Salancik, 1978; Zald, 1970; Aiken and Hage, 1968; Thompson, 1967; Blau, 1964; Emerson, 1962; Selznick, 1949). On the basis of the relative literature's results, this study posits that there is a significant relationship between the motivation for forming an international joint venture and the resource contribution of the host country parents. Thus, the hypothesis is represented below:

H 9: There is a significant relationship between the motivations of host country parents forming international joint ventures and their resource contribution to a joint venture

A Pearson correlation matrix shown in Table 7.2.19 is obtained for the motivational factors and contribution factors. The results show there are partial positive and negative relationships between motivation and contribution factors.

Table 7.2.19 Correlations between Taiwanese Parent’s Motivation for Forming Joint Ventures and Resource Contributions

	M Tech	M Know	M Risk	M Strat	M Resou	M Mark
C Phys	0.31**	-0.20*	-0.07	0.48**	-0.06	-0.30**
C Invi	0.23*	-0.01	-0.12	0.47**	-0.14	-0.29**
C Fina	0.15	0.00	-0.18	0.16	0.03	-0.08
C Huma	0.21*	0.10	-0.11	0.41**	-0.24*	-0.25**
C Orga	0.24*	-0.02	-0.15	0.47**	-0.13	-0.34**

**Correlation is significant at the 0.01 level (2-tailed)

*Correlation is significant at the 0.05 level (2-tailed)

The results reveal that motivational factors do not have any relationships to financial resource contribution. This is because financial resources encompass equity investments which are basic resources involved in forming international joint ventures. Therefore, no matter what kind of motivation the parents have, partners still have to contribute the financial resources for joint ventures.

Beside financial resources, most resource contribution factors have positive and strong relationships with motivational factors such as strategic consideration motive, and technological acquisition motive. On the other hand, there are negative relationships between market expansion motivation and most resource contribution factors. Resource complementarity motivation has only a weak and negative relationship with physical resources contribution, and knowledge learning motivation also has a weak and negative relationship with physical resources contribution.

Why is there a positive relationship between strategic consideration motivation and resource contributions? This study infers that host country parents use joint ventures to improve their competitive positioning within the market, and see the joint venture as a mode to prevent the entry of rivals. From the analysis of sample characteristics, we find that most joint venture's parents are big companies. They use their resource strengths to cooperate with foreign companies to enervate the competitive position of their rivals and increase the value of their company's assets. Therefore, they will contribute more resources into joint ventures in order to achieve their strategic aspiration. These results are consistent with most researcher studies (Lin, 1995; Kogut, 1988; Contractor and Lorange, 1986; Vickers, 1985; Vernon, 1983; Pennings, 1981).

Technological acquisition motivation and resource contribution also have positive relationships. Harrigan (1985) classifies the various uses of joint venture into three categories which are internal uses, competitive uses and strategic uses. One strategy which has been used is technology or other skills transfer. Hung (1992) identifies twenty two motives for strategic alliances based on Canadian and Pacific Asia companies. One of the motives is the acquisition of foreign technology. From her empirical study in the Taiwan context, Lin (1995) finds that one motivation for forming international joint ventures is acquiring technology.

From relative research results, we find that Asian companies engaging in international joint ventures are generally concerned with obtaining foreign resources, especially acquiring foreign technology. The results of this study also find that host country parents who have a motivation for technology acquisition will contribute more resources to joint ventures. These results are also consistent with some research results (Lin, 1995; Hung, 1992; Harrigan, 1985).

On the other hand, there is a negative relationship between the market expansion motive and resource contributions, excepting financial resources. This study infers that when host country parents engage in an international joint venture for market expansion, they might be considering entering a new market or a new industry. Based on the Taiwan

empirical situation, Taiwanese companies like to cooperate with foreign companies in order to use the foreign company's expertise to enter a new industry or a new market. Thus, they normally put more money into joint ventures and contribute less in other resources. In other words, they only invest the money and do not intervene in other activities in joint ventures.

For example, one of the interviews cases the Taiwanese company-President group and American COSTCO enterprise form an international joint venture in Taiwan. The President enterprise group only invests money into the venture, it does not contribute other resources and does not intervene in the joint venture's operating activities. The objective of President enterprise group in engaging in the joint venture, is to expand its market through cooperation with a foreign company. Therefore, one can infer that companies with motivation for market expansion will have less resource contribution into joint ventures. Other motivations and resource contribution have weak relationships, thus, it is not discussed here.

In summary, with regard to the relationship between control, ownership, bargaining power, contribution, and motivation derived from this empirical survey, all the results are represented in Table 7.2.20.

Table 7.2.20 Summary of the Results of the Research Hypotheses

Research Dimension	Hypotheses	Results	
Ownership	H ₁ : There is a significantly positive relationship between the proportion of ownership and the extent of control.		
	H ₁₋₁ : The higher the proportion of equity ownership held by host country parents the stronger their control of operational decision-making activities in a joint venture.	Substantiated	+
	H ₁₋₂ : The higher the proportion of equity ownership held by host country parents the stronger their control of the appointment of high-level managers in a joint venture.	Substantiated	+
Bargaining	H ₂ : There is a significant relationship between bargaining power and the extent of control.	Partially Substantiated	+/-
	H ₃ : There is a significant relationship between bargaining power and the proportion of ownership.	Partially Substantiated	+
Contribution	H ₄ : There is a significant relationship between resource contribution of host country parents and the extent of control they exercise in a joint venture.		
	H _{4-1a} : Host country parents with higher physical resource contribution will have stronger control of operational decision-making activities in a joint venture.	Substantiated	+
	H _{4-1b} : Host country parents with higher physical resource contribution will have stronger control of the appointment of high-level managers in a joint venture.	Substantiated	+
	H _{4-2a} : Host country parents with higher invisible resource contribution will have stronger control of operational decision-making activity in a joint venture.	Substantiated	+
	H _{4-2b} : Host country parents with higher invisible resource contribution will have stronger control of the appointment of high-level managers in a joint venture.	Substantiated	+
	H _{4-3a} : Host country parents with higher financial resource contribution will have stronger control of operational decision-making activity in a joint venture.	Substantiated	+
	H _{4-3b} : Host country parents with higher financial resource contribution will have stronger control of the appointment of high-level managers in a joint venture.	Substantiated	+
	H _{4-4a} : Host country parents with higher human resources contribution will have stronger control of operational decision-making activity in a joint venture.	Substantiated	+
	H _{4-4b} : Host country parents with higher human resources contribution will have stronger control of the appointment of high-level managers in a joint venture.	Substantiated	+
	H _{4-5a} : Host country parents with higher organizational resources contribution will have stronger control of operational decision-making activities in a joint venture.	Substantiated	+
	H _{4-5b} : Host country parents with higher organizational resources contribution will have stronger control of the appointment of high-level managers in a joint		

venture.

Table 7.2.20 Summary of the Results of the Research Hypotheses (continue)

Research Dimension	Hypotheses	Results	
Contribution	H ₅ : There is a significant relationship between the resource contribution of host country parents and their proportion of ownership in a joint venture.	Substantiated	+
	H _{5.1} : Host country parents with higher physical resources contribution will have a higher proportion of equity shares in a joint venture	Substantiated	+
	H _{5.2} : Host country parents with a higher invisible resources contribution will have a higher proportion of equity shares in a joint venture	Substantiated	+
	H _{5.3} : Host country parents with a higher financial resources contribution will have a higher proportion of equity shares in a joint venture	Substantiated	+
	H _{5.4} : Host country parents with a higher human resources contribution will have a higher proportion of equity shares in a joint venture	Substantiated	+
	H _{5.5} : Host country parents with a higher organizational resource contribution will have a higher proportion of equity shares in a joint venture	Substantiated	+
	H ₆ : There is a significant relationship between resource contribution of host country parents and bargaining power	Partially Substantiated	+/-
Motivation	H ₇ : There is a significant relationship between the motivation of host country parents forming international joint ventures and their control over a joint venture.	Partially Substantiated	+/-
	H ₈ : There is a significant relationship between the motivation of host country parents forming international joint ventures and their ownership in a joint venture.	Not Substantiated	
	H ₉ : There is a significant relationship between the motivation of host country parents forming international joint ventures and their resource contribution to a joint venture	Partially Substantiated	+/-

7.3 Summary

The chapter analyzed the relationships between control, ownership, bargaining power, contributions, and motivations. All the hypotheses have been tested and examined.

Hypotheses $H_{1.1}$ and $H_{1.2}$ are built to test the relationship between ownership and control in operational decision-making activities and high-level managers' appointments in joint ventures. The results reveal that the ownership is significantly and positively correlated to control over operational decision-making activities and the appointment of high-level managers in joint ventures. The higher the proportion of IV's equity shares held by host country parents, the stronger control they exercise in joint ventures. Therefore, $H_{1.1}$ and $H_{1.2}$ are substantiated.

Hypothesis H_2 is built to understand the relationship between the bargaining power of a firm and its control of operational decision-making activities and the high-level manager's appointment in joint ventures. There are four factors, namely, technological capability, management capability, financial capability, and marketing capability. The results reveal that the relationship between bargaining power and control are not closely associated. Only the bargaining power of marketing capability and control has a modest and positive relationship. The findings provide a very little support for H_2 . Therefore, H_2 is only partially substantiated.

Hypothesis H_3 is built to test the relationship between a firm's bargaining power and ownership. The results of this study provide very little support for H_3 . Only the bargaining power of marketing capability has a modest and positive relationship with ownership. Therefore, H_3 is only partially substantiated.

Hypothesis H_4 is posited to examine the relationship between the resource contribution supplied by host country parents and the extent of control. The results show that relationships between contribution factors which are physical, invisible, financial, human,

and organizational ability resource and control, are significant and positive. The more resource contributions supplied by host country parents to joint ventures, the more control on decision-making activities and high-level manager appointment they exercise in joint ventures. Therefore, H_{4-1a}, and H_{4-1b}, H_{4-2a}, and H_{4-2b}, H_{4-3a} and H_{4-3b}, H_{4-4a} and H_{4-4b}, H_{4-5a} and H_{4-5b}, are all substantiated.

Hypothesis H₅ is posited to examine the relationship between the contribution of host country parents and the proportion of ownership. The results reveal that relationships between resource contributions of host country parents and the proportion of ownership are significant and positive. The more resources contributed by host country parents, the higher the proportion of JV's equity shares they possess. Therefore, H₅₋₁, H₅₋₂, H₅₋₃, H₅₋₄, and H₅₋₅ are all substantiated.

Hypothesis H₆ is posited to examine the relationship between the contribution of host country parents and bargaining power. The results reveal that most resources contributed by host country parents are correlated with bargaining power. However, not all resources have the same direction of relationship with bargaining power. All resource contribution factors have a strong and positive relationship with the bargaining power of marketing capability, and also have positive relationships with the bargaining power of technological capability except for the financial resources contribution. The greater the resource contributed by host country parents, the more these resources influence bargaining power with regard to marketing-capability. On the other hand, physical resources contribution has a modest but negative relationship with the bargaining power of management capability. Therefore, for the most part, H₆ is substantiated.

Hypothesis H₇ is posited to understand the relationship between the motivation for forming international joint ventures and the extent of control. There are six motivational factors as follows, technological acquisition, knowledge learning, risk sharing, competitive strategy consideration, resource complementarity, and market expanding. The results reveal that there are a limited number of significant correlations between motivational factors and the extent of control. Strategic consideration motivation has a

modest positive relationship to control. However market expansion resource motivation has a negative relationship to control. Resource complementarity motive has a weak relationship with control of a joint venture's decision-making activities. Therefore, the findings provide a partial support for hypothesis H₇.

Hypothesis H₈ is posited to understand the relationship between the motivation for forming international joint ventures and the proportion of ownership. The results reveal there are no significant associations between Taiwanese parent's motivations for forming international joint ventures and the proportion of equity shares. Therefore, hypothesis H₈ is not substantiated.

Hypothesis H₉ is posited to understand the relationship between the motivation for forming international joint ventures and the level of contribution. The results show there are partial positive and negative relationships between motivational factors and contribution factors. Beside financial resources, most resource contribution factors have positive and strong relationships with motivational factors such as strategic consideration motivation and resource contribution motivation. However, there are negative relationships between the market expansion motive and all resource contribution factors except financial resources contribution factor. Resource complementarity motivation and the knowledge learning motive have only a weak and negative relationship with physical resources contribution. Therefore, part of hypothesis H₉ remains substantiated.

