

私立東海大學在職管理碩士專班  
碩士論文

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**Safeguarding Specific Investments in  
International Subcontracting Relationship  
--- The Supplier's Perspective**

防衛國際代工夥伴關係下之專屬性投資  
--供應商觀點分析

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# Table of Contents

## **Abstract**

## **Chapter 1. Introduction**

- 1.1 Research Motivation
- 1.2 Research Questions
- 1.3 Research Objectives

## **Chapter 2. Conceptual Framework and Hypothesis**

- 2.1 Transaction-Specific Investments
- 2.2 Governance Mechanism on safeguarding TSIs
  - 2.2.1 Relational Capital and TSIs
  - 2.2.2 Joint Decision Making and TSIs
  - 2.2.3 Quasi Integration and TSIs
- 2.3 The Consequence of Governance Mechanism
  - 2.3.1 Supplier's Perceived Risk
  - 2.3.2 Buyer's Dependence

## **Chapter 3. Research Method**

- 3.1 Research Setting
- 3.2 Data Collection
- 3.3 Construct Measures

## **Chapter 4. Results**

## **Chapter 5. Discussion and Conclusions**

- 5.1 Conclusion
- 5.2 Managerial Implications
- 5.3 Limitations of the Current Research
- 5.4 Direction for Future Research

## **References**

## **Appendix: Designed Questionnaire**

## Abstract

This study attempts to explore the safeguarding effects of transaction- specific investments within the context of international subcontracting partnership from a supplier's perspective. Specially, the study aims to answer how the suppliers deploy the appropriate control mechanism to inhibit opportunistic behavior or induce behaviors that promote the continuance of a relationship.

From the empirical examination, we have found that the potential value of committing transaction- specific investments by the supplier could be realized through inducing three possible governance mechanisms—Relation Capital, Joint Decision-Making and Quasi- Integration. The governance mechanism can therefore render the effects of safeguarding the transaction-specific investments (TSIs) for the supplier. At the same time, we have observing the consequence exerted by the safeguarding control mechanism on the transaction-specific investments. Respectively, "Relational Capital" can be used as the safeguard on TSIs to bring the consequence of diminishing the supplier's perceived risk, whereas "Joint Decision-Making" and "quasi integration" can be regarding as the safeguard on TSIs to result the consequence of enhancing the buyer's dependence.

In other words, the pledge of supplier commitment through specialized investments such as dedicated equipment, people, knowledge and processes

effectively changes the buyer-supplier relationship from being asymmetric dependent to mutually dependent. We therefore suggest the suppliers can proactively set up transaction-specific investments with the buyers; such investments would not only signal the supplier's commitments to maintain an enduring relationship, but also facilitate more engagement of relational capital, joint decision-making and quasi integration with the buyers.

# Chapter 1

## Introduction

### 1.1 Research Motivation

Over the last decades, due to its limited resources and its small in size, Taiwan has established itself as a world-class OEM/ODM supplier source for a variety of products in order to achieving the internationalization. It's well-known that, for example, Pao-Chai is the largest subcontracting supplier of footwear in the world, whereas Quanta Computer is the biggest one of notebook globally. The subcontracting buyer-supplier business model has been the main carrier of Taiwan's rapid development and remain important today.

Moreover, there are more and more enterprises in Taiwan are willing to retreat from brand management to cumulate brand image now for higher profit in the future. Instead, these manufacturing firms switch their business focus into subcontracting production for multinationals from the developed world. Manufacturing in this island economy is riding on the trend to produce for foreign firms choosing to specialize in product design while having their production outsourced. During the past decades, outsourced manufacturing has become prevailing not only in traditional industries, but also in high-tech industry as well.

Taiwan's achievements would be impressive for any country; they are even more impressive for a small island, about one-third the size of New York States. With a population of about 23 million people, roughly half the size of South Korea, Taiwan are confronted with the size-related disadvantages as a small nation: i). The small domestic market places tight restrictions on the ability to function as a buffer against heavy fluctuation in international demand. ii). It constrains the development of sophisticated "lead users" that could stimulate innovation. iii) It also limits the scope for technological spillovers. And iv) the limited size of the national knowledge and capital base restricts the choice of industries in which such small nations might successfully specialize. Taiwan's experience however tells a different story-- it has diversified beyond core product oriented into a variety of related high growth market segments; it has improved its domestic production capabilities and flexibility for the higher value-added products; and it has been able to move beyond manufacturing, into a range of higher-end support service.

Since Taiwan OEM/ODM manufacturers today have developed the capacity to provide a package of services across wide range of value chain activities, the advantage has sustained their position as preferred outsourced subcontracting suppliers to the global firms carried with brands. With the exception of marketing, Taiwan's OEM/ODM contractors can now perform practically all other stages of the value chain as well as being able to shoulder the essential and significant

coordination functions.

Especially, through the vertical collaborative association with outsourcing buyers, Taiwan manufacturers elaborate opportunities of upgrading and leveraging their competence scope for providing integrated manufacturing services and delicating management for the dynamic synergy creation of buyer-supplier linkages.

In international subcontracting partnership, powerful buyers often require suppliers to make significant specific investments to improve coordination between organizations and to enhance the buyers' presence in the manufacturing end. From the supplier's perspective, these specific investments are difficult to re-deploy elsewhere if the relationship is terminated and create a holdup problem. Hence, the supplier had better to seek for the way to efficiently safeguard these transaction-specific investments (TSIs) through the use of the governance mechanism.

As we know, the international subcontracting relationships in organizational networks are often characterized by considerable power asymmetries. Especially, when the suppliers make the significant transaction-specific investments on the cooperative relationship, they are often vulnerable to the exercise of power by more powerful and dominant buyers. Therefore, achieving a greater understanding of the safeguards established to protect the specific investments is an important issue for supplier firms.

## **1.2 Research Questions**

The study aims to answer what governance mechanism can be used to safeguard supplier's transaction-specific investments in international subcontracting partnership. Also, we aims to explore how the suppliers deploy the appropriate control mechanism to inhibit opportunistic behavior practiced by the buyers. The eventual purpose is to establishing a mutuality of interest through engaging in considerable coordinated actions between both parties.

## **1.3 Research Objectives**

The brand building to create customer demand for the suppliers' product, have been suggested by prior research, only a small fraction of manufacturers have the resources to adopt this course. Thus, we are able to say the subcontracting cooperative business model between Taiwan manufacturers and overseas buyers will still be practiced and sustained for a specific-long period of time in the future. Our objectives of this paper are searching for crafting the governance mechanisms which will lead the result of effectively safeguarding the transaction-specific investments from the supplier's perspective. We would also like to find the consequence on the mechanisms with the expectation of achieving the effects of diminishing supplier's perceived risk and enhancing the buyer's dependence.



## **Chapter 2.**

# **Conceptual Framework and Hypothesis**

The research target is concerned with specificity assets investments in international subcontracting partnerships. An international subcontracting partnership is defined in this study as a “cooperative, repeated exchange relationship between buyers and suppliers across borders”. (Wang, 2001)

Prior research has identified a variety of governance mechanisms that protect a supplier making transaction-specific investments from opportunistic behavior by its buyers (Rindfleisch & Heide 1997). These mechanisms include formal contracts (Joskow. 1998), pledges (Anderson & Weitz. 1992), information sharing (Noordwier. John. & Nevin, 1990), supplier verification (Heide & John. 1990), joint action and quasi integration (Subramani & Venkatraman. 2003). However, the previous literature is incomplete in several respects.

Firstly, prior studies are largely missing in exploring the effects on safeguarding specific assets from the supplier’s perspective in international subcontracting relationship; most of the literatures are focus on the buyer’s point-of –view. In this paper, we will be more absorbed in studying the governance dimensions for Taiwan suppliers.

Moreover, there is considerable recognition of the relation between transaction-specific investments and the governance mechanism introduced by prior studies; however, they are short of providing us the consequence which are exerted from the safeguarding effects. In this paper, we will empirically concentrate on the consequence of the control mechanism.

