JAPANESE SUPPLIERS SYSTEM AND THE FOREIGN DIRECT INVESTMENT BY SMALL AND MEDIUM SIZE ENTERPRISES:

The case of automobile parts suppliers

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ABSTRACT

It is noted that inquiry on importance of specific advantages in determining not only how MNEs engage in FDI, but also in explaining why MNEs establish production in specific locations have been studied extensively. However, inquiry into what determines the FDI by SMEs, which face shortage in the management and financial resources, has not received much attention despite the increasing overseas production operations by SMEs. Therefore, this study attempts to explore the Japanese auto industry suppliers system in order to identify the reason for SMEs to engage in overseas production operation.

On the surface, the activities of SMEs and those of MNEs seem highly divergent. Until recently, they have operated in largely separate realms, each in its own competitive space with markedly different characteristics; SMEs largely considered to be operating on the domestic market place. However, globalization has dismantled the barriers that traditionally segmented local business opportunities and firms from international counterparts. Evidence indicate that SMEs which were considered passive victim of globalization, in the last few decades have become active players by setting up activities beyond their home market and their role is increasingly crucial in contributing to the growth of the industry. This is particularly observed in the Japanese automobile industry, where a large share of SMEs parent companies have their subsidiaries involved in the value chain of overseas subsidiaries of major Japanese automobile manufacturers.

Although it is well known that the fundamental objective of firms is growth and development, the fact that SMEs increasingly engage in FDI brings crucial questions. The questions come because it has been studied that, as firms internationalize their operations they face a number of challenges such as liability of foreignness or disadvantages faced by firms to compete with local firms in their markets (Hymer, 1976). Other problems faced by firms when investing outside home country include geographical distance, which increases both the costs of communication and travel and the complexities of managing geographically dispersed assets. In addition, firms face the problem of psychic distance, because they must compete with local firms that have greater knowledge of the local culture and language, as well as of local legal, regulatory and marketing practices. These challenges bring up the concern about what offer SMEs the prospects to compete on a par with other global manufacturers. Considering that SMEs face the shortage of both management and financial resources to run overseas subsidiaries as compared to large-scale MNEs, this argument implies that, firm-specific advantages alone are much less in

explaining the FDI by SMEs but need to consider the environments surrounding business relations among firms.

To examine the FDI behavior by SMEs this paper develops an approach to explain the FDI by SMEs with the aid of the investment in the inter-firms relations. The model of this paper builds its logic upon the basic insights developed in network approach to industrial system and firm's internationalization (Johanson and Mattsson, 1987, 1988) to identify the determinants for SMEs to engage in FDI. And in contrast to the most existing frameworks on FDI, the benchmark of this study is based on the assumption that there exists a coordination of activities between firms that can not achieved through a central plan or on organizational hierarchy, nor does it take place through the traditional market model (price mechanism). This coordination is achieved through continuous cooperative transactions and mutual orientation to each other (Richardson G., 1972; Asanuma B., 1987; and Itoh, M. et al., 1993). In this light, firms in the industrial systems are considered as embedded actors in the business relationships.

By examining the distinctive features of the Japanese suppliers system (customer-supplier relationship) in automobile industry, it is evident there is a symbiotic relationship between major automobile manufacturers and suppliers of auto parts (about 96% of which are SMEs) that explains the determinants of FDI by SMEs suppliers. The symbiotic relationship between firms makes it difficult to change the existing relation specific investment to orient to another customer. This can be described as due to the switching, monitoring and competitive cost as result of cumulative nature of activities to develop the relationship. And because the symbiotic relationships involve adaptations in a number of dimensions such as technically, logistically, administratively, knowledge development or specific capital investment there are costs involved in shifting the production lines to fit a new customer (SMEs lack enough resources for this transition). In light of the interpretation of the engagement of Japanese SMEs in the FDI it is indicated that since Japanese companies are mutually related to each other through keiretsu or subcontracting system, SMEs are feeling pressure to implement overseas production to meet the requirements of principal customers in order to ensure the continuation of their relationship with major customer, while looking for possibilities to diversify customers in the host country to become independent.

This argument shows that since SMEs in auto parts industry depend more on the relationship with principal customers, any adjustment in the industrial or network landscape such as major customer's increasing overseas production or increasing competition due to global procurement of cheap products by major supplier will force

SME suppliers to implement overseas production operations. This means, as long as FDI can assure the continuation of business relationship with their major customer especially in Japan SMEs will be ready to engage in overseas production. This shows that the decision to invest abroad by SMEs is not necessarily the result of short-term economic profitability, but rather the reaction to other factors such as fear to lose major customer and maintaining the long time firm's network relationship.

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II. List of Abbreviations:

FDI	*Foreign Direct Investment*
MNEs	*Multinational Enterprises*
SMEs	*Small and Medium Enterprises*
JIT	*Just in Time*
JASME	*Japan Finance Corporation for Small and Medium Enterprises*
FSAs	*Firm's specific advantages*

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CHAPTER 1

1.1 INTRODUCTION

1.1.1 Relationships in the industrial networks and FDI by SMEs

Internationalization defined as the degree to which firms rely on foreign markets for customers and factors of production, is becoming more important for firms to survive and obtain long-term success because of the heightened competition in the global environment (Bartlett and Ghoshal, 2002). Because of the consequences of the integration of global economies many firms, regardless of their size, regard FDI as an integral part of their strategy in order to remain competitive in the industry since it is no longer possible to act in the market place without taking into account the risks and opportunities presented by foreign and global competition.

On the surface, the activities of small and medium businesses and those of MNEs seem highly divergent. Until recently, they have operated in largely separate realms, each in its own competitive space with markedly different characteristics; SMEs largely considered to be operating on the domestic market place. However, globalization has dismantled the barriers that traditionally segmented local business opportunities and firms from international counterparts. Local markets in Japan like in other parts of the world are becoming integral part of the broader, global market. Evidence indicates that SMEs, which were considered passive victims of globalization, in the last few decades, have become active players by setting up activities beyond their home markets and their role is increasingly crucial in contributing to the growth of the industry. Fig. 1.1 and 2.1 show how manufacturing Japanese SMEs increasingly engage in overseas production. As SMEs engage in overseas production, new strategic synergies through collaborative arrangements with large-scale firms in the global arena are created, with SMEs frequently entering the global value chain of the MNEs.

The fact that SMEs increasingly engage in FDI brings crucial questions although it is well known that the fundamental objective of firms is growth and development. It has been studied that, as firms internationalize their operations they face a number of challenges such as liability of foreignness or disadvantages faced by firms to compete with local firms in their markets (Hymer, 1976). Other problems faced by firms when investing outside home country include geographical distance, which increases both the costs of communication and

travel and the complexities of managing geographically dispersed assets. In addition, firms face the problem of psychic distance, because they must compete with local firms that have greater knowledge of the local culture and language, as well as of local legal, regulatory and marketing practices. There the question seems to be why SMEs engage in FDI despite the fact that it exposes them to a more complex and risky business environment. Moreover with their perceived relatively simple organizational structures and objectives, and less resource, FDI by SMEs rises the question about what offer them the prospects to compete on a par with other global manufacturers rises a great concern. Therefore, the theme of this paper is to identify what can explain the FDI by SMEs by looking at the Japanese small and medium size auto parts manufacturers.

Drawing from a number of existing theories on internationalization and FDI of firms, a very well explanation of the necessary conditions that explain why and how overseas production is dominated by MNEs is provided. However, in order to try to explain the FDI by SMEs less is well know about to explain the FDI by SMEs. What these theories do not explain clearly is what determines the FDI by SMEs based on the discussion in the previous paragraph. From the study conducted in this paper, the application of the existing frameworks does not give sufficient explanation of what makes SMEs to engage in overseas production. The previous studies, which are discussed in detail on chapter 3 of this paper, indicate the importance of firm's specific advantages in determining not only how MNEs engage in FDI, but also in explaining why MNEs establish production in specific locations. Emphasizing on firm's specific advantages, these frameworks seem not sufficient in explaining the reasons why foreign markets are not served by a local firm in industries where local firms are more competitive or why SMEs do not internalize their specific advantages in the foreign markets. An example of this case is found in the Japanese auto industry, where most of Japanese first-tier SMEs auto parts suppliers continue to serve their major customer in the foreign markets even when they have less competitive advantages compared with other local suppliers as it indicated in the case studies of this paper. In addition, it is observed that SMEs in Japanese auto industry have offered their ownership advantages in their overseas subsidiaries by establishing joint venture and technical assistance agreements instead of exploiting them internally.

Given the weaknesses of the existing theories to explain the FDI by SMEs, the theme of this paper builds its logic upon the basic insights developed in network approach (Richardson, 1972; Johanson and Mattsson (1987); and Johanson and Vahlne (1990)) to show that the decision to invest abroad by SMEs is not

necessarily the result of short-term economic profitability. This is in contrast to many authors of FDI theories, because the motive to implement FDI is shown as a reaction to other factors, such as maintaining the firm's network relationship, fear of losing principal customer, gaining reputation in the eyes of their principal company and competition.

The network approach, which is derived from the industrial systems, where firms engage in production, distribution and use of goods, describes relationships between firms as a division of work. This means that firms are dependent on each other and therefore their activities need to be coordinated. Because of the interdependence[1], the coordination is not achieved through traditional market model or an organizational hierarchy, but rather take place through interaction among firms in the network in which price is just one of several influencing conditions. Richardson, G. (1972) and Itoh, M. *et al.*, (1993), described this kind of coordination between firms as *chukan-soshiki* (intermediate organization) in his efforts to explain Japanese suppliers system - subcontracting (*shita-uke*) and keiretsu. From this benchmark, it implies that in the industrial systems individual business transactions among firms usually take place within the framework of established relationships. These relationships which take time and effort to establish creates bonds which are developed through product and process adjustments, logistic coordination, knowledge about the counterparts, personal confidence and liking[2], and long-term contracts. The bonding (relation specific investments), leads to relationships that are mutually orientated to each other. The mutuality implies that there are specific inter-firm dependence relationships that are different in nature from the general dependence relationship to the market in the traditional market model (Johanson and Mattsson, 1987). The Japanese suppliers system in automobile industry illustrates this kind of intermediate organization and therefore this paper intends to explain the FDI by SMEs from this benchmark.

We have seen that adaptations in a number of dimensions such as technically, logistically, administratively, knowledge development or specific capital investment are required to develop a mutual orientation relationship. In addition, since mutual orientation is affected by interaction process between firms, adaptations occur through continuous processes as a result of day-to-day experiences. Because of cumulative nature of mutual relationship, firm's position in network characterizes its relations to others because of earlier activities in the

[1] Although these dependencies are mutual, but it may be assumed that they are more or less asymmetrical in the sense that one party is more dependent on the relationship than the other (Johanson and Mattsson, 1987)
[2] Because of adaptation in attitude and knowledge of the parties

relationships. As it takes time and efforts to establish and develop such a position, the network position therefore aggregates the base that grants both the possibilities of further transactions and constraints of possibilities to change counterparts. The implication here is that linked to the mutual relationships, might influence the degree and type of uncertainty in continuation of business especially to the SMEs, which depends more on the relationship. To that end, any adjustments in the industrial landscape will send strong signals to these firms to respond on time because of the fear to lose their major customer. And since mutual orientation is established, developed and maintained through interaction processes, its strength and character are developed and maintained through interactions. Hence, in the fear to lose major customer, this study established that, SMEs in auto parts industry engage in FDI to respond to the requirements and requests by their major customer in order to develop and maintained their established relationships. This means that inter-firm networks in terms of supplying relationship offers the prospect for smaller firms to compete on a par with other global manufacturers because the relationship with principal customer furnishes them not only with the initial credibility in the foreign market but also with the rich knowledge about market requirements through shared information, management, technology and other resources.

1.1.2 Japanese automobile suppliers system and FDI by SMEs suppliers

The structure of the Japanese automobile industry resembles a pyramid, with the automobile manufacturers at its apex and automobile parts manufacturers, comprising of both large-scale and SMEs at the bottom broadly divided into first-tier, second-tier and third-tier with first-tier parts manufacturers supply parts directly to the automobile company. The development and manufacturing of many automobiles parts are carried out by dividing the labor between different companies below this apex (keiretsu or Japanese subcontracting system). Although as many as 20 to 30 thousand parts are required to construct a single automobile; under this system the automobile companies only manufacture around 30% of these parts in-house, and the majority are manufactured by automobile parts makers (JETRO, 2005). This suggests that there is a strong interdependence between suppliers of specific auto parts and customers, as it is explained in the above discussion about the *chukan-soshiki*. Chapter 4 is dedicated to explain about the Japanese supply system and its distinctive features.

Automobile parts are essentially developed in one of two ways. The

automobile company may carry out design and development of a part the give the parts manufacturers the blue print (design-supplied subcontractor) or the marts manufacturers may develop a part based on the specifications laid down by the automobile manufacture (design-approved subcontractors). In the Japanese suppliers system the later system is widely employed in which the parts maker receives technical assistance from the automobile manufacturers and participates in the development process from the product design stage onwards. In return, most of auto parts suppliers significantly invest in specialized assets and human resources such as dies, moulds and jogs, located their plants quite close to the manufacturers and invested in customer-specific human capital[3] to carter for a particular customer for a particular car model. This symbiotic relationship is built on long-term cooperation that underpins both capital and personnel, Japanese auto companies like to have assembly plants that are geographically close to one another and to suppliers to facilitate face-to-face communication and Just-In-Time production system. Many scholars have indicated that, the formation of keiretsu system played a significant role in the development of the Japanese automobile industry.

By examining the distinctive features of the Japanese customer-supplier relationship in automobile industry it is evident that the symbiotic relationship with major customers determines the reasons for the FDI by small and medium size suppliers because of the difficult to change the existing relation specific investment to orient to another customer. The reasons for the switching cost are a result of time and efforts needed to adapt to other customers and the cost involved in shifting the production lines to fit a new customer (SMEs lack enough resources for this transition). Therefore, SMEs in auto parts industry feel the pressure to engage in FDI, to ensure the continuation of their relationship with major customer, while looking for possibilities to diversify customers in the host country to be independent. These firms, which were corralled by their principal customer in the Keiretsu system, now feel the pressure to take global strategy because of the fear that they may lose major customers due to the current changes in the landscape of the industry.

The traditional keiretsu system, which played a significant role in the development of Japanese automobile industry now send signals of uncertainty in continuation of business to most SMEs in auto parts industry. This is because increasingly automobile manufacturers are now seeking to optimize their supply by conducting more business with companies that do not belong to their keiretsu

[3] For instance, let their engineers develop significant partner-specific knowledge.

group. Other transitions that bring uncertainty in continuation of business are growing demand for price reductions because of intensifying competition, fall in domestic orders due to matured demand for automobiles and increasing overseas manufacturing operations by automobile companies, increased collaboration between Japanese and foreign automobile companies which allows foreign parts manufacturers to enter Japanese market, growing need for new technology such as environmentally friendly technology, and the recent wave of global industrial restructuring towards modular manufacturing of which auto assemblers intent to shrink the number of important suppliers to only those who can supply the required module for assembly line.

This realignment in the industry provide significant impetus for automobile manufacturers to transcend conventional procurement practices to further promote business with companies outside their keiretsu group and also to adopt global procurement strategy in effort to reduce costs. Also because of the fear that they may lose their competitive edge if they restrict themselves to procuring parts only from parts makers that are members in their keiretsu, Japanese automobile companies have increased the amount of business with companies outside their keiretsu. This move is in an effort to respond to the intensifying global competition and increased need for new technology (JETRO, 2005). Therefore, while during the era of rapid economic growth the traditional keiretsu system was a kind of competition-free business because automobile company corralled parts manufacturers, now the auto parts suppliers must respond flexibly to the changes in the landscape of the industry in order to remain competitive in the industry (JETRO, 2005).

To respond to these to these changes SMEs must flexibly respond to the request by principal customer because automobile manufacturers are increasingly seeking to procure parts locally for their overseas production operations. Since the Japanese subcontracting system put potential competitors together, SMEs suppliers are forced to take on their competitors in the host country because failure to response to the FDI by principal customer can let the competitor in contact with its principal customer, which could eventually mean losing business in Japan. Also to continue or increase orders from major customer, rivals and potential suppliers are supposed to compete based on quality and price, therefore for fear to lose major customers small and medium size auto parts manufacturers invest abroad in an effort to increase productivity and reduce cost of production. In this case, most parts manufacturers established export bases in Southeast Asia and China. This follows a major initiative embarked by

automobile manufactures around year 2000 to reduce the cost of parts purchased by 20 – 30% with view of becoming more competitive, thus the survival of the parts makers depend on how they respond.

Given the mature economy in Japan and the growing momentum of localized production overseas, this study establishes that, first-tier small and medium size parts suppliers invest abroad in order to maintain or expand business with Japanese affiliates overseas that could not have been approached domestically. The recent tendency by automobile manufacturers is to use products that are best in terms of cost, technology and quality irrespective of which keiretsu the supplier belongs. In this case, a manufacturer is sure to select companies that are capable of supplying these parts internationally ahead of companies that can supply products of equal quality, but only in Japan. This is evident the opportunities for Japanese SMEs that can establish early entry position in the foreign markets especially in the fast growing markets such as China and Thailand because they can easily develop new relationship with Japanese affiliates.

Therefore, this study considers firms as social units whose coordination is achieved through interaction processes. In addition, as social units, firms are dependent resources since the use of on asset in one firm is dependent on the use of other firm's assets. This means that, the investment processes and their consequences are also interdependent in the network relationship (Johanson and Mattsson, 1987). Since firms are engaged in a mutual orientation to each other, the value of the relation specific investment of a supplier depends on the continued trading with a particular customer (Miwa and Ramseyer, 2000). The fact that, SMEs decision makers are rational they will respond to changes in the industrial landscape as market-seekers and/or efficiency seekers in order to attain profitability and growth. This implies that, as long as FDI will develop or maintain the relationship with major customer, SMEs will engage in overseas manufacturing operations because decision makers are are adopting FDI following the rule of maximizing the expected return and minimizing risks of the relation specific investment incurred.

In the following section, this paper will present the definition on SMEs that is going to be adapted, and then it will follow the presentation of the research plan and methodology that is applied in this study. The last section of will outline the structure of the whole work, giving brief description of the contents of each chapter.

1.2 Definition:

The definition of Small and Medium Enterprises (SMEs) varies from country to country and even within country, it varies from industry to industry. For instance while the international Finance Corporation defines SMEs as firms with less than 300 employees and total assets less than US$15 million, in the smaller economies, SMEs are defined as firms with less than 20 employees. Moreover, in Japan Manufacturing, construction and transport industries' SME definition varies with that of other industries such as wholesale, service or retail industries (see table 1). According to these definitions, the classification of the enterprises can be based on the firm's assets, number of employees, or annual sales. This paper examines the Japanese small and medium size automobile manufacturers therefore the legal definition by Small and Medium Enterprise Agency (Japan) on the manufacturing SMEs will be used. This agency defines manufacturing SME as business establishment that satisfies the following conditions in table 1.1 below:

Table 1.1: Definitions of Japanese SMEs

Industry	Small and medium enterprises (meet one or more of the following conditions)		Of which small enterprises
	Capital	*No. of regular employees*	*No. of regular employees*
1. Manufacturing, construction, transport, other industries (excluding 2-4)	Up to ¥300 million	Up to 300	Up to 20
2. Wholesale	Up to ¥100 million	Up to 100	Up to 5
3. Services	Up to ¥50 million	Up to 100	Up to 5
4. Retail	Up to ¥50 million	Up to 50	Up to 5

1.3 Research objective

The overall objective of this study is to connect the Japanese customers-suppliers relationship with the FDI behavior of Japanese SMEs suppliers of automobile parts. The aim of this work is to examine the nature and features of Japanese suppliers system in automobile industry, represented by subcontracting and keiretsu system, to develop a model to explain FDI by SMEs.

As firms internationalize their operations they face a number of challenges such as liability of foreignness or disadvantages faced by firms as they expand

abroad and compete with local firms in their markets (Hymer, 1976). Other problems faced by firms when investing outside home country include geographical distance, which increases both the costs of communication and travel and the complexities of managing geographically dispersed assets. In addition, firms face the problem of psychic distance, because they must compete with local firms that have greater knowledge of the local culture and language, as well as of local legal, regulatory and marketing practices. From these premises, although it is well known that the fundamental objective of firms is growth and development, the crucial questions seems to be why SMEs engage in FDI despite the fact that it exposes them to a more complex and risky business environment? It is crucial to answer this question in order to understand how SMEs can survive the challenges of FDI in the host country. This investigation is motivated by the facts that, compared to large firms, SMEs are perceived to be relatively simple in their organizational structures and objectives, and seem to be relatively less well-resourced and unprepared to manage overseas subsidiaries.

The examination of the influence of inter-firm relationship on the FDI decision by SMEs attracted this study because the common image of firms engaging in FDI is those MNEs, which are big to compare. Recently we are witnessing rather small companies that do not meet the definition of MNE actively taking part in the international production. These small and medium sized firms despite there less resource in terms of management, technological and finance engage in FDI to face the global competition, which involves large firms. And this phenomenon rise a concern, why small firms engage in FDI and what strategy do they use to withstand the global competitor? The questions about what facilitate successful entry into the foreign country also encourage this study to look at the business relationship with main customers at home in order to identify the driving force for FDI.

When examining the motives for FDI from the perspective of Japanese suppliers system, this paper intends to find whether the global environmental drivers such as; economies of scale, exploitation of lower input costs, risk compensation and optimality of market segmentation, can be applied to Japanese small and medium size auto parts suppliers. This comes from the fact that the existing trend towards fragmentation and modularization of production process in automobile industry gives SMEs suppliers an opportunity to become specialized suppliers in the industry. Considering Japanese subcontracting system, can these environmental drivers explain the FDI behavior of Japanese SMEs in auto industry?

Lastly this work intends to examine whether existing theoretical frameworks for FDI, most of which have been tailored towards MNEs, can be applied to firms which are not MNEs as in the case Japanese SMEs auto parts manufacturers. This is because firms of this kind do not have their own FDI strategies and in most cases respond to the overseas expansion plans of there principals. In terms of capital involvement, control, and number of countries, these companies implement overseas production, SMEs of the type of Japanese auto parts manufacturers cannot be considered as MNEs because they serve few markets and their main customers in the host countries are limited to those they serve at home. By revisiting the existing theoretical works, gaps can be identifies and reinforcement to the existing will be brought to light. This will stimulate further researches on the FDI of SMEs in case of any disagreement or modification on the existing theoretical framework so as we can achieve a deep understanding of the forces and motives for FDI by Japanese SMEs in auto industry.

Through this research, the environment that created the successive development and growth of Japanese small and medium scale enterprises in the global arena can be unveiled and hence a lesson on how best this can be assimilated in developing economies will invite further studies. In addition, the implication of the influence of the Japanese suppliers system on FDI by small and medium size automobile parts manufacturers on the business will be identifies for the benefit of the growth of international business.

1.4 Research question

The purpose of this study is to gain a deeper understanding of the motives for Japanese SMEs in the automobile industry to engage in FDI instead of exporting from Japan despite the fact their small size expose them to intensified competitive environment in the host country where industry global players have established to take advantage of the progressing global market. Therefore this paper seeks to find out the role played by the existing Japanese customer-supplier relationship in FDI of the first-tier SMEs in auto parts industry.

Based on the premises of this paper, the empirical analysis from this study will answer the following question:

① Why Japanese small and medium size manufacturers of automobile parts, despite of their perceived resources constraints engage in FDI?

From this question, this paper intends to identify factors, which motivate SMEs to consider FDI. In the first place, looking at the industry landscape, the stimuli for SMEs will be identified in order to be able to investigate what factors determine the FDI by SMEs, which are perceived to have limited resources in terms of management and technology to face the challenges brought about by setting overseas production operations.

② What determines the engagement of SMEs in the FDI?

After identifying the stimuli for FDI by SMEs, looking at the auto industry this paper attempts to investigate what makes SMEs to engage in FDI. This question will be answered by looking at how the Japanese suppliers system could influence the decision makers in small and medium size suppliers to engage in overseas production operations. In this way, answering this question will enable us to understand what the main reasons are for FDI by SMEs.

③ What model (s) is appropriate to explain the FDI of Japanese first-tier SMEs manufacturers of automobile parts?

After re-visiting the existing theoretical works on internationalization and FDI of firms, this work intends to link to the case of Japanese SMEs in automobile parts industry in order to identify which theory can best be applied in this situation. This question aims at identifying how far the existing theoretical frameworks can explain the internationalization of SMEs, by focusing on Japanese first-tier SMEs in auto parts industry.

1.5 Research rationale

In reviewing the relevant literatures on firms' foreign direct investment (Hymer, 1976; Kogut, 1983; Porter 1985; Dunning 1988, 1995; Rugman, 1986), little is know to explain the FDI motives or driving forces for small and medium enterprises. One has no doubt, whether any of the existing theories and explanations for motives to invest abroad is made to apply to SMEs because most of these studies focused on the FDI of MNEs. Considering the case of Japanese small and medium size auto parts manufactures, which show their presence in several countries behind their major customers (affiliates of their customers in Japan), it become obvious that the investigation of their motive for FDI can reinforce the existing theoretical explanations about FDI and fill the gaps in these theories.

A number of authors over the years have proposed that internationalization of firm is affected by multiple influences (Reid, 1983). This perspective gives rise to a number of contingency frameworks), which emphasize the importance of the firm's environment and particular circumstances in explaining its internationalization trajectory. Based on these premises, this paper builds its logic upon basic insights developed in network approach to industrial system and firm's internationalization (Richardson, 1972; Johanson and Mattsson, 1987, 1988) to explain the FDI behavior of these SMEs in automobile industry by examining the Japanese customer-suppliers in automobile industry.

The interest to study the FDI by SMEs come from the fact that despite of the small size, SMEs are increasingly showing their presence outside their home countries and actively contribute to global sourcing and fragmentation[4] of production (sequential stages of production). In Japanese automobile industry in particular, it is common to see the kind of relationship assets specific, where suppliers, most of which are SMEs, customize their investment to serve one or a few customers and automobile companies entrust their suppliers with product development from the very design stage rather than treating them as mere subcontractors. This is fueled by the shift towards modular of manufacturing process. Since SMEs are becoming the drive for this new production phenomenon, it worth investigating the contents of their relationship with manufacturers in order to identify if there is any relationship between the home business environment and FDI behavior of SMEs. This considers the fact that most SMEs are relatively unprepared and own fewer resources to enable them to extend production to overseas markets. Therefore, since manufacturing SMEs are increasingly becoming the pillar of industrial and economic growth and change, identifying different factors driving FDI by SMEs is now one of the most important research areas.