Chapter 8

FINDINGS AND CONCLUSIONS

Section

8.1	Introduction
8.2	Summary of Main Findings
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Chapter 8

FINDINGS AND CONCLUSIONS

8.1 Introduction

Chapter 6 and Chapter 7 have conducted the description analysis and inferential analysis of the data. The primary purpose of this chapter is to discuss the results derived from this empirical survey. The organization of this chapter is divided into five sections. A summary of the main findings of this study is presented in section 8.2. Followed by section 8.3, which is a discussion of the limitations of this study. Section 8.4 provides some suggestions for future research. A brief conclusion is provided in section 8.5.

8.2 Summary of Main Findings

The main findings derived from this empirical survey are examined briefly in this section. There are the general characteristics of Taiwanese enterprises, the core research dimensions in terms of control, ownership, bargaining power, contributions, and motivation, the results of hypothesis testing. Each factor is described separately.

8.2.1 The General Characteristics of Taiwanese Enterprises

The general characteristics of Taiwanese enterprises forming international joint ventures includes the industry, the nationality /regions of foreign parents, size of host country parents, ages of both host country parents and joint ventures, the number of board members, and the nationality of general managers. The findings of each characteristic are described separately below.

1. Industry

The major industries of host country parents are Electronics, Plastics, Trade/General Merchandise, Machinery Equipment, Electrical Equipment/Cable, and Banking & Insurance industry. These results indicate that most international joint venture formations in Taiwan occur in the manufacturing group. This probably reflects that economic development under the Government's influence in Taiwan has been more focused on the manufacturing industry since 1960. The manufacturing sector needed to develop new technologies, improve production processes, increase market power, and improve their managerial efficiency in order to meet the demands of international market competition. Therefore, most international joint ventures occur in the manufacturing sector. Nevertheless, the government of Taiwan implemented an open policy on the service industry in 1990, which results in an increasing ratio of IJV in the service sector. These results indicate that the Taiwan government plays a vital role in economic development and enterprises can improve their competitiveness through assistance from and cooperation with the government's policy.

2. Nationality / Regions of foreign partners

The major nationality of foreign partners is Japanese, followed by American partners. These results indicate that Japan and other Asian companies are heavily involved in international joint ventures in Taiwan. Because of location, historical background and culture, Japan and other Asian countries have a higher percentage of foreign investment. Especially Japan, as most key production components have been controlled by them, and some Taiwanese companies have relied on them to obtain technology or import machinery or components. American partners represent the second highest proportion of foreign investment. The US and Taiwan have had a special political relation since the government of Taiwan withdrew from Mainland China. Under a military and economic agreement, the US provided economic aid to Taiwan which gave the government of Taiwan the impetus to develop the economy and trade. Although the US ended economic aid in 1957, a close relationship was built between the government and enterprises. These relations brought great influence on foreign investment in Taiwan.

America becomes the main and fastest growth area on the amount of inbound foreign investment in Taiwan. Taiwanese enterprises obtain high technologies and advance skills from their American partners, and greatly improve their competitive abilities through such cooperation. These results indicate that Japan and America have great influence on the development of Taiwan enterprises and the economy of Taiwan.

3. Size of host country parents

The size of host country parents is measured by capital, sales volume and the number of employees. No matter whether based on the company's capital, or the company's sales volume, or the numbers of employees, the results indicate that most international joint ventures occur within large companies in Taiwan. With regard to capital, sales volume and the number of employees, these results indicate that most host country parents involved in international joint ventures are very successful companies and have a high reputation in Taiwan and this may be the reason why foreign companies choose them as partners.

4. Ages of host country parents and the joint ventures

From the empirical results, the average age of host country parents is 32.9 years. Over half (60.5%) of the host country parents have been established more than 30 years. Only 5.3% of host country parents were established less than 10 years. These results imply that the older the company, the more experience and abilities it has, and in turn, more opportunities to cooperate with foreign investors.

From the age of joint ventures, the average age of a joint venture is 14.2 years. Over half (56.1%) of the joint ventures were established more than 10 years. Especially, 14 cases of ventures have been formed for more than 30 years. These results imply that host country parents have very good relationships with foreign parents and these good relationships will affect opportunities for future cooperation.

5. The number of board members

The board directors serve as a communication and information processing channel between the parents and the child (or joint venture). It is also the method that parents use to exercise control over the joint venture. The mean score of the number of JV's board members represented by the host country parents is 4.2 and 3.9 for foreign parents. When counted as a percentage, the host country parents have 57% and foreign parents have 43%. These findings reveal that host country parents have more seats on the board of directors of joint ventures than foreign parents. Prior research results suggest that partners could use participation in the joint venture's board of directors to exert effective control over its activities (Jaussaud, Schaaper and Zhang, 2001; Kumar and Seth, 1998; Geringer and Hebert, 1989; Schaan, 1983). Therefore, this study infers that the host country parents might have more control over the joint venture than the foreign parents.

6. The nationality of the general manager

Prior research suggests that occupation of key executive positions can ensure the parent's objectives are observed (Yan and Child, 2004; Jaussaud, Schaaper and Zhang, 2001; Child and Yan, 1999; Schaan, 1983). The general managers are commonly regarded as a tool for control by the parents (Yan and Gray, 1994; Geringer and Hebert, 1989). The results indicate that most general managers of joint ventures are Taiwanese (70% of total samples). This result implies that the host country parents might have greater control than their partners by having more general managers.

8.2.2 The Control of International Joint Ventures

This section examined the results of statistical analysis regarding the core research dimensions and the relationship between research dimensions and sample characteristics. In this study the five core dimensions are control, ownership, bargaining power, contribution and motivation. Each one has been examined separately and the results have provided insight into the nature of each dimension.

From the relevant literature, three constructs have been identified to describe the control of international joint venture (Geringer and Hebert, 1989). They are the mechanism of

control, the extent of control and the focus of control. The focus and extent of control are measured by responsibility for decision-making and the appointment of high-level managers.

Regarding the focus of control, the results indicate that most of the decisions relating to production scheduling, manufacturing process, quality standards, and cost budgeting are taken by joint ventures; however, on the other hand, they have the least power in capital expenditure decisions. This might be because these activities are highly related to a joint venture's environment and have to acknowledge the joint venture's daily operating strategies. Foreign parents actively participate in exercising control in product design decisions. This might be because most foreign parents see product design as their area of expertise and competitive advantage. Host country parents exercise more control in sales targets and capital expenditures decisions. This may be because these two decisions largely involve the financial investment and performance of joint ventures.

The results are consistent with those found in previous empirical studies (Glaister, 1994; Geringer and Hebert, 1989; Geringer, 1986; Schaan, 1983). They suggest that parents tend to seek control over particular activities rather than over the whole range of the joint venture's operations. This study also suggests that the joint venture's parents concentrate on controlling specific activities instead of controlling all the operations of the joint ventures.

For the mechanism of control, most general managers are appointed by either both parents or one parent. The purpose of this is to ensure that the policies of the joint ventures are followed up and fully observed by the subsidiary company. Except for the general managers, host country parents command stronger control over the appointment of vice general managers, and financial managers. This result is consistent with the findings of IJV's decision-making activities where it reveals that Taiwan headquarters also have stronger power on the decision of capital expenditures. The results indicate that host country parents have high intervention in capital expenditure decisions and the appointment of financial directors in their invested company. Normally, Taiwanese

companies like to use financial results to estimate the performances of their subsidiaries and they also use it to decide on resource allocation. Therefore, they would have higher intervention on that issue. On the other hand, foreign parents are the most active in the appointment of R&D managers and also have stronger control in the decision-making on product design as already explained. The results indicate that foreign parents have better professional skills and superiority in completion of production design and research. Therefore, they possess stronger control in R&D. Joint venture companies have more autonomy in terms of production, marketing and personnel managers as well as head engineers. Again, these results are consistent with most existing research findings that effective control should emphasize selective control over some important dimensions rather than attempting to control the entire range of the joint venture's activities (Glaister, 1994; Geringer and Hebert, 1989; Geringer, 1986; Schaan, 1983).

For the extent of control, the empirical results reveal that most joint ventures have higher autonomy to manage the company. The parents seek to control particular activities which they perceive as critical dimensions and which work in synergy. These results are not consistent with some prior studies and some other studies have different arguments on this issue (Glaister, 1994; Geringer and Hebert, 1989; Geringer, 1986; Schaan, 1983). The results are puzzling. There are some possible explanations. Firstly, it might be the different research context that results in a different management culture in the way the subsidiaries are managed. Secondly, it might be caused by the measurement of control. Killing (1983) deems the importance of each decision is equal, but Chang (1996) argues that control is not a dichotomous context, there is a different degree of importance for decisions. Each decision or activity should be weighted by its importance. This study uses a different method to measure the extent of control by modifying Killing's method and considering the weighting of each activity in which parents and the joint ventures are involved at the same time. Thus, the method of measurement of control is more comprehensive. Therefore it creates different results. Thirdly, a joint venture is an independent organization, it has its own objectives and management structures, even though the parents are involved in some important decisions. Joint ventures still have to be responsible for the results of its activities. Thus, it would have higher autonomy in

operating the company. Fourthly, most of the joint ventures have been established more than 10 years and they have run the business successfully, this might let their parents have trust and respect for them and let them have more autonomy.

With regard to the relation between the sample characteristics and the type of control, most of the results are not significant except for the sales volume of the host country parents and the percentage of board members. The higher sales volume of host country parents allows them to have stronger control over their joint ventures. Host country parents who have sales volumes normally mean they have more resources and abilities to successfully manage businesses by themselves. When they form international joint ventures with foreign partners, they have their special strategic motives. Therefore, this study infers that host country parents might have special objectives for forming international joint ventures; and therefore require greater control over their joint ventures to ensure their strategic objectives are adhered to and achieved. In addition, the higher the percentages of board members from host country parents, the more “independent control” they exercise over a joint venture. The phenomenon could be explained by the host country parents letting their joint venture have more autonomy but at the same time, they use the representatives on the joint venture’s board to exert control over the joint venture.

8.2.3 The Ownership of International Joint Ventures

The results of equity shares held by the host country parents and foreign parents show that both parents have minority shareholding in the joint ventures. The mean equity shareholding of host country parents is 41.15% and the mean equity shareholding of the foreign parent is 46.64%. The relationship between the Taiwanese parent’s ownership and the sample characteristics reveal that there are associations between the Taiwanese parent’s equity shareholding, the sales volume of the host country parents, and the percentage of parent’s board members in joint ventures. The higher the sales volume of the host country parents, the higher their equity shareholding in a joint venture. The study infers that when the parents are bigger, they will have more financial ability to

invest capital in a joint venture. Therefore they hold higher equity shares in a joint venture.

The results also reveal that a higher ownership by the parents in joint ventures indicates that they have a higher percentage of board members. Leksell and Lindgren (1982) indicate that the equity ownership of joint ventures affects the number of members on a joint venture's board of directors. Basically, the representation of board members and the equity share represent voting rights on important decisions relating to joint ventures. Therefore, the parents who have a larger ownership would have more power in terms of board member representation. The results of this study echo Leksell and Lindgren's (1982) results.

8.2.4 Bargaining Power of International Joint Ventures

Bargaining power stems from critical resources such as technology, marketing expertise, investment sum, and access to export channels or markets. The results of this study show that the most important variable affecting bargaining power is ownership. When two, or more than two companies want to cooperate and establish another new subsidiary, ownership is a basic and critical resource. The amount of equity shares held affects the bargaining power of partners; thus, the most effective method of gaining bargaining power is to gain more equity shares. Two other important variables are "access to export markets" and "the knowledge of the local markets". The results indicate that market is a fairly important variable for bargaining power. "Technological ability" and "Innovative ability" are ranged between "fairly important" and "important". These results indicate that technology is an important variable for a company to obtain more bargaining power and implies that technology could enhance the control available to the partners.