For the purpose of this study, we choose to use the term “transaction specific investments (TSIs, hereafter)” and further decompose the specificity into four differential constructs, namely (1) process specificity (2) domain knowledge specificity (3) dedicated human specificity and (4) physical-asset specificity, and establish links among the supplier’s commitments in TSIs, its engagement in capital relation, joint actions and quasi integration, as well as the effects exerted from the governance mechanism. The conceptual framework is illustrated accordingly as below (see Figure 1).

In international subcontracting relationship, powerful buyers often require suppliers to make significant specific investments to improve coordination between organizations. From the supplier’s perspective, these specific investments are difficult to re-deploy elsewhere if the relationship is terminated and create a holdup problem. This paper examines how a supplier might safeguard the specific investments in international sub-contracting relationship. We develop the conceptual framework, displayed in Figure 1, through an integration of transaction

cost economics and resourced-based view.

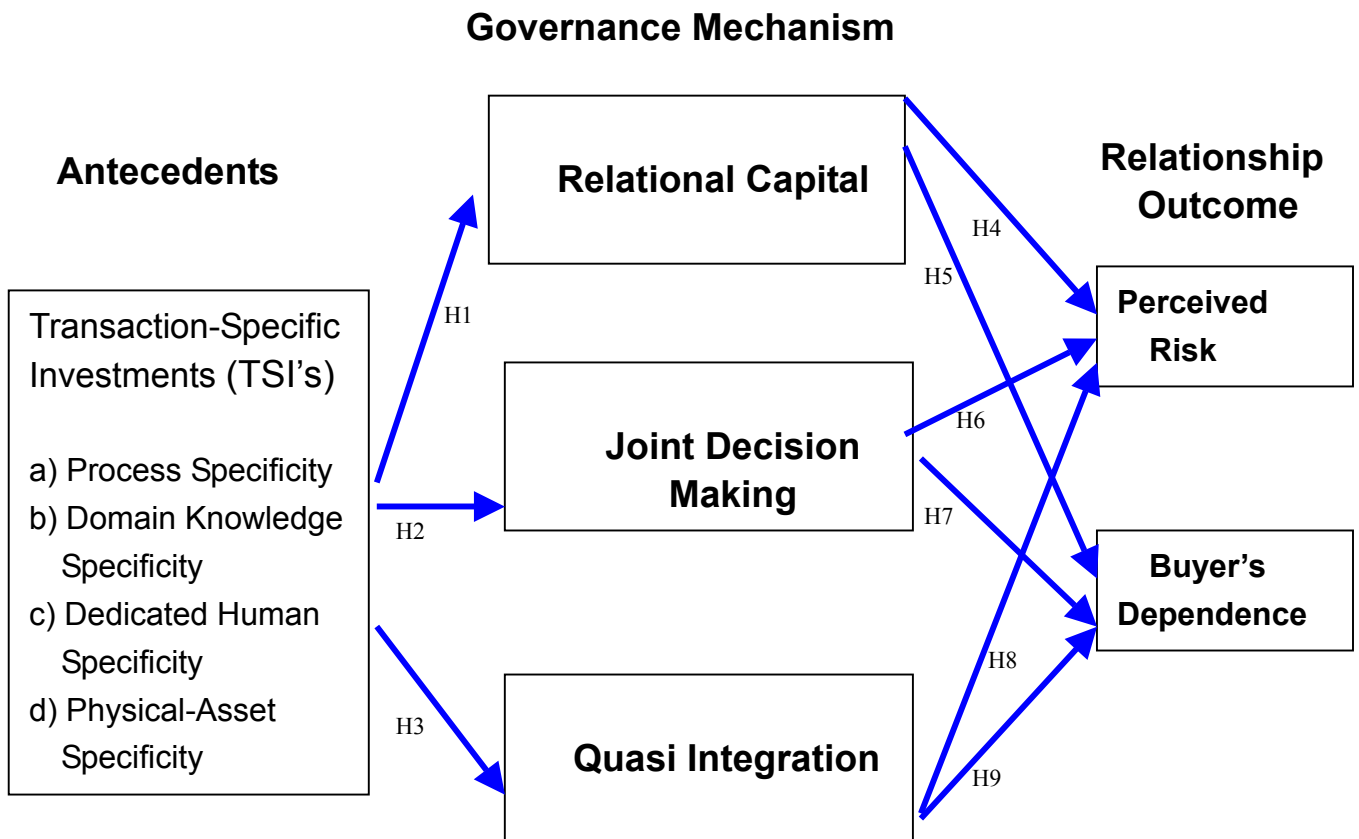


FIGURE 1: CONCEPTUAL FRAMEWORK

## 2.1 Transaction-Specific Investments (TSIs)

Asset specificity in TCE (Transaction Costs Economics) has been defined as those investments for a specific transacting partner and will be of little value outside this relationship (Williamson 1991). TCE basically suggests that the central motive

of structuring a vertical collaborative relationship is to seek efficiency through economizing internal and external transaction costs, under which criteria an appropriate governance structure for the transaction is determined. The asset specificity involved in a transaction become a major source of friction and effective safeguarding measures are required in order to reduce the associated (transaction) costs.

Perceiving a firm as a repository of idiosyncratic resources, RBV (Resource-Based View) provides a rather different view of the formation of vertical collaborative alliances. RBV basically suggests that firms collaborate for the purpose of combining two sets of resources in a synergistic manner (Penrose, 1959; Conner, 1991; Madhok and Tallman, 1998). In other words, a firm forms partnerships with others in order to either gain access to the partners' complementary resources to build its own resources, or for making use of the partners' similar resources to achieve scale economies (Dussauge, Garrette, and Mitchell, 2000).

Conceptually, we bring the perspectives of inter-firm collaboration from both TCE and RBV by arguing that this kind of investments could enhance more relation capital, stimulate more joint initiatives and induce higher quasi integration by the supplier. TCE focuses on the issues of efficiency in a static context of given technology and competence and offers useful insights into the negative effects of specialized investments in dyadic exchanges. On the other hand, the RBV

emphasizes on the effectiveness and the value derived from complementarities of knowledge and synergistic potential through resource combination. By synthesizing the perspectives of the foregoing two theories, we can say that TSIs can therefore provide transaction value for, not merely incur transaction costs to, the inter-organization collaboration.

TSIs in the present study generally refer to the unilateral commitments made by the supplier, ranging from tangible assets (e.g. dedicated equipment and task forces) to intangible resources (e.g. implementation of information exchange systems and customized process) to ensure the achievement of collaboration goals. The transaction specific investments made by suppliers are highly specialized to suit specific customers, are of limited value in other exchanges.

***Process Specificity.*** Process specificity focuses on the extent of process specificity as the degree to which critical business processes of one firm are specific to the requirements of the other firm in an inter-organizational relationship. The specific processes include the standard operating process for new product introduction, production and manufacturing, customer service, inventory management and quality control. Process specificities offer a common platform for better communication and efficient coordination, and hence pave the way for closer cooperation between international partners.

**Domain Knowledge Specificity.** Domain knowledge specificity focuses on relationships-specific intellectual capital investments. The extent of domain knowledge specificity is defined as the degree to which critical areas of knowledge of a supplier firm are specific to the requirements of a buyer. The customization of knowledge to a specific domain occurs when organizational resources are applied to understanding patterns and rules particular to a specific context in an inter-organizational relationship. Domain knowledge can create collaboration-specific rents through synergistic complementarities (Madhok, 2000:279).

**Dedicated Human Specificity.** Dedicated human specificity focuses on a dedicated team for a specific partner allows for more customized communication, immediate feedback and prompt problem solving. In cooperative supplier-buyer relationships, the higher the dedicated human specificity is, the higher the supplier can play an active role in shaping the buyer's decisions regarding their products.