1.6 The premises of this thesis

This paper assumes that firm's network relationships (customer-supplier relationship) trigger and motivate SMEs to internationalize, and influence their foreign market investment and location selection decision. Moreover the relationship helps SMEs to gain initial credibility in the new markets; allows access to additional relationships that could not be formed while in Japan; allows SMEs with access to established channels; help in lowering cost and reducing

[4] The framework work as firm's different stages of productions is allocated among different suppliers located across countries.

risk; and therefore the customer-supplier relationship influence their internationalization pace and pattern. This paper adopts a rationale by assuming that the internationalization of a firm is unique and highly situation-specific (Reid, S.D., 1984), which allows us to draw from various theoretical perspectives to investigate the influence of domestic inter-firm relationships in Japanese auto industry on the FDI by Japanese first-tier SMEs suppliers.

1.7 RESEARCH PLAN AND METHODOLOGY

Since this masters thesis intends to explore the Japanese automobile suppliers system, with the aim of gaining a deeper understanding of its influence on the engagement in FDI by Japanese small and medium size automobile parts manufactures; the *exploratory*[5] study approach will be adapted. This will help us to find out in the new light from Japanese firms' networking, what motivates small and medium size manufacturers of auto parts to invest in productions abroad.

Considering the research objective and the premises surrounding this topic, the scope of this paper is on Japanese SMEs automobile parts manufacturers (in the first-tier) with overseas subsidiary(s). This paper focus on the study of auto parts suppliers who are involved in the direct relationship with automobile manufacturers in order to be able to establish how the customer-supplier relationship can influence the FDI behavior of SMEs. Since there are thousands of auto parts suppliers it is not possible, given time and financial constraints to study all suppliers and all manufacturers relationships. For that reason, this paper concentrates on one automobile manufacturer in order to answer the research questions. Because of its clear relationship with suppliers, Mazda Auto Corporation was selected as a focus, which enables us to study three of its suppliers in order to support the theoretical background of Japanese supplier system and to test the FDI model that is developed in this paper. The characteristics of Mazda and its suppliers group are clear because almost all are located around Hiroshima area. It was easier to establish the relationships between the companies we visited for this study and Mazda because Hiroshima is the home of only one auto assembler. This location character makes the ties between Mazda and its suppliers to be close and representative of the popular Japanese subcontracting system. In addition, the selection of Mazda's suppliers as the focus of this study is motivated by the fact that there are fewer studies to

[5] Saunders and Lewis, 2000

explain Japanese suppliers system conducted on Mazda as compared to other giant auto manufacturers like Toyota and Nissan. This fact then will enable researchers to apply the facts we gathered for this study on the existing literatures about Japanese supplier system.

A number of reasons drive the focus on the auto industry. Firstly, automobile represent the largest cases of FDI in the Japanese FDI by manufacturing industry. From the data on the FDI by Japanese manufacturing firms, it is indicated that more cases of FDI happen in transport industry, which is represented, by more than 90% cases of FDI by automobile METI (2004). According to this classification transportation industry includes manufacturers of motor vehicles, parts and accessories, aircraft and parts, industrial trucks and parts, shipbuilding and repairing and other miscellaneous transportation equipments (METI's industrial classification, 2004).

Another reason for selecting Japanese auto industry is its popular subcontracting system. Many authors have indicated that Japanese subcontracting system displays a much better relations between customers and their suppliers that resulted in lower costs, higher quality and greater innovativeness (Asanuma 1985a, b, 1989; Richardson J., 1993; Dyer 1993). This is based on the fact that Japanese auto industry suppliers system presents some distinguishing features from the rest of the world. The feature of the Japanese automobile industry manufacturing is that most of the parts and subassemblies of the industry are purchased from external suppliers under long-term subcontracting arrangements. A substantial portion of these external suppliers are members of a well-defined group of firms closely associated with one of the primary automobile manufacturers. Thus by focusing on Japanese auto industry it will be easy to identify the relationships between firms and thereby examine the FDI behaviour of SMEs firms in the network of firms.

The approach toward this thesis will be in the form of case study using multiple case studies approach. Because of the time and other resources constraints, three companies representing the case of Mazda Motor Corporation's auto parts suppliers have been used to answer the research questions and to support the premises of this paper. This approach will enable us to discover similarities and differences if exist in the motives and driving forces for FDI by Japanese SMEs manufacturers of auto parts. All these three companies in my case studies have their production subsidiaries in overseas market, and relay significantly on their main customer, Mazda Motor Corp. These companies with the main products in the bracket are **M-A** Corporation (Fuel system, outer panel,

Body shell parts and Cabin and Body), **M-C** Corporation (Rubber and plastic parts for Engine, chassis, body, interior and exterior of cars), and **M-B** Kogyo Co. Ltd, (Automobile seats, shifters and door checkers). The selection of these supplier was made to have a sample that is representative of the SMEs first-tier suppliers actively taking part in FDI.

The case study approach is used in this paper because it enables researchers to gain a rich understanding of the context of the Japanese firm's relationship (customer-supplier relationship) and how this relationship influences first-tier SMEs suppliers to engage in the FDI. Therefore, case study research excels at bringing us to an understanding of a complex issue of why Japanese SMEs in automobile industry decide to take in overseas production. Thus, using the case study approach will enable us to extend the experience or add strength to what is already known from previous researches. Researcher Robert K. Yin defines the case study research method as an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used.

The three companies selected for the case study have direct ties with Mazda Motor Corporation serve to counterbalance the emphasis on the business network relationship as a determinant for FDI by auto parts suppliers. Further, these companies illustrate the general historical background of the development of subcontracting relationship between auto firm and suppliers in Japan. All the three cases vividly illustrate the interdependence of customer and supplier and demonstrate how FDI decision by suppliers is affected by the FDI strategy of principal customer. Looking at the evolution and the nature of their relationship with Mazda, of these three companies are representative of the form of Japanese firm's networking that is found in auto industry. So taken together, from a firms' network perspective, these companies supply background for the analysis of suppliers' motives and intention to set up overseas production.

To answer the research questions and to support the premises of this paper, empirical data collection was done mainly through intensive onsite interviews with the sampled companies, which enabled the construction of the case study. The methodology of the interview and how the case study were constructing is explained in chapter 5 which is the chapter dedicated for case study and analysis. Secondary data in the forms of Publications, Archival analysis, and survey studies and other secondary data have been mostly used to supplement the information gathered from the interviews, which was based on the case of

Mazda's suppliers, in order to get the broader picture of the Japanese auto industry as a whole.

Most of the information used in this work was collected from secondary data, primarily because these kinds of data on the Japanese auto parts industry were readily available. They are standard statistical sources, such as the census of manufacturers and annual survey of output, establishments and other items; and Survey of Overseas Business Activities of Small and Medium Enterprises. Others sources included official sources on small business such as the annual *chusho kigyo hakusho* (white paper on SMEs in Japan), published by the Small and Medium Enterprise Agency; the Kogyo Kihon Jittai Chosa (Basic Survey of Manufacturing), undertaken every five years by the Ministry of Economy, Trade and Industry (METI) and the Small and medium Enterprises Agency. In addition, information was obtained from Quarterly survey of overseas subsidiaries, Basic survey of overseas business activities and White paper on international economy and trade, which are published by METI. Data are also published by the auto and auto parts industry associations and in directories of firms. Also data were available using the statistics of FDI issued by Ministry of Finance. In addition to these published materials and FDI literatures, small business literatures and Japanese inter-firms' network literatures; this study utilizes case studies of three first tier suppliers to Mazda Motor Corporation conducted in Sept 2008 around Hiroshima area. These case studies draw upon interviews, company histories and unpublished materials made available by firms. The case studies provide details on the customer-supplier relationship in Mazda's keiretsu and the influence of this relationship on the FDI by the SMEs suppliers in the auto industry. This study makes an important contribution on the literatures about the FDI.

To arrive at a conclusion of this paper qualitative analysis was used as it enables researchers to study a number of relationships with more depth to be able to gain better understanding of the topic. This method required the use of data expressed in attitudes and perceptions, which make behavioral analysis of the motive for FDI easier. Not limited to qualitative data alone, the study used quantitative data analysis to examine the relationships of variables in descriptive manner. This data analysis will rely on the existing theoretical preposition used in this paper since a number of previous studies have been conducted on the FDI of firms. That means, we are going to compare the data in each case to the theoretical framework applied. This will highlight any agreement or disagreement between the existing framework and what is actually happening.

1.8 The structure of the paper

This paper is organized into six chapters. The first chapter carries the introduction and research plan and methodology for this work. This part includes the introduction of this paper, definition of key words (SMEs), and overview of Japanese MNEs and the case of SMEs, Research objective, research questions, rationale, research premises and research plan and methodology.

The remainder of this paper is organized as follows. Chapter 2 is about the state of overseas expansion by Japanese SMEs. This section examines the patterns of foreign investment by Japanese SMEs and FDI by auto parts suppliers to establish the trends and relationship between their engagements in FDI. This chapter also covers the discussion about the changing business environment in Japan and its impact on SMEs, the characteristics, motives and purpose of FDI by Japanese SMEs in manufacturing industry and automobile parts manufacturers. In this way, factors behind engagement in FDI by SMEs in auto industry can be established. This chapter primarily uses the secondary data obtained from the published information in Japan. Mostly from the annual White Paper on SMEs issued by Japanese SMEs Agency; annual White Paper on International economy and Trade, Facts and figures about the Japanese economy, and Market reports all published by JETRO; Survey of overseas business by automobile supplies, published by Japan Auto Parts Industries Association and other statistical reports and surveys published by METI and MOF.

Chapter 3 is divided into three parts, the first parts gives an overview of existing frameworks on internationalization theories and FDI. This section will also cover the theoretical frameworks of FDI (for factors determining FDI and Industrial location). Extensive literature review is covered in this section to get a deeper understanding in this area of study to derive the relationships among parameters, in order to be able to use the existing theoretical framework to analyze the data collected and thereby develop a link with the case of Japanese SMEs automobile parts suppliers' FDI. The discrepancies and agreements are discussed as well. The theoretical work discussed in this chapter includes stage model, internalization theory, the transaction cost theory, eclectic paradigm, network approach to internationalization, corporate decision making approach, and Ricardian model of differences in factor prices, gravity framework. The second part of literature review presents the theoretical background for the existence of subcontractors. This section tries to show why all firms not vertically integrated, in the effort to explain the internationalization of firms as embedded

actors in the market.

Chapter four of this thesis presents and discusses the theoretical background of Japanese suppliers system (keiretsu and subcontracting systems). This chapter unveils the network relationship in auto industry and then discusses the contents and issues in the Japanese auto industry suppliers system. This will enable us to understand the kind of relationship that exists between small and medium size auto parts suppliers and large multinational enterprises (Automobile makers). From these relationships, we can establish why despite of their small size, SMEs auto parts suppliers engage in FDI. After the discussion about the features and characteristics of Japanese subcontracting system, this chapter will present the customer-supplier relationship model to explain the FDI by SMEs. Therefore, this and the previous chapters are intended to set a stage for main analysis on Japanese suppliers system and FDI by SMEs manufacturers of automobile parts.

The following chapter five includes the presentation and interpretation of the case studies. Using the empirical data collected from the three automobile parts supplier, the analysis of the case studies and conclusion of the findings from the case studies analysis are also presented. This chapter discusses the evidence of the motives and intentions of SMEs auto parts suppliers to engage in FDI from the case of Mazda's first-tier small and medium size auto suppliers. At the end of the chapter, the model of FDI developed in chapter 4 will be applied to three case studies.

Lastly, chapter six presents the main knowledge generated by the whole exercise. This chapter discusses the applicability of the customer-supplier relationship model in the case of FDI by Japanese SMEs in auto industry. In the discussion section, this chapter is dedicated to reinforce the existing FDI explanatory framework by applying the corporate decision approach (Aharoni, 1966) and network approach to internationalization (Johanson and Mattsson, 1988) to the case of Japanese SMEs in auto industry. Because of this work, chapter six also outlines the implications to the interest of both future research works on FDI by SMEs, and the business world. Then at the end of the paper, limitations for this work, which includes, the narrow area of study constrains are presented.

CHAPTER 2

2 STATE OF OVERSEAS EXPANSION BY JAPANESE SMEs AND AUTO PARTS MANUFACTURERS

2.1 Introduction

Popular information disseminated about Japanese companies is about large companies, for instance Toyota, Nissan, Mazda, Honda, Sony, Matsushita, or Komatsu type as if they were the model of all Japanese companies. This can be seen from the information about Japanese management system, which is disseminated from these large companies, as if their management systems applied to all firms without distinction. In addition, most of the FDI theories have been tailored to explain the motives for FDI by these large MNEs. Although it is true that at the top layer of the Japanese industrial hierarchy in terms of strength, size and prestige, these large-scale companies are undoubtedly important, yet an indication of the general recognition of the importance of these firms and where they fit in the industrial structure is the existence of SMEs. The SMEs form the group of suppliers and subcontractors (both in Japan and overseas) to these large firms praised today for their global competitiveness. In automobile industry, for instance about 96% of automobile parts suppliers are SMEs supplying major automobile assembles with important parts and components of high quality and at a competitive price.

This chapter surveys the general overseas expansion by Japanese SMEs to show their position in Japanese outward FDI. Generally, this chapter intends to show that not only large-scale firms but also SMEs are increasingly and actively engage in overseas production, responding to similar motives and global environmental drivers, such as seeking for markets and low cost of production in the need for growth and profitability (appendix 1). Trends in the FDI by manufacturing SMEs and transport industry will give light on relationship between firms in order to establish how the parent firm's business landscape influences the FDI decisions. This chapter utilizes the survey and research results by METI and Japan Auto Parts Industry Association (JAPIA), to establish the FDI trends for manufacturing SMEs and SMEs in automobile parts industry, and the purpose for engaging in overseas production. Data that solely shows the FDI by SMEs in automobile parts industry, however, was not readily available, despite that fact that about 96% of Japanese automobile parts suppliers are SMEs (JETRO, 2005). Therefore for the purpose of this study instead,

information that relate to Japanese SMEs in automobile parts industry was compiled from the data on FDI by manufacturing SMEs[6], FDI by transport industry[7] (issued by METI) and that of auto parts manufacturers (issued by Japan Auto Parts Industries Association). This effort enabled the analysis of the state of overseas expansion by Japanese manufacturing SMEs in automobile parts industry.

The theme of this analysis work is to identify the motives for FDI by SMEs and automobile parts manufacturers in order to explain the FDI by SMEs in automobile industry. In the following sections, this chapter will discuss about overview of Japanese MNEs and the case of overseas expansion by Japanese SMEs, changes in the business environment affecting SMEs in general and auto parts industry in particular and the purpose for FDI by SMEs and by Japanese auto parts manufacturers. Then, at the end of this chapter the importance for conducting studies to explain the FDI by Japanese SMEs using the network approach will be shown.

2.2 An Overview of Japanese MNEs and the case of Overseas expansion by Japanese SMEs

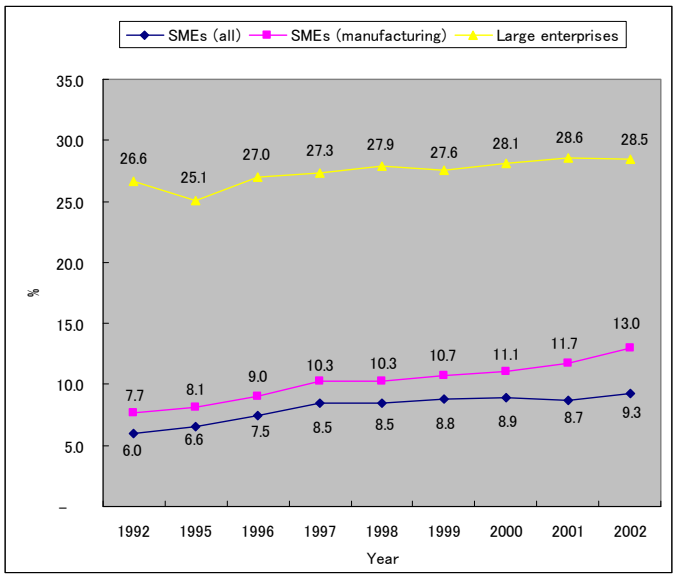
One of the main features of the Japanese MNEs, which differentiate them from the MNEs of other countries when examining the aspect of FDI, is the role of SMEs. Although generally speaking in most cases SMEs are considered to lack strong firm-specific advantages to enable them to invest in overseas on their own, SMEs parent companies take a large share of Japanese FDI (Dicken, 1992.). The fact that a large share of FDI is taken by SMEs raises questions about what determines the successful FDI by Japanese manufacturing SMEs.

Japanese MNEs increased their number as well as their overseas operations over the years. As it has been indicated above, the increase in MNEs is not occupied by large-scale enterprises alone but the trends shown on figure 2.1 indicate that the increase in Japanese MNEs is characterized by gradual increased involvement in FDI by Japanese SMEs. According to figure 2.1, increasingly Japanese manufacturing SMEs [8] follow the trend towards FDI, just like large-scale enterprises. Figure 2.1, which present the results of METI's Basic survey on overseas Business activities shows that the proportion of SMEs with overseas subsidiaries[9] in manufacturing industry has risen by the years, increasing from

[6] Accounting for industries, such as general machinery, fabricated metal products, electronic parts and devices, transport equipments and other machinery-related industries (METI's industrial classification)
[7] This classification includes manufacturers of motor vehicles, parts and accessories, aircraft and parts, industrial trucks and parts, shipbuilding and repairing and other miscellaneous transportation equipments (METI's industrial classification).
[8] SMEs are as defined under the Small and Medium Enterprise Basic Law (1999)
[9] Corporations established overseas through Japanese investment, and corporations established through capital participation in a corporation in the host country in which the Japanese partner has a share of at least 20%

7.7% in year 1992 to 13.0% in year 2002, while the proportion of large firms is not changing significantly. These results also indicate that production in manufacturing SMEs is also increasingly being shifted overseas. Since it is indicated that the FDI by Japanese enterprises is characterized by both large-scale as well as SMEs, means that we cannot focus only on large scale firms to explain FDI by firms but we need to consider for the need to develop an explanatory framework to address the FDI by firms that can be tailored to the overseas production trajectory by both categories of firms.

Figure 2.1: Proportion of enterprises with overseas subsidiaries

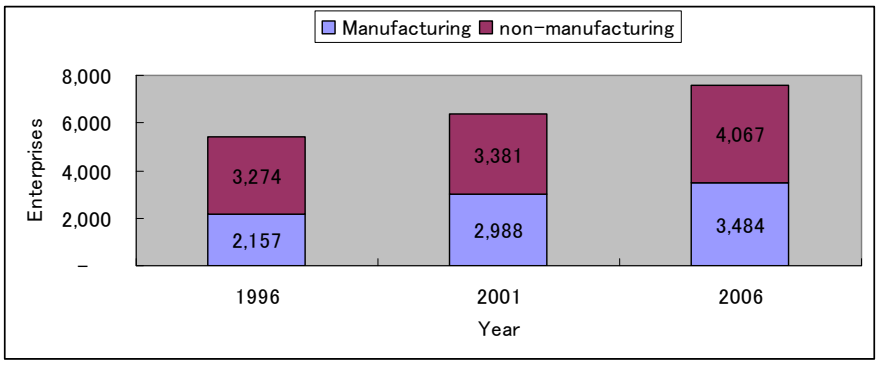


Source: *White Paper on Small and Medium Scale enterprises (in English), METI, JSBRI, 2004, pp. 134.*

2.3 The current state of overseas expansion by manufacturing SMEs

Looking at Japanese companies that have a subsidiary or affiliate outside Japan Fig. 2.2 shows that the number of Japanese SMEs with overseas subsidiaries or affiliates has increased almost 40% in roughly 10 years. The figure shows that as of 2006 a total of 7,551 companies (out of which 3,484 are manufacturing companies) with overseas subsidiary(s) or affiliate(s) were SMEs, as there were 5,431 of SMEs (2,157 manufacturing SMEs) with overseas subsidiaries or affiliated in 1996. Looking at the SMEs that had expanded overseas as of 2006 by industry, SMEs in manufacturing industries such as general machinery, fabricated metal products, electronic parts and devices, and other machinery-related industries accounted for 46% of the SMEs that had expanded overseas. This emphasizes that, manufacturing SMEs form a larger percent of total Japanese FDI by SMEs as a single industry.

Figure 2.2: **Trends in SMEs' business expansion overseas (corporations only)**



Source: *White paper on SMEs, METI, JSBRI (2008) – pp 124*

Notes: 1. The figure shows the number of corporations that have overseas subsidiaries or affiliates.

The figure above indicates that the number of SMEs undertaking expansion overseas has been rising, emphasizing on the characteristic of Japanese MNEs discussed above. This figure also justifies that, not only large-scale enterprises engage in overseas production but recently the number of SMEs also implement the overseas production. Considering their size, nature of their resources and objectives, FDI by SMEs raises concerns about what offer them the prospects to compete on a par with other global manufacturers. These concerns imply that FDI explanatory framework that is tailored for SMEs is still indispensable.

2.4 Changes in the business environment and its impacts on Japanese manufacturing SMEs

The recent globalization of the world economies brings two main challenges on the Japanese SME supplier. One is the shrinking home market because of decline in orders and the other is intensifying worldwide competition. Japanese SMEs global location strategies have evolved considerably in the face of rapid growth in China and other East Asian countries, and the Japanese economy has prolonged slump. Many SMEs have staked their survival on establishing operation overseas, either in the wake of large customers that have expanded into overseas operations or in order to reduce the cost of producing low value-added products or to meet the increasing demand for locally produced products. To respond to the economic downturn, it is observed that there are many other manufacturing SMEs, which have actively expanded their production overseas as a means of moving into and develop new areas of business against the backdrop of these dramatic changes in the business environment in Japan.

2.5 Purpose of FDI by SMEs.

It has been discussed that, in response to the changing business environment, SMEs must respond quickly in pursuit of survival and growth, optimizing their production systems, both in Japan and abroad. From the basic question of this study, Table 2.1 below gives the background and intentions of SMEs to establish overseas production operations to answer why and how SMEs, despite their limited resource, decide to engage in FDI. It can thus be seen from this table 2.1 and table 2.2 (page 25) that many SMEs that have expanded overseas opted for aggressive decision in response to changes in their business environment in order to gain access to overseas markets. It is worth to note that, while in reality the decision to establish production operations overseas is made based on an all-round judgment involving a number of related objectives and factors, the patterns of overseas expansion by manufacturing SMEs are broadly grouped into the four categories. The four patters are mainly export products to Japan, mainly sell products to local Japanese affiliates of principal customer, mainly to sell products to local Japanese and non-Japanese affiliates and mainly to export products to third country. The patterns for the purpose and intension of FDI by SMEs, which are presented in this section, are based on the purposes at the time of establishment of the overseas production.

Table 2.1: Purpose and intention of setting operations overseas by SMEs

Purpose/Background	Overseas expansion intention
1. Mainly export products to Japan	To reduce the cost of manufacturing processes
2. Mainly sell products to local Japanese affiliates	To respond to a request by a parent enterprise that had itself established overseas operations
3. Mainly to sell products to local Japanese and non-Japanese affiliates	Unrequested overseas expansion to maintaining or expanding business with Japanese affiliates overseas
4. Mainly export products to third countries	To target new customers in the host market
-	

Source: *Compiled from the White paper on small and medium enterprises in Japan. METI, JSBRI (2006) pp 78-80.*

Looking on the purposes of establishing overseas production as per classifications in table 2.1 and table 2.2, it is apparent that when there is increasing demand to reduce cost of production, many SMEs manufacture products overseas for shipping back to Japan either for further processing or to supply to their major customers. Therefore, FDI is implemented in a desire to reduce costs (mainly labor cost). This pressure to reduce cost is strongly felt with those SMEs involved in subcontracting

supply by major manufacturers, because they want to reduce their costs while improving the quality of their products. In this case SMEs suppliers must respond to the requirements to reduce cost in order to remain competitive otherwise the business relationship might be taken away to other potential suppliers who can meet this requirement. This is fueled by the influx of cheap foreign products of almost similar quality.

According to the white paper on SMEs in Japan (2006, pp. 80), it was found out that, from the point of view of relationship with large enterprises, many SMEs whose businesses are heavily affected by the actions of key customers are more likely to establish operations overseas in order to follow such actions. This response can be either requested or un-requested rather than choosing to do so entirely autonomously. Moreover, this survey shows that since the 1990s especially, there has been an increase in such moves overseas amid the growing shift of production overseas by large enterprises. The enterprises, in the requested move are assured of at least a certain market for their products, but on the other hand is highly vulnerable to the performance of the principal company in such if the parent enterprise withdraws from a market, they may be at risk of going down as well unless they have developed other marketing outlets. Apart from this risk, the changes in the business environment in Japan shows that recently subcontractors, most of which are SMEs, are no longer necessarily guaranteed of been given orders by their principal customers that are pursuing increasingly global procurement strategies. Thus with no guarantee of receiving order from principal companies overseas, many SMEs ultimately have to decide for themselves whether to establish operations overseas. This case implies that SMEs will take unrequested overseas expansion move in order to maintain or expand business (purpose 3 in table 2.1). In such cases however, there is a risk that customers may not be acquired as successfully as expected, or that significant competition may be encountered from other local manufacturers. Conversely, because subcontracting patterns are less clearly fixed than in Japan, many SMEs find that expansion overseas enables them to do business with large enterprises that they could not have approached in Japan, or to supply unaffiliated Japanese enterprises and European and North American enterprises that have entered the same market (White paper on SMES, JSBRI 2006, pp. 81). Thus, the establishment of an overseas production presence also potentially offers major business opportunities for Japanese SMEs.

Where a consecution of enterprises are establishing production operations in a particular country and the local market is exhibiting conspicuous growth, it is increasingly common for SMEs to establish a presence with the aim of developing new customers in the host market. A good example of these markets is China and

Southeast Asia. These new customers include Japanese affiliates with which enterprises have had no business dealings in Japan, third-country enterprises such as those from Europe and North America, and local enterprises and consumers. However, such a strategy carries with it major risks, such as the difficulty of developing sales channels and creating a brand, and the problems regarding business relation conducts from local enterprises where most Japanese firms are interested in long term profitability while local partners are focusing on short term results. Japanese SMEs therefore have to overcome many barriers if they wish to successfully enter host markets.

Looking at the four patterns of the purpose and background for FDI by manufacturing SMEs examined above, the direction of FDI by Japanese SMEs can be established. The purposes for FDI indicate the direction and destination of the products produced by overseas subsidiaries of Japanese SMEs as it is indicated in table 2.2. From this table 2.2 it can be established that objectives for FDI is likely to differ by region because the intentions for FDI differ from market to market. This table, which is based on the survey of overseas business activities of SMEs conducted by JSBRI and RIETI (2003), shows that whereas the firms invest in North America and Europe to expand outlets in overseas markets (46.9%), much of the FDI in China (47.8%) and NIEs (41.9%) was intended to export cheap and quality products to Japan. According to this survey, most of SMEs (52.3%) invested in Southeast Asia with a popular objective to sell products to local Japanese affiliates, which are also major customers in Japan. The interpretation of small and medium firms' investment in Southeast Asia is that, the small and medium size firms follow their main customers' overseas expansion while in North America and Europe; SMEs intend to expand their business in the host country.

Table 2.2: Main Markets of overseas subsidiaries of SMEs (by region)

This table reflects the reasons of SMEs investment in overseas markets.