The least important variable is "the influence of host government". Taiwan is a democratic country and the government encourages and assists enterprises in cooperating with foreign companies. Taiwan is unlike other developing countries where

the government is involved in cooperative activities between local business and transactional companies and has a strong effect on bargaining power. In the Taiwan context, the government has minimal influence on bargaining power.

In this study, four factors of bargaining power are identified using factor analysis, namely: technological capability, management capability, financial capability, and marketing capability. The relationship between bargaining power factors and the sample characteristics reveal that the only industry variable in which host country parents are involved has an association with the bargaining power factors. It seems that different industries have different characteristics and core competitive advantages. Normally, the company who possesses more industry competitive advantages would have more negotiating power than its partners. Therefore, one could conclude that the sources of bargaining power would be different in each industry group. Bargaining power will be affected more by technological capability in the manufacturing group; on the other hand, it would be affected more by management capability and financial capability in the service group.

8.2.5 The Parent's Contribution

There is a wide range of resources that each parent might contribute to joint ventures. In this study, the results reveal that both parents contribute different resources to a joint venture according to their expert resources. For the host country parents, “access to a public relation with the local government” and “access to environmental knowledge” are the most significant resources they contributed to a joint venture. When foreign companies expand their market overseas through cooperation with host country companies, the local partners usually play an important role in access to local government and knowledge of the local environment. The results of this empirical survey are consistent with the results of UNCTC (1987) and Inkpen and Beamish (1997). The local partner's contributions are more on knowledge of the local environment and access to a relationship with the government. On the other hand, the least significant resources contributed by host country parents are “key components and raw material”

and “technological or R&D ability”. Most Taiwanese companies have very strong strengths in manufacturing, but have weaknesses on technology or R&D ability. Thus, they would cooperate with foreign companies to obtain or improve their technological or R&D ability.

Foreign parents mostly contribute inputs in terms of the following: “financial resource”, “sharing brands or patent” and “sharing the knowledge of management”. Foreign parents who are from developed countries usually have a very strong financial capability, technology capability, and global brands. Technology, brands and patent, management knowledge are most important resources for developing countries. Therefore, forming an international joint venture is a useful method to satisfy each other’s requirements. The results are also consistent with the results of Lin (1986), Chang (1986), Wu (1994) and Lin (1995). Host country parents contribute more resources with regard to the local market and their main objectives are to obtain the foreign parent’s technology and brands or patent. These results indicate that both parents contribute different resources to joint ventures with respect to resource complementarity.

There is some evidence of the statistical variation in relation to resource contribution factors and sample characteristics. The results reveal that foreign parents who come from Asian countries have a greater contribution in physical resources than those from American countries or European countries. The results also show that host country parents who are in the manufacturing group have a higher resource contribution to a joint venture than parents from the service group. The big companies contribute more resources into their joint ventures. The larger the host country parents are, the higher ability and more resources they own. In this case, the big companies are willing to contribute more resources to a joint venture.

8.2.6 The Motivation for Formation of an International Joint Venture

There are many possible explanations with regard to the motivation for international joint venture formation. The most important motives for Taiwanese parent to form the IJV

are “Extending the range of product and service”, “Facilitating diversified development”, “Expanding the market and entering new markets”, and “Acquiring partner’s brands or patents”. From the results, it shows that “market expansion” and “considering diversified development” are fairly important motives for Taiwanese enterprises. The results are consistent with those found in previous empirical studies (Lin, 1995; Beamish et al, 1994; Datta, 1988; Daniels et al., 1985). On the other hand, the least important motivation is “Learning partner’s human resource management”. The reason might be because human resource management must be adapted to the local situation and cannot simply be copied from other companies without any adjustment. Thus, the motivation of learning foreign partner’s human resource management does not have very high effect to Taiwanese companies comparing with other variables.

There are too many variables in terms of the motives for forming an IJV. Therefore, factor analysis was used to identify a smaller range of motives. Six motivation factors are identified from 26 variables. They are namely, technological acquisition, knowledge learning, risk sharing, competitive strategic consideration, resource complementarity and market expanding.

The relationship between resource contribution factors and sample characteristics shows that there are some associations. The results reveal that the technological acquisition motive and the origins of foreign partners are associated. When international joint ventures are formed to acquire technologies, the majority of foreign partners are from American countries, followed by Asian countries. American countries are viewed as the original creators of high technology in the world. As Taiwan has a very close relationship with them, therefore, most local companies cooperate with American enterprises to acquire technologies. For Asian countries, especially Japan, most Taiwanese companies also have close relationships with Japanese companies and cooperate with Japanese firms to obtain technology. The results reveal that there is great consistency with the background of Taiwan’s economic growth. In addition, there is an association between resource contribution factors and the industry of the host country parents. The results indicate that companies in the manufacturing group have more

incentive in technological acquisition and strategic consideration motives. On the other hand, companies in the service group have more incentive for market expansion. Firms in the service group view the primary benefit of forming an international joint venture as being market expansion. As a result, service companies focus more on market expansion motives. For firms in the manufacturing group, technological acquisition is the most important issue. Most tacit technology could not be obtained from the market. It needs to be transferred through cooperation with other companies. Thus, the companies in manufacturing have a high incentive for technological acquisition and strategic consideration motives.

The relationship between each core research dimension and the characteristics of the sample has been examined in the relevant sections. We only summarize the most significant results here. The size of host country parents and the percentage of board member represented by parents, has a powerful effect on the control they exercise in a joint venture. The percentage of board members also has a strong influence on the equity share of joint ventures held by the parents. The size of host country parents has a significant influence on their resource contribution to a joint venture. The results illustrate that big companies have the ability and willingness to contribute more resources to their joint venture.

8.2.7 The Results of Hypotheses Testing

The results of each hypothesis posited by this study are summarised and described briefly.

Hypothesis H₁: There is a significantly positive relationship between the proportion of ownership and the extent of control

This study expects that the proportion of equity shares would have an impact on control in terms of mechanisms, focus and the extent of control. It successfully shows that ownership is significantly correlated with control. The results reveal that ownership is significantly and positively correlated with the control of a JV's operational decision-

making activities and the appointment of the high-level manager. These findings are consistent with most research studies (Child and Yan, 1999; Lin, 1995; Blodgett, 1991; Fagre and Wells, 1982; Stopford and Wells, 1972). Parents can gain more control of their joint venture through obtaining higher equity shares in such ventures.

Hypotheses H₂: There is a significant relationship between bargaining power and the extent of control

While an attempt is made to relate the firm's bargaining power to control of operational decision-making activities and the high-level manager's appointment in a joint venture. The results reveal that the relationship between bargaining power and control is not closely associated. Only the bargaining power of marketing capability and control has a modest and positive relationship. The findings provide very little support for Hypotheses H₂. Bargaining power is normally involved in the process of the negotiation procedure which in turn affects the outcome of the negotiation process, but it is not a guarantee to direct influence on control. In addition, bargaining power cannot be measured easily regarding its nature. It might indirectly affect control. Therefore, from the results, most factors of bargaining power do not have a relationship with control.

Hypotheses H₃: There is a significant relationship between bargaining power and the proportion of ownership.

The investigation of the relationship between bargaining power and ownership reveals that the findings of this study provide very little support. A higher bargaining power variable is expected to have greater influence on equity shares. However, only bargaining power of marketing capability has a modest and positive relationship with ownership. Bargaining power has a lot of involvement in the process throughout the negotiation procedure, and the outcome of a negotiation is not always contingent on ownership. It might be represented in non-capital contractual resources. Thus, other variables might be used to better explain their relationship.

Hypotheses H₄: There is a significant relationship between resource contribution of host country parents and the extent of control they exercise in a joint venture

The investigation of the relationships between resource contributions in terms of physical, invisible, financial, human, and organizational ability of host country parents and their control has indicated that there are significant and positive associations. The findings of this study are consistent with most prior research studies (Yan and Child, 2004; Chalos and O'Connor, 2004; Child and Yan, 1999; Mjoen and Tallman, 1997; Child, Yan and Ku, 1997; Lin, 1995; Killing, 1983). The greater the resource contribution of host country parents to joint ventures, the greater their control in decision-making activities and the appointment of high-level managers.

Hypotheses H₅: There is a significant relationship between resource contribution of host country parents and their proportion of ownership in a joint venture

The findings of this study with respect to the relationship between the resource contributions and the ownership reveal that there appears to be a significant and positive association. The findings are consistent with most other research studies (Pan, 1996; Lin, 1995; Blodgett, 1991; Gomes-Casseres, 1990; Harrigan, 1985; Fagre and Wells, 1982). The greater the resources contributed by host country parents, the larger their proportion of a JV's equity shares.

Hypotheses H₆: There is a significant relationship between resource contribution of host country parents and bargaining power

This study attempts to test the relationship if any, between resource contributions which are predicted to be associated with a firm's bargaining power. The findings confirm that resources contributed by host country parents do correlate with bargaining power. These findings are consistent with prior studies (Inkpen and Beamish, 1997; Yan and

Gray, 1994; Gomes-Casseres, 1990; Kobrin, 1987; Lecraw, 1984; Fagre and Wells, 1982;). Not all resources have the same direction of relationship with bargaining power. All the resource contribution factors have a strong and positive relationship with the bargaining power of marketing capability and also have a positive relationship with the bargaining power of technological capability, excepting financial resource contribution factor. On the other hand, there are also negative correlations between resource contributions and bargaining power of financial capability. The findings show that when host country parents contribute more non-financial resources to a joint venture, this might result in less influence in financially-based bargaining power. This study infers that parents supplying non-financial resources such as technological know-how, management skills, and brands or patents can complement the weakness of holding less equity shares in joint ventures. Especially, when these non-financial resources could not be obtained from the market and are important to cooperating firms, the suppliers of these non-financial resources will have more power even though they own less equity shares. Therefore, resource contributions have negative associations to the bargaining power of financial capability. However, these findings overall confirm that resource contributions and bargaining power are associated.

Hypotheses H₇: There is a significant relationship between the motivation of host country parents forming international joint ventures and their control over a joint venture

The investigation of the relationships between the motives for forming an IJV, in terms of technological acquisition, knowledge learning, risk sharing, competitive strategy consideration, resource complementarity, market expansion, and control, indicate that there are a limited number of significant correlations between motivational factors and control. The strategic consideration motive does have a modest positive relationship to control. However, the motive for market expansion has a negative relationship to control. Resource complementarity has only a weak relationship with control of a joint venture's decision-making activities. These findings reveal that the motives for forming an international joint venture have many possible explanations with respect to different

theoretical perspectives. Therefore, it is difficult to find direct associations between motives and control.

Hypotheses H₈: There is a significant relationship between the motives of host country parents forming international joint ventures and their ownership in a joint venture

The investigation of the relationships between the motives of host country parents forming international joint ventures and their ownership, indicates that there are no significant associations. From the prior research, the motives for forming a joint venture have diverse explanations and they depend upon the various objectives of the parents. On the other hand, ownership is the fundamental and primary resource under consideration when partners negotiate to form an international joint venture. This study infers that the all parents have to put capital into the joint venture and so have rights to equity shares, no matter their motives. Therefore, the findings of this study reveal that there is no relationship between motivation and ownership.

Hypotheses H₉: There is a significant relationship between the motivation of host country parents forming international joint ventures and their resource contribution to a joint venture

The investigation of the relationship between the motivation for forming international joint ventures and the contribution, reveals that there are partial positive and negative relationships between motivation factors and contribution factors. The motives for forming international joint ventures and the financial resource contribution do not have any relationship. This study infers that financial resources which encompass equity investments are the basic resource to a new venture. Therefore, no matter the motives of the parents, all partners still have to contribute financial resources to a joint venture.

Beside the financial resource factor, strategic consideration and technological acquisition motives have positive and strong relationships with resource contribution factors. This

study infers that host country parents use joint ventures to improve their competitive position within the market, and see the joint venture as a mode to prevent the entry of rivals. In addition, the motives for technological acquisition and resource contributions also have positive relationships. The findings also reveal that host country parents who have the motive to acquire technology will contribute more resources to a joint venture. These results are consistent with most researcher studies (Lin, 1995; Contractor and Lorange, 1988; Kogut, 1988, Vickers, 1985; Vernon, 1983; Pennings, 1981).