**Physical-Asset Specificity.** Physical-asset specificity focuses on the tangible assets invested. In international subcontracting relationships, suppliers

often make TSIs in the form of tangible assets such as plant and machinery and in location choices that are advantageous in working with a specific buyer (Williamson, 1995). To achieve tighter inter-organization link with key customers, it is critical that the supplier invests in the physical-asset specificity which are complementary in facilitating coordination and intergrate the information flow between partners (Kraut, Steinfield, Chan and Hoag, 1999)

## **2.2 Governance Mechanism on Safeguarding TSIs**

Recent interpretations of transaction cost economics cast cooperative inter-firm relationships as reflecting a shift away from arm's-length, market-based exchanges toward closer, cooperative, non-market governance. The hand-in-glove buyer-supplier relationships through which firms leverage resources in the supplier network and manage ongoing accommodations to exchanges are instances of this governance form. (Mani R. Subramani & N. Venkatraman, 2003)

The challenges to business in future years will be to shift more investment from physical capital (plant, equipment) and intellectual capital (patents and copyrights) to relational capital since the business enterprise nowadays has recognized the true value of relational capital. Products and services that are standardized commodities are most vulnerable to the buyer abandonment. With ever-greater ease, the buyer can find and choose better deals; the profits on such commodities inevitably are

declining. By contrast, the relational capital invested can entails a long-term relationship between both parties under the mutual trust and complementary association.

In this paper, we conceptualize and examine three control mechanisms comprising in the non-market governance-- “Relational Capital”, “Joint Decision Making” and “Quasi Integration”, which are crafted by suppliers in organizational networks in their dealings with dominant buyers.

### **2.2.1. Relational Capital and TSIs**

#### **Relational Capital**

Relational capital refers to the level of mutual trust, respect and friendship that arises out of close interactions, both at the individual level and at the firm level, between partners (Kale, Singh, and Perlmutter, 2000; Zaheer et al., 1998; Dyer and Chu, 2000). Recent research support that trust can increase transaction-specific investments (Dyer and Singh, 1998).

Relational capital brings the expectations about behavior that are partially shared by a group of decision makers and directed toward collective or group goals (Gibbs 1981; Macneil 1980). Also, relational capital underpins the willingness and openness of the partners to share their knowledge with each other (Hamel, 1991); it can be regarded as that the cumulative trust,



experience and knowledge form the core of the relationship between the supplier and the buyer. The higher level of relational capital includes the dimensions of friendship, trustworthiness and reciprocity between both parties.

We can say the relational capital is a mechanism of mutual dependence which lead two effect on the transaction-specific investments. On the one hand, they increase switching costs and the size of damage in case of hold-up. On the other hand, they increase value to the partner, making it more captive and reducing the probability of hold-up. We therefore propose:

***Hypothesis 1.*** *In international subcontracting relationships, the level of transaction-specific investments (TSIs) is positively related to the level of relational capital.*

## **2.2.2. Joint Decision-Making and TSIs**

### **Joint Decision Making**

Joint decision-making is an important behavioral element of relational exchange to signal the closeness and interdependence between partners (Kim, 1999; Joshi and Stump, 1999). Within the context of international

subcontracting partnership, joint decision-making established between buyers and suppliers could be in the activity areas of product design, cost structure analysis, delivery system, personnel training and long-term planning.

Joint decision-making reflects the degree to which a supplier and its dominant buyer jointly make decisions about key issues in the relationship. Participation in joint decision-making involves the pooling of information by participants (Heide & John, 1990). Firms depart from the rigid demarcation of roles characteristic of market exchange to the sharing roles of taking responsibility across organizational boundaries when they engage in joint decision-making.

The higher the level of TSIs, the greater the supplier's motivation for joint decision-making, as joint decision-making makes it possible for the supplier to influence the buyer's decisions in a manner that is favorable to the supplier's own interests (Milgrom & Roberts, 1986). The investments in TSIs are used to being the significant decision for the supplier; it's very possible that huge financial capital and resource input are requested for supporting these investments. Moreover, the assets are not used in supplying other buyers whom the supplier deal with. Due to the above two reasons, we believe the supplier's TSIs would not only signal their commitments to maintain an enduring relationship, but also facilitate more joint actions engaged with the buyers, under which knowledge exchange and organizational learning will be realized.

We therefore propose:

***Hypothesis 2.*** *In international subcontracting relationships, the level of transaction-specific investments (TSIs) is positively related to the level of joint decision-making.*

### **2.2.3. Quasi Integration and TSIs**

#### **Quasi Integration**

Quasi integration reflects the degree of activities linkage between a supplier and a dominant buyer. Increasing levels of quasi integration represent that the buyer assumes greater importance to the supplier.

With higher quasi integration, there is considerable communication and information exchange in the relationship between both parties, and the resources of the supplier are increasingly oriented toward serving the changing needs of the buyer in a distinctive way (Dyer, 1996; Zajac & Olsen, 1993). Also, it can be regarded as the supplier's credible commitment to the buyer as it reflects the supplier's decision to forego alternatives and rely on the relationship to achieve a large proportion of its revenue goals (Anderson & Weitz, 1992).

The high level of quasi integration signals the possibility of maximizing and

contributing the overall value of transactions. We therefore expect greater process specificity will indicate greater levels of supplier's interest in working with a particular buyer, since greater specificity assets makes it possible for the manufacturers to differentiate themselves advantageously in a supplier- buyer relationship. Thus, it implies that higher levels of transaction- specific investments are related to higher levels of quasi integration. We therefore propose:

***Hypothesis 3.*** *In international subcontracting relationships, the level of transaction-specific investments (TSIs) is positively related to the level of quasi integration.*

## **2.3 The Consequence of Governance Mechanism**

### **2.3.1. Supplier's Perceived Risk**

In buyer-supplier relationships, risk arises both from changes to products and from changes in the environments of the exchanges. Higher risk demands greater adaptation of the terms of an exchange and exposes the supplier's specialized assets to the possibility of opportunistic behavior by the buyer. We suggest that it is interplay between the supplier's governance dimensions of the transaction-specific investments and the supplier's perceived risk from the

association.

Under relatively high levels of relational capital, a supplier's transaction-specific investments are positively related to its influence over a buyer's decisions.

Relational capital might offer strong safeguards against a buyer's opportunistic behavior when the supplier has input the specific assets and can effectively diminish the supplier's perceived risk. We therefore propose:

***Hypothesis 4.*** *In international subcontracting relationships, the level of relational capital is negatively related to the level of the supplier's perceived risk.*

Participation in joint decision making allows suppliers to identify opportunities and influence actions in a manner that improves the outcomes of the deployment of their domain knowledge in the exchange (Dyer & Singh, 1998). This enhancement in value delivery increases the likelihood that the exchange will be continued in the future, which effectively diminishing the supplier's perceived risk from the specialized assets. We therefore propose:

***Hypothesis 6.*** *In international subcontracting relationships, the level of joint decision-making is negatively related to the level of*

*the supplier's perceived risk.*

The high level of quasi integration signals a supplier's strong intentions of trustworthy behavior toward its dominant buyer and that it is important in moving the supplier and the buyer toward a close, more integrated relationship that, in turn, safeguards the supplier's transaction-specific investments. Also, high level quasi integration, by increasing the buyer's switching costs, also generates the safeguard effect (Anderson & Weitz, 1992). Thus, it implies that higher levels of quasi integration are related to lower levels of the supplier's perceived risk. We therefore propose:

***Hypothesis 8.*** *In international subcontracting relationships, the level of quasi integration is negatively related to the level of the supplier's perceived risk.*

### **2.3.2. Buyer's Dependence**

Resource dependence theory (Pfeffer & Salancik, 1978) suggests that the extent to which a supplier is dependent on a specific buyer influences the character of inter-organizational relationships and is thus likely to be influential in determining the nature of governance mechanisms as well. Depending upon the

tightness of the buyer-supplier relationship, such a vertical relationship could evolve from recurrent to interdependent in nature (Hemmert, 1999). We therefore would suggest the governance mechanism on TSIs will influence the level of the buyer's dependence in an exchange.