	Region			
	North America/ Europe	Southeast Asia	NIEs	China
Principle destinations of products made by overseas subsidiaries	%	%	%	%
Mainly export products to Japan	18.8	27.3	41.9	47.8
Mainly sell products to local Japanese affiliates	33.3	52.3	22.6	28.6
Mainly sell products to local non-Japanese affiliates	46.9	6.8	26.9	17.7
Mainly export products to third countries	1.2	13.6	8.6	5.9

Source: *Compiled from White paper on SMEs in Japan, JSBRI, 2004, pp. 137 (Fig. 2-2-9).*
Note: The NIEs are defined here as Hong Kong, Taiwan and the Republic of Korea. Singapore is included in Southeast Asia.

The illustrations of these two tables, table 2.1 and 2.2, show that confronted by changes in the business environment considerable number of SMEs take the risk of establishing operations overseas. SMEs engage in overseas production despite the complexity of the foreign markets having considered that, (1) sales would dwindle if they relied solely on the domestic market, (2) that there are limits to the extent that costs can be cut by producing only in Japan, and (3) that there is no alternative but to enter overseas market if more orders are to be won.

From the discussion about the purpose and intension of Japanese manufacturing SMEs' to expand production overseas, this study is prompted to examine what determines manufacturing SMEs to engage in FDI despite the potential challenges and complexity in the foreign markets. It has been indicated that, large percent of SMEs, which have implemented overseas production, serve mainly the subsidiaries of Japanese manufacturers (table 2.2). It is worth therefore to investigate the firms' relationships at home in order to derive the determinants of FDI by SMEs in manufacturing sectors. To achieve this, this paper intends to look closely to the relationships between firms especially customer-supplier relationships or network in Japanese automobile industry, which is identified by many authors (Asanuma, 1989; Dyer, 1994; McMillan, 1990) as an example of the suppliers system, which describes clearly the close relationship between customers and suppliers. This study will focus on automobile parts SMEs to explaining the FDI by SMEs. For this reason, the next section of this chapter is the discussion about the overseas production by Japanese auto parts industry. From that discussion, the link between manufacturing SMEs and automobile parts manufacturers will be identify in order to be able to explain the general trend of SMEs in automobile industry.

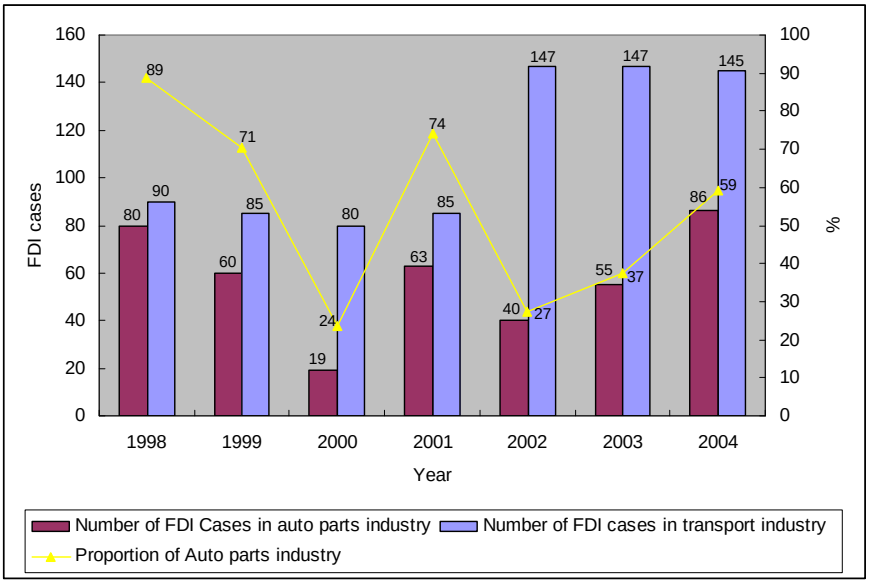
2.6 General trend of overseas expansion by automobile parts manufacturers

Japanese automobile parts manufacturing industry is comprised of both large manufacturers and small to medium size parts firms. Out of all companies (approximately 10,000 Japanese companies) engaged in automobile parts manufacturing as many as 96% of these firms are SMEs some employing less than 20 people[10]. The trend towards overseas production shows that, increasingly automobile parts manufacturers establish overseas subsidiaries to respond to the changes in the industry landscape. By looking on Fig 2.3 it can be clearly seen that the number of FDI cases in auto parts industry and transport industry in general

[10] "2001 Survey of statistics relating to Business Premised and Companies" by the Ministry of Public Management, Home Affairs, Posts and Telecommunications, indicate that about 70% of all the companies engaged in business of automobile parts employ less than 20 people (small firms as per legal definition).- Quoted in Japanese Market report for Automobile Assembly parts, JETRO (2005).

are positive, implying that although the trend is not gradual but more and more auto parts manufacturers engage in overseas production. Figure 2.3 also shows the proportion of auto parts industry is more than 50% except in few years 2000 and 2002, implying that auto parts are actively contributing to the FDI of Japanese transport industry. And therefore it is important to carry out a study to explain the FDI of firms in auto parts industry especially SMEs, which form large percentage of auto parts suppliers, to be able to establish if the existing explanatory frameworks can be applied or if there is a need to take another direction in explain their overseas production trajectory.

Figure 2.3: Outward FDI in transport equipment industry



Source: *Compiled from The 37th overview of overseas business activity survey results, METI 2006 and An Overview of Overseas business survey by JIAPA (2001 to 2007).*

2.7 Changes in the business environment of the Japanese Automobile parts suppliers

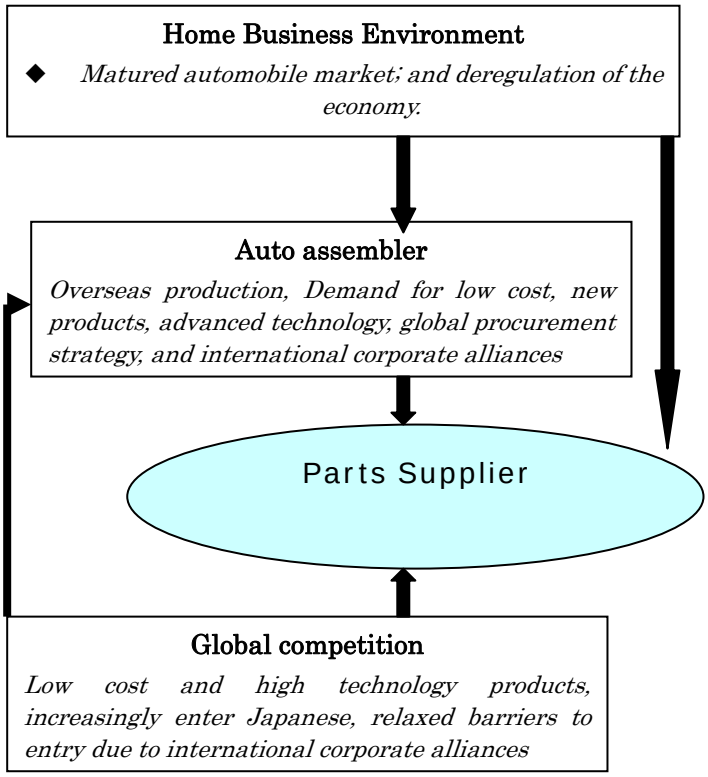
The recent globalization of the world economies brings two main challenges on the Japanese SME supplier. One is the shrinking home market as a result of decline in orders and the other is intensifying worldwide competition in automobile industry. These two challenges confronting auto parts manufacturers characterize the transition in the industry landscape as follows. The decline in orders is a result of maturing economy (the domestic demand for automobiles decreases), automobile manufacturer increasing overseas manufacturing operations, and automobile manufacturers conducting business with companies outside their keiretsu (suppliers

group). The way traditional keiretsu[11] system used to work was for the main customer to stick in business with its affiliated suppliers, which assured them of orders. But now as major manufacturers seek to optimize their supply chain, they adopt global procurement system where they focus on cost, quality and innovation in the products they want to purchase. Another element of transition in the industrial structure which causes intensifying competition results from the growing demands for price reduction, growing demand for environmentally friendly technology, and more foreign parts manufacturers entering the Japanese market (JETRO, 2005). According to the Small Business Institute of Japan's (SBI) survey of manufacturing and sales activities (2004), 34% of respondents indicated that they experienced a movement overseas of customers, and 51.6% experienced a decline in volume of sales due to competition from foreign products, mainly from China.

Generally, any adjustment in the industry or relational landscape can bring the opportunities and threats to the smaller suppliers. The opportunities come if the transitions in the landscape entail development or maintenance in business relationship. But the transitions such as increasing demands for cost reduction and innovation in new technology, increased overseas production by automobile manufacturers, and increasing foreign competitors send risk signals to lose market to the smaller suppliers. Smaller auto parts suppliers feel the pressure from the landscape they operate to respond appropriately, and when it is necessary to start overseas production. The economic situation can also act as a force for FDI decision if the conditions show the likely fall in orders from major customers. Fig 2.4 present a summary which shows the pressure that Japanese auto part supplier must respond to in orders to remain in the market.

[11] Refers to the arrangement where a primary auto assembler surrounds itself with a group of suppliers bound together by long-term customer-supplier agreements. It is a vertical or a pyramid organization, which is made up of one large company and hundreds of small companies subservient to it (Asanuma, 1985b). The relationships between the firms in a group are informal, but are clearly defined. In this kind of organization a typical member in one of the major groups sell a majority of its product to either the primary manufacturer of to toher firms in the group and sales to the group's main competitors was done very rarely (e.g. Toyota group against Nissan group).

Fig. 2.4: Forces that explain the motives for FDI by SMEs



2.8 Points for FDI decision in auto parts industry

This section discusses the motives for FDI by auto parts manufacturers. The general analysis of the purposes of FDI by firms in auto parts industry is derived from the survey conducted by METI's 37th overview of overseas business activity survey published 2007. The results compiled here represent the purpose of FDI by SMEs[12] in transport industry. The ten points for the reason to engage in FDI by SMEs in transport industry are presented in table 2.3 below. The table illustrates that most SMEs take overseas production trajectory to respond to the changes in the business environment at home. This table indicates that most of the FDI by SMEs in this industry are in response to the major customer's overseas production, representing more than 40% of the respondents. The response to major customer overseas production move have also been fueled by increasing demand for local products in the host countries and the prospects of future demand (33%). Other motives for FDI in respond to the transition in home business landscape include, need to achieve low cost of production thereby forming export base to Japan (30%).

[12] The results of the purpose for FDI by SMEs were compiled from 37th overview of overseas business activity survey, METI (2007). According to this survey the results were categorized in Large-scale companies; Midsize enterprises (chuken kigyo) - with capital between ¥100million to ¥1billion; and Small enterprises (chusho kigyo) - with capital of less than ¥300million.

Table 2.3: Points for FDI by SMEs in transport industry

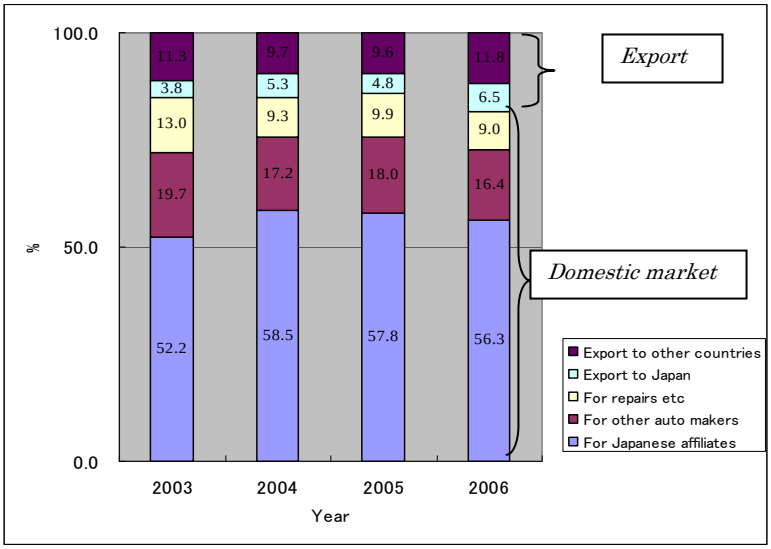
	Overseas investment decision points	% of respondents
1	Artificial trade barriers	11.1%
2	Quality & cheap labor	29.6%
3	To secure personnel involved in production	0.0%
4	To facilitates local procurement of parts	11.1%
5	Low cost of land and capital	7.4%
6	To export platform to in terms of quality and price	25.6%
7	Demand for local products & prospects for future demand	33.3%
8	To serve neighboring countries	18.5%
9	Social infrastructures	0.0%
10	To follow Major customers, including advance of other Japanese	40.7%

Source: The 37th overview of overseas business activity survey, METI 2007, pp. 96

Just like in the table 2.1 and table 2.2, these results for the purpose of FDI by SMEs in transport industry can be compressed into four patterns which will show the principal destination of the products made by overseas subsidiaries. The first direction is to serve domestic market, where a firm aims at selling its products to its major customer and other Japanese affiliates, or sell to other manufacturers. The second direction is to export either to Japan or to the third country. Using the results of the survey of overseas business activity by Japanese auto parts manufacturers (members of JAPIA) issued by Japanese Auto Parts Industry Association (JAPIA[13]) (results compiled in Fig. 2.5 below) we can establish the proportion of the principal destination of the production from overseas subsidiaries. This will help us to understand the motives of Japanese auto parts firms to set up overseas production facilities. The motives and the destination of the products from overseas subsidiaries can vary according to the region, depending on the level of regulations such as the rate of local content requirements, industrialization, competition and the presence of Japanese affiliated manufacturers (appendix 2). Looking at this figure it is vivid that the results presented here are in line with the purpose of FDI by SMEs in transport industry discussed above, where the respondents indicated that mostly SMEs engage in overseas production to serve the domestic market mainly supplying to affiliates of Japanese companies.

[13] JAPIA is the industry federation for first-tier parts manufacturers, which has mere 433 members.

Figure 2.5: Principal destination of products made by overseas subsidiaries of Japanese auto parts manufactures



Source: *Compiled from the survey of overseas business activities of auto parts manufacturers, JAPIA (2004 to 2007).*

From the above figure it is clearly seen that more than 85% of the products are supplied locally from which more then 55% is going to affiliated companies of Japanese automobile manufacturers, and around 15% to other automobile manufacturers. The figure indicate just a small portion (about 5%) of the total produce is exported back to Japan, implying that the market incentive is stronger in explaining the purpose for overseas production by automobile manufacturers. This market seeking move, seem to be related to the need to develop or maintain business relationship between these suppliers and Japanese manufacturers as evidenced by a large proportion of output that is supplied to Japanese affiliates.

Looking at figure 2.5, the motive for FDI by SMEs auto parts suppliers in Japan can therefore be derived and explained from their need to shift assets to overseas in an effort to establish stronger market share positions for the subsidiaries and affiliate companies of Japanese and to circumvent the actual or perceived threat of tariffs and quotas on imported goods due to local content requirements. In addition, it is indicated that, these firms shift their assets to overseas markets in the efforts to circumvent the threat of competitors who might get a chance to enter into the supplying relationship with principal company. Therefore, in thirst of protecting their interests in the relationship with automakers at home the small and medium auto parts suppliers find a pressure to respond by allocating their production plants closer to the principal customer. Investment in developing economies in Asia to take

advantage of lower manufacturing costs and to establish early positions in the rapidly industrializing markets also have been the intention of many Japanese auto parts suppliers.

2.9 Conclusion

The interpretation of the involvement of Japanese SMEs in the international operations can be derived from the business and social relationship that prevail in Japan between the customer and supplier. The argument here is that, since Japanese companies are closely related to each other by vertical and horizontal integration; the FDI of the main companies, for example Toyota, cause about a flood of overseas investment by the related small size manufactures, most of them involved in the sub-contracting systems most of them entering the value chain of the final assembler. This argument implies that, firm-specific advantages alone are much less in explaining Japanese SMEs FDI but need to consider the environments surrounding business relations among firms. We are driven to consider other factors that surround the SMEs like industrial structure and firms' relationships that exist at home. The business features of subcontracting system and the landscape of automobile industry in Japan, discussed in chapter 4, must be considered to be able to identify how the suppliers system could influence the FDI decisions of SMEs supplier.

Therefore, after looking at the trends in the overseas expansion by Japanese SMEs, SMEs in transport industry and the automobile parts industries, the purpose for FDI by SMEs seem to explain the need for SMEs to develop or maintain their business relationship with major customers, which increasingly set overseas production facilities. This is indicated by the results of the surveys in table 2.2 and figure 2.5 that indicates that more than 55% of the products of the overseas subsidiaries are targeted to affiliates of Japanese manufacturers. These results imply that, there is a direct or indirect bridge to the FDI by SMEs through their home relationship with major manufacturers. The direct bridge is when their major customers, in which case a customer request a supplier to follow its overseas production plans, assure the SMEs of some market in the foreign market. Indirect bridge exists when SMEs engage in FDI either in the work of the need to establish new relationships, with Japanese affiliates or other manufacturers that could not be approached in Japan. Indirectly also these SMEs feel the pressure for to seek ways to reduce the cost of production, whereby FDI will be directed in markets with low cost of labor. Therefore, in order to explain the FDI by Japanese SMEs in automobile parts industry, we must take into consideration the network relationship between

firms. By investigating the Japanese suppliers system, it will be possible to understand what determine the FDI by SMEs, which are perceived to have simple objectives and less resource to take-up the challenges and complexities in the foreign markets.

What follows this discussion is the review of the existing explanatory frameworks for firms' internationalization and FDI by firms in order to identify any link with the FDI by Japanese SMEs in automobile parts industry. The chapter also will give the theoretical background of firms' network and subcontracting system to set a base for the detailed discussion about Japanese suppliers system in automobile industry in chapter 4. The purpose of the next chapter is to re-visit prominent explanatory frameworks on internationalization and FDI of firms to identify their applicability in the case of Japanese manufacturing SMEs. The second part of the literature review, which discusses intermediate organization and industrial network systems aim at giving a theoretical background on why firms are not all vertically integrated. This will form the basis for a model to explain the FDI by SMEs from the perspective of customer-supplier relationship to be presented at the end of chapter 4. The following two chapters will be followed by the presentation of empirical data in three case studies (chapter 5), to be used to explain the engagement in FDI by Japanese SMEs in auto parts industry. From the analysis of the case studies and theoretical frameworks, this study will add to the existing FDI studies to fill in the theoretical gaps and thereby reinforcing the existing frameworks in order to explain the FDI adequately.

CHAPTER 3

3 LITERATURE REVIEW

Because this paper intends to explain the FDI by SMEs from the network perspective, this chapter presents the discussion on two aspects of literature review. First part will cover the discussion on internationalization of firms and FDI models and the second part will cover the discussion on industrial network focusing on intermediate position and the division of work elements. In the first part, the discussion on prominent explanatory frameworks for FDI to show what work has so far been done of this field. The aim of this review is to identify if the existing theories can adequately explain the FDI by SMEs. This second part intends to present literature background on why firms are not all vertically integrated and why market mechanism is not the only alternative to vertical integration as many authors who try to explain why and how firms engage in FDI in the internationalization and FDI models argue. This section aims at giving a theoretical background for the existence of coordination of activities between firms that is not through the vertical hierarchy or price mechanisms. This will set a base for detailed discussion of the Japanese suppliers system, which is known to be substantially less vertically integrated their other countries such as U.S.A (Richardson J., 1993).

Part I: THE INTERNATIONALIZATION OF FIRMS

Introduction

Internationalization[14] defined as the degree to which firms rely on foreign markets for customers and factors of production, is becoming more important for firms to survive and obtain long-term success because of the heightened competition in the global environment (Bartlett and Ghoshal, 2002). Traditional exports are increasingly coming under pressure while the conditions for marketing and production are changing rapidly. For many SMEs operating in high-technology and manufacturing sectors like in auto industry, it is no longer possible to act in the market place without taking into account the risks and opportunities presented by foreign and global competition because of the integration of domestic and global markets. As a result today's companies including small and medium companies, have to respond to markets at an increasingly faster pace. Evidently, this expanding interest on internationalization of firms reflects the expanding research to explain

[14] Refers to outward movement of operations by FDI

the overseas trajectory of firms. Over the last few decades, it is witnessed that internationalization of firms is a phenomenon researched intensively. Because internationalization can be manifested in a number of ways, this study concentrate on the established of foreign subsidiaries (FDI).

Looking at the previous international business literature, mature MNEs played a dominant role, whereas SMEs have only recently attracted broader interest because of increasing FDI by these firms. However, the theoretical foundation of FDI is still rather fragmented, compiling bits and pieces from different fields of economics to elucidate the locational pattern of firms. The microeconomic foundation rests on the theory of the firm (Williamson, 1979, 1981; Coese, 1988) and theory of the firm's internationalization (Hymer, 1960). Such microeconomic explanations provide necessary conditions for FDI. The location theory emphasizes externalities associated with demand and supply linkages.

Focusing on MNEs, several prominent schools of scholarship explain and predict the mode and pattern of internationalization process whereby national firms are transformed into being MNE. It is of interest to relate these models to FDI by SMEs. These internationalization models can be referred as internationalization process models, internalization or monopolistic advantage theory, the transaction cost approach, the Eclectic Paradigm and Network approach (an extension of internationalization process model). FDI theories discussed in this paper include corporate decision making approach, different factor prices model and gravity model for FDI. These prominent frameworks are presented in this paper to show how far the existing theories can explain the FDI by SMEs, thereby enable us to identify areas that need reinforcements. It is obvious that from these frameworks some are more powerful than others in explaining the FDI behavior by SMEs. As this paper perceives the network approach to internationalization (an extension of stage model) to be most widely accepted framework within this area of theoretical thought to explain the FDI by SMEs, it has been chosen as the frame of reference in this study. For this reason the brief description and discussion of the prominent paradigm on firms' internationalization will be presented in order to be able to discuss why network approach is considered more applicable in the context of this paper. After the discussion of the internationalization theories, a comparison between Network approach and other frameworks will be discussed to identify its strength and weaknesses. Then it will be of interest to identify some weaknesses in the network theory against the case of FDI by SMEs in order to form the base for developing a model to reinforce it. The discussion about internationalization theories will be followed by the presentation of FDI, of which different factors theory is considered widely applicable. In the last part of this first part these theoretical frameworks

(internationalization and FDI theories) will be contrasted in line with the case of FDI behavior by SMEs. Here the analysis of issues that need to be addressed by the existing theories will be discussed in order to pave a way for the development of a model that explains the FDI by SMEs from the perspective that firms are embedded actors in industrial networks.

3.1 THEORIES OF INTERNATIONALIZATION OF FIRMS

3.1.1 Internationalization process (stage) model

One of the earliest research streams views the internationalization of firms as a "process" whereby firms go through a series of "stages" of increasing international involvement (McDonald, 1961; Johanson and Vahlne 1977; Cavusgil, 1980; Johanson and Vahlne 1990). It is suggested from this paradigm that firms increase their international involvement as a result of their accumulation of experiential knowledge of foreign markets, which increases their comfort level with these foreign markets and leads to further commitment of resources to foreign markets. A critical assumption is that market knowledge, including perceptions of market opportunities and problems is acquired primarily through experience from current business activities in the market. Experiential market knowledge generates business opportunities and consequently a driving force in the internationalization process. Experiential knowledge is also assumed to be the primary way of reducing market uncertainty. Thus in a specific country a firm can be expected to make more resources commitments incrementally as it gains experience from current activities in the market. The arguments of these researches hence indicate that firms may move from indirect exporting to direct exporting to minority equity positions in joint ventures to full FDI as they accept the increasingly higher risk of entering and operating in new and distant markets. This model therefore can explain two patterns in the internalization of the firm. One is that, firm's engage in the specific country market develops according to an established chain. That is at the start no regular export activities, then export take place via independent representative, later sales subsidiary and eventually manufacturing may follow. The second pattern is that firms enter new markets with successively greater psychic[15] distance. Thus firms start internationalization by going to those markets they can most easily understand.

This model implies that additional market commitment will be made in small steps with three exceptions. First, when firms have large resources the

[15] sum of factors preventing the flow of information from and to the market….such as….language, education, business practices, culture and industrial development

consequences of commitments are small. In this case, big firms or firms with surplus resources can be expected to make large international steps. The second exception is when market conditions are stable and homogeneous because relevant market knowledge can be gained in ways other than through experience. The third exception is when the firm has considerable experience from markets with similar conditions (Johanson and Vahlne 1990). The internationalization process therefore is a theoretical model based on assumptions about the relationships between the concepts of market commitment, market knowledge, current business activities, and commitment decisions.

Therefore, the internationalization process is a dynamic model, which shows that the outcome of one decision or cycle of events constitutes the input of the next. The structure of the model is given by the distinction between the *state* and *change aspects* of internationalization variables. The state aspect considers the resource commitment to the foreign markets – market commitment and knowledge about foreign markets and operations. The change aspects are decisions to commit resources and the performance of current business activities. Market knowledge and market commitment are assumed to affect both commitment decisions and the way current activities are performed. These in turn change knowledge and commitment. Thus the process is seen as a causal cycles.

3.1.2 Internalization theory

McDougall *et al*, 1994 indicated that unless the firm possess some advantages, which then can transfer from one country to another but which cannot be acquired by a local firm, market abroad will be saved by a local firm. This observation come in light of support for monopolistic advantage theory, which holds that, MNEs, exists because a firm has unique sources of superiority over foreign firms in their own markets (Hymer, 1976). The theory assumes that a MNE has somehow developed a firm-specific advantage in its home market. This is usually in the form of internally developed, intangible assets giving the firm some superior production, products, marketing and/or management knowledge. According to the arguments of this paradigm, if this asset cannot be exploited and safeguarded effectively through market (or contractual) transactions, and 'internal market' has to be created (Buckley and Casson, 1991). This implies that the expansions outside the firm's domestic market, given that local production is advantageous, will then take place through horizontal and/or vertical integration. This theory hold that, once a firm has developed this superior knowledge it can exploit this advantage overseas at no additional cost over that of exploiting that advantage in the home market (Caves, 1974, cited in McDougall et al., 1994).

In the application of this theory, it can be argued that the benefits of internalization are particularly large in two cases. The first case is in the industries where firms need to receive future supplies of vital raw materials and secondly in industries where flows of technical and marketing knowledge is important. Knowledge is a (temporary) natural monopoly, which is best exploited through discriminatory pricing. These two cases indicate that in a situation where firms are attempting to maximize profits in a world of imperfect markets, there will often exist an incentive to bypass imperfect markets in intermediate products. Hence, the activities of these firms, which were previously linked by the market mechanism, are brought under common ownership and control in a market internal to the firm and where markets are internalized across boundaries. Buckley and Casson, (1991) argues that internationalization across national boundaries of markets in knowledge-based products is clearly of great importance in accounting for overseas production by MNEs. The subsidiaries of MNEs are likely to take a large share of foreign markets because of the "branch plant effect" arising from subsidiary unit's access to the internal markets of MNEs. This access gives it a great advantage over those firms which have access only to external markets. Kindleberger (1984, page 182) also argued in effect that firms internalizes to avoid imperfection in the external markets. He states that "…. using bulky inputs, difficult to store, often for continuous processes where interruptions are expensive, vertical integration across national boundaries enables saving to be realized… within the firm."