On the other hand, there is a negative relationship between the motive for market expansion and resource contribution factors. Based on the Taiwanese empirical situation, this study infers that when host country parents engage in an international joint venture for market expansion, they like to cooperate with foreign companies in order to use the foreign company's expertise to enter a new industry or a new market. Thus, they only invest capital and do not intervene in any of the other activities of a joint venture. Overall, the motives of host country parents in forming international joint ventures and their level of resource contribution are associated. The resources contributed by host country parents depend on their objectives. These findings provide evidence that different motives for forming an international joint venture affect the level of resource contributions to a joint venture.

8.3 The Limitations of this Study

There are a number of limitations which must be borne in mind when interpreting these results.

The first limitation of the current study is data resources. It is very difficult to collect examples of international joint ventures from any source other than the government. As mentioned in Chapter 5.3.7, no list of international joint venture organizations is available. It is also very difficult to successfully request access to the government database. Although the researcher has made every effort to identify all international joint

venture companies, there might still be other enterprises left unidentified. The most efficient method is to obtain permission to enter the Taiwan government's database. In that way the researcher can more accurately identify examples directly, which is crucial to the success of the research; in addition, it can also save much time and expense.

The second limitation is the sample size. For a quantitative study, the size of the sample is very important as this can affect the statistical results. Basically, the larger the sample size, the better this is for data analysis. There are few examples of international joint ventures in Taiwan, and one phenomenon exists in which one business group invests in numerous international joint venture companies. The unit of analysis in this study is the Taiwanese parent company; therefore, the duplicate Taiwanese parent company must be eliminated. This means that the total sample size was reduced which in turn affects the results of this empirical study.

The third limitation is the data collection method. Primary data was collected by the method of mail questionnaires dispatched to a single respondent in each of the Taiwanese parent companies. This single respondent of each parent was assumed to be competent across a range of dimensions of their international joint venture's activity. While the researcher made telephone contacts in order to identify the individual and his/her position as the most appropriate president or senior manager in the parent organization with intimate knowledge of the international joint ventures. However, this did not guarantee that the selected respondents had intimate familiarity with all the dimensions of the international joint venture's activity. Also, this study relies only on a single respondent from the Taiwanese parent. This type of research could be conducted by investigating both the foreign parent's perspectives and the joint venture's perspectives to develop a fuller understanding of all the actives of international joint ventures.

The fourth limitation is the cross-sectional design employed by this study. Cross-sectional studies are designed to obtain information simultaneously on a variable in different contexts. They are commonly used in social research due to constraints of time or resources. However, it cannot explain why a correlation between variables exists. On

the other hand, the longitudinal study is recognized as producing more fundamental insights than the cross-sectional study. It allows the researcher to examine processes of change within a social context. Therefore, it should be possible to suggest likely explanations from an examination of the process of change and the patterns which emerge (Hussey, 1997). As a result of the characteristics of longitudinal research, it helps to identify the “cause and effect” relationships between variables. The creation of an international joint venture is the outcome of both parents’ negotiations of an agreement to cooperate. This involves many negotiation processes and takes a long time to accomplish. Therefore, a well-planned longitudinal study could be conducted in future research in order to improve the applicability and validity of the findings which are obtained from this cross-sectional study.

8.4 Suggestions for Further Research

A number of suggestions for future research are offered from this study.

Firstly, if the research difficulty could be overcome, the researcher should investigate the relationship between control and its antecedents from both parent’s perspectives simultaneously, not only from the Taiwanese parent’s perspective. For example, the degree of resource contribution from foreign partners was answered by the host country parents. If the foreign parents could answer these questions directly, this would increase confidence in the results. Therefore, it would be valuable to conduct an investigation from the perspectives of both parents and compare the findings.

Secondly, an international joint venture includes at least the host country parents, the foreign parents and the joint venture (child). These three organizations often play an extremely different role but have very close relationships. Therefore, there are at least three permutations between the organizational relationships; (1) foreign parents and host country parents, (2) foreign parents and the joint ventures, and (3) host country parents and the joint ventures. The inter-dynamic relationships between foreign parents and their joint ventures, or host country parents and their joint ventures might affect the control

that parent's could exercise. Therefore, the issues in terms of future research of international joint ventures could not only be discussed from parent's viewpoint, but also from the perspectives of the joint venture itself.

Thirdly, when we discuss the relationship between control and the nationality or region of the foreign parents, we find that the nationalities of foreign parents do have influence on the degree of control that they exercise in a joint venture. According to the definition of an international joint venture, it is clear that the international joint venture is established by the parents of different nationalities. Parkhe (1993) deems that the differences in culture between the participating firms in a joint venture mean that they have different perspectives on the issue of control, which in turn results in a different outcome for the research. Therefore, how the culture influences management control of the international joint venture, could be the subject of comparative research in the future.

Fourthly, from this empirical survey, we find the phenomenon that host country parents and foreign parents normally have good interaction which affects their cooperation in the future. These good relationships are built on long term relationships which are a benefit from the past, and in turn have influence on trust and credibility. Trust tends to have influence on control in a joint venture. Therefore, it would be worthwhile to consider placing the factor of trust into the antecedent variables which would affect the issue of control in the future research.

Fifthly, this study only considers joint ventures set up in Taiwan. It could be expanded to other areas such as mainland China. Through cooperation with Taiwanese enterprises, advances into mainland China have continuously increased, therefore it would be an interesting subject to examine how host country parents and foreign parents exercise control over the joint venture which they have set up in mainland China. Are there any differences with respect to control because of the joint venture's location? What factors would have more influence on control? Therefore, the research context could be expanded to whichever country the joint venture is located in.

8.5 Summary

The above chapter presents the conclusions of this study. The main findings derived from this empirical survey are briefly described which include the sample characteristics of Taiwanese enterprises, the core research dimensions in terms of control, ownership, bargaining power, contribution, and motivation, and the results of testing hypotheses.

The limitations of this study are examined and attention should be paid when interpreting the results. Some suggestions are provided for future research.

Chapter 9

THEORETICAL AND MANAGERIAL IMPLICATIONS

Section

9.1	Introduction
9.2	Theoretical Implications
9.3	Managerial Implications

Chapter 9

THEORETICAL AND MANAGERIAL IMPLICATIONS

9.1 Introduction

The aim of the final chapter is to draw out the recommendations and research implications of this study. This chapter is divided into three sections. The theoretical implications are presented in section 9.2. Section 9.3 presents the managerial implications of this study.

9.2 Theoretical Implications

Drawing on theoretical rationales for international joint ventures, this study engages in empirical research into Taiwanese enterprises. It attempts to further our understanding of international joint ventures based on the Newly Industrialized Country context. This study makes the following contributions to the theoretical debate and also offers some suggestions for all the enterprises.

1. Providing an integrative framework of control and its antecedent factors in international joint ventures

Parkhe (1993) argues that the dimensions of joint ventures (motives for joint venture formation, partner selection/characteristics, control/conflict, and stability /performance) have previously been investigated, and cannot be viewed as separate phenomena, but need to be re-conceptualized into an integrative framework. Therefore, this study has attempted to follow his suggestion to integrate the relative dimensions of international

joint ventures into a framework in order to have a more lucid picture of IJVs. One of this study 's contributions is to provide a structure to discuss the correlations between the most important dimensions with regard to the international joint venture and offers associations between these dimensions.

Control vs Ownership

There is substantial research literature to describe the relationship between ownership and control; however, some research results are conflicting. Some research indicates that equity share is a predictor of the overall control held by IJV partners, and of their control over strategic decisions in particular (Child, 2002; Child and Yan; 1999; Child et al., 1997; Yan and Gray; 1996; Lin, 1995; Meier, Perez, and Woetzel, 1995; Harrigan , 1986; Lecraw, 1984; Killing, 1983 Youseff, 1975). However, other researchers argue that equity structure is not equivalent to management control (Mjoen and Tallman ,1997; Yan and Gray,1994; Lecraw,1984).

The results of this study reveal that ownership is significantly and positively correlated with the control of a JV's operational decision-making activities and the appointment of the high-level manager. These findings are consistent with most research studies (Child, 2002; Child and Yan; 1999; Child et al., 1997; Yan and Gray; 1996; Lin, 1995; Meier, Perez, and Woetzel, 1995; Harrigan , 1986; Lecraw, 1984; Killing, 1983; Youseff, 1975). Parents can gain more control of their joint venture through obtaining higher equity shares in such ventures.

Control vs Bargaining power

Previous researchers suggest that the bargaining power of partners is a critical variable in determining patterns of control in joint ventures (Blodgett, 1991; Harrigan and Newman, 1990; Lecraw, 1984). The results of this study reveal that the relationship between bargaining power and control is not closely associated. Only the bargaining power of marketing capability and control has a modest and positive relationship.

Bargaining power vs Ownership

Based on his research results, Lecraw (1984) deems that the greater the country-specific advantages of the host country, the greater its bargaining power and the higher the level of local ownership it may gain for local investors. By following the bargaining approach, Lee (2004) indicates that the multinational corporations will hold an equity share of IJV that is larger than its relative bargaining power, because the MNC has a cost advantage and superior technology over its local partner.

The result of this study reveals that the relationship between bargaining power and ownership has a very weak relationship. A higher bargaining power variable is expected to have greater influence on equity shares. However, only bargaining power of marketing capability has a modest and positive relationship with ownership. Bargaining power has a lot of involvement in the process throughout the negotiation procedure, and the outcome of a negotiation is not always contingent on ownership. It might be represented in non-capital contractual resources. Thus, other variables might be used to better explain their relationship.

Control vs Resource Contributions

Resource-dependence theory suggests that the extent of the stakeholders control depends on their ability to provide the resources needed for the international joint venture to succeed. Some researcher suggest that the parents supply the necessary resources and the most critical resources to the joint venture will gain more control over the international joint venture entity (Chalos and O'Connor, 2004; Child and Yan, 1999; Mjoen and Tallman, 1997; Lin, 1995). Yan and Child (2004) also claimed that the ability of one party to provide better resources than its partners and/or control resources will give that party power over the IJV.

The result of this study reveals that the relationship between control and resource contributions has significant and positive association. The findings of this study are consistent with most prior research studies (Yan and Child, 2004; Chalos and O'Connor,

2004; Child and Yan, 1999; Mjoen and Tallman, 1997; Child, Yan and Ku, 1997; Lin, 1995; Killing, 1983). The greater the resource contributions of host country parents contribute to joint ventures, the greater control they have.

Resource Contributions vs Ownership

Blodgett (1991) indicates that the type of expertise that a company contributes to a joint venture may affect the amount of equity it holds. Pan (1996) indicates that the foreign partner who is capable of contributing more to the initial capital sum acquires stronger bargaining power for a higher equity share (Gomes-Casseres, 1990; Harrigan, 1985; Fagre and Wells, 1982). Lin (1995) demonstrates that the level of contribution supplied by each stakeholder will affect their proportion of ownership in the joint venture.

The results of this study reveal that relationships between resource contributions of host country parents and the proportion of ownership are significant and positive. The more resources contributed by host country parents, the higher the proportion of JV's equity shares they possess.

Resource Contributions vs Bargaining Power

Some researchers assert that the parents can gain the bargaining power from their commitment of various resources (Blodgett, 1991; Harrigan and Newman, 1990; Gomes-Casseres, 1987b; Robinson, 1969). Lecraw (1984) indicates that possession of a proprietary product or technology may increase the bargaining position of a multinational over the host country. Kobrin (1987) indicates that the sources of MNE bargaining power can be derived from the firm-specific advantages or assets.

The results of this study reveal that most resources contributed by host country parents are correlated with bargaining power. All resource contribution factors have a strong and positive relationship with the bargaining power of marketing capability, and also have positive relationships with the bargaining power of technological capability except for the financial resources contribution. The greater the resource contributed by host country parents, the more these resources influence bargaining power with regard to

marketing-capability. However, not all resources have the same direction of relationship with bargaining power. The physical resources contribution has a modest but negative relationship with the bargaining power of management capability.

Control vs Motivation

Chalos and O'Connor (2004) describe partner differences in their perceptions of control mechanisms as determined largely by their respective motives. They found knowledge dependency and asset specific transaction costs to be the determinants of controls to varying degrees for each partner. Lin (1995) indicates that a different motivation for joint venture formation has a different extent of control. In her study, she found that the partner who has the learning motivation would have higher control in order to learn specific knowledge from a partner.