Relational capital could be focused on the dimensions of solidarity, information exchange, and participation (Heide and John 1992). These dimensions address the bilateral behavioral expectations in ongoing, present-day relationships instead of future commitment relationships. Moreover, relational capital can offer the assistance to the supplier on maintaining the joint relationship with the buyer via information-sharing, decision-making and goal-setting regarding all aspects of the exchange (Dwyer and Oh 1988). We therefore propose:

***Hypothesis 5. In international subcontracting relationships, the level of relational capital is positively related to the level of the buyer's dependence.***

The supplier's dedicating the transaction-specific investments on joint decision making seems to confirm the notion suggested by the previous literature (e.g., Celly et. Al, 1999) that a supplier's investments in specific assets could signal its commitment to the transacting partner, which could in turn

increase the partner's willingness to involve the supplier in more joint initiatives. Obviously, the consequence will lead the result of increasing the organizational linkages on both information infrastructure, inter-organization routines which possibly will enhance the buyer's dependence on the supplier. We therefore propose:

***Hypothesis 7. In international subcontracting relationships, the level of joint decision-making is positively related to the level of the buyer's dependence.***

While the supplier has input higher level of quasi integration with the buyer, the association is likely to be reflected in a greater share of output being supplied to the particular partner which enhancing the level of the supplier's dependence. We therefore propose:

***Hypothesis 9. In international subcontracting relationships, the level of quasi integration is positively related to the level of the buyer's dependence.***



## Chapter 3.

### Research Method

#### 3.1 Research Setting

The OEM/ODM oriented manufacturers in Taiwan are chosen as the supplier scope for our empirical setting for couple of reason.

Firstly, due to the wave of strategic outsourcing and the urging demand of cost-effective products, Taiwanese contract OEM/ODM suppliers has played an prominent role of the global manufacturing providers. The competition occurs at each horizontal stage of the supply chain and inter-firm collaboration based on specialization has become a dominant game rule. This supplier landscape therefore provides a rich context for accessing international subcontracting partnerships from the supplier's point of view.

Also, due to a high intensity of competition in the end product markets caused by globalization, the partnerships between indigenous manufacturers and international branded buyers are subject to a high degree of uncertainty in supply competition and continuous price/cost reduction. The suppliers have to maintain efficient and effective collaborations based on specific investments and capabilities, which make our research inquiry sufficiently relevant.

Moreover, the suppliers differ widely in their degree of the extent of relation, the extent of joint action, as well as the extent of quasi-integration, thus providing an appropriate setting for testing the research model.

### **3.2 Data Collection**

We collected the required data during spring 2004 by means of questionnaires mailed to a stratified random sample of 500 independent OEM/ODM manufacturers in Taiwan. The sample list was compiled from : A supplier list of an International Sourcing Center (ISC) for Taiwan.

All respondents were guaranteed anonymity; each informant was asked to complete the entire questionnaire with reference to a self-selected foreign buyer that is most important with regards to his or her firms. Therefore, the unit of analysis was the individual buyer's relationship with the supplier. Since the unit of analysis in this study is a dyadic relationship, eight firms returned more than one questionnaire. Follow-up phone calls were made to ensure that questionnaire from the same firm focused on different foreign buyers. In sum, 124 completed questionnaires were returned; six questionnaires were eliminated due to substantial missing data on key construct items, resulting in 118 questionnaires left for analysis. This response rate (23.6%) is much higher than that found in previous research using survey data to examine inter-organizational relationships (e.g., Young-Ybarra and Wiersema, 1999).

The profile of respondent firms is sufficiently diverse in terms of industry and firm size. In terms of industry types, 52% IT and electronics, 23% machinery, 6% shoes, and 19% others. In addition, the sample is composed of companies with annual sales turnover ranging from NT\$ 70 million to NT\$ 2900 billion. The number of employees ranges from 25 to 30,000, with an average of 3,353. What is more, of the respondents in the study, 27% is top executives, 26% is managerial level, and 34% is general staffs.

### **3.3 Construct Measures**

Most of the questionnaire measurements in this research are based on 7-point Likert scales, ranging from 1= “strongly disagree” to 7= “strongly agree”. We generated multi-item scales based on previous related research and field interviews with sales managers of some supplier firms.

Details of the constructs and the operationalizations are provided in **Table 1** and are discussed below.

#### ***Transaction-Specific Investments (TSIs)***

We measured transaction-specific investments in terms of eight indicators capturing the specificities of process, domain knowledge, dedicated human and physical-asset in our research context. The process specificity measured in

terms of the extent of the dedicated workflows & routines as well as the dedicated development & production process. Domain knowledge specificity measured in terms of the extent of dedicated service & knowledge. Physical-asset specificity measured in terms of the extent to which the equipment, production line, IT software & hardware, and IT & on line information exchange were customized. Dedicated human specificity measured in terms of the extent of the dedicated people. All the indicators were measured on a seven-point scale from “strongly disagree” to “strongly agree”. The Cronbach  $\alpha$  measure of reliability for this construct is 0.8728

### ***Relational Capital***

We measured relational capital in terms of seven indicators capturing the relationship that comprising the elements of friendship, reciprocity, trustworthiness, win-win relationship, growth-pursuing and long-term relationship maintenance with the focal buyer. All the indicators were measured on a seven-point scale from “strongly disagree” to “strongly agree”. The Cronbach  $\alpha$  measure of reliability for this construct is 0.8232

### ***Joint Decision-Making***

This construct was measured in terms of four indicators capturing the joint actions taken with the focal buyer. The activities comprise new product launches, long-term collaborative plan and production cost-down strategy. All the indicators were measured on a seven-point scale from “strongly disagree” to “strongly agree”. The Cronbach  $\alpha$  measure of reliability for this construct is 0.8866

### ***Quasi Integration***

We measure this construct in terms of the percentage of business amount of the focal buyer is occupied in your yearly turnover. This indicator is consistent with John and Weitz (1988), who view forward integration as “percentage of direct sales to end-user”. Quasi integration can serve as a safeguard for specific assets by increasing the buyer’s costs of termination; comparatively, the buyer has lower incentives to terminate the relationship with the supplier.

### ***Perceived Risk***

Perceived risk was measured with five indicators regarding that the order might be transferred to others, the relationship might be terminated, the price might be decreased, the free extra service might be requested and the confidential information might be betrayed by the focal buyer. All the indicators were measured on a seven-point scale from “strongly disagree” to “strongly

agree”. The Cronbach  $\alpha$  measure of reliability for this construct is 0.8726

### ***Buyer’s Dependence***

We operationalized buyer’s dependence using three indicators, tapping the extent of the perceived dependence from the buyer. The construct include that the buyer might get loss and encounter the difficulty of non-available alternative resource once the supplier terminate the supply of goods. All the indicators were measured on a seven-point scale from “strongly disagree” to “strongly agree”. The Cronbach  $\alpha$  measure of reliability for this construct is 0.8790.