3.1.3 Transaction cost approach

This approach to internationalization of firms is considered to be the second genesis of internalization theory. Based on the work by Williamson O.E (1981), transaction cost approach tries to explain the institutional form or governance structure (market, hierarchy or intermediate forms) transactions. According to William's arguments, in a perfect market, transactions are carried out without transaction costs. Information is freely available, decision making is rational, there are always alternative suppliers and buyers and there is no carry over effects from one period to the other of a specific transaction between two parties in the markets. When these conditions do not prevail, transaction costs emerge because there is a need to devote efforts to organizing, carrying out, and controlling transactions among interdependent actors. From this argument, three key transaction costs are identified. These are costs of informing traders (information costs), the costs of reducing bargaining as to the terms of trade (bargaining costs) and the costs of enforcing the terms of trade (enforcing costs). Thus according to this model depending upon the manner in which the combinations of transaction costs are

modeled, the governance structure will lead to situations with arbitration, internal markets or reciprocity. For example according to this approach, the best way to do when a firm experiences transaction costs in using a special purpose technology is to internalize as opposed to the use of external markets, even where the later is viewed by government as competitive. This strategy behavior will permit the firm to control the supply and distribution of its knowledge advantage.

From the above discussion, the basic concepts of the theory is that, when *uncertainty* prevails, because of opportunistic behavior of the actors, contracts will be very complex and costly both to contract and to enforce, especially in the case where there are few, if any, alternatives open for buyers or for a seller to replace each other in a transaction. The major reason for this being that the assets specificity is high. The higher the asset specificity, the more dependent the parties will be on each other and the higher the costs of switching to another party. Apart from uncertainty, *frequency of transaction* also enters as a major concept in this analysis. According to this theory, if there are only occasional transactions and the asset specificity is very high, there is no opportunity for vertical integration, and the market transaction must be developed with the aid of some arbitrating agency. If the frequency is high and the asset specificity is high, the transaction-cost approach expects vertical integration to take place (Williamson, 1981). The arguments above shows that this approach can be used as an argument for vertical or horizontal integration since the use of the hierarchies rather than markets for coordination of interdependent activities, may economize on transaction costs.

3.1.4 Eclectic paradigm

Having its roots in the works of Dunning (1979) and Rugman (1980), eclectic theory is an extension of internalization theory, and is in line with the transaction cost approach, which argues that, rational – profit seeking firms, internationalize operations when by so doing the costs of organizing and transacting business will thereby be lowered (Teece, 1976). This paradigm sets out to explain the extent, form and pattern of international production, which relies on three distinct sets of advantages. The first one according to Dunning (1988) is the existence of ownership-specific advantages. Ownership-specific advantages imply the capabilities of the enterprise oriented towards specific foreign markets that are superior to firms located in other countries, principally in the form of intangible assets such as product innovations, production management, organization and marketing systems. On the other hand, the advantages can be intangible, perhaps embodied in a brand name, trademark or other indication of product quality. Ownership specific advantages also are derived from the firm having favored access

to particular customers. In this set of advantages, Dunning makes the distinction between advantages stemming out of structural and transaction market imperfection. The structural imperfection relate to the company's possession of, for example, superior technology. In addition, the transaction type advantage implies that the multinational organization, as compared to the market mechanism can enjoy lower transaction costs, for example having favored access to particular customer.

In Dunning arguments, the second set of advantage, internalization advantage represent the benefits accruing to the enterprise for exploiting such firm-specific ownership advantages for instance avoiding costs of enforcing property rights, search and negotiating costs and buyer uncertainty. This advantage refers to the MNE's ability to transfer ownership-specific advantages across national borders within its own organization rather than exploiting the advantage by selling it. Dunning (1988) distinguished between the internalization advantage from the transaction advantage mentioned above. According to his arguments, internalization (willingness to do so) may explain why hierarchies rather than external markets are the vehicles by which transactional ownership advantages are transferred across national borders. This paradigm argues that it is the ownership advantage (the capability of MNEs to internalize markets) which explains why these advantages are exploited by one group of MNEs rather than another, or by MNEs rather than firms indigenous to the country of production.

The third condition are locational advantages, which means that there must exist at least some factor inputs (including natural resources) outside of the home country that provide an advantage to production in the foreign country, otherwise the firm will choose to produce solely in its home country and export the product to foreign markets. These factors include: spatial distribution of natural and created resource endowment and markets; input prices, quality and productivity (e.g. labor, energy, materials, components, semi-finished goods); international transport and communications infrastructure; investment incentives; artificial barriers to trade in goods; economic system and policies of government; the institutional framework for resources allocation; and economies of centralization of R&D, production and marketing. Dunning (1988) therefore concludes that, "it is then the juxtaposition of the ownership-specific advantages of firms contemplating foreign production, or an increase in foreign production, the propensity to internalize the cross-border markets for these, and the attractions of a foreign location for production which the gist of the eclectic paradigm of internal production".

3.1.5 Network approach

In the network context, Johanson and Mattsson (1988) describe internationalization of the firm as a process of establishing and developing position in relation to counterparts in foreign networks. As an extension of the internationalization process model, this approach explains that firms can achieve internationalization (1) through establishment of positions in relation to counterparts national network that are new to the firm – *international extension* (2) by developing the positions and increasing resource commitments in those nets abroad in which the firm already has position – *penetration* (3) by increasing co-ordination between positions in different national networks – *International integration*. This process means that, the firm is initially engaged in a network, which is primarily domestic and then further develops business relationships in networks in other countries. From this perspective therefore, the internationalization strategy of a firm can be characterized by the need to minimize the need for knowledge development, minimize the need for adjustment, and exploit established network positions. Internationalization will, according to the network model, direct attention analytically to the investment in internal assets and market assets used for exchange activities. Furthermore, the firm's positions before the internationalization process begins are of great interest, since they indicate market assets that might influence the process. According to the network model, the firm's development is to a large extent dependent on its position because it uses its market assets in its further development. Thus, internationalization characteristics of both the firm and the market influence the process. The firm's market assets have a different structure it the firm is highly internationalized they do if it is not. In addition, the market assets of the other firms in the network have a different structure if the market has a high or low degree of internationalization (Johanson and Mattsson, 1988, Fig. 1).

Johanson and Mattsson, (1988) analyzed the four cases concerning internationalization of the firms and of the network based on the three dimension, extension, penetration and integration. The first situation (*early starter*) is were a firm has few and rather unimportant relationships with firms abroad, and that the same holds for competitors, suppliers and other firms in the domestic market, as well as in foreign markets. In this situation, the firm has little knowledge about foreign markets and it cannot count upon utilizing relationships in the domestic market to gain such knowledge. The strategy in this case was to begin in nearby markets using agents rather than subsidiaries and increase resource commitment as the volume sold in the foreign market increases. The second situation in the

internationalization is the *lonely international*. In this situation firm is highly internationalized while its markets environment is not. In this situation since a firm has experience of relationships with and foreign countries, the knowledge situation is more favorable in establishing the firm in a new national either by taking over firms with positions in the structured network or establish relationship with such firms. The third case is where the relationships in the domestic market may be driving forces to enter foreign networks because suppliers, customers and competitors of the firm are international in such even the purely domestic firm has a number of indirect relations with foreign networks. In this case which is described as the *late starter*, market investments in the domestic market are assets which can be utilized when going abroad and not necessary for a firm to go from the near by market to more distant ones. The fourth situation in this explanation of internationalization process using the network context is the international among others. In this case, both firms and its environment are highly internationalized. Therefore, further internationalization of the firm through international integration only means marginal changes in the firm. In this situation, the operation in one market may make it possible to utilize production capacity for sales in other markets leading to production co-ordination by specializing and increase volumes of intra-firm international trade.

Assuming that firms operate within their natural context, Johanson and Vahlne (1990) came with different view that seems to focus exclusively on the relationship. Johanson and Vahlne (1990) defined internationalization as the "process of developing network business relationships in other countries through extension, penetration, and integration." If the relationship between firms are seen as a network it can be argued that firms internationalize because other firms in their (inter)national network are so doing. This argument is derived from the network view which implies that, all actors in a network are more or less active and that the establishment of new relationships and the development of old is a result of interaction between active parties. To enter a network from outside requires that other actors have to be motivated to engage in interaction, something that demands resources to make adaptation to the changes. Thus, in foreign market, or network, entry of the firm may very well be the result of interaction initiatives taken by other firms which are insiders in the network in the specific country (Johanson and Vahlne, 1990). That is why in relation to the internationalization of the firm the network view argues that the internationalizing firm is initially engaged in a network, which is primarily domestic.

3.1.5.1 Network approach compared with other internationalization theories

Although both the internationalization process model and network approach stress the cumulative nature of firm's activities, the former, however, is the model focusing on internal development of the firm's knowledge and other resources while network approach offers also the model of the market and the firm's relations to that market. In this platform, the process model seems to be less valid in situations in which both the market and the firm are highly internationalized. This process model describes and explains well the *early starter* situation and the transition to *lonely international* stage but it is least valid in the *international among others* stage. In the later starter situation, the process model seems to be less valid than the network approach because of the importance of indirect internationalization relations in the home market and because of probably quiet heterogeneous pattern of entry opportunities when foreign markets are compared (Johanson and Mattson, 1988).

Comparing internalization, transaction cost approach and eclectic theories, which focus mainly on firm's specific advantage (FSA), the network theories relax on the assumption that FSAs asymmetrically favor international firms and view international growth as based largely on sharing respective complementary, competitive advantages with other firms (McDougall et al., 1994). This assumption contrasts with a core tenet of these theories, namely, that firms internationalize by internally leveraging their own FSAs to offset their disadvantages. The main elements of the application this network approach suggests that the formal and informal ties of firms can variously assist and restrict the internationalization process of firms. This was shown in the above discussion about the application of network approach in the four situations, early starter, the lonely international, the late starter and the international among others. Therefore it seems implicit assumption in the network approach is that, development activities are to a large extent dependent on the relationships with other firms and thus a network positions of the firm, while other theories implicitly assume firm's development activities are internal.

It is interesting to compare the underlying benchmark of network approach and transaction-cost theory. While legal frameworks and boundaries of the individual firma are more important in the transaction-costs theories, it is not in the network approach. This is because, network approach is interested in the functional activities in the individual firm, especially those related to exchange and adaptation process (such as purchasing, R&D), but transaction- cost approach aim to explain institutional governance structure. While transaction-cost approach argues that a higher degree of asset specificity leads to vertical integrations, network approach

argues that firms are using each other's assets in a mutual adaptation. Assets specificity, according to network approach, is one reason why firms are dependent on external resources and devote important resources to invest in relationships.

The network approach, which is considered superior over the other paradigm, aims at explaining the pattern and mode of establishing market oriented operations (including manufacturing for local markets) while others are set out to explain the extent, form and pattern of international production. These paradigm predicts that production will be established where advantages can be enjoyed. Moreover, while network approach rests on behavioral theories, the theoretical underpins of eclectic, internalization and transaction-cost assume that the decision makers have access to perfect information, which means that these frameworks put high value on firms which already have experience from many regions of the world.

The most important difference between the network approaches and other prominent approached discussed in this chapter is the nature of the relationships. In the network approach, industrial markets are characterized by lasting relationships among firms because such relationships can reduce costs of exchanges and production and can promote knowledge development and changes. Through lasting relationships, firms do get some control over each other, plus indirect access to assets in firms with which they do not have direct relationships (Johanson and Mattsson 1987). The exchange and adaptation process are looked upon as investment process from which mutual orientation is developed. This approach assumes that, relationships are stable and basically can play the same coordinating and development role as intra- or inter-organization relations. This argument implies that MNEs may use its network positions to effectively externalize some of its activities without losing control of its crucial intangible assets. To sum up, network approach derives its strength over other approached because it considers characteristics of the firm and market, which seem important in the case of global competition and cooperation in industrial system.

3.1.5.2 Network approach compared with the case of Japanese SMEs FDI

From the discussion above, it can be seen that the strength of the network model of internationalization lies in explaining the process rather than the existence of multinational or international firm. This work has more weight on explaining *how* firms internationalize operations but it narrowly explains why and what determines a firm to engage in FDI. The network approach describes well the late starter situation, which can be applied to Japanese auto industry, but does not show clearly the role that the firms' relationships play in determining the location choice of the SMEs. That it is not clearly stated why a firm will be motivated to select a particular

location either to be closer to major customers or to enjoy low cost of production. And the notion that firms internationalize because other firms in the network are doing so seems to be more general and not always the case.

The other weakness of this approach is that, it seems to consider relationship as a consciously sequential manner, which rise theoretical issues with regard to development of trust, control, resources, and interdependency within and between firms. These issues are not developed overnight, and as we will see in the case of Japanese customer-supplier relationship, the relations have evolved over time, some of which took more than fifty years to develop. So it can be argued that the network approach to internationalization does not adequately take into account of the issues of different types of relationships and their properties, and the time orientation of the relationships.

Although the late starter situation is applicable to Japanese SMEs in auto industry, it does not adequately explain why foreign markets are not served by local firms even in the industries which local firms have more competitive advantages. In the case of Japanese suppliers of auto parts, it was indicated that mostly the products made by overseas subsidiaries are destined to domestic market mainly to Japanese affiliates (Fig. 2.4, pp. 31). This phenomenon is not adequately explained in the network model. It is interesting to examine why Japanese manufacturers prefers to replicate their suppliers system even in the overseas subsidiaries and not to develop similar system with local manufacturers some of which are more competitive then the Japanese SMEs supplier. This shows that there is a need to identify the determinants for FDI by SMEs.

The Network approach also rest on explaining the market motives, emphasizing on the use of home market assets for foreign markets, but less is known to be explained about other drivers such as costs, fear to lose customers and competition in the home market as a motive for FDI. Focusing on investment in market assets alone is not sufficient to explain why firms such as SMEs suppliers engage in FDI. Other factors, which relate to relation specific investment which determine the level of dependency on the relationship such as degree of assets customization both in terms skills, capital assets; customized production system and adaptation in logistic systems need to be considered on top of the nature of industry in order to be able to explain the FDI by SMEs. There are also issues that surround the capability and ability of SMEs to manage overseas subsidiaries and the nature of the industry (this will be discussed in section 3.3). Therefore, it seems that emphasis on the business relationship alone, without considering other factors that hold the relationships, does not necessarily explain why a foreign firm and not a local firm must produce in the foreign market.

3.2 THEORIES OF FOREIGN DIRECT INVESTMENT (FDI)

In the previous part of the literature review, various theories were discussed to shed light on how firms could compete with local firms in their own markets and why FDI is the preferred entry mode strategy. This section will discuss the relevant theories of FDI, which indicate the determinants of investment location in the foreign market. The theme of this section is to outline what are the motivating factors for firms to engage in FDI. These theories will then be applied to the case of FDI behavior by Japanese SMEs to identify is not adequately explained by these studies. Since there are several factors, which could influence FDI, location decisions, several authors also have approached this topic from varying angles. Below are the condensed versions on the discussion about FDI theories.

3.2.1 The cooperate decision making approach

This approach includes the school of scholarships, which sees FDI by small firms as a managerial process. A prominent author in this stream is exemplifies by Aharoni (1966) in his work of "*the FDI decision process*". Aharoni explained FDI decision using a behavioral approach. He identified FDI as a continual cooperative social process rather than a matter of established activity. According to his work, which was based on US investors and non-investors in Israel, Aharoni (1966) suggests a five stage processes a typical of FDI decisions. In the first stage it is indicated that the strong initiating force is necessary to propel an inert non-investor along the path towards a FDI. Such pressure may come from within the firm, an executive with interest in such an investment perhaps, or from the environment, example an outside proposal from a powerful source, such as client, distributor or government agency. From this argument, corporate decision making approach to internationalization suggests that the existence of a profitable opportunity is not a sufficient stimulus for decision to invest abroad, but rather the reaction to other factors, such as the fear of losing market, competition, or an individual's pushing a favorite project. Then after the initiating force, the second stage according to this approach is the investigation process. The phases of the search are (1) general indicators, to establish the degree of risk (2) on the spot indicators, and (3) presentation of a report. Before stage three, the decision to invest is reached and process of building commitments in the firm takes place. In stage four bargaining situation occurs where powerful group within the firm impose their wishes and attempts to reduce uncertainty are made, this stage is refered to as review and negotiations. Up to this fourth stage, the decisions represent short-run decision making. In the fifth stage firm changes organizationally so as to bring its foreign

operation(s) within central control via an international division. The attitude to risk and uncertainty of foreign ventures alters significantly for the firm now finds then intrinsically little more risky then domestic ventures and the firm thus progress to fulfill international status. Aharoni refers this stage as changes through repetition.

3.2.2 Different factor prices model

In another development to explain the location selection, various scholars applied Ricardian model of differences in factor prices to explain the presence of MNEs in foreign countries. Given that transportation costs are equal, the location of MNEs abroad, according to this model, is determined by the differences in endowments (Helpman, 1984; Helpman and Krugman, 1985). That means different locations are selected to take advantage of geographic difference in various factor costs such as land, labor and technology (Jones and Kierzkowski, 2001) and accessibility to other advantages such as suppliers or parts and components. This model of differences in factor prices also provides a theoretical model to explain the motives for FDI as a means to engage in production fragmentation (Jones and Kierzkowski, 2001); also known as slicing up the value chain (Krugman, 1996); vertical specialization (Hummels et al 2001) or production network (Hanson et al 2003), where firms divide different stages of production among different suppliers that are located in different countries. In the production fragmentation, products traded between firms in different countries are components instead of final products, and final products are sold outside the region in which international division of labor in production process happens either within intra-firm or inter-firm.

At this point it may be useful to distinguish two types of MNEs, *vertical integrated MNEs* and *horizontal integrated MNEs* in order to understand the firm's motives for FDI since the activities of production fragmentation through these two types may be prompted by quite different considerations. While vertical integration is where successive stages of production are physically separated and located in different countries according to location advantage, horizontal integration is the one where multinational enterprises outsource several parts production to different suppliers or countries.

Vertical integration occurs when a producer decides to produce at least some of its intermediate inputs (raw materials, components or other inputs) required to make the final products in one or more of its member countries for use in production by another member company in another country. This type of MNE relates to Intra-firm production fragmentation (Hiratsuka and Kimura, 2006a). In this form of MNEs, the trade between affiliates is then a necessary outcome as intermediate goods are transferred from one stage of production to another across the national

borders. The vertical integrated firm is usually motivated by efficiency seeking behavior such as drive to find raw materials or strategic resources that are less costly, more readily available, or more valuable than similar resources in their home country (Krug and Daniels, 2008). This behavior is motivated by the interest of small firms in maintaining and fostering the crucial relationship they pursue in the home country. This situation emerges when small firms invest abroad in order to supply their customers' in domestic or foreign markets from low cost production location. Efficiency and resource seeking can be extended to include knowledge-seeking motive, in which firms establish overseas subsidiaries to improve organizational learning. Therefore, firms may locate in countries with high concentration of clusters to create dynamic interaction that will result in its learning and innovation.

Horizontally integrated MNEs, on the other hand can be described as described as *market-seekers*. This form of MNEs also known as inter-firm production fragmentation (Hiratsuka and Kimura, 2006a), or arms length production fragmentation (Dunning, 1971), develops when there is inter-enterprise product transfers resulting from a high degree of integration in the final product. In this type of operation fragmentation, similar stage of production is replicated in a foreign country motivated need for market access. Here the firm has final products that it wishes to sell, but need to overcome barriers to trade. Therefore, the reason of establishment of affiliate in this case could be to bypass tariffs, transport costs or administrative barriers and attraction to host government policies, macroeconomic variables and degree of industrialization of the host country play significant roles in the location of investment. The costs of the barriers are considered that would be more than the benefits of economies of scale from producing in one location. Apart from the constraints imposed on imports, the patterns of specialization among member companies is achieved by taking into account the scale of operation and the mix of factor services available at each of the country locations; the logistical costs of storage, handling, and transportation. This form of MNEs implies that an enterprise develops foreign interests to exploit or protect a particular economic advantage it has over its competitors or potential competitors (Dunning, 1971). In many cases this advantage can best be exploited by setting up a foreign operating subsidiary, rather than using other routes of involvement.

3.2.3 Gravity framework

The new economic geographic hypothesis (Krugman, 1991) argues that the interaction of markets, transport costs and fixed investment costs determines the location of industry. This hypothesis is regarding the location of industry is based on the gravity framework that economic size (market) and geographical distance (a

proxy of transportation costs[16]) play a significant role in determining trade and investment. According to Krugman (1991), the presence of transport costs gives rise to the "home market effect" where suppliers located near to a large market can attain economies of scale and export the goods. This is referred to as Agglomeration force. This theory of economic geographic hypothesis also explain that if existing markets are nearing saturation, MNEs may be primarily interested in seeking out new markets, in which case they will take an interest in the size of the host market and its potential for development. This can explain why some small firms invest outside their home country in seeking new business relationships, or extending the existing business relationship by following their crucial customers in their overseas operations.

3.2.4 FDI theories compared with the case of Japanese manufacturing SMEs

The above discussion on the FDI theories has highlighted some important factors, which explain why firms choose a particular location for overseas production. The factors that have been discussed in these frameworks are widely applicable in SMEs. Referring to chapter 2 of this paper, the discussion on the purpose of FDI by SMEs (section 2.5) and points for FDI decision in auto parts industry (table 2.3) shows the applicability of FDI in Japanese SMEs. However looking at the trends of overseas investment by Japanese manufacturing SMEs, they do not show if they are purely horizontally or vertically integrated, which is contrary to the notion that vertical integration or horizontal integration is the motive for firms to engage in FDI. What is indicated in the trends of overseas production by these firms (looking at automobile parts suppliers) is that, they are clustered around major customers (subsidiaries of their Japanese principal customers) supplying about 55% and exporting to Japan less than 6% of the produce. The rest is supplied to other manufacturers in the host country and about 10% exported to third country. Also in some cases, the efficiency-seeking motive of the Japanese suppliers is defined by their closer proximity to their major customer in order to reduce the capital tied up in inventory and to reduce the inventory cost as a percentage of sales. So the motive for FDI could not necessarily be to take advantage of cheap raw materials or other locational advantages but to maintain the close ties with major customer and replicate the suppliers system that exist in Japan.

It is obvious that strength of FDI theories rests on the explaining why (motives) firms engage in FDI. However, the FDI should have the power to explain at least

16 Transportation cost as defined by Anderson and Wincoop (2004, page 691) include all costs inured in getting a good to a final user other than the marginal costs of producing the good itself. Included are transport costs, trade barriers (tariff and non-tariffs) and other border-related barriers such as institutional language and currency.

three issues. First FDI theory should explain how firms could compete with local firms in their own markets. That is how SME overcome its liability of foreignness when investing outside home country. Secondly, FDI theory need to show why firms engage in FDI instead of serving foreign markets with exports or through licensing or alliances and thirdly FDI theory need to explain what determines where a firm locates its investment (FDI).

In the following section, a discussion about issues that need to be addressed by the existing theories will be presented. Looking at this discussion, we can understand why the existing theories cannot adequately explain the FDI by SMEs. This section aims at identifying what need to be reinforced in the previous discussion of internationalization theories and FDI theories in order to come up with the model to explain the FDI behavior by SMEs. The issues presented here are identified as more crucial when considering the characteristics of SMEs and their FDI behavior. The issues identified in the next section will set a floor upon which the discussion about intermediate position and industrial network relationships will be discussed in part two of this chapter. Thus, the following section 3.3 will make a bridge from the shortfalls of the existing theories to the new model that will be developed at the end of chapter 4.

3.3 ANALYSIS OF ISSUES FROM THE EXISTING THEORIES ON THE FDI BY SMEs

From the above discussion, it can be observed that the existing theories explain very well about the necessary conditions for FDI and existence of MNEs including SMEs. These theories try to indicate the importance of specific advantages in determining not only how MNEs engage in FDI, but also in explaining why MNEs establish production in specific locations. Several important points emerge from these theoretical frameworks. Basically, these frameworks explain the growth of the firm by internalization of markets, which is a key to understanding the velocity and direction of the FDI by SMEs. Also the importance of the market niche, which is described in the theoretical framework of internationalization, provide a great potential in explaining the industrial distribution and pattern of the FDI activities of SMEs.

Despite of the strength and wide applicability of the internationalization and FDI theories found from the review of the relevant literatures, several constraints on the international activities of SMEs emerge. Most of these studies have concentrated on the firm's specific advantages and the conditions in the host country's environment in explaining the motive for FDI by firms but factors influencing FDI decision by small enterprises associated with parent firm and home environment has

also not received much attention. This necessitates the need for further consideration on explanation of FDI by SMEs. A crucial issue arising is the extent to which SMEs are at all different in the FDI behavior because of their size and objectives. This difference in the FDI behavior brings up a set of important conceptual and strategic issues to consider since most of the existing frameworks have concentrated on large-scale firms. Below follow the discussion on the constraints to apply these FDI theories on SMEs.

Firstly, in comparison with larger firms, capital and management resource shortages of SMEs may affect FDI behavior of SMEs. SMEs face a challenge in rising capital without disclosing their competitive advantage secrets. Thus, lack of pull in the capital market may lead to less than optimal arrangements, decisions taken to minimize capital outlay. The availability of finance is often considered to be a constraint on the expansion of SMEs. Where external finance is not available, funds for expansion are limited to the profits generated in the past investment. Beyond this, SMEs must win the confidence of the market for funds. This confidence can be won by technological achievement, attempts at proof of future success, recruiting individuals who have the confidence of the market or astute political lobbying (Buckley, 1989). So it can be seen that in most cases the financial constraints are secondary to managerial constraints (discussed below).

Secondly, SMEs face a shortage in management resource. This means that SMEs may not have enough specialist executives to manage their international operations nor do they have hierarchy of managers through which complex decisions can be shifted. As an organization issue, balance must be achieved between hierarchical control and cooperation, which suit the unique situation of foreign subsidiaries. A shortage in management time may lead to firms taking short cuts without proper evaluation of alternatives. Decision making is much more likely to be personalized involving ad hoc decisions based on individual perceptions and prejudice (Buckley, 1989). For instance, an attempt to avoid not to appraise a potential joint venture partner can be disastrous. Therefore considering the internationalization of firms, SMEs face a high degree of risk in going international. It is likely that the proportion of resources committed to a single FDI will be greater in a small firm then a large one, which means, failure is costly.