The results of this study reveal that there are a limited number of significant correlations between motivational factors and the extent of control. Strategic consideration motivation has a modest positive relationship to control. However market expansion resource motivation has a negative relationship to control. Resource complementarity motive has a weak relationship with control of a joint venture's decision-making activities.

Motivation vs Ownership

The parents of a joint venture usually have different backgrounds and different business operating strategies which affects the choice of ownership structure (Harrigan, 1985; Killing, 1983;). Gomes-Casseres (1989) address the motivation for cooperation as the result of a different ownership structure of foreign subsidiaries. Lin (1995) also reported that different motivation for creating a joint venture will affect the proportion of ownership in such venture.

The results of this study reveal there are no significant associations between Taiwanese parent's motivations for forming international joint ventures and the proportion of equity shares.

Motivation vs Resource Contributions

For a joint venture, the needed resources are derived from different parent entities. Therefore, firms will cooperate in forming joint ventures when they can benefit from another partner's knowledge or advantages (Hamel, 1991; Badaracco, 1991; Ciborra, 1991; Kogut, 1988; Harrigan, 1984; Nelson and Winter, 1982). Much existing research points out that one of the motivations for forming a joint venture is resource dependence (Inkpen and Beamish, 1997; Harrigan, 1985; Beamish, 1985; Killing, 1983; Pfeffer and Salancik, 1978; Zald, 1970; Aiken and Hage, 1968; Thompson, 1967; Blau, 1964; Emerson, 1962; Selznick, 1948).

The results of this study show there are partial positive and negative relationships between motivational factors and contribution factors. Beside the financial resource factor, strategic consideration and technological acquisition motives have positive and strong relationships with resource contribution factors. However, there are negative relationships between the market expansion motive and all resource contribution factors except financial resources contribution factor. The findings also reveal that host country parents who have the motive to acquire technology will contribute more resources to a joint venture. These results are consistent with most researcher studies (Lin, 1995; Kogut, 1988; Contractor and Lorange, 1988; Vickers, 1985; Vernon, 1983; Pennings, 1981).

Overall, the motives of host country parents in forming international joint ventures and their level of resource contribution are associated. The resources contributed by host country parents depend on their objectives. These findings provide evidence that different motives for forming an international joint venture affect the level of resource contributions to a joint venture.

In sum, this study's theoretical contribution is that these empirical findings derived from this study could provide some insightful understandings of the relationship between the most important dimensions of international joint ventures.

2. Providing an empirical results of international joint ventures in Newly Industrialized Countries context

Most existing research has focused on developed countries and developing countries; however, there are few studies examining Newly Industrialized Countries. This study provides some empirical findings based on the Newly Industrialized Countries context. From this empirical survey, we could find the Western theories might not be applicable to these Newly Industrialized Countries. Especially, when China has such great potential in the marketplace and has attracted such large numbers of foreign investors. However, many difficulties have been encountered and high failure rates have occurred among the legions of foreign investors in China. Since Taiwan plays a vital and intermediate role between Western countries and China, the empirical findings of this study could help to explain why international joint ventures operate successfully. The findings of this study are important in relation to providing useful insights into established and viable international joint ventures in a Newly Industrialized Country context.

3. Providing the categorization of bargaining power

There is scant research highlighting bargaining power in terms of international joint ventures. The investigation of the relationship between bargaining power and control are difficult to compare from the results of prior research because in these studies bargaining power has been quantified using different variables. This study has drawn together the appropriate variables from the relevant literature and conducted factor analysis to identify the structure underpinning bargaining power for international joint ventures. The empirical survey of this study identifies the source of bargaining power into four basic capabilities which are technological capability, management capability, financial capability, and marketing capability. The relationships between bargaining power, control and ownership are not totally supported by this study; however, there are partial

correlations. The findings could help to create insights into the relationship between bargaining power, ownership and control and also provide an empirical base for further exploration on this issue.

4. Providing the more comprehensive relationships between resource contribution, ownership and control.

This study has offered a more comprehensive understanding of the relationships between resource contribution, ownership and control. The findings of this study provide some theoretical and empirical support for the different determinants of ownership and control. Previous research examined the relationship between these factors by measuring the individual resource supplied by parents. This study classifies the resource into five categories and the results support the hypothesis that resource contributions have a high correlation with control and ownership. Based on resource dependency theory, resource contributions not only have an important influence on the equity share held by parents but also the focus and the extent of control of the parents in their joint ventures.

9.3 Managerial Implications

The findings of this study have important implications for all types of business enterprises. A brief review of managerial recommendations derived from this study is provided.

1. The mechanism, the focus, and the extent of the control

This study uses the appointment of high-level managers as the mechanism of control and the responsibility for nine types of decisions is used to measure the focus of control. The extent of control is classified into four types namely; dominant host country parent control, dominant foreign parent control, shared management control, and independent control.

With regard to the mechanism of control, the results of this study reveal that Taiwanese parents have the strongest control over the appointment of general managers, vice general managers and financial managers. However, joint venture companies have more autonomy in the appointment of managers in production, marketing, personnel and engineering sections. These results are consistent with most research findings (Child and Yan, 1999; Chang, 1996; Wu, 1994; Child, 1984; Schaan, 1983; Killing, 1983; Gullander, 1976; Rafii, 1978).

With regard to the focus of control, the results of this study reveal that most of the operating decisions are taken by the joint venture management excepting the decisions on capital expenditure. These results are also consistent with several other research findings which state that effective control emphasises selective control over the joint venture's activities (Jaussaud, Schaaper and Zhang, 2001; Geringer and Hebert, 1989; Geringer, 1986; Dunning and Cantwell, 1984; Schaan, 1983).

With regard to the extent of control, these empirical results reveal that most joint ventures in Taiwan have a high degree of autonomy to manage their business. These results are inconsistent with some prior studies (Killing, 1983; Schaan, 1983).

In sum, given the above findings of this study, the JV's parents seem to employ control over particular areas rather than over the whole range of the JV's activities. For example, most decisions concerning production scheduling, manufacturing processes, cost budgets, pricing policies, and quality standards are taken by the joint venture management as are most appointments of production managers, marketing managers, personnel managers, and head engineers. These findings indicate that when decisions are closely connected to local and day-to-day operations, these decisions are normally made by the joint venture management. As the JV's managers have to respond to local customers and cultures, it follows that they have more appropriate information and capabilities to deal with these types of decisions. Therefore, these decisions should not be centralized in the parent companies. When parent companies exercise control over their joint ventures, they must

consider the relative weighting of various factors and choose the most important activities in which to exert control, in order to achieve their objectives.

On the other side, for the IJV's managers, if they wish to have more autonomous authority over operational decision-making activities and the appointment of high-level managers, they should improve their resources and abilities relating to these areas. When a joint venture has stronger capabilities and more resources than its parents, or it supports its capabilities and resource independently, the greater the authority that is gained from the parent companies. In other words, a joint venture will have high autonomy only when it has strong capabilities to manage the company, which in turn gives the parent companies the confidence to delegate responsibilities to it.

In addition, this study finds the mean age of a joint venture in Taiwan is 14.2 years and over half (56.1%) of the joint ventures are more than 10 years old (see chapter 5.4.4). These findings indicate that in Taiwan, joint ventures have long and healthy relationships with their parent companies. Therefore, this study implies that the relationship between the JV's managers and their parent companies can influence the extent of control of parent companies over the joint venture. A close relationship between the JV's managers and their parent companies can maximise trust between each partner, which in turn increases the opportunities for greater autonomy. Therefore, the JV's managers should actively build a close and trusting relationship with their parent companies.

2. Control and its antecedents

As noted in Chapter 3 and Chapter 4, existing research demonstrates that the degree of control is an important function in an international joint venture, which is affected by various factors in terms of parent's contributions, ownership, bargaining power and the motives for forming the IJV. The findings indicate that among the four antecedent dimensions, ownership and resource contributions demonstrate significant strong and positive linkages with the degree of control (see the results of hypothesis H₁ and hypothesis H₄).

As we discussed in Chapter 7.2.1 and 7.2.3, resource dependency theory asserts that the extent of control is affected by the resource contribution which is needed for the international joint venture to succeed (Chalos and O'Connor, 2004; Child and Yan, 1999; Mjoen and Tallman, 1997; Lin, 1995; Killing, 1983). The higher the proportion of equity shares held by the parent companies and the larger and more significant their resource contribution, the greater the degree of control they exercise over the joint venture. Based on both the resource dependency perspective and the findings of this study, we suggest that the parent companies can increase their control in their joint venture through the acquisition of a higher proportion of the JV's equity shares or by contributing large and/or significant resources to their joint venture. Moreover, the parent companies can also protect their investment (equity shares and resource contributions) by exercising strict control over the joint venture.

However, the two other antecedents, bargaining power and the motives for forming an IJV have only tenuous relationships with the degree of control (see the results of hypothesis H₂ and hypothesis H₇). This study found that only the bargaining power of marketing capability has a modest and positive relationship with the extent of control. Even so, the adjusted R² was too small to be viewed as having any practical impact on control (see the analysis in Chapter 7.2.2). Thus, bargaining power might not have a linear relationship with control; therefore, it cannot be used to predict influence on the extent of control, although it does have a modest and positive relationship with control. As we discussed in Chapter 7.2.2, because of the nature of the concept, bargaining power cannot be measured easily and directly, and it also has a significant influence on the process of negotiation procedures. Previous research also suggests that partners use the power of cooperation to influence the outcome of a negotiation process (Brouthers and Bamossy, 1997; Schelling, 1956;), which in turn affects the degree of control (Lecraw, 1984). Therefore, we suggest that parent companies increase their opportunity to control the joint venture through the process of negotiation. To assure the outcome of negotiation, the parent companies can increase directly or indirectly their influence and power over the joint venture.

Moreover, this study found that there are a limited number of significant relationships between the degree of control and the motives for forming an IJV. The strategic consideration motive has a modest and positive relationship with control; however, the motive for market expansion has a negative relationship with the extent of control. Resource complementarity motivation only has a weak connection with control.

For the motive of strategic consideration, this study found that it is the main concern when Taiwanese companies form a joint venture with foreign partners. This result is inconsistent with Lin's (1995) and Lin's (1986) investigations in Taiwan. They found that the main motive of Taiwanese parents in forming a joint venture with foreign partners is to learn or acquire technological knowledge. However, the findings of this study might reflect more the economic development of Taiwan and add a new explanation for the motivation of IJV formation. As noted in Chapter 2, Taiwanese companies acquired their foreign partner's technologies to improve their competitive abilities between 1984 and 1994. As a result of the effort of the past forty years, Taiwan has risen rapidly to the status of a "Newly Industrialized Country" and becomes an integral link in the global high technology industry supply chain. Therefore, the motivation for forming an IJV will be allocated to strategic considerations since Taiwanese companies acquire high-level technologies and the desire to expand their global markets. According to this finding, the international joint venture is an effective mode to achieve a parent company's objectives. We suggest that Taiwanese enterprises can create IJVs to achieve their strategic objectives.

In addition, the motives for forming an international joint venture have many possible explanations with respect to the following four theoretical perspectives; transaction cost, strategic behaviour, resource dependency, and organizational learning. Most prior studies discuss the motivation of IJV formation by using a single theoretical perspective. However, this study found that these four theoretical perspectives all play an important role in forming the IJV. For host country companies, the motives for forming an IJV might be to acquire critical resources in order to overcome a transaction difficulty

(transaction cost perspective and resource dependency perspective), or to achieve a specific strategic objective (strategic behaviour perspective), or to benefit from knowledge learning (organizational learning perspective), or include all these motives at the same time. Different motives will result in a different influence on the extent of control. Therefore, we suggest that the parent companies can employ various degrees of control over their joint ventures according to their main motives.

In sum, the international joint venture offers multinational companies the ability to use their partner's capabilities in achieving their objectives. Given this fact, the degree of control is regarded as the most important factor of any business organization when they cooperate with other partners. Therefore, by identifying the principal factors affecting the extent of control that parents exercise over their ventures, parent companies can have a better understanding of the importance of each individual factor and the way in which it influences the degree of control. Moreover, parent companies can adjust their operational strategies and reconstruct the mechanism of control. Redesign of the control mechanism, can improve both partners' resource commitments on the one hand and on the other, can advance the successful achievement of both partners' objectives.