**Table 1. Details of constructs and measures**

<b>Construct</b>	<b>No. of items</b>	<b>Description of the measures</b>
Transaction-Specific Investments (TSIs)	8	<p>(I).Process Specificity Please indicate the extent to which the following are what you have supplied to the focal buyer.</p> <p>(a) Dedicated workflows and routines (b) Dedicated development and production process (Strongly disagree—strongly agree, 7 point scales)</p> <p>(II).Domain Knowledge Specificity Please indicate the extent to which the following are what you have supplied to the focal buyer.</p> <p>(a) Dedicated service and knowledge (Strongly disagree—strongly agree, 7 point scales)</p> <p>(III).Physical-Asset Specificity Please indicate the extent to which the following are what you have supplied to the focal buyer.</p> <p>(a)Dedicated equipment (b)Dedicated production line (c)IT software and hardware (d)IT and on line information exchange (Strongly disagree—strongly agree, 7 point scales)</p>

		<p>(IV).Dedicated Human Specificity</p> <p>Please indicate the extent to which the following are what you have supplied to the focal buyer.</p> <p>(a) Dedicated people</p> <p>(Strongly disagree—strongly agree, 7 point scales)</p>
Relational Capital	7	<p>Indicate the extent to which you develop the following relationship with your focal buyer</p> <p>(a)Friendship with the focal buyer</p> <p>(b)Reciprocity between partners</p> <p>(c)The cheat won't be occurred between partners</p> <p>(d)Trustworthiness between partners</p> <p>(e)Win-win relationship between partners</p> <p>(f)Pursuit the growth together with the partner</p> <p>(g)Willing to maintain long-term relationship with the partner</p> <p>(Strongly disagree—strongly agree, 7 point scales)</p>
Joint Decision Making	4	<p>Indicate the extent to which you jointly plan the following activities with your focal buyer</p> <p>(a) New product launches</p> <p>(b) Long-term collaborative plan</p> <p>(c) Production cost-down plan</p> <p>(Strongly disagree—strongly agree, 7 point scales)</p>
Quasi Integration	1	<p>What percentage of the focal buyer sales is occupied in your total turnover last year?</p>
Perceived Risk	5	<p>Please estimate the extent to which you worry in the following factors in relation to your subcontracting relationship with the focal buyer</p> <p>(a)The order might be transferred to other suppliers</p> <p>(b)The relationship might be terminated</p> <p>(c)Price decrease for current products</p> <p>(d)The extra service is requested under the free-of-charge condition</p> <p>(e)The confidential information will be betrayed by the focal buyer</p> <p>(Strongly disagree—strongly agree, 7 point scales)</p>
Buyer's Dependence	3	<p>The extent to which the focal buyer has experienced.</p> <p>(a)The focal buyer will get big loss if you stop the supply</p> <p>(b)It will be difficult for the focal buyer to find the alternative resource if you stop the supply.</p> <p>(c)You will be hard to be replaced by other competitors.</p> <p>(Strongly disagree—strongly agree, 7 point scales)</p>

## Chapter 4.

## Results

Table 2 shows the means, standard deviations, and correlations among the study variables. We used path analysis to assess the hypothesized model relationships. Data were analyzed using structural equations modeling with Amos 4.0 (Arbuckle & Wothke, 1999). According to Bollen & Long (1992), researchers should compare rival models and not just test a proposed model. In addition to our hypothesized model, we examined four alternative models. The hypothesized model (Model 1) has a significant chi-square ( $\chi^2 = 28.73$ ,  $df = 6$ ,  $p < .01$ ), and the fit indices are not quite strong enough (GFI = .92, AGFI = .73, CFI = .87, RMSEA = .18, AIC= 58.74). Utilizing the change in chi-square test (Bentler & Chou, 1988), we compared our hypothesized model with four nested models (see table 3).

**Table 2 : Descriptive statistics and intercorrelations**

Variable	Means	S.D.	1	2	3	4	5	6
1.Asset-specific investment	5.21	.82	1					
2. Joint decision making	5.32	.87	.71***	1				
3.Quasi integration	2.83	1.30	.22*	.21*	1			
4. Relational capital	5.52	.6	.53***	.59***	.17+	1		
5. Perceived risk	4.58	1.04	-.04	.06	.03	-.13+	1	
6.Buyer's dependence	4.51	1.11	.45***	.45***	.31***	.36***	-.11	1

+p<.1 \*p<.05 \*\*p<.01 \*\*\*p<.0001



In Model 2, we added the associations among the different governance mechanism. A direct path is specified from the relational capital to the joint decision-making and quasi-integration. The second comparison shows that Model 2 (Hypotheses + Governance Mechanism Interaction) provides a significantly better fit than does the hypothesized model ( $\Delta\chi^2 = 21.14$ ,  $\Delta df = 2$ ,  $p > .1$ , GFI = .98, AGFI = .88, CFI = .97, RMSEA = .08, AIC = 41.59).

**Table 3 : Nested Model Comparisons**

Model	$\chi^2(df)$	$\Delta \chi^2$ ( $\Delta df$ )	GFI	AGFI	CFI	RMSEA	AIC
1. Hypothesized	28.73(6)		.92	.73	.87	.18	58.74
2. Hypothesized +Governance Mechanism Interaction	7.59(4)	21.14(2)	.98	.88	.97	.08	41.59
3. Partially mediated model (Hypothesized + TSI to buyer's Dependence)	3.43(3)	25.30(3)	.98	.93	.99	.04	39.43
4. Hypothesized + TSI to buyer's Dependence and perceived Risk	2.59(2)	26.14(4)	.99	.92	.99	.05	40.59
5. Non-mediated model	78.95(5)	-50.22(1)	.85	.37	.56	.35	110.95

In Model 3, we specified the paths in the hypothesized model, and added a direct

path from the asset-specific investment to the perceived buyer's dependence. The nested model comparison indicates that Model 3 is superior to Model 1 ( $\Delta\chi^2 = 25.30$ ,  $\Delta df = 3$ ,  $p > .1$ , GFI = .98, AGFI = .93, CFI = .99, RMSEA = .04, AIC = 39.43). In Model 4, we estimated two direct paths from the asset-specific investment variables to the perceived buyer's dependence and perceived risk. The change in chi-square test shows that Model 4 ( $\Delta\chi^2 = 26.14$ ,  $\Delta df = 4$ ,  $p > .1$ , GFI = .99, AGFI = .92, CFI = .99, RMSEA = .05, AIC = 40.59) is significantly better than Model 1.

Model 5 tested a non-mediated model as the conceptual alternative. In this model, the paths from asset-specific investment to relational capital, quasi-integration, and joint decision-making were constrained to zero, but the paths from the asset-specific investment and governance mechanism to perceived risk and perceived buyer's dependence were freely estimated. The change in chi-square test shows that Model 5 ( $\Delta\chi^2 = -50.22$ ,  $\Delta df = 1$ ,  $p < .01$ , GFI = .85, AGFI = .37, CFI = .56, RMSEA = .35, AIC = 110.95) is significantly worse than Model 1. We used Akaike's (1987) information criterion (AIC) to evaluate the relative fit of our best fitting model and the alternative model. The AIC values showed that Model 3 has a smaller value than others model, thereby model 3 is the best fitting model.

**Table4 : Completely standardized path estimates from best-fitting model**

	Relational Joint		Quasi-integration	Perceived	Buyer's
	capital	decision-making		risk	dependence
Asset-specific investment	H1 .50 ***	H2 .50 ***	H3 .24+	NE	.22 *
Relational capital	NE	.34 ***	.12	H4 -.21 *	H5 .04
Joint decision-making	NE	NE	NE	H6 .23 *	H7 .28+
Quasi-integration	NE	NE	NE	H8 .11	H9 .21 ***

NE = path was not estimated in model.