Thirdly, it is notable that, in order to economize on capital outlay, SMEs tend to be management intensive and this may limit their ability to enter into more complex forms of technological transfer arrangements (Buckley et al, 1988). In this situation, it is argued that the viable option for FDI alternatives by SMEs remains to be the use of new forms of international cooperation such as joint venture and production sharing (Oman, 1984 quoted in Buckley 1989). In support of this argument, this

study observed that a number of Japanese manufacturing SMEs in auto industry have offered their ownership advantages in their overseas subsidiaries by establishing joint venture and technical assistance agreements instead of exploiting them internally. This observation contrasts with a core tenet of FDI theories, namely, that firms internationalize by internally leveraging their own FSAs to offset their disadvantages.

The fourth issue of important to consider when discussing FDI of SMEs is the international structure of industries. In this examination, two types of relationship between firm size and market size can be distinguished. In the first case, SMEs are considered to attempt to grow in a big-firm industry that is an industry where optimal scale is large in relation to market size. The second type, are industries with few economies of scale where many SMEs exist. This type of industries in particular require a wide range of specialist intermediate inputs, which present a situation of SME in equilibrium with a *small market*. In such as situation FDI can enable SME to service optimally a growing market of few customers (Buckely, J 1989) and often a fringe of SMEs in large firms industries can be observed. This role of SMEs to fill a market niche is of more advantage as it has been noted in Japanese automobile manufacturers who are seen as versatile users of specialized equipments. However, although the need for specialized products in the overseas markets is growing as large manufacturers increasingly set overseas productions, it is difficult for SMEs to grow in competition with large firms because of the factors discussed above. Because of shortage of capital and management resources, SMEs are vulnerable to product, market and technological changes because they are not diversified and are often one product, one market companies (Teece, 1980).

Focusing on automobile industry, the previous paragraph indicated that this type industry present a situation where suppliers, SMEs in particular, are in equilibrium within a small market because of the requirement of specialist intermediate inputs. Most of these firms are concentrating in one or few products for one or few major customers. In most cases this type of industry involves a complex product, and therefore customers will rely on supplier for innovation and development of parts or components in return suppliers rely on the customer for sales of its products. This interdependency calls for coordination, efficient production, mutual adaptation in design of parts and teamwork from the design process in order to facilitate manufacturing. To achieve this objective, a closer form of association may be suitable, in which obligations about future custom are given, to ensure the supplier. In this situation to promote innovation and commitment, formal legal contracts between firms are likely to be insufficient to bring about the openness of cooperation required, and constant contact (Richardson G., 1972). Therefore, a more relational contracting

is needed for cooperative innovation, contracting of the sort that represents an intermediate position between using the market and organizing all stages of production within the firm (Richardson G., 1972). Itoh M. *et al*, (1993) refer this kind of coordination that lay between market and organization hierarchy as *chukan soshiki* (intermediate organization). This is because the relationships between firms imply that there are specific inter-firm dependence relations, which are of different character compared with the general dependence relations to the market in the traditional market model (Johanson and Mattsson, 1987). This argument explains why firms are not all vertically integrated and why the market mechanism is not the only alternative to vertical integration.

Following this argument, the fifth constraint will be on the patterns of the motives for FDI. Because this study is focusing on the SMEs on the automobile industry, the patterns discussed here related to the fourth constraint discussed above. Also utilizing the survey on the overseas expansion by Japanese SMEs and automobile part suppliers in chapter 2 (table 2.1, 2.2, 2.3), it is notable that the motives for FDI by SMEs follow four patterns. (1) SMEs may be pulled into foreign markets by larger firms (major customers) or by artificial barriers such as tariffs and local content requirements. (2) SMEs may be pushed to overseas production by conditions at home such as declining home market, competition or avoiding restriction (need to be independent). (3)SMEs may decide to engage in FDI to follow the classic motives of FDI – market-seeking, efficiency-seeking and resources-seeking. (4) FDI by SMEs may be a result of entirely entrepreneurial foresight, to establish early position in the growing market. These forms of investment therefore require very different types of analysis when focusing on SMEs, especially in industries of the type of automobile. Although these motives are perceived to be options, in most cases SMEs that are involved in the mutual relationships may adapt the combination of all these investments to achieve optimum benefits in order to develop or maintain their relationship with major customer because different region will translate different motive (Table 2.2).

Conclusion

Looking at the discussion above, it is obvious that the prominent explanatory frameworks on internationalization of firms and FDI are focusing mainly on the theory of the firm and of markets. These benchmarks normally provide no explanation of the principle of the division of labor between firms and markets. Also, from these frameworks, the role of spontaneous coordination of the inter-firm cooperation and affiliation seem not be given enough attention. The important class

of ingredients in the production function, organization, knowledge, experience and skills, seems to have been forgotten in these theories on FDI of firms.

Because of the constraints on the existing models to explain the FDI by SMEs this paper develops the model that explains the FDI by SMEs with the aid of the investment in the inter-organization relations. In this light, this paper builds its logic upon the basic insights developed in network approach to industrial system and firm's internationalization (Johanson and Mattsson, 1987, 1988) to identify what determines SMEs to engage in FDI. This study is based on the assumption that there exists a coordination of activities between firms that cannot be achieved through a central plan or on organizational hierarchy, nor taking place through the traditional market model but achieved through continuous transaction and mutual orientation to each other (Richardson G., 1972, Asanuma B., 1989 and Itoh, M. et al., (1993)). This kind of coordination described above can be identified in the Japanese suppliers system, to be discussed in chapter 4.

In the next section of this chapter, the theoretical background of the basic models for firms' coordination through intermediate organizations (*chukan soshiki*) and network approach (customer-supplier relationship in industrial system) to industrial system and will be presented. These explanations intend to show why firms are not all vertically integrated and why market mechanism is not the only alternative to vertical integration. From this discussion it will be shown why the existing internationalization and FDI models (except network model and corporate decision making model) are not always applicable to all forms of organizations. In addition, this section will highlight why in certain industries (e.g. those that require specialized inputs like automobile industry) foreign markets will continue to be served by foreign firms. This part will set a foundation for the discussion of the conceptual model for FDI by SMEs, which will be discussed at the end of the next chapter after the presentation of Japanese suppliers system. Hence chapter 4, which discusses the details of Japanese suppliers system in order to show the applicability of part two of the literature review, will give a better understand of the link between the inter-organizational relationships and the FDI by SMEs suppliers. The model for FDI by SMEs to be presented in chapter 4, tries to explain the FDI with the aid of a conceptual interpretation of the customer-supplier relations specific investment. The reason for this model is that, network model being superior to some other models of markets make it possible to consider some interdependencies between firms, which is accompanied by customization in the various aspects of business relations providing either provide further opportunities or restrictions in business.

Part II: INDUSTRIAL NETWORK: INTERMEDIATE POSITION AND DIVISION OF WORK

Introduction

To begin this discussion, let us look at the industry as carrying out an indefinitely large number of activities related to discovery and estimation of future wants, to research, development and design, to the execution and coordination of processes of physical transformation, the marketing of goods and so on. Recognizing that these activities need appropriate capabilities (knowledge, experience and skills), then different organizations will carry out different activities. In this case, activities that require same capabilities for their undertaking are similar activities. Nevertheless, when activities represent different phases of a process of production are referred to as complementary (Richardson, G. 1972). Thus, it is these complementary activities (products) that require some way or another to be coordinated both quantitatively and qualitatively. It is this element of coordination that I believe can explain the FDI by SMEs.

Traditionally the most typical networks involving SMEs have been the vertical collaborative networks formed between subcontractors and principal manufacturer in the interests of the division of labor in production fragmentation and module mode of production. This is commonly seen in the industries that require a wide range of specialist intermediate inputs, presenting a situation of a supplier in equilibrium with a *small market*, as evident in the automobile industry. As it will be seen in the case of Japanese subcontracting system in automobile industry, the collaborative networks describe the degree of interdependent between firms. From this suppliers system it is obvious that since most of the SMEs suppliers are constrained with financial and management resources they can not easily make specific investments or modify production process to serve many customers. Thus, involving in these kinds of specialized relations means relaying on one or few products for one or few major customers. This implies that business of any one auto assembler is likely to be important to a supplier, even when the relationship is not exclusive. This is especially true for those suppliers who do not do business outside the auto industry. On the other hand, because these specialized suppliers have developed internal capabilities in terms of technology and production systems which offer cost advantages and innovation, auto assemblers places reliance on them for design and development of quality products necessary for assembly lines. This kind of mutual interdependence relationship between firms can therefore explain the motives for SMEs suppliers to engage in FDI. The following section give the theoretical background of why firms are not all vertically integrated instead engage

in mutual relations even when they are encountered with uncertainty from the specific investments that lead to interdependence.

3.4 Intermediate Organization

The description provided here closely follows the work by Richardson G. (1972) and Itoh, M. et al (1993). From these works, theoretical explanations of an intermediate position between using the market and organizing all stages of production within the firm (or complete vertical integration) (*chukan soshiki*) as a means of coordination the activities of firms in the industrial system is presented. Therefore, it is indicated here that the market mechanism is not the only alternative to vertical integration and firms are not all vertically integrated.

Richardson G. (1972, page891-893) identified the importance of subcontracting and other forms of cooperation, in facilitating activities in dissimilar but complementary areas. He argues that, a firm tends to specialize in activities for which their capabilities offer some competitive strength. The capabilities may involve knowledge and experience of (or reputation in) a particular market. He continues to explain that problems which work against vertical integration in favor of subcontracting come because different stages of a production process may involve activities which, though complementary, are not similar (that is they involve different capabilities). The solution to these problems is by using the market if the products produced in the production chain are fairly standard, this means that the producer of the intermediate products will be selling to a range of customers. Nevertheless, if the products are specific to the customer's requirements to any significant extent, a closer form of association may be suitable, in which obligations about future custom are given, to ensure the supplier. This is especially so if the supplier must invest in narrowly specialized skills or equipment to meet the customer's needs. This explanation about the existence of the intermediate organization support the description of Japanese subcontracting system as explained by Asanuma, B (1989) and Aoki, M (1990).

The other situation that can determine the existence of the intermediate organization is where innovation[17] is required in several stages of the production process, and the technological capabilities required differ. In this situation in-house innovation by the principal may be less effective without coordination with other firms in the chain (Richardson G., 1972, 892-5) in which case formal legal contracts between firms are likely to be insufficient to bring about the openness of cooperation required, and constant contact. Therefore, a more relational contracting is needed

[17] Increased international competition has taken the form of an accelerated product life cycle, with implication that firms need to compete by innovation in new product development.

for cooperative innovation, contracting of the sort commonly associated with Japan in its suppliers system. This is because, in order to promote the capabilities of the suppliers, the continuous technological transfers by the principal to suppliers need to be easier through a closer relationship. The subcontractor commonly in this kind of relationships complements his own capabilities with assistance and advice from the firm he supplies. With closer relationship, assemblers can support the development of its suppliers through technological and management skill to create competitive suppliers for production and eventually design services, which will increase opportunities for innovation.

The characteristics of the intermediate organization are portrayed in four elements (Itoh, M. *et al*, 1993). Firstly, price is used as a signal and influencing condition to establish business relationship. This price is used to decide whether to buy or not and it will be a determinant to give a firm access to exchange relationship. The business will be given to a supplier with the lowest cost. The second element is the firms are free to enter or exit the relationship and are free to choose the counterparts. However, the entrance and exit is not dictated by the market but by partners' relations governed by order based on power. This means that when say, supplier has not been able to meet the requirements by the principal customer, both parties can agree to terminate the relationship or principal customer can decide to subcontract another supplier at any time. Smaller (dependent) companies, in this element, are given added incentive for high performance that comes from a credible threat from a powerful partner to switch. However in the real world, subcontracting in automobile industry, which is characterized by continuity, has few new entrants (suppliers of technological stand-out) or exit (because of the integration into the overall design and manufacturing process of the customer) of suppliers (Smitka, 1991). The third element of the characteristic of intermediate organizations is that the relationship is fixed or continuous over long time especially so if the supplier must invest in narrowly specialized investment, which are developed over long time transactions and whose value depend of a continued trade with the principal. And the fourth character is that participating firms are prepared to interact with each other, both in exchange (transaction) and adaptation, and expect each other to do so. These interactions constitute the dynamic aspects of relationships.

Itoh, M. et al (1993) shows that intermediate organization can be used to describe keiretsu system in Japan. This is because firms have placed their reliance on the long term mutual relationship between each other, which make suppliers to look like part of the organization of the customer (manufacturer). Nevertheless, in fact this not always correct because at any time either part can decide to terminate the business or to continue depending on the power alignment. So in general, *chukan*

soshiki describes the kind of the relationship that lies between the market and organization, which is coordinated by interactions between firms and which considers the situation where all participants agree to transact while taking into account the relationship between the members who participate in the transaction. The description of *chukan soshiki* also explains that the Japanese subcontracting system operate based on cost competitiveness on top of the quality and delivery because price is used as a signal to allow suppliers either to increase contract volume or enter into a new relation.

3.5 Customer-supplier relationships in industrial system: Division of work

The previous section explains the reason for the existence of the complex networks of cooperation and association between firms. These complex relationships exist because of the need to coordinate closely complementary but dissimilar activities. The coordination cannot be left entirely to consolidation within firms because the activities are dissimilar, and cannot be left to market forces in that it requires not the balancing of the aggregate supply of something with the aggregate demand for it but rather the matching, both quantity and quality, of individual enterprise plans (Richardson, G., 1972). The above explanation on the *chukan soshiki* therefore can be extended to explain industrial system as a network of relationships between firms dependent on each based on the division of work. Where the coordination of activities in these relationships is not achieved through organizational hierarchy, nor price mechanism as in the traditional market model, close and more relational coordination is inevitable. In this phenomenon, coordination occurs through interaction between firms in the network, where price is just one of several influencing condition. To get access to the relationship and to make it possible to sell products, exchange relationships have to be established with other firms. Therefore, since business transactions usually take place within the framework of established relationships, efforts must be made to maintain, develop or change the relationships.

As it was indicated in the characteristics of *chukan soshiki*, participating firms are ready to transact with each other and expect each other to respond the same way. When a closer relationship has been developed, it is possible to see that a purchasing company gives no formal assurance but its past behavior provides suppliers with reason to expect that they can normally rely on getting further orders on acceptable terms. This means that in the network relationship, interdependent firms need to make adjustments in terms of the products, process, quality, timing and logistic to adapt to the needs and capabilities of the specific counter parts (relation specific investment). The adaptations are somewhat more common in domestic that they are

in export relationships. These adjustments, which take time and effort to develop, call for more or explicit co-ordination through joint planning, or power exercised by one party over the other (Johanson and Mattsson, 1987). To achieve this mutuality, customers and suppliers need extensive knowledge about each other. The knowledge that is constructive is not only about price and quality but also the knowledge about delivery, each others' resources, organization and development possibilities. Much of that knowledge can be gained only after transactions have taken place. This emphasizes on the need for long-tern relationship between suppliers and customers in order to concentrate knowledge about each participating firm in the personnel for mutual benefit. This will make the parties involved to have confidence in each other's ability and willingness to fulfill their commitments. The implication of this network approach is that, the position of a firm in the network constitutes the base, which defines the development or further relationships possibilities and constraints because it takes time and efforts to develop new relationships.

3.6 Chapter's Conclusion

Up to this point, the discussion on part one and part two of this chapter summarizes the need to develop a model that will consider the situations faced by SMEs. In the first part, the discussion of the prominent theoretical frameworks on internationalization of firms indicated that more emphases was on the importance of specific advantages in determining not only how MNEs engage in FDI, but also in explaining why MNEs establish production in specific locations. According to these studies, internalization advantage represents the benefits accruing to the enterprise for exploiting firm-specific ownership advantages. The general merits of these frameworks are related to their ability to explain the existence of different governance structures or institutional forms in different situation. This is because the internationalization and FDI theories use the benchmark models of markets and organizations with more importance on legal frameworks of the transactions and clear boundaries of the individual organizations. However, where the markets are characterized by interactions in systems of connected relationships among suppliers and customers that make the boundaries of individual firms unclear the existing theories seem to be inadequate. This later situation, which can be demonstrated in Japanese auto industry supplier system, is where many SMEs exist. And because of the issues that SMEs bring (as discussed in section 3.3 above) when it comes to FDI, applying entirely the existing theories which emphasis on FSAs, such as internalization theory, transaction cost theory and eclectic theory might live many questions about the involvement of SMEs in FDI unanswered. Considering the discussion on the process model to internationalization it is evident that underlying

assumptions of step-wise progression and forward motion do not appropriately explain the FDI by Japanese SMEs in auto parts industry because firms may omit stages to accelerate the process.

Against this background therefore, part two of this paper showed why firms are not always vertically integrated. This part also showed that in some instances and in some industries, legal frameworks might not necessarily work out. Against the discussion in part two, it can be assumed that firms in industrial markets are linked to each other through long lasting relationships. The counterparts in the relationships depend on one another, establish and develop inter-firm information channels, and develop social and technical bonds with each other. These assumptions will set a base for developing a customer-supplier relationships model to explain the FDI by SMEs. In chapter four, detailed descriptions about the features of Japanese subcontracting system will be presented to support the theoretical background of part two of this chapter. From the Japanese suppliers system clear display of the characteristics of the intermediate organization and customer-suppliers relationships in industrial system will set a base for the development of the model to explain the FDI by SMEs in automobile industry from the network perspective. This model will show the importance of parent firm's environment, network position and particular circumstances both at home and abroad.

CHAPTER 4

4 JAPANESE SUPPLIERS SYSTEM – the case of automobile industry

Introduction

It is well known from many previous studies that, the formidable success of Japanese auto markets stems to a great extent from their close relationships with suppliers. Big automobile makers such as Toyota, Nissan and Mazda, working closely with their respective lean-production networks of parts suppliers, produce high quality vehicles model quickly and inexpensively (Dyer, 1994). The keiretsu structuring of assembler-supplier relations historically enabled Japanese auto assemblers to remain lean and flexible while enjoying a level of control over supply akin to that of vertical integration. Although Japanese auto manufacturers rely on suppliers for both design and manufacturing, they are known to be less vertically integrated than other western manufacturers (Richardson J., 1993). The strength of Japanese subcontracting structure is attributed by the mutual relationship between assemblers and suppliers to form a business structure and environment, which has strong inclination towards network form of doing business. Most of the suppliers in the first tier of the vertical relationship rely on one or few major customers tied with a long-term relationship while auto makers commit to long-term sole sourcing relationships.

4.1 Customers-suppliers relationships in Japanese automobile industry

Before going further, it is worth mentioning that several linkages between firms exist in Japan. These linkages are consolidated by means of business alliances, notable among which are a diversified enterprise group (*keiretsu*); subcontract arrangements (*shita-uke gyosha*); and co-operative of important suppliers (*kyoryoku kai*). These kinds of business alliances create a kind of network which is rare to find in many parts of the world. It is of interest to know the differences of these terms because there is a risk of taking them to represent one think. It is true that they form part of the Japanese suppliers systems but they carry different meanings. As it will be indicated later, there is a thin demarcation between keiretsu and subcontractor. Subcontract systems, which can be generally described as the provision by one firm to another, of relatively specialized inputs, that are

then incorporated into the final product of the buying; represents both keiretsu (which includes affiliated firms) and suppliers who are not part of the keiretsu. So when discussing the auto industry's supplier system, referring to the subcontracting system will provide a widely acceptable description of customer-supplier relationship, which is the focus of this study. However since many authors have occasionally used keiretsu to indicates principal's suppliers group, this paper also will, in some descriptions, use the term to represent the group of important suppliers to the major customer. Before embarking in explaining about Japanese suppliers system (subcontracting system), brief description of suppliers association and explanation of traditional keiretsu will be presented in order to be able to differentiate them from the other form of business alliance (subcontracting system) that form the core of this study.

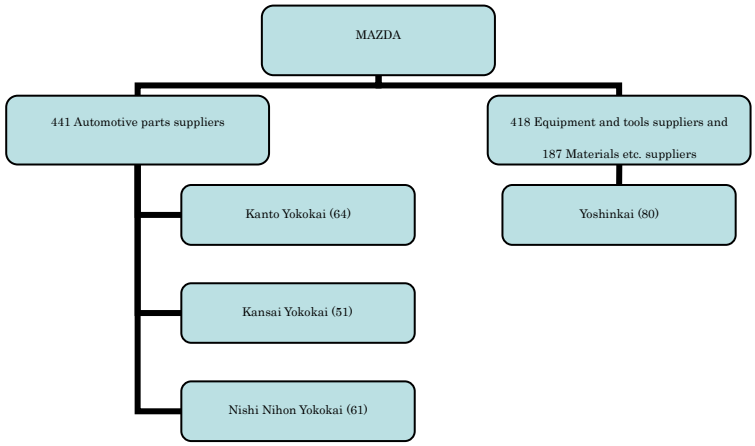
4.1.1 Suppliers' association

Kyoryoku kai is a collection of most important suppliers for their own and their customer's mutual continual improvement. Literally speaking these *kyoryoku kai* are cooperative circles. Suppliers' coordination is a technique by principal customer to add value as well as to remove wastes. Observers frequently cite these associations as evidence of automobile "keiretsu" groupings. When these important suppliers come together, the mutual benefit between suppliers and customer would be to strengthen trust and the relationships of the counterparts, to share knowledge and expertise, to facilitate joint development and learning and identification of ways to minimize waste. These suppliers associations also provide a convenient route for the auto firms to help suppliers improve their production methods and management capabilities. Most assembles maintain associations of first-tier suppliers that meet from time to time, primarily to exchange information. The assembler's objectives to maintain the association of important suppliers are both to ensure quality and to create competitive suppliers for production and eventually design services. From the association activities, performance capabilities and costs information of similar qualified suppliers will be available to the auto manufacturers thereby reduce opportunistic supplier behavior.

Each Japanese automobile manufacturer organizes its own association for important suppliers. One example of these cooperative organizations (*kyoryoku kai*) can be observed in Mazda Motor Corporation, called *Yokokai*. By March 2008 Mazda had three *Yokokai* for auto parts manufactures made up of 177 companies out of 441 suppliers of automotive parts the assembler maintain. These *Yokokai* are located in Kanto region – around Tokyo (*Kanto Yokokai* – 64 companies), Kansai and Tokai – central Japan (*Kansai Yokokai* – 51 companies) and the

Chugoku, Shikoku and Kyushu regions-southwest Japan (*Nishi Nihon Yokokai* – 62 companies). Mazda also has cooperative organization – Yoshinkai with 80 important companies supplying raw material, equipments, molds etc. Figure 4.1 illustrates how Mazda Motor Corp. organizes its suppliers in these *kyoryoku kai*. Other automobile manufacturers cooperative associations are Toyota (Kyohokai: 205 companies); Nissan Motor Co. Ltd (Nisshokai: 185 companies); Fuji heavy industries Ltd. -Subaru (Subaru Yuhikai: 173 companies) and Isuzu Motors Ltd. (Isuzu Kyoryoku kai: 275).

Figure 4.1: Mazda's supplier and suppliers associations as of 31 March 2008



4.1.2 Keiretsu

A keiretsu is a network consisting of a group of large and small companies, each firm voluntarily cooperating with the others for mutual gain. In its simplest form, keiretsu is a group of individual units viewed together, usually as a hierarchical organization. The common Japanese meaning of keiretsu is something close to verbs like "link", "affiliate with" or "connect to" (Miyashita K. and Russell R. W., 1994 pg.7). The linkage is usually implicit. Preferential treatment within a keiretsu gives each member an advantage in procurement and distribution, while maintaining harmony among alliance firms. In this kind of relationship, there is a flow of money, personnel, even personal loyalty etc. either upward or downwards in the hierarchy. So keiretsu in its first impression is a link or relationship between large firms (principal customers) and smaller subcontractors and/or suppliers. This form is known as vertical (*tete*) keiretsu. A vertical or pyramid keiretsu is made up of one very large company and hundreds or thousands of small companies subservient to it. In the other expression, keiretsu as horizontal (*yoko*) relationship

is described as the relationships between entities and industries, both are complexly weaved together and self-sustained, normally centered around a bank and trading company. This description identifies that common ties to a powerful bank, shared stockholding, and trading relations to mention just a few unite firms. The most common known horizontal keiretsu is the six big industrial groups (roku dai kigyo shudan), which includes, Mitsubishi, Mitsui, Sumitomo, Fuyo, Dai-ichi kogyo and Sanwa, with the common ties to the six largest city banks (see appendix 3). This paper will use the first type of keiretsu (vertical keiretsu) because it described the customer-supplier relationship, which indicates that industrial system is a network of firms engaging in different but complementary activities.

The following are benefits that can be derived from the keiretsu, but which are also found in the Japanese subcontracting system. It is conceivable that members of the keiretsu group may benefit from the experience of other member firms in doing business and operating manufacturing plants abroad. Information requirements with respect to market trends, location, recruiting etc. can readily be available for participating firms in the keiretsu group. It is true that lack of experience which act as a barriers to invest in the foreign market can be overcome by information sharing within the group. These benefits accruing from the international experience of other domestically related firms is described as the late starter in the network approach to internationalization by Johanson and Mattsson (1988). Apart from the information benefit, members of keiretsu can find it easier to sell their foreign produce to member firms in the region with which they have located their operations. Therefore it can be hypothesized that, the presence of the group manufacturing activities overseas has an impact on the decision to invest abroad by member firms to take advantage of market expansion. In this case starting production abroad probably is the matter of what bonds or relationship to customers and competitors a firm possess.

4.2 JAPANESE SUB-CONTRACTING SYSTEM

Subcontracting in general terms can be described as the provision, by one firm to another, of relatively specialized inputs, which are then incorporated into the final product of the buying firm. Therefore, strictly speaking we can describe a subcontractor as the supplier who works on a special part or component for the assembler. Subcontracting has the implication of a continuing relation between the buying firm (principal) and subcontractor (supplier), which may be backed by legal contract, or trust, or both. Often though not always, the supplying firm may be small in relation to the principal, and issues of different power relations (tiers) can arise. Within the categories of sub-contractors then, there are differences in the

actual relationship with the customer reflected by variation and level of dependence on principal customers.

To distinguish the characteristics of Japanese subcontracting from those in other part of the world, Thoburn and Takashima (1992) defines the Japanese subcontracting relationship as a continuous relationship between firms based on personal relations under which larger firms (in terms of capital, employment or sales) commission small firms to fabricate or process products, semi finished products, or parts, or to provide services. Asanuma, (1989) who devoted much of the 1980s to studying the Japanese auto industry, describes the relation between Japanese assemblers and suppliers as long-standing. A long standing relationship because first, parties trade in "customized parts"; second, the parties can produce these customized parts efficiently only by investing in "relational specific skills"; and third, and through those skills they produce a "relational quasi rent" and – that rent create an incentive to maintain the long-term relationship. Another scholar, Aoki, Masahiko (1990), relying in part of Asanuma's work, argues that Japanese subcontractors invest heavily in skills that are specific to their relationship with a given manufacturer. Further Aoki explains that, to make money on such investments a subcontractor must be able to expect long-term returns. It can therefore hypothesized that a personal relations, which has been identifies as skills specific to the relationship, is a base of firms and business relationship result into the member companies to be flexible in their attitudes towards their partners on the basis of mutual trust.