The government of Taiwan continues to demonstrate its effort to encourage foreign companies to cooperate with Taiwanese enterprises. In fact, Taiwanese enterprises gain significant benefits from cooperation in international joint ventures. For example, Taiwanese companies are increasing their competitiveness, advancing their technological skill and knowledge management through such cooperation. They should continue investing in international joint ventures and employ appropriate procedures in managing their joint ventures. At the outset, the parent companies should set a clear and definite motive when they consider forming an international joint venture, since this can affect some important issues, such as the kind of resource contribution to the joint venture, how many equity shares will be allocated to each partner, what areas will be under the control of the parents, and what extent of control the parents will exercise in their joint venture. Through successful cooperation, all partners can reach a win-win outcome. Companies which understand these relationships can apply this knowledge to effectively

enhance their company's specific advantage(s). The better the understanding of the operation of international joint ventures, the more success and achievement will be gained.

Today, there are numerous challenges facing international joint ventures both in their day-to-day operations and their strategic management. All the findings of this study provide numerous useful suggestions and insights for companies which are operating in today's highly competitive marketplace, especially, for Taiwanese enterprises to improve their competitive capabilities in the global market.

Appendix I-A: President Department Store

1. History of President Department Store

President Department Store established in Kaohsiung in 1975, was the largest department store of Southeast Asia at that time. Its founder had already established the first large-scale domestic department store-Dashin Department Store in 1958. After President Department Store was established, the founder of this group set up the President Supermarket chain. In 1984, it set up Talee Department Store. In addition, it entered into the warehouse market in 1991, and established President Department Store-Hooping Branch in 1999. All these developments show the ambition and strength of the President Enterprise Group in the past 30 years. President Enterprise Group has gained the favorable terrains in Kaohsiung, it has been the leader of the south general merchandise industry of Taiwan all the time.

2. Develop the Motive and Methods of the International Joint-Venture

Originally, President Enterprise Group planned to set the Talee Department Store holding a high price market, which in order to make the clear distinction between the President Department Store and the Talee Department Store. However, a few years later, the achievement of Talee Department Store was not outstanding. In addition, because there are many other general merchandise industry companies settling on the potentiality of the high consumer market in Kaohsiung area, they decided to expand the market in Kaohsiung and set up one branch after another. Among two or three of them are the Japanese general merchandise industry companies also attending the battle of Kaohsiung. Under the impact of international competition, the achievement of the Talee Department Store still does not reach the original expectation of the President Enterprise Group. The group has the reputation of being conservative and the leader of the group is determined to adopt “a safe” strategy. In 1991, the group decided to cooperate with the Japanese Isetan Department Store. The original Talee Department Store changed its title to the Talee-Isetan Department Store. President Enterprise Group occupies 51% of the equity shares; Japanese side has 49% of the stock shares. Japanese Isetan is famous

for its fashion in Japan, and has a long term relationship with the President Department Store. The private relations with the executives on the senior level of both sides are quite good which makes the Japanese Isetan beat back another cooperative- Japan SOGO Company.

3. Management and Administration

The President of President Department Store is also the president of Talee-Isetan Department Store. On one hand, President Department Store hopes to depend on Isetan’s management knowledge; on the other hand, to understand the Talee-Isetan Department Store’s daily operation activity by taking the topographical advantages. Hence, the Japanese Isetan is in charge of the major operations of the Talee-Isetan Department Store. The President has a meeting with the general manager of Talee-Isetan Department Store regularly every two weeks.

Since the Japanese Isetain takes over the management of the department store, it has greatly advanced in its achievements. The achievement grows up continuously that shows the original tactics works so as to meet the group’s expectation at first.

The table shows the brief explanation of the Talee-Isetan Department Store.

Name of joint-venture's subsidiary	Talee-Isetan Department Store	
Items of business of the subsidiary	Department store	
The subsidiary establishes time	1991	
General manager of the subsidiary nationality	Japan	
Name of the parent company	President Department Store	Japanese Isetan
Characteristic of the parent company	The leader of general merchandise group in Kaohsiung	Large department store in Japan
Joint-venture's motive of parent company	1. The performance of the Department does not meet the Group's expectation. 2. Face the new competitor The Group adopts "with the safe to make safe" strategy.	Expand the Southeast Asian market
Main contribution to joint-venture's subsidiary of parent company	Equipment and building Knowledge of the local market	Management know-how Marketing knowledge
Hold the proportion in stock right of parent company	51	49
The management to joint-venture's subsidiary of parent company is controlled	President not intervene subsidiary's daily operation activity, but has a meeting with the general manager regularly every two weeks.	The general manager is appointed by the Isetan company and he is in charge of Talee-Isetan's main operation.
The parent companies of both sides take subsidiary directors' percentage	4	3
Performance	Stand greatly in his tendency after taking over managing, an achievement grows up continuously.	

Appendix I-B: COSTCO Wholesale Corporation

1. History of COSTCO

PRICE Club which is established in Santiago of California in 1976, is one of the COSTCO Company predecessors. It is the first warehouse club for business shoppers in the world. In 1984, PRICE Club became the greatest warehouse seller in America. Another predecessor of COSTCO Company is the one which was established as the COSTCO member system wholesaling firm in Seattle of Washington in 1983. PRICE Club is located in the Holy Land (the end of California), and COSTCO is in Seattle, Washington (relatively close to Canada), the two locations are in the west coast of the U.S, and enjoy good operating conditions.

In order to pursue better achievements, the Western companies adopted merges and acquisition strategies in 1980s. In October 1983, PriceCostco is formed by merging PRICE Club and COSTCO. It officially changed its name from PriceCostco to Costco Companies, Inc. afterwards, in 1998. Due to the merger of these two companies, the number of locations increased and the operation was even bigger than before. Furthermore, the company started to open markets in Florida and gradually moved towards the East of the U.S. and the International markets. By December 2004, there were 449 locations, over 110,300 full and part-time employees worldwide, with over 43 million cardholders in 8 countries of the world and the average annual revenues reached \$47.15 billion. Costco Companies, Inc. presents one of the largest international chains of membership warehouses. Table 1 shows its worldwide distributions

Table 1 Worldwide Distributions of Costco Company

Worldwide Countries	Number of Warehouses
U.S. & Puerto Rico	333
Canada	63
U.K.	15
Korea	5
Japan	5
Taiwan	3
Mexico	25

Source : Costco Wholesale Corporation (2005) [on-line] Available-- <http://202.43.196.230>

2. Motivation for entering Taiwan Market

Costco has been in the American market about 30 years, and has a solid foundation in the market. However, due to the warehouse gradually tending towards maturity in the North America market, and in order to pursue the persistent development of the enterprise, it has increasingly penetrated the overseas market.

When the company decides to get into the overseas market, Asia is also the target market to be taken into consideration, besides developing the middle South America and European market. Hence, after opening locations in the United Kingdom, Canada and Mexico in succession, it starts to plan getting into Asia in the 1990s.

After a series of political and economical assessments in south-east Asia countries, the Taiwanese political and economical environment is more stable comparison to the other south-east Asia countries. Therefore, the company decides to open the first Costco branch in Taiwan.

3. Methods of entering Taiwan Market

The Taiwan government has allowed foreign investors to operate retail businesses since 1985. There are many foreign joint-venture hypermarkets in operation in Taiwan in a short period of time, for instance, Makro, Carrefour and so forth. Costco and Talee Investment Ltd. which is one of the companies of the President Enterprise Group started a joint-venture in Taiwan. The proportion of equity share of the parent company is 55% and 45%. Costco is in charge of operating the business and management. The first Taiwan Costco opens in Kaohsiung on January 18th in 1997. Nei-Hu Costco in the North of Taiwan is established in July 1999. Shih-chih Costco in the North of Taiwan starts in January 2000. In addition, the fourth locations in Jhong-He was scheduled to open in the beginning of the year 2005.

4. Human Resources Management

In the first stage of organizing and operating the business, American Costco dispatches employees to Taiwan and teaches the operational knowledge, experience, techniques and the methods of food production. These employees leave after Taiwan Costco employees learn all the techniques. Since the first Taiwan Costco in Kaohsiung had been opened for more than 10 years, the employees who were sent by American Costco had gone home. Currently there is three high levels of administrators working in Taiwan, which occupies small amount of staff ratio in Taiwan. According to the above, Costco adopts a local policy, but it still tends to send higher level of management from the Costco Home Company.

Name of joint-venture's Subsidiary	COSTCO Wholesale Corporation	
Subsidiary Selling Items	wholesale	
The subsidiary established time	1995	
Nationality of the general manager of the subsidiary	United States	
Name of the parent company	Talee Investment Ltd.	American COSTCO Wholesale Corporation
Characteristic of the parent company	The largest department store group in Kaohsiung	A big American wholesale company
Joint-venture's motive of parent company	Expand business field	Expand Asia market
Main contribution to the joint-venture's subsidiary of parent company	Capital Local marketing knowledge	Management know-how Marketing knowledge
Hole the proportion in stock right of parent company	45	55
The management to the joint-venture's subsidiary of parent company is controlled	The investor does not intervene the subsidiary's daily operation activity, but have a meeting with the general manager regularly.	The general manager is sent by the home company and he is in charge of Costco's main operation.
The parent companies of both sides take subsidiary directors' percentage	5	5
Achievement	Since enters in Taiwan, the achievement grows up continuously and expands locations continually	

Appendix II-A: English Questionnaire A

Bargaining Power, Ownership and Control of International Joint Venture in Taiwan

Dear Sir/ Madam,

I am a doctoral research student in the Department of Management Studies at University of Glasgow in U.K. and a lecturer at the Department of Business Administration - National Kaohsiung University of Applied Sciences in Taiwan as well. For my research I am undertaking a study on the following topic: 'Bargaining Power, Ownership and Control of International Joint Ventures in Taiwan'.

According to the Directory of Foreigner Investing in Taiwan it appears your company is an institute invested by foreign enterprises. This objective of this questionnaire is to identify the firm of joint venture and the Taiwanese parent of the joint venture. Responses will be used strictly for the purpose of academic research and not be for the public domain. All information is strictly confidential. You may return your completed questionnaire in the prepaid envelope provided. Thank you for taking time out of your busy schedule to assist is this.

Yours Sincerely,

The University of Glasgow

Department of Management studies

Supervisor: Doctor Michael Mayer

Professor Luiz Moutinho

Postgraduate student : Miss Min-Li Yang

Contact telephone: (07) 3814526 ext 7305

Fax number : (07) 3961245

A. On what basis was the company formed? Please tick one.

- ☐ 1. Sole trader
- ☐ 2. Wholly owned subsidiary
- ☐ 3. Overseas branch
- ☐ 4. Joint venture with other non Taiwanese partners
- ☐ 5. Joint venture with Taiwanese partners

If you tick Boxes ‘1-4’, please do not continue this questionnaire. Thank you very much for your cooperation, there is no need to return this form.

If you tick Box ‘5’ , please continue.

B. Please list the domestic parent company’s name, address and telephone number.

Starting with the most important parent companies.

Name : _____

Address : _____

Telephone: _____

Name : _____

Address : _____

Telephone: _____

Name : _____

Address : _____

Telephone: _____

Please return your completed questionnaire in the prepaid envelope provided

Thank you very much for your time and co-operation

Appendix II-B: English Questionnaire B

Bargaining Power, Ownership and Control of International Joint Ventures in Taiwan

Dear Director General,

I am a doctoral research student in the Department of Management Studies at the University of Glasgow in the U.K. and also a lecturer in the Department of Business Administration - National Kaohsiung University of Applied Sciences in Taiwan. For my research I am undertaking a study on the following topic: 'Bargaining Power, Ownership and Control of International Joint Venture in Taiwan'. Hopefully, with your assistance, this study could provide insights into the local joint venture relation affect bargaining power, ownership and control when Taiwanese companies create joint ventures with foreign firms, and the results could provide reference for the companies.