+p<.1 \*p<.05 \*\*p<.01 \*\*\*p<.0001

**Figure 2: Conceptual Framework**

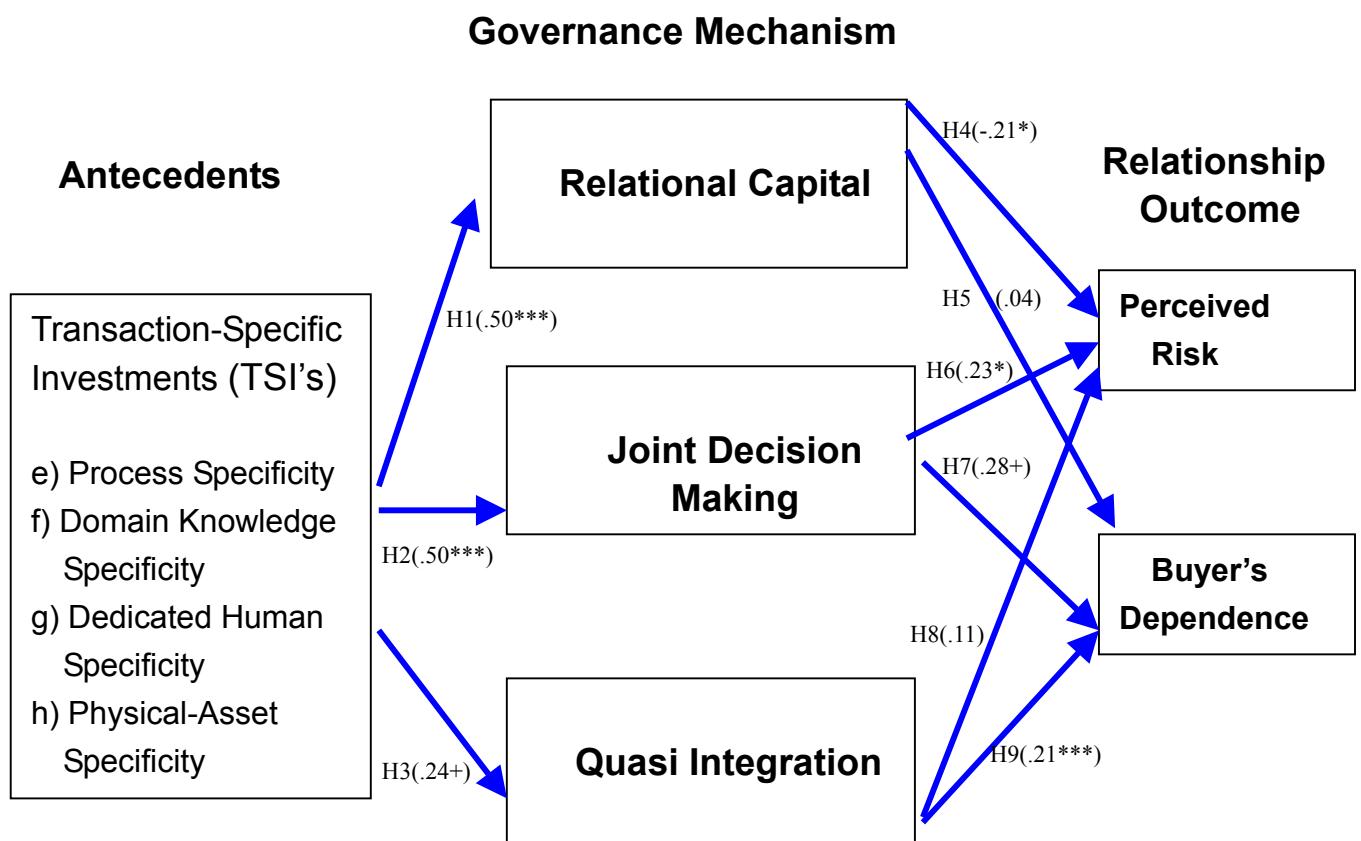


Table 4 reports the standardized path coefficients (SPCs) for the estimated

relationships (also reference to Figure 1). Hypothesis 1 predicted that asset-specific investment is positively related to relational capital. Hypothesis 1 is supported (SPCs = .50;  $p < .001$ ). Hypothesis 2 suggested that asset-specific investment is positively related to joint decision-making. The results of statistically significant parameter estimates reported in Table 4 support this hypothesis (SPCs = .50;  $p < .001$ ). Hypothesis 3 predicted that asset-specific investment is positively related to quasi-integration. Hypothesis 3 is not supported (SPCs = .24;  $p < .1$ ).

Hypothesis 4 predicted that the relational capital is negatively related to the perceived risk, and Hypothesis 5 predicted that the relational capital is positively related to perceived buyer's dependence. Hypothesis 4 is supported (SPCs = -.21;  $p < .001$ ). Hypothesis 5 is not supported (SPCs = .04;  $p > .10$ ).

Hypothesis 6 predicted that joint decision-making is negatively related to the perceived risk, and Hypothesis 7 predicted that joint decision-making is positively related to perceived buyer's dependence. Hypothesis 6 is not supported (SPCs = .23;  $p < .1$ ). Hypothesis 7 is not supported (SPCs = -.28;  $p < .1$ ),

Hypothesis 8 predicted that quasi-integration is negatively related to the perceived buyer's risk, and Hypothesis 9 predicted that quasi-integration is positively related to perceived buyer's dependence. Hypothesis 8 is not supported (SPCs = .11;  $p > .10$ ). Hypothesis 9 is supported (SPCs = .21;  $p < .001$ ).

Although not hypothesized in the study, there were two other significant path estimates in Model 3 that are of great interest to us. The path from relational capital to joint decision-making is statistically significant (standardized path coefficients = .34;  $p < .001$ ), and the path from asset-specific investment to perceived buyer's dependence is statistically significant (SPCs = .22;  $p < .05$ ).

In summary, Hypotheses H1, H2, H4, and H9 are supported.

## **Chapter 5.**

### **Discussion and**

## 5.1 Conclusion

As strategic outsourcing and inter-firm specialization have evolved as important features of the modern industrial landscape (Hitt, Keats, and Demarie, 1999), building up a value-creating subcontracting alliance by both leveraging and elevating a partner's interest and interdependence constitutes an indispensable element of competitive advantages (Dyer and Singh, 1998; Madhok and Tallman, 1998).

By encompassing the perspective of inter-firm collaboration into existing TCE (transaction cost economics) consideration on TSIs (transaction-specific investments), we have conceptually postulated and empirically evidenced that a suppliers commitment in TSIs could enhance the likelihood of establishing the foregoing three governance mechanisms—relational capital, joint action and quasi integration. That is, when the supplier input higher transaction-specific investments, the level of relational capital, joint decision-making, and quasi integration will relatively be increased.

Meanwhile, with regard to the safeguarding consequence rendered by the three governance mechanisms, we would like to conclude as below respectively:

(i). Relational Capital

“Relational Capital” can be used as the safeguard on TSIs to bring the consequence of diminishing the supplier’s perceived risk, but it might not be able to effectively enhance the buyer’s dependence. The outcome can be interpreted that relational capital underpins the mutual trust between the suppliers and the buyer, the supplier therefore is easier to acquire the update information and knowledge from the buyers which enables the supplier to reduce the perceived risk. However, the buyer’s dependence won’t be comparatively increased because the buyer’s main outsourcing strategy will be more focused on the competitiveness of the suppliers and the market requirement of the products, rather than the concern of the relationship.

(ii) Joint Decision-Making

“Joint Decision-Making” can be used as the safeguard on TSIs to result the consequence of enhancing the buyer’s dependence, but it might also increase the supplier’s perceived risk at the same time. The outcome can be interpreted that joint decision-making is the signal of the closeness and interdependence between partners, thus the buyer’s dependence will be increased. However, due to its engaging in joint decision-making, the supplier has to not only play the role of product provider, but also take the role of responsibility sharer across organizational boundaries. Thus, the more responsibility the supplier undertakes, the more risk she might perceive.

### (iii) Quasi Integration

“Quasi Integration” can be used as the safeguard on TSIs to result the consequence of enhancing the buyer’s dependence, but it might also increase the supplier’s perceived risk at the same time. The outcome can be interpreted that quasi integration represents the buyer possesses the greater importance to the supplier; simultaneously, the supplier will perceive higher risk. On the other hand, when the supplier’s main business comes from the buyer, the buyer will have to put more effort on watching over the supplier’s performance and operation control; once the supplier discontinue the supply, the buyer will experience more difficulty to find the alternative sources. Therefore, the supplier will be comparatively important to the buyer due to the higher linkage of the activities and increase the buyer’s dependence.

In sum, the value of the transaction is not based merely on the efficiency of governance structure, but highly relies on the effectiveness of collaboration based on specialized investments and knowledge sharing routines established over time.

## **5.2 Managerial Implications**

Firstly, as our research investigation specifically takes a supplier perspective, this set of outcomes could serve as a constructive counterpart to previous literature that mostly focuses on a buyer’s perspective (e.g., Heide and John, 1990; Cely et al.,

1999). As Taiwanese manufacturing suppliers are comparatively resource-constrained in relation to their international buyers, yet are able to provide time-to-time manufacturing service, the present results could render useful managerial implications to their pursuit of global competitiveness.