Based on economic rationale that underlies this kind of relationships between large corporations and small auto-parts suppliers in Japan, Subcontracting (Shita-uke) can be described as a very sophisticated subcontracting system in which numerous small firms are dependent on one or few large companies. The parent (large) firm provides assistance to help subcontractors develop appropriate capabilities including long-term cost reduction, such as technical guidance, which also serve as assured client. Often subcontractors also subcontract further to yet smaller enterprises, resulting in a vertical link. Relative size differences between firms contribute to the formation of steep pyramid shaped structures in the firm size distribution of Japanese industry. Evidence shows that this system is extensive in Japan and many small companies rely on it for survival.

4.2.1 Structure of Japanese subcontracting system

Although, as the previous section suggested, the subcontracting system in Japan includes a diverse range of relationships between firms, the structure most commonly is basically the multi-tier subcontracting division-of-work system

involving both small and large firms. This is where firms are vertically related to each other with the base layer mainly occupied by small and medium firms. The subcontracting structure differs somewhat from industry to industry owing to the differences in technology and market. Also, each individual "hierarchic system" with a particular parent company at the top may differ considerably from others in its organization of the actual vertical structure. It is the assembly industries, especially the manufacturers of automobiles and electric household appliances, which have strong performance of sub-contracting. Except for automobile industry, which has almost the same subcontracting structure for each automobile assembler – (a large parent company lies at the top of the production structure as a final assembler with many subcontractors in lower strata) – electric appliances industry has some variations in its structure according to what product is being produced.

The automobile parts manufacturing industry is comprised of both large manufacturers and small to medium size parts firms. Out of all companies (approximately 10,000 Japanese companies) engaged in automobile parts manufacturing as many as 96% of these firms are small and medium enterprises some employing less than 20 people[18]. The structure of auto parts suppliers indicate that majority of them lay in second-tier and below because out of approximated number of Japanese auto parts, only 433 companies are considered to be in the first-tier (belonging to the Japan Auto Parts Association – JAPIA[19]) (JETRO, 2005) – see figure 4.2.

The relative power of the subcontractor and principal company varies with the subcontractors' position in the vertical hierarchy. Firms in the first tier of subcontractors tend to be larger[20] ones (sometimes too large even than a few of assemblers e.g. Denso), often with independent design capacity, and serving a range of customers. Firms in the lower tiers, who are subcontractors to the subcontractors in the tier above, tend to be smaller and more dependent, both with less technological capability and with fewer customers. As Aoki (1988) argues, the first tier suppliers (leaving aside suppliers of standard items) have sufficient bargaining power, on the basis of their technological knowledge, to take a substantial share of "relational quasi-rent" which arises from savings in transactions costs (the unique informational efficiency) generated by

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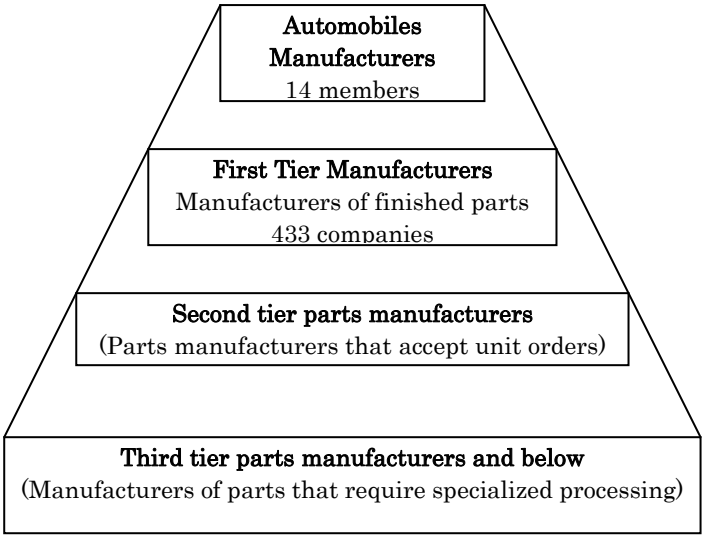
18 "2001 Survey of statistics relating to Business Premised and Companies" by the Ministry of Public Management, Home Affairs, Posts and Telecommunications, indicate that about 70% of all the companies engaged in business of automobile parts employ less than 20 people (small firms as per legal definition) - Quoted in JETRO Japanese Market report for Automobile Assembly parts (2005) -

19 JAPIA is the federation for first tier manufacturers

20 These are not mutually exclusive categories. The same may be a first-tier supplier with respect to one assembler, but a second- or third-tier with respect to another. In the case studies we can see the main suppliers to Mazda, supply indirectly to other auto companies via other suppliers (first-tier to Honda for example)

subcontracting grouping. Smaller subcontractors cannot bargain effectively. Nevertheless, it seems that (risk-averse) subcontractors may be insulated by the principal from fluctuations in business.

Figure 4.2 **Pyramid shape of Japanese subcontracting system**



Source: *Compiled from Japanese Market Report: Automobile assemble industry; JETRO, 2005.*

Note: *- 14 Manufacturers of fully finished automobiles form Japan Automobile Manufacturers Association*
- 433 Manufacturers of finished parts in the first tier are affiliated companies of Japanese Auto Parts Industries Association.

Although the pyramid structure represents the traditional Japanese subcontracting system, recently it is observed that the organizational structure of Japanese industries has gradually changed due to many factors including technical improvements in small and medium firms. We can now recognize the changes in the traditional Japanese subcontracting system from one based on the old hierarchical-type organization (with relationship of control and obedience), towards a new "network-type" organization, where there are cooperation among a wide range of business enterprises, with each company having its own professional skills and information. This organization devises other type of structures such as "horizontally connected businesses" or "mountain range" (Thoburn and Takashima, 1992). There has developed the so called multiplication of parent companies because competent SMEs specializing in specific technical work are able to find their customers in several mechanical industries related to the same work. Several authors have observed that although some of the relationships are drifting from network governance modes toward the extremes of arms-length contracting and top-down administration (Ahmadjian C. L et al 2001), many relationships continue

as in the past.

However, it must be emphasized here that the network system does not represent a change in the basic way of thinking which permeates the Japanese subcontracting system, as it has existed up to the present. The network relationship introduced here in reality is introduced on the basis of continuous business relationships hitherto maintained between parent company (principal customer) and its subcontractor, still putting a special emphasis on the code of mutual trust.

4.2.2 Types of subcontractors

Subcontractors are said to belong into four groups of "exclusive contract type", defined as those doing subcontracting work under only one parent company and with a ratio of subcontracted amount to total sales of more than 90%; "dispersed contract type", defined as those which have more than five principal customers on average and dependency on subcontracting for less than 70% of the sales. In the other group, suppler belongs to the "semi-exclusive contract type" if is doing subcontracting work under only one parent and with dependency between 70% and 90% of total sales or have two to five principal customers with the ration of subcontracted amount to total sales of more than 90%. The last group is of suppliers belonging to the "semi-dispersed contract type" where the supplier has two to five principal customers with sales ratio of between 70 to 90%. This classification is according to the 1991 White paper on Small and Medium Enterprises (quoted in Thoburn and Takashima, 1992). However, exclusive contract type is now becoming hard to find because even SMEs subcontractors have developed capabilities and abilities to diversify customers. Now parts manufacturers have chance to expand their client base because automobile manufacturers increasingly trade with companies that belong to other keiretsu. The average number of automobile manufacturing companies with which member companies of Japan Auto Parts Industries Association conduct business with has risen from 5.49 in 1996 to 5.97 in 2002. Despite the diversification of customers, however, the suppliers continue to relay on one major customer for most of sales.

Sometimes the character of the relationship can be deduced from the degree of involvement of the sub-contractor in product development. In the electrical, and auto industry, for instance, two types of subcontractor can be identified. The customer will give those involved in the long-term relationship (design-approved vendors) an outline, from which they themselves draw up specifications. On the other hand, those in short-term relationships (design-supplied vendors) will be given the specifications by the customer. Design-approved vendors are those who

supply parts that makers themselves are unable or unwilling for the time being to produce. In addition, the design-supplied parts makers manufacture those parts that carmakers have designed and can produce themselves. On the strength of its own production know-how, the carmaker can give direct control and guidance on the production methods to the parts markers so as to bring down the estimated supply costs to the target costs (Asanuma, 1985a, and b).

4.2.3 The Basis of Japanese subcontracting system

As the definition of Japanese subcontracting system indicates, the most important characteristic of relationships between firms in Japanese industry is a performance on the basis of good faith, not of legal rights and duties, as in the Western societies' practices. This attitude to the relationship between firms has been maintained and has not changed in principle even where Japanese industrial structure and organization has undergone considerable change due to the internationalization of business and the progress in technology of firms of medium standing.

4.2.3.1 Basic contract for trading (*Torihiki Kihon Keiyakusho*)

The way rights and duties in the Japanese subcontracting system are governed make the sort of relationships between firms more exceptional from the universal understanding of firms' contracting. This governance shows the argument that Japanese firms' relations consists of performance on the basis of good faith, not of legal rights and duties. Generally, in the first place a basic contract for trading (Torihiki Kihon Keiyakusho) is exchanged between the parties concerning their subcontract trading in Japanese industry (Asanuma, 1985b). This document is understood to be a contract of opening accounts between them. In terms of the content, the basic contract is a sort of moral code emphasizing good faith and the obligation to keep any necessary secrets. The basic contract for trading usually says that the details of appointed date of delivery, prices, terms of payments and so forth are all "decided on the conditions separately set by the ordering company" (Thoburn and Takashima, 1992). Almost all of the contents in the basic contract are moral regulations of general meaning and few of them are set out specifically. The traditional understanding of the basic contract on the part of the firm in Japanese industry is that they are codes of sincerity and good faith with which both parties should maintain mutual cooperation in the long term.

4.2.3.2 Cooperative attitude of self-restraint (*ahum-no-kokyuu*)

Though the basic contract shows the exchange of legal documents when business relations are established in Japanese industry, it is generally exchanged for sake of formality especially in subcontracting relations because normally these contracts are applied very flexibly in practice. This implies that the relationship between firms is maintained on the basis of mutual trust and personal contact between them, rather than on any rigid legal obligations stipulated in the written contracts. Therefore, a firm under such circumstances makes decisions as far as possible so as to harmonize its conduct with what the other party wishes. This is so even when it has to make important management decision with regard to its own operations, not only when it carries out subcontracting work. The aim of this attitude is towards achievement of long-run profit for both parties, even if it may be unfavorable one part in the short-run. This attitude is found not only in the business world but also in many groups maintaining special relationships in Japanese society. It is generally called ahum-no-kokyuu meaning "breathing in harmony". This cooperative attitude of self-restraint and "breathing in harmony" seems in marked contrast to what Japanese perceived to be the Western behavior of maximizing one's own satisfaction (Thoburn and Takashima, 1992). Thus, we cannot truly discern economic characteristics and the sources of performance of the Japanese business world, especially the behavior of firms under subcontracting relationships, and the industrial structure associated with them such as the attitude towards cooperation when we consider the FDI by smaller auto parts suppliers.

4.2.3.3 Technical and managerial cooperative attitude

The perceptible qualities which principal companies seek in their subcontractors, such are repeated demands to reduce costs, has resulted to regular joint developments of parts and products between principal companies and their subcontractors. In this case, technical assistance by principal companies to any subcontractor in technical difficulties has been a regular practice in the Japanese subcontracting system. This cooperative attitude of the principal companies comes because they know that there is a technical possibility of realizing the cost reductions, which they request of their subcontractors. The principal assemblers in Japan embraced the subcontractors, most of which are SMEs because, they realize that if equipped with technical skills to master specialized field of technology, these firms can help the principal company to respond quickly to rapid technological innovation, intensifying competition, and changes in markets demand for various kinds of goods in small quantities. Therefore, principal customers in Japan are ready to give the necessary technical support to their

important suppliers. The assembler is also concerned not to let a supplier's capacity utilization fall too low, with the objective to ensure both quality and creation of competitive suppliers for production and design. This emphasizes on the characteristics of Japanese subcontracting system, which is based on the cooperative attitudes in the course of on-going relations built on basis of the normal codes of trust. In return, it encouraged the suppliers to carry out relation specific investment in areas such as site proximity, human asset and physical assets.

The technical and other supports can involve leading company's engineers and managers to work at suppliers' site on either permanent or temporary basis; holding shares, dispatch suppliers' engineers to principals' site as guest engineers; to involve suppliers' engineers when a new model is developed or through technological licensing. Other supports are in the form of trainings and round table meeting between principal customer and important suppliers. For example Mazda support human resource development for suppliers by organizing "Mazda Quality Classes" for their younger and mid-career employees. Also Mazda organizes roundtable conferences with supplier executives to exchange information about company's priority, medium and long term business strategies and on matters related to sales and production. The information that is shared among member firms is club goods since only the interacting firms can enjoy it. These supports by Mazda came in its effort to achieve reciprocal growth and mutual prosperity. This is because Mazda like other Japanese automobile companies, believe in the importance of forging long-term, stable relationships with suppliers that are mutually beneficial. The three Mazda's supplier we studied indicated that they are involved in these activities displaying the cooperative attitude of their relationship for mutual benefit. In this way the suppliers system in automobile industry, provide a convenient theoretical rationale for taking the relationship between firms as a "socially embedded" contracts or relation.

4.2.3.4 Sincerity and patience (*magokoro and shimbou*)

Another differentiating feature for Japanese subcontractors from those in the Western societies is extensive range of small to large size subcontractors acting as suppliers of good quality parts to a wide range of industries, and their sincere attitude towards *monozukuri* (making goods). It is pointed out that the attitude sometimes goes as far as to leave profit out of consideration, and that the heads of those firms are more proud of gaining a high reputation in the eyes of the business world, including their reputation in the eyes of their principal company, than anything else. This can be found in the attitude of subcontractors when they

patiently endure frequent changes in plans and technical specification, and harsh demands for as much reduction in costs as possible from their principal companies, and are themselves satisfied with only obtaining fame and acquiring new technical skills (Thoburn and Takashima, 1992). This attitude can also be used to explain why suppliers in the subcontracting system are prepared to commit a significant amount of their resources to invest in relation specific assets. The sincerity and patience (magokoro and shimbou) of subcontractors in doing business is said to be the source of the strong competitiveness of Japanese manufacturing industry.

4.2.3.5 Parallel sourcing

However, the above discussion should not mislead to think that, because of the relation specific investments, which encourage the cooperation attitude between customer and suppliers, Japanese subcontracting system is less competitive. This is not a correct notion because studies have found that Japanese subcontracting relations are ruthlessly competitive (Miwa and Ramseyer, 2000). From the detailed description of the organization of automobile components supply in Japan it is indicated that Japanese auto makers use the parallel sourcing (Richardson J., 1993) which combines specific investments and a commitment to long term sole sourcing relationships with competition among suppliers for expanded opportunities. This system keeps potential rivals together supplying the same parts for different models. That is, while a supplier might produce a car seat for one model, another firm would be making similar seat for a different model. Moreover there is a long list of potential suppliers who have not succeeded to win the contract but they are eligible candidates. Each supplier supplying a particular part to different car model maximizes the incentive for supplier to innovate methods of lowering cost while maintaining quality (Asanuma, 1985a, b; Smitka, 1991). By putting the rivals together, the customer gets access and ability to compare the direct cost with the costs of the similar process at the other company. So as long as suppliers could match their rivals' prices and quality levels they were guaranteed repeat or increase in business. The promises of increased volume, more contracts and higher profit margins as a reward for performance provide more incentive to compete in terms of price and quality. The threat of potential entry from other suppliers therefore may be enough to keep the industry operating at or close to competitive price and output, as suppliers will look for innovative ways to keep their prices in line with their rivals. In this environment, the existing trading partner of the principal customer will be the firm that does the job better than their potential rivals. In this case Japanese suppliers system in auto industry can

be described as contestable markets[21]. This puts pressure on Japanese SMEs suppliers because of uncertainty to continue business if a better supplier establish new relationship with the principal customer. Therefore this pressure coupled with reduced bargaining power of suppliers can have a significant impact of the decision to engage in the FDI if necessary.

4.2.4 Characteristics of Japanese subcontracting system

The above discussion shows that the Japanese subcontracting system supplier-assembler relationship is based on collaborative relationship, which is developed over time. Suppliers are closely integrated to the final assembler to the extent that the specialist knowledge developed by such firms like Toyota and Mazda devolve through to supplier. Over time, the auto firms become more interdependent with their suppliers, needing both suppliers' factories and workers. However, this does not happen overnight and in case of Mazda some relationships have taken over 30 years. In this way, we cannot discern the customer-suppler relationship in Japan when we are considering the motives for FDI smaller first tiers supplier, as these factors explain more about the forces behind their decision. The bond between the assembler and supplier, in this type of the relationship, has significant influence on the strategies of the SMEs suppliers because they invest heavily in assets whose value depends on the continued trades with the principal company.

The hypothesis that follows this discussion is that, investment by subcontractor is facilitated by the core company, which may provide technical and management assistance and an exclusive market for the supplier's components. In other words, because the supplier accumulate resources such as facilities and technology particularly through continually doing business with a particular customer over the long term, the parent company uses them (subcontractors) to supplement their technological and production capacity, making use of specialized technologies and facilities built by the suppliers. Therefore, the presence of overseas network of vertical business groups exerts a positive pull influence on sub-contractor decision to invest abroad.

Up to this point, it is obvious that manufacturer-supplier relationship in the Japanese subcontracting system is not a one way of relationship, but counterbalanced. This interdependence is evidenced by the ratios of value added in

[21] An economic concept that refers to a market in which there are only a few suppliers those, because of the threat of new entrants, behave in a competitive manner. In other words, a contestable market is a market served by only one firm, but with mandated competitive pricing, so as to second the monopoly held by said firm on said market. Its fundamental feature is low barriers to entry and exit. Hence the theory of contestable markets suggests that even if there is only one seller, the seller may be forced to act as if there were many more.

the final products of the automobile manufacturers and the ratios of total sales of suppliers to principal customers. For instance, studies have indicated that, giant Japanese automobile manufacturers such as Toyota, Nissan and Mazda, presently adds around 20% to 30% of the value to their products and their design inputs (JETRO, 2005). This means that the remainder is the responsibility of their suppliers' network. This situation seems to place the automobile assemblers in a rather vulnerable position due to their high reliance on outside design and supplies. However, it is counterbalanced by a high reliance on the automobile makers by their important suppliers, which allows a mutual inter-dependence and close relationship. From the study of the three Mazda's first-tier smaller suppliers, it indicated that company M-A's sales to Mazda was more than 90% of its total sales of auto parts, while company M-B was around 75% and company M-C between 30% - 40% of its sales of auto parts went to Mazda. This kind of mutual relationship and interdependence is hard to develop overnight, and therefore imposes opportunity and constraints for participating firms. The degree of dependence imply that the level of relation specific investment in terms of skills, and physical assets is significant to the extent that switching to another counterparts would take substantial amount of time and efforts. The next section discussed the relation specific investment aspect of Japanese subcontracting system.

4.2.4.1 Plant proximity

Plant proximity as one of the characteristic of Japanese subcontracting system is an important element when looking at the auto industry in Japan. Japanese auto companies like Toyota have assembly plants that are geographically close to one another and to suppliers (Dyer, 1994). The closeness makes companies, both supplier and customers like Toyota to have far less capital tied up in the inventory and to reduce auto makers' as well as supplier's inventories as a percentage of sales. Moreover, proximity facilitates just-in-time deliveries and is the key to now famous Toyota production system (Dyer, 1994). Because JIT delivery and reduction system is widely used by all major Japanese automakers, the proximity to each other and to supplier can explain why Japanese assembler needs a guarantee in the quality, standards and reliable delivery also for their overseas subsidiaries. Well aware of the advantages of geographically proximity plants in their production network, Japanese manufacturers have replicated this strategy outside Japan with their important supplier from Japan next to them. The accumulated experience on this production system makes the manufacturer reluctant to use or try suppliers who cannot guarantee the continuity of the core company's production process. And in this case it is likely that the manufacturer and the existing supplier will be located

in the closer proximity to endure their accumulated experience on production system and help in reducing inventory cost as a percentage of sale prices. The case studies of this paper indicate that all the three companies have preference to manage supply relationships with the principal customer from the same geographical proximity in order to manage their relationship.

4.2.4.2 Human asset specificity

Human asset specificity, which arises in a learning-by-doing fashion, is another important element of the Japanese subcontracting system in auto industry. it is claimed that the employee invest in the relations-specific manufacturing know how for a particular customer the same way as employees invest in brand-specific knowledge by repeatedly doing the manufacturing the same brand. The Japanese labor market, which is characterized by long employees tenure, imply that employee could have significant relationship-specific expertise on their principal customer, because most of these SMEs suppliers have a long-term relation with the same customer (over 30 years relationship was noted in the case studies). Development of specialized skills is also made possible in the Japanese suppliers systems because as it has been observed, Japanese auto manufacturers place a high value on face-to-face communication with their suppliers [22]. Direct interaction is a more efficient way to communicate complex dynamic information during the development of new vehicle model. In addition, direct communication and relationships developed over a long period of time make detailed and explicit written communication between parties largely unnecessary. In fact, individual employees from different companies, working together over time, develop specialized knowledge and information –and a shared language – that allow them to communicate effectively and increase the ability to all parties to catch errors. The skill specificity is reinforced by a regular practice where principal company's engineers and managers to work at suppliers' sites on either permanent or temporary basis. Dyer (1994) observed that roughly 20% of the top managers (*yakuin*) at Toyota's affiliated suppliers are former Toyota employees. In the case studies of this paper it was found that all three companies have their top managers who are former Mazda employees and it was further observed in Mazda's keiretsu that about 20% of important suppliers' top managers are former Mazda's staffs (data compiled from the current affairs of Mazda's Group, 2007). These individuals' help suppliers coordinate with principal customer and contribute to the development of specialized skills.

[22] Example although suppliers are located nearby, Toyota insists that they assign engineers to Toyota's technical center (Dyer, 1994). The same was identified from the three companies studied from Mazda's suppliers group.

The human asset specificity explicitly referrers the center of the mutual orientation between firms. Primarily, mutuality is a matter of interpersonal relationship between a number of persons on different levels and capacities between firms as it is indicated above. This corresponds to the fact that interaction processes between firms are carried out by individuals. Because of continuous relationship, the transaction processes create adaptations in attitudes and knowledge of the parties, implying that mutual orientation develops. The human resource interaction in Japanese subcontracting system shows that, it is knowledge based on personal experience, the knowledge that the parties assume each has about the other and upon which they draw in communicating with others, which is important to and can influence the relationship.

4.2.4.3 Physical assets specificity

Dyer (1994) found that roughly 22% of the suppliers' total capital investment is dedicated to their primary customer that these customized physical assets could not be redeployed if the customer walked away. Previous studies also concluded that Japanese suppliers took more responsibility for the detailed engineering of parts and were more likely than U.S. suppliers to develop specialized parts for their customers. As it was indicated above, Clark and Fujimoto (1993) identified that Japanese automakers use a higher percentage of parts that are customized to fit a particular model than their Western competitors. In my study of M-A company which form part of the case studies, it was noted that this company supply over 90% of its die and mould products to Mazda because specialized dies are required to produce a component. This translate that dedicated physical assets play an important role in the decision by suppliers including the FDI decision if the principal customer increase the overseas production. However, an optimal level of investment in dedicated assets depends on the degree of interdependence between manufacturer and suppliers. The meaning here is that, large investment in specific assets will most likely exist in transactions where suppliers have close, exclusive (or nearly exclusive) ties to a given assembler because the value of a capital asset investment depends of the continued trade with principal customer (Miwa and Ramseyer, 2000).

The assets specificity character of Japanese subcontracting system also can help to explain why suppliers focus on one or few customers. This is especially when relation specific investment relates with technological innovation. Firms (customers in this case) that invest[23] heavily in specific assets will prefer to deal

[23] Joint developments of parts and products between principal company and their subcontractors and technical assistance by principal companies to any subcontractor in technical difficulties

with suppliers who avoid selling customized components to their competitors. As a result, firms will not invest in specific technology unless doing so generates a competitive advantage (Miwa and Ramseyer, 2000). If it generates that advantage, they (investing firm) will want to do what they can to keep that technology from their rivals[24]. This is because once an investing firm's supplier sells similar sophisticated products to the investing firm's competitors, however, the odds that the technology might leak increase dramatically. The conclusion here is that large asset specific investments most likely exist in situations where suppliers sell significant amount of customized components to one automobile assembler.

In short, we can summarize the above discussion by saying that, transactions between Japanese automobile manufactures and their suppliers are distinguished by a mutual orientation towards each other. The mutuality which is in terms of long-term purchasing relationships, mutual collaboration, personal relationship and human networks due to the frequent exchange of personnel and technology. These relationships which have been built on the basis of mutual trust and good faith; long-term cooperation and face-to-face communication, sincerity and patience between assembler and their suppliers has made it possible for reductions in new model development time in Japanese auto industry. Further, these relationships have made it possible for sharing of the costs and responsibilities of innovation, endless rounds of cost cutting, and quick response to fluctuations in demand and competitors (Dyer, 1994). Thus, Japanese automobile assemblers enjoy coordination benefit of internationalization with corporate hierarchy by spinning off parts development and manufacturing to the same independently managed yet closely linked suppliers both at home and abroad.

4.2.5 Why subcontracting is important for auto makers

An automobile is a complex product, which requires coordination, efficient production, mutual adaptation in design of parts and teamwork is required in the design process in order to facilitate manufacturing. To achieve these objectives regular interaction with suppliers is required. These transaction specific investments make both ongoing contracts (long-term relationship) and small number of participants (suppliers) more desirable than the market participation (see section 4.4, intermediate organization). This emphasizes on the need to maintain suppliers who are capable of running a more complex operation using modern manufacturing and management methods to provide strong incentives to

[24] However, this is not always true, because sometimes automobile manufacturer will be happy letting the supplier market it elsewhere in exchange for a lower price on the new technology if the production cost reduction is realized from large scale production. This is explained by the case where suppliers use their overseas subsidiaries to serve other auto companies that they could not approach in Japan. The assembler is concerned not to let a supplier's capacity utilization fall too low.

innovate and reduce cost.

Because auto-parts manufacturing require customized investment, suppliers use a significant amount of their investment to dedicate their production of a specific part to their major customer. This means that auto-parts suppliers especially in the first-tier take more responsibility for the detailed engineering of parts to develop unique parts for their customers to leave customers with the time to concentrate on their main work of assembly. Kim B. Clark and Takahiro Fujimoto, in their 1993 book "Product Development Performance" indicated that 38% of U.S. automaker parts were off-the-shelf parts, compared with only 18% of Japanese parts. The implication of this observation means that Japanese automakers use a higher percentage of parts that are customized to fit a particular model. The translation here is that dedicated investments by subcontractors play an important role in the competitiveness of Japanese auto industry (Asanuma, 1989; Dyer, 1994).

To achieve the desired competitive advantages, Japanese auto companies employ suppliers as a positive resource and relay on them for change. So without assurance of future orders, however, suppliers naturally limit their investment in modern machinery, and will be reluctant to innovate. This necessitates maintenance of stable group of suppliers reliable to the company with a reasonable assurance of orders. As a result of this and the encouragement from auto companies that suppliers should undertake development projects, researches have found that suppliers accounts for more than half of the engineering of a new auto model.