Our data sources show that your company is the Taiwanese parent of an international joint venture and has high a profile in the industry. Your opinions will have a crucial influence on this study. It is requested that the senior manager who has a good knowledge of the background of the joint venture complete this questionnaire. This questionnaire is for the purpose of academic research only. Responses will be used strictly for entire analysis and will not be made public. All information is strictly confidential. Please return your completed questionnaire in the prepaid envelope provided. Thank you for taking time to assist in this study.

Yours Sincerely,

The University of Glasgow

Department of Management studies

Supervisor: Doctor Michael Mayer

Professor Luiz Moutinho

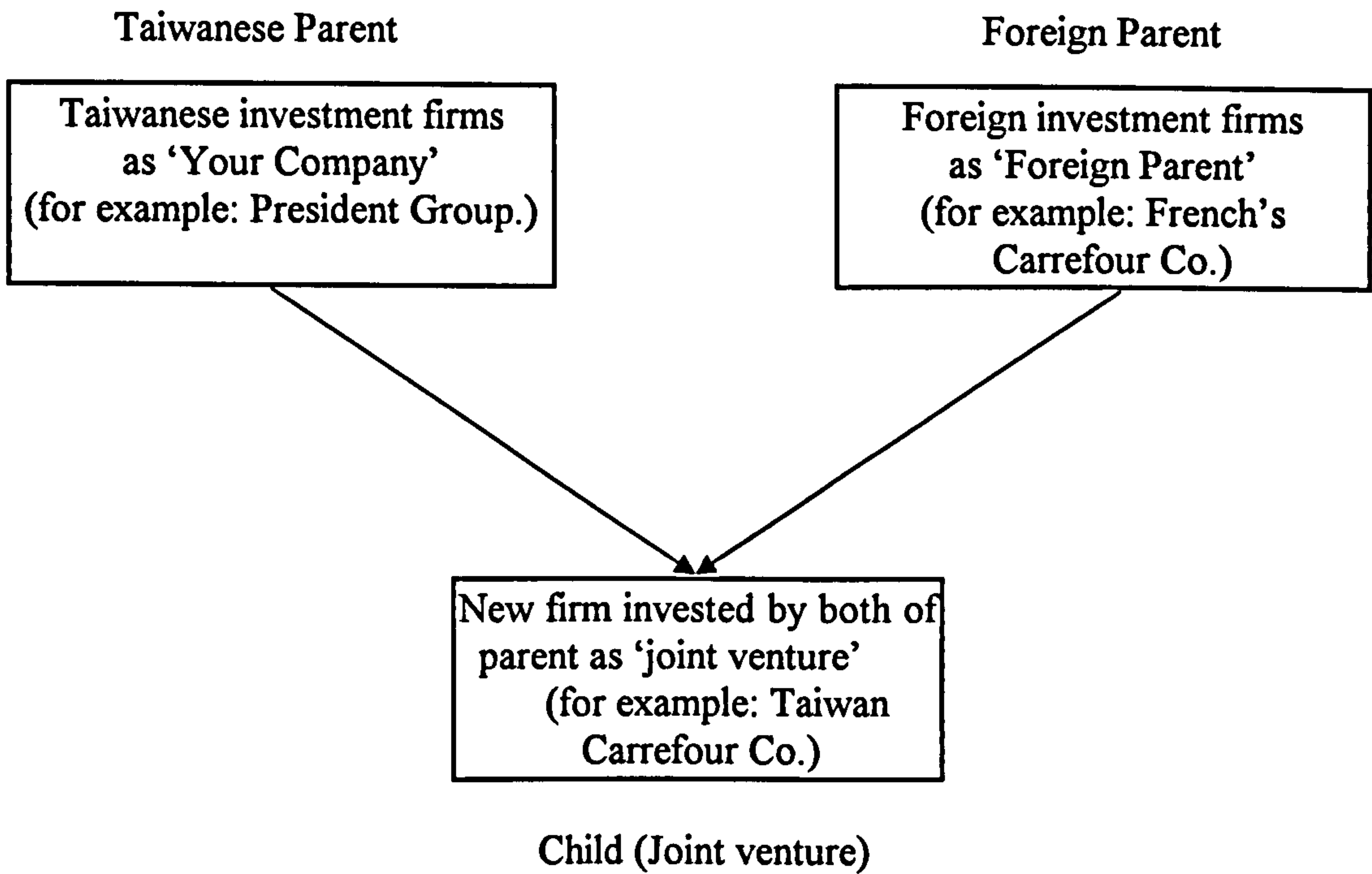
Postgraduate student : Miss Min-Li Yang

Contact telephone: (07) 3814526 ext 7305

Fax number : (07) 3961245

Instructions:

1. For an international joint venture, we describe the partners involved as:



2. If foreign investment firms are comprised of more than two companies, Please choose the foreign partner who has the highest percentage shareholding as reference.
3. If there are more than two cases of international joint venture, please base your comments on the case is the most important and which you have deep knowledge.
4. The senior managers include the general manager and other managers who have sound knowledge of the background of the joint venture.

Section A : The motivation for International Joint Venture Formation

As far as your company is concerned, how important are the following motives for forming the Joint Venture? On a scale between 1 to 5, please tick the appropriate number according to their importance.

Extremely
important
5

4

3

2

Not at all
important
1

Extremely
important
5

4

3

2

Not at all
important
1

1. Sharing a large sum of fixed costs

2. Spreading the financial risk

3. Reducing the risk caused by environment uncertainty

4. Sharing the risk of business cycle

5. Expanding the market and entering new markets

6. Extending the range of products and services

7. Reducing competition

8. Acquiring the economies of scale of production and sale

9. Conforming to Government policy

10. Maintaining or improving the competitive position

11. Facilitating diversified development

12. Learning international business knowledge

13. Learning marketing knowledge

14. Improving new product design ability from partner

15. Learning management knowledge

16. Learning partner's human resource management

17. Learning partner's manufacturing technology

18. Acquiring low cost materials and components

19. Acquiring sufficient capital

20. Sharing partner's resource

21. Acquiring partner's brands or patents

22. Acquiring partner's manufacturing equipment and technology

23. Improving ability on developing new technology

24. Acquiring technology

25. Technology transfer

26. Shortening the time from the product development to market entry

27. other, please specify

Section B : The degree of contribution by each partner to the Joint Venture

**What degree of resource has been contributed by each partner to the joint ventures?
Please tick one according to the degree of contribution. Please indicate on a scale of one
to five your assessment of the resource contribution of each partner.**

	Extremely high 5	High 4	Average 3	Low 2	Very low 1	None 0
	Your company			Foreign partner		
	Extremely high			Very low	None	
	5	4	3	2	1	0
1. Financial resources						
2. Key components and raw material						
3. Land, machinery, equipment						
4. Providing high-level expertise						
5. Marketing and operation ability						
6. Marketing channel						
7. Technology or R&D resources						
8. Access to external capital						
9. Expertise of employees						
10. Access to public relation with local government						
11. Access to environmental knowledge						
12. Sharing brands or patent						
13. Sharing Know-how						
14. Sharing the knowledge of management						
15. Other, please specify _____						
16. In general, what degree is contributed by each parent?						

Section C : Factors affecting the Bargaining Power

To what degree do the following factors affect the bargaining power? Please tick each one according to their degree of influence.

	Extremely strong 5	Strong 4	Average 3	Weak 2	Very weak 1

	Extremely strong 5	4	3	2	Very weak 1
1. Technology ability					
2. Innovative ability					
3. Access to export markets					
4. Investment amount					
5. Access to financial resources					
6. Management experience					
7. Access to sale distribution channel					
8. The influence of host government					
9. Knowledge of the local markets					
10. The level of equity shares					
11. Other, please specify_____					

Section D : Operational Decision Making for the Joint Venture

The following decisions with regard to the JV are taken by whom? Please tick the partner/s taking the major responsibility for these decisions.

* JV(joint venture) means the new firm invested by your company and foreign partner.

	Your company alone	Foreign Partner alone	JV alone	Your Co. & foreign partner	Your company. & JV	Foreign Partner & JV	Your Co. & foreign partner & JV	Not applicable
1. Product design								
2. Pricing policy								
3. Production scheduling								
4. Manufacturing process								
5. Quality standards								
6. Cost budgeting								
7. Sales targets								
8. Capital expenditures								
9. Other, please specify_____								

Section E : High level management Appointment

Who appoints the management in the following areas for the Joint Venture? Please tick the partner/s responsible for the appointment of the following positions.

* JV(joint venture) means the new firm invested by your company and foreign partner.

	Your company alone	Foreign Partner alone	JV alone	Your Co. & foreign partner	Your company. & JV	Foreign Partner & JV	Your Co. & foreign partner & JV	Not applicable
1. General manager	_____	_____	_____	_____	_____	_____	_____	_____
2. Vice general manager	_____	_____	_____	_____	_____	_____	_____	_____
3. Production manager	_____	_____	_____	_____	_____	_____	_____	_____
4. Marketing manager	_____	_____	_____	_____	_____	_____	_____	_____
5. Financial manager	_____	_____	_____	_____	_____	_____	_____	_____
6. Personnel manager	_____	_____	_____	_____	_____	_____	_____	_____
7. R & D manager	_____	_____	_____	_____	_____	_____	_____	_____
8. Head engineer	_____	_____	_____	_____	_____	_____	_____	_____
9. Other, please specify	_____	_____	_____	_____	_____	_____	_____	_____

Section F : Company’s Background

1. When was your company founded? Year _____
2. The number of employee: _____
3. Current investment capital: NT\$ _____million
4. The average business volume last three years: NT\$ _____million
5. Country of incorporation of your foreign partner
- _____ (1) Japan

_____ (2) America

_____ (3) United Kingdom

_____ (4) Germany

_____ (5) France

_____ (6) Canada

_____ (7) South Korea

_____ (8) Hong Kong

_____ (9) Others, please specify

6. What percentage shareholding do your company and the foreign partner hold for the joint venture?

(1) Your company: _____%

(2) Foreign partner: _____%

7. The number of the JV's board members represented by your company?

(1) The total number of board member in the joint venture: _____

(2) The number of seats on the board occupied by your company: _____

8. What is the nationality of JV's general manager? _____

9. What is the major business activity of your company?

____ (1) Mining

____ (2) Food

____ (3) Plastics

____ (4) Textiles

____ (5) Machinery / Equipment

____ (6) Electrical Equipment/Cable

____ (7) Chemicals

____ (8) Glass/Ceramics

____ (9) Paper Product & Printing

____ (10) Steel

____ (11) Rubber Products

____ (12) Automobiles

____ (13) Banking & Insurance

____ (14) Trade/General Merchandise

____ (15) Electronic

____ (16) Construction

____ (17) Transportation

____ (18) Tourism

____ (19) Others, _____

Thank you very much for your assistance.