Secondly, in the international subcontracting relationship, previous literature only mentioned that “joint decision-making” and “quasi integration” could be the possible control mechanism of safeguarding TSIs which enhance the buyer’s dependence on the supplier. However, the prominent new finding of this research asserts that “relational capital” can be the determinant of the governance mechanism to be deployed for reducing the supplier’s perceived risk from committing to TSIs.

Finally, the existing literatures only analyze how specific assets in vertical exchange relationship are safeguarded, whereas this study is conducted to examine the consequence on the safeguards generated from the governance mechanisms. The empirical finding proves that decreasing the supplier’s perceived risk and increasing the buyer’s dependence are the main consequence exerted from the safeguards. In other words, the pledge of supplier commitment through specialized investments such as dedicated equipment, people, knowledge and processes effectively changes the buyer-supplier relationship from being asymmetric dependent to mutually dependent.

We therefore suggest the suppliers can proactively set up transaction-specific



investments with the buyers; such investments would not only signal the supplier's commitments to maintain an enduring relationship, but also facilitate more engagement of relational capital, joint decision-making and quasi integration with the buyers. A far-sighted firm should make its decision not only on the current potential risks involved with the specific investments, but also on the anticipated higher level of interdependence and collaboration that TSIs would induce.

### **5.3 Limitations of the Current Research**

One research limitation is the sample size. Although every effort was made to increase the response rate, the current sample size is just barely enough for conducting structural equation models (Baggozi and Yi, 1988). Anderson and Gerbing (1988) suggested that a sample size between 100 and 150 is the minimum satisfactory level when conducting structural equation models. Another limitation rests on the one-sided self-report data used in the study. The perceptions of a different party toward the same phenomenon can be very different. Relational capital, for instance, may be perceived differently from buyer's perspective. This may leave room for future research.

### **5.4 Direction for Future Research**

Several future research directions are worth pursuing. First, as an initial research attempt from the supplier's perspective, we propose that "Relational Capital" can diminishing the supplier's perceived risk on transaction-specific investments. While the present empirical outcomes imply an initial support of the existence of this construct, future research could further explore its nature and establish detailed content. Future research navigation on exploring the nature of "Relational Capital" which can effectively decreasing the perceived risk is strongly suggested.

Also, the three control mechanisms mentioned in this paper –relational capital, joint decision-making and quasi integration may be used simultaneously to develop efficient inter-organizational relationship. It's worthwhile to further investigate the relationship in between. We suspect that there might be a curvilinear relation between them and one of them might be the dominant element of the three.

Moreover, we suggest distinguish the "Supplier" from its scale and prominence in the supplying network. From the differentiation, we may explore if the supplier's size and position in the industry will bring any impact on the relationship between the governance mechanism and the safeguarding consequence.

## Reference

- Anderson. E., Weitz. B. A. 1992. The use of pledges to build and sustain commitment in distribution channel. ***Journal of Marketing Research***, 29: 18-34.
- Anderson, J. C., & Gerbing, D. W. 1988. Structural equation modeling in practice: A review and recommended two-step approach. ***Psychological Bulletin***, 103(3) : 411-423.
- Arbuckle, J & Wothke, W (1999), AMOS Use's Guide, SmallWaters Corporation, Chicago.
- Bagozzi, R. P., & Yi, Y. 1988. On the evaluation of structural equation models. *Journal of the Academy of Marketing Sciences*, 16(1): 74-94.
- Blois, K. J. 1972. Vertical quasi integration. ***Journal of Industrial Economics***, 20: 253-272.
- Bentler PM, Chou CP. 1988. Practical issues in structural modeling. In *Common Problems/Proper Solutions: Avoiding Error in Quantitative Research* Long JS. (ed.). Sage: ***Newbury Park***, CA; 161-192
- Celly, K. S., Spekman, R. E., & Kamauff, J. W. 1999. Technological uncertainty, buyer preferences and supplier assurances: an examination of Pacific Rim purchasing arrangements. ***Journal of International Business Studies***, 30:297-316
- Conner, K. 1991. A historical comparison of resource-based theory and five schools of thought within industrial organization economics: Do we have a new theory of the firm? ***Journal of Management***, 17: 121-154.
- Dussauge, P., Garette, B., & Mitchell, W. 2000. Learning from competing partners: Outcomes and duration of scale and link alliances in Europe, North America, and Asia. ***Strategic Management Journal***, 21: 99-126.
- Dwyer, Robert F. and Sejo Oh. 1998. A transaction-cost perspective on vertical contractual structure and inter-channel competitive strategies. ***Journal of Marketing***, 51 (April), 11-27.
- Dyer, J. H. 1996. Does governance matter? Keiretsu alliances and asset specificity as sources of Japanese competitive advantage. ***Organization Science***, 7: 649-666.
- Dyer, J. H. 1996. Specialized supplier networks as a source of competitive advantage: Evidence from the auto industry. ***Strategic Management Journal***, 17: 217-292.
- Dyer, J. H., & Chu, W. 2000. The determinants of trust in supplier-automaker relationships in the U.S., Japan, and Korea. ***Journal of International Business Studies***, 31(2): 259-285.
- Dyer, J. H. & Singh, H. 1998. The relational view: Cooperative strategy and sources of inter-organizational competitive advantage. ***Academy of Management Review***, 23:660-679.

- Gibbs, Jack P. 1981. ***Norms, deviance, and social control: Conceptual matters.*** New York: Elsevier.
- Hamel, G. 1991. Competition for competence and inter-partner learning within international strategic alliances. ***Strategic Management Journal***, 12: 83-103.
- Heide, Jan B. and George John. 1990. Alliances in industrial purchasing: the determinants of joint action in buyer-supplier relationships. ***Journal of Marketing***, 27(Feb.), 24-36.
- Heide, J. B. & John, G. 1988. The role of dependence-balancing in safeguarding transaction-specific assets in conventional channels. ***Journal of Marketing***, 52: 20-35.
- Heide, J. B. & John, G. 1990. Alliances in industrial purchasing: Determinants of joint action in buyer-seller relationships. ***Journal of Marketing Research***, 27(1): 24-36.
- Hemmert, M. 1999. Intermediate organization' revisited: A framework for the vertical division of labor in manufacturing and the case of Japanese assembly industries. ***Industrial and Corporate Change***, 8(3): 487-517.
- Hitt, M. A., Keats, B. W., & DeMarie, S. M. 1999. Navigating in the new competitive landscape: Building strategic flexibility and competitive advantages in the 21<sup>st</sup> century. ***Academy of Management Executive***, 12(4): 22-42.
- Hui-Mei Wang 2000. Does relation-specific investment contribute to competence building? A supplier's perspective. *Taiwan Management Journal* 1(1): 55-75.
- John, G. and B. Weitz (1988). "Forward integration into distribution: An empirical test of transaction cost analysis". ***Journal of Law, Economics and Organization***, 4, pp. 337-355.
- Joshi, A. W., & Stump, R. L. 1999. The contingent effect of specific asset investments on joint action in manufacturer-supplier relationships: An empirical test of the moderating role of reciprocal asset investments, uncertainty, and trust. ***Journal of the Academy of Marketing Science***, 27(3): 291-305.
- Joskow, P. L. 1988. Asset specificity and the structure of vertical relationships: Empirical evidence. *Journal of Law, Economics, and Organization*, 4: 95-117.
- Kale, P., Singh, H., & Perlmutter, H., 2000. Learning and protection of proprietary assets in strategic alliances: Building relational capital. ***Strategic Management Journal***, 21: 217-237.
- Kim, K. 1999. On determinants of joint action in industrial distributor-supplier relationships: Beyond economic efficiency. ***International Journal of Research in Marketing***, 16:217-236.
- Kraut, R., Steinfield, C., Chan, A.P., Butler, B., & Hoag, A. 1999. Coordination and virtualization: The role of electronic networks and personal relationships. *Organization Science*, 10(6): 722-740.
- Macneil, Ian R. 19880. ***The new social contract: an inquiry into modern contractual relations.*** New Haven and London: Yale University Press.