From this discussion about the rationale of subcontracting in auto industry it is described that it is not necessary for firm to vertically integrate in order to coordinate activities and reap the competitive advantages against competitors. This argument also indicate that not all firms which engage in FDI use the traditional market model or organization hierarchy as a reason for overseas production. The rationale of subcontracting system can explain why customer-supplier relation will be replicated in the foreign country when a principal company establish production in other countries. From this kind of coordination in the subcontracting system, it makes it easier for counterparts to develop specific inter-firms dependence relations. This kind of mutual relationships has enable customer and suppliers to adapt to each others as indicated in the degree of relation specific investments. Henceforth to maintain their competitive advantages the Japanese auto manufacturers prefer to replicate the Japanese suppliers system in their foreign subsidiaries, on the other hand suppliers strive to maintain and develop their relationship because they can

achieve growth and profitability through closer integration with major customers. These relation specific investments, which include human asset specificity, physical asset specificity and site specificity, therefore can be used to explain what determine SMEs to engage in FDI. The following section describes the conceptual model of FDI by SMEs using the characteristics of Japanese suppliers system in automobile industry.

4.3 CUSTOMER-SUPPLIER RELATIONSHIP: THE MODEL FOR FDI BY SMES

This section presents a conceptual model that can help to explain the FDI by SMEs. In this model, the relationship between firms is derived from customer-supplier relationship, commenting especially on the switching and monitoring costs that result from the mutual interdependency between firms. The assumptions behind the explanation of the determinants of FDI by SMEs is that, SMEs are suppliers depending significantly on a small market (major customer), and shortage of financial and management resources constraints SMEs to develop bargaining power or/and ability to diversify customers of specialized demands.

In describing the model, this section will first present how the mutual interdependency between customer and supplier develops, and then it will show why is it difficult for counterparts to form new relationships (this applies both at home and in overseas subsidiaries) by presenting the discussion on switching costs and monitoring costs relating to customer-supplier relations. Then fig. 4.3 will summarize the whole this concept.

4.3.1 Interdependency between firms

According to the network model, the internationalization of a firm means that the firm establishes and develops position in relation to counterparts in foreign networks. The firm's positions are a result of earlier activities in the network both by firm and by other firms. Hence, the positions in the relationships constitute the base, which defines the development possibilities and constraints of the firm. This model of industrial network explains that firms are not all vertically integrated, and that coordination of different firms' activities can be achieved using interactions between firms and not necessary using the price mechanism (traditional market models) or organizational hierarchies. It is indicated in the previous discussions that the position of the firm in the relationship with individual counterparts characterizes the role it has for other firms, its importance to other firms and the strength of the relationship with other firms. Firm's position

in the relationship therefore is an important concept because it determines the access to the exchange relationship with other firms. However, it requires significant time and efforts to develop a position in relation to other firms this is especially in the industry where there are a number of potential suppliers with low differentiation like in automobile industry, which constraints the firm's possibilities to change counterparts. Developing a position requires investment of time and efforts because positioning in the network and coordination of the activities with other firms take place through continuous interaction with other firms in the network (Johanson and Mattsson, 1987).

Thus, since relationships between firms arise through transaction (exchange) processes, a lasting relationship may emerge if the participating firms perceive certain complexity or heterogeneity in the transactions. The transaction process thus implies that firstly the parties test how well they fit each other (learning process) and then adapt to each other and influence others towards adaptation the process that develops interdependence after a considerable length of time.

Looking at the theoretical background of subcontracting system, and the discussion on Japanese supplier's system it is noted that there is a close relationship between general transaction process and adaptation process. The more intensive the transaction process among firms, the stronger will be the reasons to make adaptations. The type of adaptations is also related to the characteristics of the transactions, including frequency, complexity and regularity of the transactions. Therefore, in the relationship firms can adapt to each other technically by modifying products or production processes, and logistically by adjusting stock levels or developing common delivery system, for instance JIT in the case of Japanese automobile industry. Depending on the characteristics of the transaction processes, firms may find it necessary to adapt each other administratively by modifying planning and scheduling systems and in terms of knowledge by carrying out joint technical development. Any degree of adaptation will require a firm to commit significant amount of resources on relational specific investment or projects, which can include things like acquisition of particular machinery, change in systems, and adaptation in attitudes and knowledge of the parties. The knowledge adaptation develops mutual orientation towards each other and it can be vivid in the development of common languages regarding technical matters, contacting rules, and standardization of process, products and routines, handling of problems and technological philosophy. This knowledge, which is gained after transactions have taken place, concentrates in individual actors (personnel) who carry out interaction process. Therefore the cumulative interaction processes create mutual knowledge between the parties (mutual knowledge among

individuals between the companies), which is an important aspect of the relationship. This mutual orientation in the knowledge about each other gives a reason for the existence of long-term relationship between suppliers and customers.

Such relationships may be significant to the counterparts. They may reduce cost of exchange and production, promote development of knowledge of the respective parties, give parties some control over each other and may be used as a bridge to other firms. It is obvious that once a firm (supplier) has achieved this level of mutuality in the relationship with other firm (customer), important aspect of firm's strategies regarding the future positions will be a desired to develop or defense positions in the network. The strategies of firms can be complementary to each other, competitive, or a combination of both. While manufacturers (customers) want to ensure quality and to create competitive supplier for production and eventually design and development of parts and components, suppliers work towards growth and profitability that come with a more closely integrated relationship with the assembler. The customer therefore maximizes the incentive for suppliers to innovate methods of lowering cost while maintaining quality (Asanuma, 1985a).

It is of interest to note that, adaptations by relation specific investment therefore strengthen the bonds between firms as it makes firms to become more dependent on each other. The suppliers whose products or processes are modified to fit a specific customer's needs becomes dependent on that customer, and a customer who has adjusted production processes and scheduling systems to fit a supplier's capabilities is dependent on that supplier. However, although these dependencies are mutual, it may be assumed that they are more or less asymmetrical in the sense that one party is more dependent on the relationship than the other (Johanson and Mattsson, 1987). Because customers are more concentrated relative to suppliers, it can be derived that SMEs suppliers, who are faced with resources constraints, depend more on their principal customers, in such, any adjustment in the industrial or network landscape such as major customer's production plans will force them to respond positively.

4.3.2 Switching costs

The degree of mutual orientation between firms because of relation specific investments as discussed above result in costs to switch counterparts. Because to develop a position in the network requires investments, which are relationship-specific, the set-up costs are sunk and have little or no value outside the relationship. For instance, when a manufacturer incurs costs to transfer

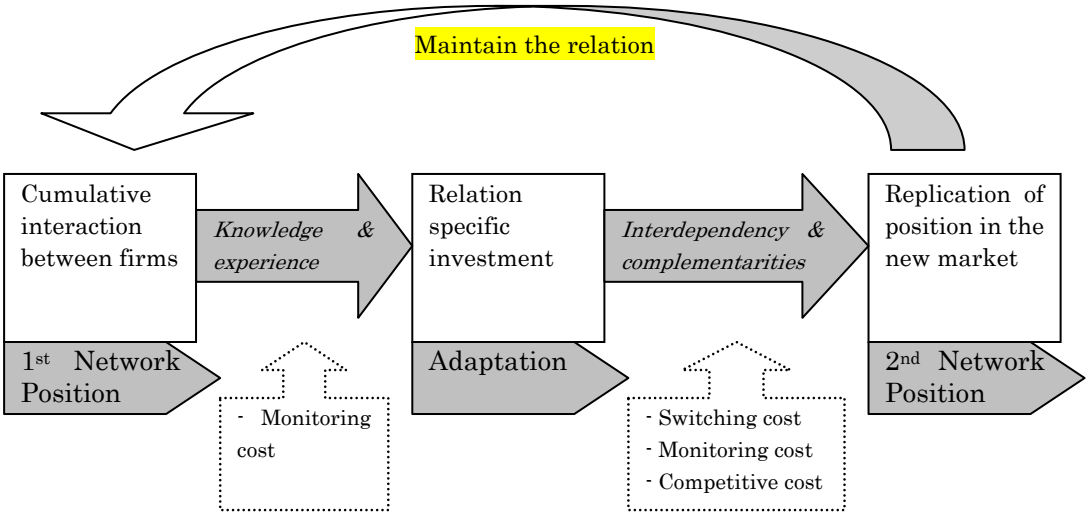
technology and management skills that enable supplier to meet performance requirements and build design capability, such development costs have little value to the assembler and supplier if the relationship is terminated. In this case, for a customer switching suppliers means incurring these costs again. For the supplier set-up costs are both fixed and increase over time. Development costs are unlikely to be a one-time investment for the duration of the relationship. Product and process changes may require additional investments over time. Such costs are fixed relative to the short-term level of production for a particular customer. The value of these specific investments by supplier depend on the continue trading with the particular customers, because they cannot readily be deployed to another customers. This considers that SMEs suppliers lack sufficient resources to modify production processes immediately.

There may also be experience curve effects for buyer-suppliers relationship, which create switching costs. Over time, the two firms develop an understanding of each other's needs and capabilities that result in a more efficient transaction as it has been indicated in the above discussion. The time and efficiency losses incurred by switching to a new supplier/customer and moving back on the experience curve constrain the possibilities to change counterparts. This argument is in line with Porter (1980, 1985), who argues that switching costs make it expensive for customers/supplier to change supplier/customer. When differentiation is high or buyer has special requirements, switching suppliers may require substantial search, adaptation or development costs as well a great deal of time as opposed to the situation when there are a number of potential suppliers with low differentiation (standardized products). Contracting costs for specialized items might be substantial. A lead-time may be necessary for the supplier to increase capacity or modify production processes.

4.3.3 Monitoring and competitive costs

Since positions in the network are developed through cumulative transactions, there are transaction costs associated with the coordination, communication and decision making around exchanges (Coase, 1988). These costs include the administrative costs of purchasing and receiving, monitoring supplier performance and enforcement of contracts. They also include such things as the cost of contract modifications and correcting deficiencies in supplier performance. Therefore in order to reduce or avoid the competitive costs because of poor supplier performance which can adversely affect the customer's ability to compete in its product market, principal customer will try to avoid in establishing a new relationship not only at home but also in its overseas production facilities.

Figure 4.3: The conceptual model of FDI by SMEs



4.3.4 Conclusion

Thus, the degree of interdependency between firms which creates a switching and monitoring cost for firms in the relationship gives the reason why the incentive to maintain an ongoing relationship with a given counterpart increases. Which means both customers and suppliers will be ready to replicate the suppliers system even in the overseas subsidiaries. In this case, a customer will assure a certain level of market to the supplier, who will in turn commit its resources abroad. This will form a cycle, because committing to develop the same relation in a new markets will assure the continuation of business relation at home, where important and high value relation specific investment have been incurred. And as firms continue to interact in different markets more bonds are built to form a long-term mutual relationship between the supplier and customer. SME suppliers may also feel the pressure to engage in FDI because they want to meet the customers' requirements in the home market, such as continuous improvement and reducing cost price of the products to remain competitive against other suppliers. Therefore it can be argued that since most of SMEs suppliers are facing resources shortage (financial and managerial), and concentration of customers is higher relative to suppliers, SMEs suppliers must protect their position in the relationship for survival. Therefore, as long as FDI will assure the continued relationship with its major customer, SMEs will engage in overseas production in order to gain the expected return on the relation specific investments it has incurred.

In chapter 6, this model will be applied to analyze the FDI by Japanese small

and medium size automobile parts manufacturers from the case of three companies from Mazda's suppliers group. The narration of the three case studies will be presented in chapter 5.

CHAPTER 5

5 CASE STUDIES AND ANALYSIS

Introduction

This chapter is dedicated to narrate the case studies of the three first-tier auto parts suppliers, which mainly supplying to Mazda Motor Corporation, in order to answer the research questions of this paper. Following the narration of the case studies is the discussion, which analyses their position and relation with Mazda; and the reasons and motives for engagement in FDI. The introductory profiles of these subcontractors are given in Table 5.1 and appendix 4 represent more information about sales ratios and customers base of these companies and their overseas subsidiaries of the three companies. To preserve the companies' anonymity, information collected on companies' history and evolution, employment, major customers, detailed product mix, affiliated companies and overseas subsidiaries and so on will be suppressed.

5.1.1 Method and focus

From the group of important suppliers to Mazda Auto Corporation three companies, which are considered representative of SMEs first tier suppliers of auto parts, were selected. The criteria for selection also considered the firms, which are well established, and actively involve in the overseas production. The important focus was on SMEs auto parts, which are specialized auto parts makers, of different line of products, which have large proportions of their sales to Mazda. They represent small and medium size primary subcontractors in the first-tier, with direct ties to an auto company. It was not practically possible to survey many suppliers with ties to other Japanese automobile manufacturers because of the time and financial resources. Therefore concentrating in Hiroshima area was considered economical because with our constraints it was possible to study the three companies which provide further illustrations of the Japanese suppliers system and the general overseas investment trends of SMEs manufacturing. In Hiroshima area there is only one automobile manufacturer, and therefore the mutual relationships between assembler and suppliers could be clearly established because the relationships are not overlapped. Several suppliers were contacted to request for interviews, fortunately the three companies were very cooperative and the sample size was

enough based on our budgeted time and other resources. Looking at these three companies it will be vivid that they provide additional background for the analysis in determining the relationship between Japanese suppliers system and the FDI by first tier SME suppliers. These three companies illustrate the inter-dependence between customer and supplier in the Japanese auto industry due to the accumulated specialized skills on the side of the suppliers and the market for the specialized automobile parts from the major customer. This inter-dependence encourages cooperative behavior and long-term orientation in their relationship. With the long-term orientation, suppliers are ready to commit heavily in relational specific assets whose value depends on continued trades with its customer, and the customer will benefit from specialized automobile parts. While in Hiroshima, we also visited the main bank of Mazda keiretsu (Mitsui Sumitomo bank Ltd), in order to gain further understanding on the relationship between the bank and Mazda's suppliers. Hence, it is believed that the case studies developed in this paper enables us to gain a rich understanding of the real-life context of the Japanese firm's relationship in automobile industry (customer-supplier relationship) and how this relationship influences first-tier SMEs suppliers to engage in FDI.

These case studies were developed from the intensive interviews that were carried out on site. Top level managers (Vice-president and general managers) of these companies were very cooperative to respond to the questions we asked about the general profile of their companies, the affairs of the relationship with Mazda, and the affairs of their overseas subsidiaries. In all these companies, a set of questions was sent before hand, and then followed the interview in the companies' premises. Before the onsite interview, we visited the main bank of Mazda keiretsu in Hiroshima and had a chance to obtain explanations about how the bank relates with Mazda and its important suppliers in terms of financing arrangement for the important auto parts suppliers in Mazda's keiretsu. The purpose of these interviews was to be able to understand the nature of the relationships between small and medium size auto parts suppliers and auto assemblers in order to examine how these relationships influence the FDI by small and medium size first tier automobile parts manufacturers. Although the primary information collected was about the parent companies, the interviews with the officials of these companies also furnished us with information about their overseas subsidiaries to enable us to link the inter-firms relationship in Japan and the relationships in the overseas subsidiaries in order to understand FDI by small and medium size auto parts suppliers. Apart from the interviews, other sources were used to obtain enough information to be able to construct clear case study and conclusion. These sources included individual

supplier's websites, supplier's association website and the annual book for the current affairs of Mazda's group (2007), and the current affairs of Japanese Auto Parts suppliers (2007). Also the explanations about the relationship between the main bank and Mazda's suppliers group, which was obtained from the interview at Mitsui Sumitomo bank Hiroshima branch during the visit is incorporated in these case studies to enrich the information about Japanese suppliers system.

In the following section of this chapter, the details and analysis of each case study will be presented. The narration of each case study will give detailed information from the interviews and other resources as explained above. The section on the case studies will cover the following headlines. First s brief background of the company will be presented followed by the explanations on the relationships of each of these companies with Mazda. The relationship with Mazda will cover the business relationship, how the relationships was developed, human resource links and technical and management supports and the link of these suppliers with Mazda through the main bank. Other areas that will be explained are the core competences and competitiveness of the companies, the information about overseas subsidiaries and markets and the FDI process. This section of case study narration will give deeper understanding of the kind of customer-supplier relations that exist in Japanese auto industry.

The case analysis is mainly focusing on the issues surrounding the FDI by SMEs, identified as motives and determinants for setting overseas production. This section is complemented with some explanations from theoretical explanations of the Japanese suppliers system, discussed in chapter 4, in order to make the facts clear. The analysis of case studies therefore summarizes common features in these firms, which describe the motive for FDI by SMEs automobile parts suppliers. The response from the interview and other information gathered from these companies form the basis of this analysis. The last section is a conclusion on which is drawn from the facts collected from these three companies. This discussion compares the FDI motives of these firms with the existing frameworks discussed in the previous chapters to identify what is the important factor that determine their engagement in of auto industry SMEs in FDI.

5.2 CASE STUDIES

Table 5.1: Introductory profiles of the three case studies

Company	Main Products	Main industry supplied	% of sales to Mazda	Relationship with Mazda	Attitude to subcontracting
M-A	Fuel system, Outer panel, Body shell parts	Auto parts	+93%	+46 years	Appreciates opportunity to grow in the wake of its main principal, but mindful of competition from other subcontractors
M-B	Automobile seats, seat tracks, shifters	Auto parts	+75%	+50 years	Feels motor industry principal more willing to have long-term relationship but mindful of competition from other subcontractors
M-C	Automotive parts: Rubber and plastic Engine parts, Chassis parts, Body parts, Interior parts and External parts -Sporting equipment	Auto parts – makes +65% of company's business	+30-40 %	+48 years	Appreciates opportunity to grow in the wake of its main customers, but mindful of competition from other subcontractors

5.2.1 CASESTUDY 1: M-A Corporation

Background

With a capital of ¥240 million and a workforce of 807 (of which 202 are engineers), M-A corporation is a manufacturer of fuel system, outer panel, and body shell parts. This company is involved in manufacturing of automobiles and parts; design and production of jigs & dies, engineering and building of manufacturing facilities, prototype production; production and sales of special products for welfare and living. This company was formed in year 2001 by the merger of two Mazda's affiliates (one specializing in production of outer panels and the other in auto parts). Apart from Mazda, M-A company supply less than 6% of its products indirectly to other automobile companies through other parts makers either as components or semi

finished products.

Relationship with Mazda

Business relationship

M-A enjoys more than 46years of the relationship with Mazda. The nature of this company's production facilities require substantial investment are highly customized for Mazda's car models that it depends on Mazda for more about 93% or more of its total sales out of which 100% of the fuel tanks produced is for Mazda. Therefore, since to switch or supply to others customers a huge investment is required the company continues to depend on Mazda. Therefore Mazda is a very key customer to M-A, since these facilities have less or no value outside Mazda.

M-A is also a member of association of important suppliers organized by Mazda (Nishi nihon yokokai) (see section 4.1), which smoothen the information between suppliers and Mazda.

Development of business ties

In an effort by Mazda to encourage reorganization of parts manufacturers in order to achieve improved efficiency in system development and manufacturing Mazda supported the merger of two of its affiliated companies (one specializing in production of outer panels and the other in auto parts) to form M-A. Mazda owned stocks in these companies of 33% and 36% respectively and after the merger disposed off some of its holding to remain with only 2.5% stake in M-A corporation. Even before the merger, these two companies relied entirely of business with Mazda. This kind of merger could be said to be indicative of the trend towards modularization where functionality can be improved by regarding multiple parts as integral system at the design stage.

Human resource links, technical, and management support

Apart from the ownership relationship, there is also personnel connection (human networking) because in M-A sites Mazda's engineers and managers work on either permanent or temporary basis and M-A's engineers are dispatched to work on temporary basis or to train with Mazda's engineers. M-A dispatches its engineers to Mazda at times of new model development or when there is a need to improve the capabilities of M-A engineers. It was observed that roughly all of the top managers (yakuin) at M-A are former Mazda employees, for example the vice president of M-A was the manager in charge of car body in Mazda (shatai bucho) and its directors also are former Mazda's high ranking employees. The personnel relationship, which

emphasizes on face-to-face communication between Mazda and M-A personnel is an important element in their relationship with Mazda because it enhances a more efficient way to communicate complex and dynamic information especially during the development of new car model. With the human networking help M-A company to enrich the customer-supplier relationship due to specialized knowledge and information. The vice president of M-A showed that to cooperate with Mazda in this way help them to find ways to increase productivity, reduce defects rate, and produce high quality products at low cost as a way to enhance their global competitiveness.

Mazda also support human resource development for M-A by organizing Mazda quality classes for its younger and mid-career employees. In addition, Mazda organizes roundtable conferences with executives to exchange information about company's priority, medium and long-term business strategies and on matters related to sales and production. This is a club good because only affiliated companies can have access to these kinds of interactions and information.

Main bank

Another element of the relationship between Mazda and M-A is the main bank. The company's main bank is the same as that for Mazda, this facilitates the information exchanges regarding financial matter between the bank and M-A, and between the bank and Mazda. All the transactions between M-A and Mazda take place through this bank. Because it was identified that, main bank is more relaxed when evaluating the financial need of suppliers linked to Mazda, M-A indicated that it can easily access the main bank financing facilities when there is a need for funds to finance expansion projects related to Mazda. That means it has developed business reputation on the back of Mazda. This is because the bank knows the Mazda's financial affairs because it is a major customer, and from Mazda's financials then the banks can analyze the business of all major auto parts suppliers.

Core competency and competitiveness

In the case of firm's competitiveness, M-A considers itself to have average competitive advantages since the technology involved in its productions is not unique from other suppliers in the same metal pressing and dies industry. In pressing, compared with other companies in China, it was indicated that the local suppliers are more competitive in terms of cost and that is why M-A started to produce medium size metal press products in China, the company did not have medium size press in Japan. While in metal pressing ad mold the company doesn't have more competitive advantages, in fuel tanks technology it leads compared to its

rivals.

About 25% of company's employees are engineers. This gives the company ability to carry its own R&D activities. For fuel system the M-A draws the blue prints, but the company depends on customers for blue prints of mold and metal press products, which weakens its bargaining power against its major customer. The indication for the business relationships with Mazda here relies on the long time mutual orientation between the two companies.

Overseas subsidiaries and markets

M-A has two overseas subsidiaries, one in the USA (sales office) established in 2006 and the other in China (production facilities) established in 2004. In china the production plant is located in Tianjin, close to Nanjing, where Mazda-Ford joint venture plant is located. Tianjin plant produces mold, bumper, radiator sachet and seat bracket. More than 50% of the products from this plant are exported back to Mazda Japan, and about 9% to M-A Japan plants, with only less than 40% serving the domestic market in China (all spear parts supplied to local auto parts makers). In China, M-A subsidiary supplies all assembly lines (such as outer panels) and dies products to Mazda's affiliate, while the automobile parts are indirectly supplied largely to Toyota subsidiary in China via other auto parts manufacturers. The auto parts production is a new line of business and is done only in its Tianjin plant mainly for new business to Toyota affiliate. M-A also serve other local automobile parts manufacturers. The indirect relationship with Nissan, Honda and Nissan also extends to China, where M-A supplies dies products. From these business relationships, we can see that M-A take FDI as an opportunity to increase it market share because it can develop new relationship that was not possible in Japan as in the case of automobile parts supplied to Toyota Affiliate.

FDI process

M-A decided to set up overseas production subsidiary two years before, after it was informed of the plans by Mazda to start production in China through a joint venture with Ford. It takes time and efforts to start production because the machinery and tooling required are huge investment. Also M-A is preparing to enter USA market, because Mazda has plans to start manufacturing of car in USA. Therefore this company obtained information about the possible market from the Mazda, and it is assured of some level of market for its products in the overseas production facilities. About location choice, M-A used its related company in China to

identify suitable place for investment. The FDI by M-A was financed by main bank and partly by its own finance. M-A used its own management resources and technology to move to China.

It was indicated that M-A undertakes FDI because there are opportunities to increase market share, to learn and develop new technologies from the global competitors and to maintain or develop its relationship with Mazda. However the company indicated that focusing on FDI divert important resources to establish new facilities instead of concentrating on innovation of new technological products. This is because due to its small size M-C does not have enough resources both management and financial to manage effectively the overseas subsidiaries. For example the general managers regularly goes to China to oversea the subsidiary on temporary basis, this is because of the shortage of committed local managers.

5.2.2 CASESTUDY 2: **M-B Corporation**

Background

With the capital of about ¥290 million and 916 permanent employees of which about 33% are engineers (as of July 2008), M-B company is a well established car seat manufacturer, producing mainly Automobile seats, seat tracks, shifters, sun visors, ashtrays, door checkers and recliner. Twenty two percent of M-B's products are of parts and components or semi finished products. The major customer for both the final products, semi finished products and components is Mazda. The company also supplies directly to other automobile manufacturers such Recliner to Honda (21%), Subaru (21%) and Daihatsu (5%), Slider to Honda (26%), Daihatsu (16%) and Nissan (5%). Indirectly supply to Mazda through its rivals 46% of its parts and components manufactured and the rest goes to other Japanese automobile manufacturers mentioned above, plus Toyota and Isuzu through other car seat assemblers in the industry.

M-B was founded in 1953 as a result of a transformation of a precision company, which used to produce Japanese-made ball point pen and then looms for domestic use and rotating ashtray. M-B started as a trading company for sewing machine it produced under JUKI brand (OEM for Juki co. ltd) before it was again transformed into manufacturing of interior panels for automobile in 1954, and 10 years later manufacturing of automobile seats.

Relationship with Mazda

Business relationship

M-B started business relationships with Mazda than 50years ago, when M-B started to manufacture interior panels for automobile. The orders for these products were supplied indirectly to Toyo Kogyo (Now Mazda) via a primary (first-tier) supplier. As at the time of the interview, 75% of M-B sales of its products (finished, semi finished and components) with 100% of finished products (car seats) were going to Mazda, which imply that the survival of this company depends on the continued trade with Mazda.

It was indicated that, since the company use Mazda's car model design to develop the automobile seats, most of the investments in machinery equipments are tailored to Mazda, which is the major customer for car seats. The company therefore considers it difficult to switch to other customers for the final products as it might require additional investment or modifications in the plant and equipments. On the other side, it was identified that Mazda depend on M-B for new and advanced products because M-B draws the blue prints of the supplied products (design-approved supplier).

M-B relationship with Mazda is also coordinated through the association of important suppliers organized by Mazda (Nishi nihon yokokai), which M-B is a member. Through participating in this association, it becomes possible for M-B to further smoothen the information flow with Mazda and other suppliers.