Appendix III-A: Chinese Questionnaire A

「台灣地區國際合資談判力、所有權與控制之探討」研究問卷

企業先進：

您好！我是英國格拉斯哥大學管理研究所博士班研究生楊敏里，現任教於國立高雄應用科技大學企業管理系，目前正進行博士論文的研究，研究的主題為「台灣地區國際合資談判力、所有權與控制之探討」。

根據經濟部投資審議委員會資料顯示，貴公司為外國投資事業之機構。此問卷之目的為確認貴公司是否為合資公司與貴公司之台灣母公司。本問卷純屬學術性研究，貴公司所提供之資料，僅作整體的分析，絕不單獨對外公開，敬請安心填答。並請填畢後直接裝入回郵信封寄回，（不必貼郵票）。

由衷感謝您百忙之中所給予的協助與支持，並致予最深的謝意。
敬祝

鴻圖大展
事業順利

英國格拉斯哥大學管理研究所

指導教授：Michael Mayer 博士

Luiz Moutinho 教授

博士班研究生：楊敏里 敬上

聯絡電話：(07)381-4526 轉 7305

傳真電話：(07)396-1245

A. 請問貴公司屬於何種公司型態？

- ☐ 1. 合夥公司
- ☐ 2. 獨資子公司
- ☐ 3. 海外子公司
- ☐ 4. 非臺灣企業投資的合資子公司
- ☐ 5. 臺灣企業投資的合資子公司

（勾選 5 者，請繼續回答）

二、請填寫貴公司國內母公司之名稱、住址與聯絡電話。

若母公司有兩家以上時，請從最重要的母公司開始填寫

公司名稱：_____

電話：_____

地 址：_____

公司名稱：_____

電話：_____

地 址：_____

公司名稱：_____

電話：_____

地 址：_____

填畢後請直接裝入回郵信封寄回

感謝您的合作！！

Appendix III-B: Chinese Questionnaire B

「台灣地區國際合資談判力、所有權與控制之探討」研究問卷

企業先進：

您好！我是英國格拉斯哥大學管理研究所博士班研究生楊敏里，現任教於國立高雄應用科技大學企業管理系，目前正進行博士論文的研究，研究的主題為台灣地區國際合資談判力、所有權與控制之關係，希望藉此研究瞭解國內企業界與外商合作時的談判態式，及其對所有權與管理控制的影響，以作為國內業界之參考。

根據經濟部投資審議委員會資料顯示 貴公司為中外合資事業之臺灣參與公司，且於產業界績效卓著，您的寶貴意見將對本研究具**關鍵性的影響**，誠摯地懇請 貴公司熟悉國際合資運作之主管撥冗填答。本問卷純屬學術性研究，貴公司所提供之資料，僅作整體的分析，絕不單獨對外公開，敬請安心填答。並請填畢後直接裝入回郵信封寄回，（不必貼郵票）。

由衷感謝您百忙之中所給予的協助與支持，並致予最深的謝意。

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Luiz Moutinho 教授

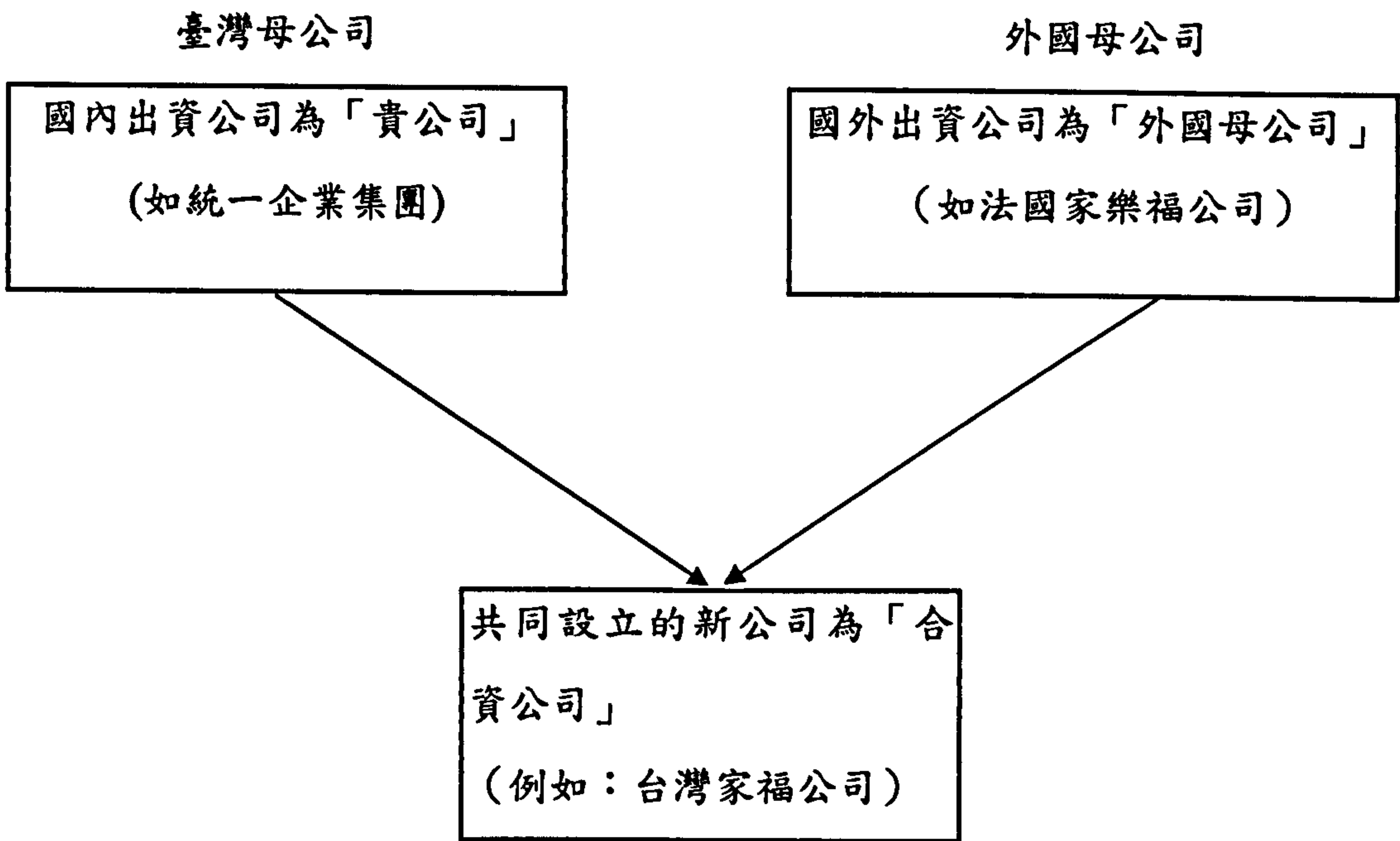
博士班研究生：楊敏里 敬上

聯絡電話：(07)381-4526 轉 7305

傳真電話：(07)396-1245

【問卷填寫說明】

1. 在一個國際合資案中，我們稱



- 2. 若國外出資公司超過兩個或兩個以上時，請以股權最高者為回答之參考對象。
- 3. 若有兩個以上之國際合資案時，請以印象最深者為回答基準。
- 4. 高級主管是指含總經理及其它一級主管。對合資的成立背景有所瞭解的相關主管人員。

一、雙方成立國際合資主要動機為何？

本部分是有關合資動機之問項，若您認為該項因素為貴公司進行合資時非常重要的因素，請勾選 5「非常重要」，若您認為該項因素十分不重要，請勾選 1「非常不重要」，請逐項作答，謝謝。

非常重要 5 4 3 2 非常不重要 1

	非常 重要 5	重 要 4	普 通 3	不 重 要 2	非 常 不 重 要 1
1. 共同分攤龐大的固定成本					
2. 共同分攤財務風險					
3. 降低因環境不確定所造成的風險					
4. 共同分攤市場景氣所造成之風險					
5. 有助於拓展市場及接近新市場					
6. 有助於擴大產品或服務之範圍					
7. 可減少彼此競爭					
8. 達成生產或銷售之規模經濟					
9. 配合政府政策					
10. 維持或增強競爭之地位					
11. 企業能夠多角化發展					
12. 學習合夥人的國際知識					
13. 學習合夥人的行銷知識					
14. 學習合夥人的新產品設計能力					
15. 學習合夥人的經營管理知識					
16. 學習合夥人的人力資源管理					
17. 學習合夥人的生產技術					
18. 取得穩定低成本的原料及零組件					
19. 取得充分的資金					
20. 共享彼此的資源					

	非常 重要 5	重 要 4	普 通 3	不 重 要 2	非 常 不 重 要 1
21. 取得對方的專利或品牌					
22. 取得對方的製造設備與技術					
23. 有助於新技術開發的能力					
24. 有助於技術的取得					
25. 進行技術之交流和移轉					
26. 縮短產品發展至上市的時間					
27. 其他，請說明					

二、雙方母公司對合資公司的貢獻為何？

本部分是有關合資貢獻程度之問項，若您認為貴公司或國外母公司對該項貢獻程度高，請勾選「很高」，如果貢獻程度低，請勾選「很低」或是「無」，請逐項作答，謝謝。

很高 5	高 4	中 3	低 2	很低 1	無 0

	貴公司的貢獻程度						外國母公司貢獻程度					
	很 高 5	高 4	中 3	低 2	很 低 1	無 0	很 高 5	高 4	中 3	低 2	很 低 1	無 0
1. 財務資源												
2. 原物料或零組件												
3. 土地、機器與設備												
4. 高階人才的提供												
5. 行銷與業務運作能力												
6. 行銷通路												
7. 技術或研發能力												
8. 外部資金的融資能力												
9. 專業的員工												
10. 和當地政府之公共關係												

	貴公司的貢獻程度						外國母公司貢獻程度					
	很高	高	中	低	很低	無	很高	高	中	低	很低	無
	5	4	3	2	1	0	5	4	3	2	1	0
1. 財務資源												
2. 原物料或零組件												
3. 土地、機器與設備												
4. 高階人才的提供												
5. 行銷與業務運作能力												
6. 行銷通路												
7. 技術或研發能力												
8. 外部資金的融資能力												
9. 專業的員工												
10. 和當地政府之公共關係												
11. 市場環境知識的掌握												
12. 分享品牌或商譽												
13. 分享智慧財產權												
14. 分享管理知識												
15. 其他, 請說明 _____												
16. 整體而言，雙方的貢獻程度為何？												

三、影響公司談判力之因素

本部份是有關影響雙方母公司談判力之因素，若您認為該項因素對談判力影響很大，請勾選「很大」，若您認為該項因素影響不大，請勾選「很小」，謝謝。

	很大 5	大 4	普通 3	小 2	很小 1
1. 技術能力					
2. 創新能力					
3. 出口市場的通路					
4. 投資總額					
5. 財務資源或融資能力					
6. 管理經驗					
7. 銷售通路					
8. 地方政府影響					
9. 當地市場知識					
10. 股權比率					
11. 其他, 請說明					

四、雙方母公司對合資公司營運活動的決策權，是由何者決定？

本部份問卷是有關合資公司九項重要營運決策，請您依該項決策是由何者訂定逐項勾選，謝謝。

[illegible]

	貴 公 司	外 國 母 公 司	合 資 公 司	雙 方 母 公 司	貴 公 司 與 合 資 公 司	外 國 母 公 司 與 合 資 公 司	三 者 共 同 決 定
3. 產品設計決策	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. 產品定價決策	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. 生產排程決策	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. 製造程序決策	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. 品質標準決策	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. 成本預算決策	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. 銷售目標決策	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. 資本支出決策	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. 其它, 請說明_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

五、請問以下高階主管之任命是由那一方決定？

本部份問卷是有關合資公司高階主管之任命，請您依該主管是由何者任命逐項勾選，謝謝。

	貴 公 司	外 國 母 公 司	合 資 公 司	雙 方 母 公 司	貴 公 司 與 合 資 公 司	外 國 母 公 司 與 合 資 公 司	三 者 共 同 決 定	無 此 職 位
1. 總經理	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. 副總經理	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. 生產主管	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. 行銷主管	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. 財務主管	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. 人事主管	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. 研發主管	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. 總工程師	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. 其它, 請說明_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

六、貴公司基本資料

一、 請問貴公司成立時間：民國_____年

二、 目前員工人數約_____人

三、 目前資本額為 NT\$_____百萬元

四、 過去三年平均營業額 NT\$_____百萬元

五、 合資對象的國籍為

____1. 日本 ____2. 美國 ____3. 英國 ____4. 德國

____5. 法國 ____6. 加拿大 ____7. 韓國 ____8. 香港

____9. 其他（請列出）_____

六、 貴公司與外國母公司在合資公司所佔股權比例：

(1) 貴公司_____%

(2) 外國母公司_____%

七、 請問貴公司在合資公司董事會的人員有多少人？

(1) 合資公司董事會總人數有_____人

(2) 貴公司在合資公司董事會的人員有_____人

八、 請問合資公司總經理的國籍是_____

九、貴公司所從事的是下列那種產業？

- | | |
|------------------|----------------|
| _____1. 水泥業 | _____2. 食品業 |
| _____3. 塑膠業 | _____4. 紡織纖維業 |
| _____5. 電機機械業 | _____6. 電器電纜業 |
| _____7. 化學工業 | _____8. 玻璃陶瓷業 |
| _____9. 造紙業 | _____10. 鋼鐵業 |
| _____11. 橡膠業 | _____12. 汽車業 |
| _____13. 金融保險業 | _____14. 百貨貿易業 |
| _____15. 電子業 | _____16. 營造建材類 |
| _____17. 運輸業 | _____18. 觀光業 |
| _____19. 其它_____ | |

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