- Madhok, A. 2000. Inter-firm collaboration: Contractual and capabilities-based perspectives. In Foss Nicolai and Mahnke Volker (eds) **Competence, Governance and Entrepreneurship—Advances in Economic Strategy Research**. London, UK: Oxford University Press.
- Madhok, A., & Tallman, S. B. 1998. Resources, transactions and rents: Managing value through inter-firm collaborative relationships. **Organization Science**, 9:326-339.
- Mani R. Subramani & N. Venkatraman. 2003. Safeguarding investments in asymmetric inter-organizational relationships: theory and evidence. *Academy of Management Journal*. Vol.46, No.1: 46-62.
- Milgrom, P., & Roberts, J. 1986. Relying on the information of interested parties. **Rand Journal of Economics**, 17: 18-32.
- Morgan, R. M., & Hunt, S. D. 1994. The commitment-trust theory of relationship marketing. **Journal of Marketing**, 58: 20-38.
- Noordwier, T. G., John, G., & Nevin, J. 1990. Performance outcomes of purchasing arrangements in industrial buyer-vendor relationships. **Journal of Marketing**, 54(4): 80-94.
- Penrose, E. T. 1959. **The Theory of the Growth of the Firm**. New York, NY: John Wiley and Sons, Inc.
- Pfeffer, J., & Salancik, G. R. 1978. **The external control of organizations**. New York: Harper & Row.
- Rindfleisch, A., & Heide, J. B. 1997. Transaction cost analysis: Past, present and future applications. **Journal of Marketing**, 61(4): 30-54.
- Sandy D. Jap & Shankar Ganesan. 2000. Control Mechanisms and the relationship life cycle: implications for safeguarding specific investments and developing commitment. **Journal of Marketing Research**, Vol. XXXVII: 227-245.
- Stump, R. L., & Heide, J. B. 1996. Controlling supplier opportunism in industrial relationships. **Journal of Marketing Research**, 33: 431-441.
- Williamson, O. 1991. Comparative economic organization: The analysis of discrete structural alternatives. **Administrative Science Quarterly**, 36: 269-296.
- Williamson, O. E. 1995. Transaction cost economics and organization theory. In O. E. Williamson (Ed.). **Organization theory: From Chester Barnard to the present and beyond**: 207-256. New York: Oxford University Press.
- Young-Ybarra, C., & Wiersema, M. 1999. Strategic flexibility in information technology alliances: The influence of transaction cost economics and social exchange theory. **Organization Science**, 10(4): 439-459.
- Zaheer, A., & Venkatraman, N. 1994. Determinants of electronic integration in the insurance industry: An empirical test. **Management Science**, 40: 549-566.
- Zaheer, A., Mcevily, B., & Perrone, V. 1998. Does trust matter? Exploring the

effects of inter-organizational and interpersonal trust on performance. ***Organization Science***, 9(2): 141-159.

Zajac, E. J., & Olsen, C. P. 1993. From transactional cost to transactional value analysis: Implications for the study of inter-organizational strategies. ***Journal of Management Studies***, 30: 131-145.

## 「影響國際代工供應商防衛專屬性資產投資因素之研究」

各位企業先進您好！

本研究主要探討台灣代工供應商與國外客戶間的關係，如果貴公司有一家以上的重要國外客戶，則請鎖定過去二、三年來，貴公司**最重要的一位 OEM/ODM 國外客戶**（以下簡稱國外客戶），來填答下列問題。每一客戶以填寫一份問卷為原則，謝謝。

本問卷採無記名方式進行調查，所收集的資料用於學術使用，請您放心填寫並逐條詳細勾選，以免成為廢卷！。

感謝您百忙之中撥冗填寫本問卷！ 敬祝

平安快樂

指導教授 張國雄 博士

東海大學EMBA研究生 徐惠菁 敬上

一、以下問題是詢問貴公司是否針對該國外客戶，作一些**量身定做之投資**。

	非常不同意	不同意	有些不同意	普通	有些同意	同意	非常同意
1. 貴公司為國外客戶設有量身定做之行政流程(例如供應商選擇訂單處理收款)	1	2	3	4	5	6	7
2. 貴公司為國外客戶設有量身定做之作業流程(例如製造包裝交貨專屬的新產品開發流程)	1	2	3	4	5	6	7
3. 貴公司已投入許多時間累積為該國外客戶提供各項服務之知識	1	2	3	4	5	6	7
4. 貴公司為該國外客戶從事重要之生產設備投資.	1	2	3	4	5	6	7
5. 貴公司為該國外客戶建立專屬的生產線進行生產	1	2	3	4	5	6	7
6. 貴公司為該國外客戶投資專用的電腦軟硬體設備	1	2	3	4	5	6	7
7. 貴公司為該國外客戶投資專用的的網際網路設備	1	2	3	4	5	6	7
8. 貴公司派有專屬的人員團隊(設計人員技術工程師業務人員) 服務該國外客戶	1	2	3	4	5	6	7

二. 以下問題是詢問**國外客戶對貴公司之依賴**關係

1. 若貴公司停止供貨，該國外客戶會損失很大利益	1	2	3	4	5	6	7
2. 若貴公司停止供貨，該國外客戶很難立即找到其他貨源	1	2	3	4	5	6	7
3. 對該國外客戶而言，貴公司的地位很難被他人所取代	1	2	3	4	5	6	7

三. 以下問題是詢問貴公司**對國外客戶間之合作**關係

1. 貴公司與該國外客戶共同設計開發新產品	1	2	3	4	5	6	7
2. 貴公司與該國外客戶共同擬定長期發展計劃	1	2	3	4	5	6	7
3. 貴公司與該國外客戶共同研究如何降低生產成本	1	2	3	4	5	6	7
4. 貴公司與該國外客戶共同修改產品	1	2	3	4	5	6	7
5. 貴公司與該國外客戶彼此間有良好的友誼	1	2	3	4	5	6	7
6. 貴公司與該國外客戶彼此是一種互惠關係	1	2	3	4	5	6	7
7. 貴公司與該國外客戶彼此間不會互相欺騙	1	2	3	4	5	6	7
8. 貴公司與該國外客戶彼此間信任對方	1	2	3	4	5	6	7
9. 貴公司與該國外客戶共同追求雙贏的共識	1	2	3	4	5	6	7
10. 貴公司與該國外客戶有共同成長的共識	1	2	3	4	5	6	7

四. 以下問題是詢問貴公司為國外客戶代工後，**目前的一些感受與實際狀況**。

<b>貴公司為該國外客戶代工後，目前所擔心的事情：</b>							
1. 該國外客戶可能會將部份訂單轉給其他代工廠商	1	2	3	4	5	6	7
2. 該國外客戶可能會中止關係	1	2	3	4	5	6	7
3. 該國外客戶有壓低訂單價格的可能	1	2	3	4	5	6	7
4. 該國外客戶會要求增加額外服務,而增加之成本由貴司吸收	1	2	3	4	5	6	7
5. 該國外客戶可能會外洩貴公司的機密給其它代工廠商	1	2	3	4	5	6	7
	1						



## 五. 基本資料

1. 貴公司所屬的產業為:電子及資訊科技業業 機械業 製鞋業 其它  
\_\_\_\_\_
2. 該國外客戶來自: 美國 日本 歐洲 澳洲 台灣 其它\_\_\_\_\_
3. 貴公司為該國外客戶代工已有\_\_\_\_\_年\_\_\_\_\_月的時間
4. 貴公司與該國外客戶代工是否簽署供應商契約: 是 否
5. 貴公司與該國外客戶過去是否合作過: 是 否
6. 該國外客戶的訂單金額佔貴公司總營業額的比率約為: 10%以下  
10%-30% 30%-50% 50%-70% 70%-90% 90%-100% 100%
7. 貴公司 2004 年營業額約新台幣\_\_\_\_\_; 員工人數\_\_\_\_\_
8. 您的職稱是:\_\_\_\_\_

----- 謝謝您的協助與幫忙 -----