Development of business ties

The account of the relationship between M-B and Mazda, which goes back, more than 60 years ago, started when the son of the owner of Toyo Kogyo (now Mazda) teamed up with Toyo Kogyo's ex-employee to start a precision manufacturing company producing Japanese-made ballpoint pen in 1947. Four years later the son of the owner of Toyo Kogyo decided to go back to Toyo Kogyo, and the precision company was transformed to engage in the production of looms for domestic use and rotating ashtrays. In 1954 M-B started to manufacture interior panels for automobile, which were indirectly supplied to Toyo Kogyo via a primary supplier (first-tier). In the late 1970`s M-B was asked by its rival in automobile seat industry, which was a major supplier to Mazda, to cover the shortage of seat supply to Mazda. During this time, M-B secured about 50% of automobile seat business with Mazda because the rival supplier did not have enough capability to meet the increasing volume of seats required by Mazda during the rapid market growth period. Because

M-B could supply products of good quality at competitive prices, Mazda gave more business to M-B when it introduced its new car model "Familia" in 1978, which is one of the best cars that Mazda had put in the market. From that time M-B has been M-B has become more and more R&D oriented in order to bring up new and technologically advanced products something that ensure the continuation of business relationships with Mazda.

Like in the case of M-A, Mazda used to own a 30% stake in M-B, but now it has disposed the entire share. This partial ownership, indicate the close ties these companies have, which can explain the stable relationship between these two companies as they share development and ownership history.

Human resource links, technical, and management support

The ties between M-B and Mazda have since then been very strong both in business and personal terms. More than the business relationship M-B and Mazda are closely linked by the human network, which as we have seen above, started long before M-B was formed. In order to achieve mutual benefits Mazda involve M-B from a very basic start of design of a car model (design-in) because Mazda depend on the blue-prints from M-B. In this case, engineers visit Mazda's plants to discuss with Mazda's engineers in order to understand and contribute to the design and requirements of the car model to be produced. Also frequently, engineers and managers from Mazda visit M-B plants to assist and support the technological issues in order to improve productivity and reduce cost, for example training M-B engineers and other employees on measures to reduce waste. It was noted that general manager and vice president now working permanently in M-B are Mazda's former procurement engineer and manager. This kind of affiliation in personnel solidifies the relationship between the two companies. This practice enables M-B to effectively understand the requirements of Mazda, as they develop specialized skills for their business with Mazda from the former Mazda's employees.

As in the previous case, it was also indicated that M-B enjoys Mazda's support for human resource development through Mazda quality classes for younger and mid-career employees. Also regular roundtable conferences between Mazda and executives of important suppliers help M-B to exchange information and understand about Mazda's priority, medium and long-term business strategies and matters related to sales and production.

Main bank

There was no exceptional explanation obtained about the relationship between

M-B and its main bank. As it was indicated in the previous case study, by organizing its transaction with Mazda through the same bank, M-B develops a medium through which it can easily secure funds to finance its expansion projects that are linked to Mazda production plans.

Core competency and competitiveness

It was indicated that the company is more competitive relative to other suppliers in the same industry in Japan, as it is shown in the amount of parts and components sourced from M-B by other seat assemblers (see background above). However, the company seems less competitive in relation to other manufacturers in the global market. Because of this, as it was identified by company's general manager, M-B uses joint venture method as entry strategy into the foreign markets in order to team up with other more competitive players in the local market to enable the company to access the market by utilizing the established channel. These joint venture arrangements can be observed in China and Thailand where world's leading manufactures of car seats have also invested. However despite of its small size, M-B is capital intensive company, proud of its long experience in the business and a pool of engineers (about 33% of total employees), making the company more R&D oriented, technologically independent. As a result, the company can draw its own blueprints and develop new and advanced products using the design from customer. M-B also considers its Flexibility and ability to locate close to customers as one of its core competence. These competences make M-B on top of other three competitors who supply to Mazda in other models in terms of innovations of new products and reduction in prices. Because of its strength, other car seat assemblers for Mazda source parts and components from M-B to a tune of 46% of total parts and seat components it produces. Thus, independency on technology and flexibility gives M-B between bargaining positions.

Overseas subsidiaries and markets

M-B has seven overseas subsidiaries in China (five) and Thailand (two). Like M-B's four production facilities in Japan, which are set close to its customers' production facilities located in Chugoku region, around Hiroshima and Hofu areas, which is close to Mazda's production plants and close to other Japanese automobile manufacturers, overseas subsidiaries are also close to the major customers' plants. In China, M-B has plants around Jiangsu area to serve Changan Ford Mazda Automobile co. ltd in Nanjing area; and M-B subsidiary in Jilin, Henan and Hainan

located close to other customers (Toyota and Nissan affiliates). The two subsidiaries in Rayong and Bangkok Thailand are close to its customers, Auto Alliance (Ford-Mazda JV), Toyota and Thairung Union Car Public Company.

The details of the sales ratios are presented in appendix 4. It is interesting however to learn that, the two M-B's subsidiaries, B`1 and B`2, in Thailand supply 50% and 70% of their outputs to Mazda's affiliate respectively, with less than 10% from B`2 exported to China to be used in Mazda's Demio car. While out of the five subsidiaries in China, only subsidiary B`3 supplies directly to Mazda's affiliate in China. Subsidiary B`3 that supplies 40% of its output in the local market sells 90% of the 40% to Changan Ford-Mazda joint venture. The remaining 60% of subsidiary B`3 is exported to M-B Japan. While 100% of output from China's subsidiary B`5 is exported back to M-B Japan and other car seas assemblers, 100% of outputs from B`4, B`6 and B`7 are supplied domestically to other automobile manufacturers, mainly directly to Japanese affiliated companies.

FDI process

After Mazda informed M-B about the overseas production plans, it took about two years to prepare for the FDI. The first overseas subsidiary was established in 1993 in Thailand (see appendix 4). From the Mazda's overseas production, M-B could be assured of some level of business if it followed Mazda's request. To Facilitate the FDI in M-B utilized its own management resources and technology. The investment was financed partly by the main bank and company's own financial resources. With regards to the investment partner, M-B was introduced to the global leading car seat manufacturer by Mazda to form a joint venture in China. This partner has already established itself in China's market and had a close relationship with Mazda's business partner; Ford Motor Corp. M-B also utilized its existing foreign business partners from Taiwan to establish other subsidiaries in China. In the case of subsidiaries in Thailand, M-B teamed up with its previous customer (Thairung) to establish its presence.

M-B indicated that, since globalization of markets and production is a real phenomenon, they must respond to any force accordingly in order to secure their position in the market. The company indicated that they consider Thailand as Asia's important base to automobile manufacturers, and China as an expanding auto market so their major customers give them initial credibility in these markets for future development or further relationships. M-B also indicated that it is using the its presence in the foreign market as a way to come up with new technologies and

products by learning from the global leading seat assemblers in these markets.

The problems that M-B faces in its overseas subsidiaries include lack of competent managers and technical staffs. The general manager explained that, in China and Thailand markets it is hard to find employees who are committed to work for the company on long-term basis in such the company find it very hard to transfer technology in these subsidiaries because it is difficult to retain skills. Other problem is lack of resources enough to manage and run foreign subsidiaries. This necessitates managers and engineers from head quarters to work in the subsidiaries on temporary basis in the effort to transfer skills to local staffs. Financial resources also limit the expansion projects of the company, because targeting new customer means the company must obtain financial resources from banks or establish new business partners, something that is difficult to establish in the new foreign market.

5.2.3 CASE STUDY 3: M-C Corporation

Background

With the capital of about ¥316 million (¥190 million when it first set its overseas subsidiary), M-C started as sporting equipment manufacturer in 1958, and then commenced production of auto parts as a different line of business in around 1960's. As far as auto parts are concerned, M-C is involved in the manufacturing of Engine parts (air intake, timing belt cover, radiator support), Chassis parts (Bump stopper, spring seat rubber), Body parts (Inside handle, Harness grommet, air outlet valve), Interior parts (Grab handle, Door trim, Pillar trim, arm rest, center console) and External parts (Door mirror, mud flap, rear spoiler, wheel cover, door visor). Its major single customer is Mazda. M-C also directly serves other Japanese automobile manufacturers - Mitsubishi (5%), Daihatsu (less than 5%) and Isuzu. More than 60% of M-C's products are supplied to a number of other parts manufacturers. This makes M-C to look more like a secondary (second or lower tier) supplier because of the large percent of its products are used to manufacture final products of other parts makers.

Relationship with Mazda

Business relationship

As one of the four firms supplying rubber and plastic automobile parts to Mazda, the account of business relationship with Mazda goes back more than 40 years ago

when Mazda requested M-C to supply auto parts. As of the time of the time this study was conducted, it was indicated that 30 to 40% of M-C's total sales goes directly to Mazda. This makes Mazda as a single major direct customer, since about 60% of total output is supplied to a number of parts manufacturers. This means that M-C significantly rely on Mazda because considering 30% to 40% of sales to Mazda indicates that the level of assets customization to Mazda's models is substantial relative to total investments of M-C in automobile parts manufacturing. The explanations of chief manager of the company who indicated that it requires a significant amount of investment every time when there is a new model in the market also indicated the level of asset specificity.

Apart from M-C relationship with Mazda through the association of important suppliers organized by Mazda (Nishi nihon yokokai), it also participate in direct communication with Mazda to resolve some technical issue since the company's its engineers are involved from the development stage of Mazda's car models. M-C utilizes information it gets from yokokai to focusing on producing R&D oriented products in order to remain competitive in the industry.

Development of business ties

The business relationship with started around 1960's when Mazda requested M-C that to start auto parts production by using its technological competence in rubber and plastic products to manufacture rubber and plastic automobile parts. This was just like a business offer whereby Mazda guaranteed a market for M-C. However, it was not revealed why Mazda approached M-C while there were already other companies manufacturing rubber and plastic automobile parts.

Different from the previous cases, Mazda never had interest in M-C, but there seem to have been some human networking between the owners of the two companies, which was not revealed during the interview.

Human resource links, technical, and management support

The long relationship with Mazda has been cemented by the inter-personal interactions. Mazda has never owned interest in the company, but the indication of close relationship between the owners of the two companies may explain why Mazda requested M-C to enter into the automobile parts industry.

During the course of their relationships, dispatch of engineers and managers between Mazda and M-C has been sited as a regular practice in order to innovate ways to reduce cost, improve existing products and develop new products. M-C's engineers work temporarily with Mazda's engineers or take part in workshop and

training organized by Mazda to enable then understand the need of the customer in terms of quality, cost and delivery time. This interaction of personnel creates an environment of trust and knowledge oriented to each other because the personnel of both parties feel like they know each other in person. As a result specific knowledge is developed in M-C creating a shared language between M-C and Mazda. As in the previous two cases, former Mazda's staffs are working permanent in M-C as president of the company and the chief engineer. These human asset link and technical cooperation develops specialized skills and long-term relationship between the two companies.

Main bank

Similar relationship between M-C and Mazda through the main bank was observed as in the other two cases of companies narrated above. The chief manager of M-C confirmed that they have been in close relationship and receiving significant support from their main bank because of their good business relationship with Mazda. This makes it easier for the company to source required funds to access loans to invest in any project that relate to Mazda's business.

Core competency and competitiveness

It was indicated that, rubber and plastic industry is highly competitive with many suppliers. With so many suppliers of similar products the chief manager of the company highlighted that surviving in this environment means that M-C is competitive, though it might not be technologically advanced than other companies. The competitiveness of M-C relative to other manufacturers in the same industry in Japan is evidenced by the ratio of its sales (60%) supplied to other parts makes and auto makers in Japan. It was indicated that, relative to other suppliers both in Japan and global, M-C posses advanced technology on how to make synthetic rubber (70% of synthetic rubber from M-C is made up of about natural rubber) and plastic painting and coating. Moreover, M-C is a capital intensive firm with highly automated production process. When asked who the main competitors in their foreign subsidiaries are, the chief manager of the company indicated that in the USA local companies are more competitive than M-C while in China and Thailand it is Japanese companies established in these markets.

Long experience in the industry, skilled workers (average age of employees is 38 years) about 15% of which are engineers make the company more R&D oriented, technologically independent. As a result, the company draws the blueprints of its products, such as engine horse, and develops new and advanced products. Because of

its technological strength, M-C is involved from development stage of a car model (design-in). M-C also considered its ability to set up production closeness to customers is a core competence because it enables the company to understand customer's needs, and deliver on timely basis high quality products at low cost.

Overseas subsidiaries and markets

M-C has ten overseas subsidiaries, four out of which are automobile parts manufacturers in China, Thailand, USA and Mexico all producing rubber and plastic products for automobiles. Except for USA and Mexico subsidiaries where 100% of the output serve the local market with 70%-80% going to Mazda's affiliates in USA and Mexico; 50% of production in China is exported to Japan (to Mazda and M-C) and 30% of the output in Thailand is exported to M-C Japan and USA. Out of the total output supplied in China and Thailand, 50% and 40% is supplied to Mazda's affiliates. The remaining percent of products produced in these subsidiaries is supplied to other Japanese affiliated companies such as Toyota (Thailand), Nissan (USA), Isuzu (Thailand), Yazaki Co. Ltd and Sumitomo Electric Co. Ltd (China) – a wire harness company which buys large part of M-C's subsidiary in China. The Chief manager of M-C commented that, for them FDI is an opportunity because Mazda will give them initial credibility in the new market as the company is utilizing its technological competitiveness in rubber industry, to obtain access to new markets.

FDI process

M-C receives information about overseas production plans from Mazda, which indicates the amount of business, it can make if it follow Mazda. This kind of information can be referred to as club good, because it can be obtained only from the participating firms. The first overseas subsidiary was established in 1991 in the USA then Thailand in 1994, Mexico 2002 and the latest overseas subsidiary for auto parts manufacturing was established in China in 2003. All these establishments follow closely the presence of Mazda in these markets. To facilitate the FDI M-C utilized its own management resources and technology. The ability and international experience of its management and staffs, which has been developed from the international markets of sporting events, coupled with technological advantage, enable the company to face the challenges of foreign markets. In addition, the company utilized its international experience and global network and business partners in sporting equipment subsidiaries to establish overseas production plants automobile parts. M-C has already established its presence in these countries for sporting equipments.

The investment was financed partly by the main bank and company's own financial resources. It was indicated that the main drive for FDI came from the Mazda. The company fears that it cannot respond to the request by Mazda, then other potential suppliers can replace its position since Mazda want a supplier who can provide products of the same quality not only in Japan, but also in its overseas subsidiaries and affiliates.

M-C identified that FDI is more advantage to the company because apart from the opportunities to serve more customers with less strict demands in the foreign markets, the company can become more profitable because it can achieve low cost of production in China and Thailand. Other advantages are close proximity to its customers, enables M-C to understand better the requirements for the products. The disadvantages for FDI include the increasing competition from global players because they can learn M-C technology, FDI diverts resources from innovation and products improvement to implementation of overseas production most of which do not involve new product because introduction and growth stage of the product life cycle takes place in Japan. Problems related to lack of committed local staffs and business partners also was noticed in M-C as it was in M-A and M-B.

5.3 CASE STUDIES ANALYSIS: Motives and intentions for FDI

Based on the case studies outlined above, this section discusses the motive and intention of the three companies to engage in overseas production and the strategies they use. The contents of this discussion were collected from the interviews with the companies' officials and other knowledge obtained during the literature reviews and industry study background of this work. The motives for FDI to be discussed here were part of the set of questions in the interview and they were all appropriately responded. From this discussion, it is indicated that mainly the SMEs suppliers invest abroad because of the pressure from the relationship with their major customers. Because of their size, and the nature of the industry (requiring specialized inputs) these firms did not have overseas expansion strategy in the first place. An investment in the FDI would require more resources to adapt to new markets since substantial part of their assets and human resources are specialized for a particular customer in Japan so it is considered difficult to switch to new customers in the foreign markets as it is at home. Therefore, the switching cost, monitoring cost and resources constraints due to small size led these suppliers to depend significantly on one major customer. This imply that, since these firms

operate in a very competitive environment[25] responding to the principal customer's plans and strategies such as overseas production, cost reduction and new technology is crucial in order to maintain their position in Japan, and this seems to explain the FDI by SMEs manufacturers.

The motives and intensions for FDI by these firms present the common character of these firms towards overseas production behavior. And as it was indicated in the section for Methods and focus, these three companies is a typical case of most of Japanese SMEs in automobile industry. their responses on the motives for FDI were similar to the results of the survey of overseas operations by SMEs presented in chapter two of this paper, therefore if rise our confidence that they represent the typical case of FDI by manufacturing SMEs. After the analysis of the motives and intensions of FDI by these three companies, the customer-supplier relationships model will be applied.

5.3.1 Respond to the request by Mazda

The previous studies have indicates that Japanese automobile manufacturing strength stems from the tight integration (*suriawase*) that exists between subcontractors (most of which are SMEs), which are equipped with core manufacturing technologies, and large manufacturers, which furnish the end products. From this relationship, which mostly exists in Japan, it can be established that the establishment of overseas operations by SMEs is therefore an inevitable evolutionary process if Japanese auto manufacturers to strengthen its industrial competitiveness for their overseas subsidiaries. So it was vivid from our study that with overseas production increasing, principal companies like Toyota, Mazda and other giant automobile companies require their supplier to implement global supply system in an attempt to replicate the Japanese suppliers system abroad. With the changing business environment, the message the three companies get from their major customer overseas expansion is that, parts manufacturers that offered outstanding quality in technological terms but could only supply its products domestically would be very unlikely to meet criteria for selection as a supplier.

Although there were no indications for persuasive request from Mazda on these companies to implement overseas production, it was clear however that Mazda provides all the necessary information (club goods) about its overseas production

[25] Japanese automobile manufacturers maintain at least two rival suppliers each serving the same product for different model. The promise for continuation or increased business is given based on the ability of the firm to innovate ways to reduce costs but supplying high quality products. Also there have been changes in the procurement policies of major assembler who are now shifting towards global procurement system, for the best product at global competitive price.

plans, and these companies are expected to respond accordingly in order to maintain their special relationship. This response is based on the Japanese attitude of understanding each other without saying what you want referred as *ahum-no-kokyuu*. Here the consideration was either not to follow Mazda and face a risk to lose business to competitors who are ready to go where Mazda go or follow Mazda to maintain the relationship but face an investment risk if Mazda's business is not going well. The companies take the risk to invest abroad because initially Mazda does not commit business to supplier but based on *ahum-no-kokyuu* suppliers expect the same way they work with Mazda in Japan will be applied in the overseas affiliates.

These case studies indicated that, although in the short-run the overseas investment does not yield a desired return on investment as the volume is low compared to that in Japan, these SMEs suppliers felt the need to continue with the investments for the sake of long term-return on their relation specific investment in Japan. The uncertainty to continue business with Mazda was a major driving force. This uncertainty is a result of Mazda maintaining several rival companies supplying the same product for different model leave alone the other potential suppliers in the waiting list. Faced with this situation, in order to continue doing business or increase business dealings with Mazda a supplier must be better than other suppliers to meet the selection criteria after the life cycle of the car model, which is usually four years. In addition, these companies are not certain if they can easily establish new customers using the assets and skills, which are customized to Mazda's car model and production, process in case they break relationship with Mazda. The risk of not responding to customers request is to lose business not only in overseas but also in Japan because in this case Mazda can choose to develop new relationship with other supplier. Therefore, to respond to the customer's overseas production expansion is crucial for the survival of suppliers, and realization of some return on investment in specialized assets in Japan.

5.3.1.1 Fear of competitors

In connection to the protection of their business, suppliers feel the pressure to respond to Mazda's request because of the fear that if Mazda establish relationship with other supplier. There fear to loose competitive advantage due to the possibility that major customer can leak the technology and production techniques to the new suppliers also increases when the major customer implement overseas production. In addition, these companies indicated that they responded to overseas expansion by

major customers so that competitors could not get a chance to develop any relationship with their major customer in the host country, which eventually could be transferred to Japan. However, M-B indicated that the take FDI as an opportunity to learn more advanced technologies and innovative ways for cost reduction from their partners and global competitors. The company indicated that, teaming up with the world leading car seat assembler give then an opportunity to strengthen their technological capacity for their important market of Japan.

5.3.1.2 Plant proximity

All the three companies indicated that they engage in FDI because they want to be close to their customer. This is built based on their experience in Japan, where the suppliers and customer's production facilities are located close to each other to facilitate face-to-face communication, and to reduce the cost of holding stock as it facilitated JIT production system. M-B and M-C companies indicated that they prefer to set their production facilities close to the customer so that they can deliver quality goods on time at a low cost because of cutting down storage cost. This reflects their orientation towards Mazda production and logistical system that emphasizes on JIT delivery.

The study of these three companies shows that it counts more to have a production facility close to customer because as a supplier it is easier to understand the needs and requirements of the customer better. This point reflects the human capital and network feature of Japanese subcontracting relationship, which is built on the basis of encouraging face-to-face communication. This facilitates the continuous interaction needed to keep the business relationship between the two parts such as dispatch of engineers between the companies. Failure to do that, it creates an opportunity for a competitor in the host country to capitalize on the communication gap and can start to link and develop business relationship with this customer. If this succeeds, then eventually this supplier might take over the business relationship even in Japan. For this reason, suppliers find themselves with no option but to take risk by following where the major customer invests. As already discussed on how global competition put pressure on the suppliers to invest close to their main customers, these three companies indicated that they feel pressure from global competitors that make it necessary to follow there core customer. This can also explain why they opt to invest in overseas instead of exporting from Japan.

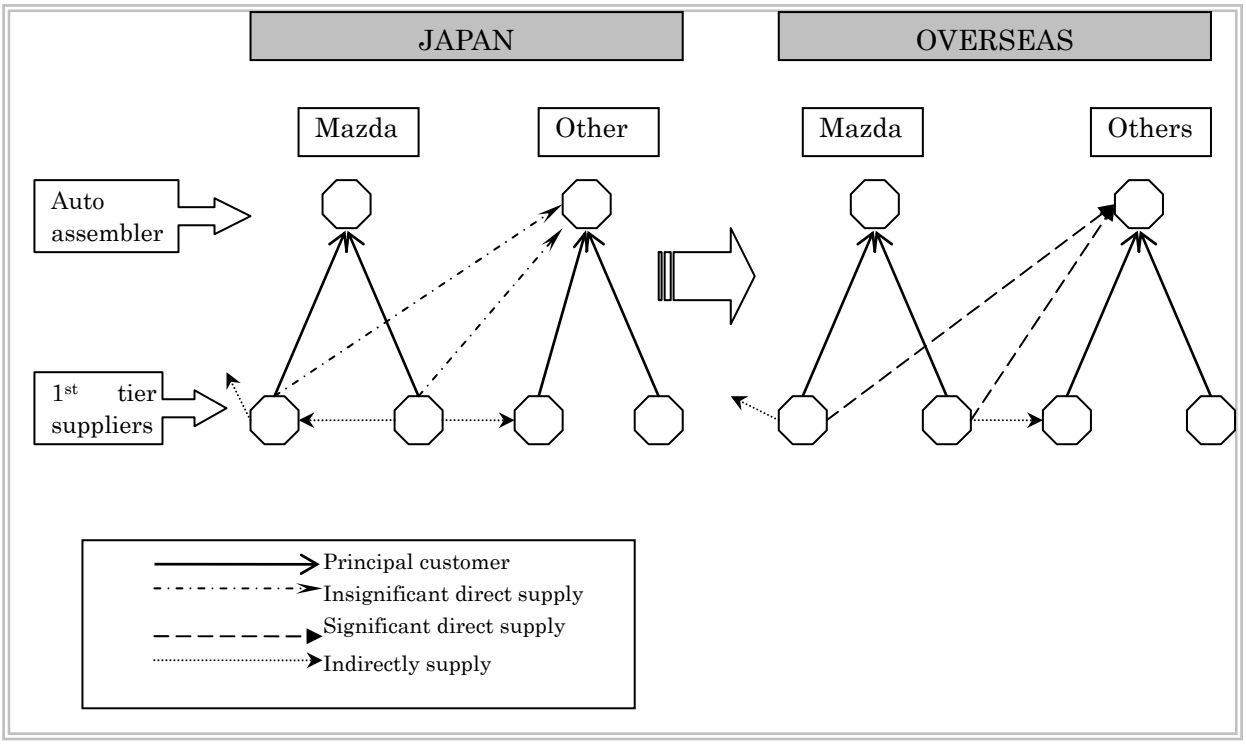
5.3.2 Need to establish new business relationship

Automobile parts suppliers consider FDI as an opportunity to diversify their customer base because by allocating their production facilities in a foreign market they can create new business relationship with Japanese affiliates that could not be approached in Japan because of one reason or another. This comes as the result of changing business platform in Japan, where increasingly companies are doing business with firms outside their keiretsu. This trend shrinks the market of suppliers who relay on one or a few customers, and because of the competition at home, suppliers seek to develop new business relationships without jeopardizing their existing business relationship. To do this suppliers choose to trap Japanese overseas subsidiary by locating their production facilities close to them. As discussed in chapter 2, the changes in the business platform imply that automobile manufacturers are sure to select companies that are capable of supplying parts internationally ahead of companies that can supply products of equal quality but only in Japan.

Since they could not use the same facilities, which produce parts supplied to Mazda, it was observed that to start new business with other manufacturers in the host country some companies opt to diversify their products to be able to serve many customers in an effort to reduce over dependency on one customer. This was noted in M-A company, which started the production of automobile parts such as radiator sachet, bumper and seat brackets in China to supply to Toyota subsidiary through other auto parts manufacturers. Also from the study of Mazda's suppliers reveals that some parts suppliers use indirect supply strategy, where a supplier act as a second tier supplier to supply to other auto companies at home and in overseas subsidiaries, all three companies in this case study showed this behavior. For company M-B and M-C because of their technological independence supply significant amount of semi finished products, parts and components indirectly to other companies in the host country as it is in Japan. It was indicated in the case studies that M-A auto parts largely are supplied to M-B supplying to Toyota and Nissan affiliates in China and Thailand, and M-C supplying to Toyota, Nissan, Isuzu, GM and Honda subsidiaries in Thailand and USA. This change in the transaction relationships is shown in figure 5.1. Looking at this figure it is indicated that there is a weak transaction with other auto assemblers in Japan while significant amount of transactions take place in overseas subsidiaries. Therefore, the traditional pyramidal shape relationship in Japan, where a supplier relies significantly on one major customer seems to be transformed to a multiple peak relationships in overseas

markets. This broad base of customers is intended to make the suppliers more independent from one major customer and from the shrinking Japanese auto market.

Figure 5.1: Comparison of customer-supplier transaction relations between Japan and overseas markets



This fact that suppliers can create new customers or business in the foreign markets explains that, suppliers have developed capability in terms of technology that they to handle more customers, but also the role of the major customer can not be disregarded. Since these SMEs get initial market credibility from the major customer during entry, they develop confidence to implement overseas production. And because the production volume of the major customer is still not big enough, the suppliers can use their excess capacity to serve other manufacturers in order not let underutilization of their capacity. So these three companies indicated that, they are ready to face the challenges of FDI because it provides them with opportunities to maintain their special relationship with Mazda while getting access to a broad market. Entry to new overseas sales networks therefore will enable acquisition of new customers that could not have been approached domestically and use established channels by Mazda to develop business relationship with foreign investors from all over the world.

Also M-B and M-C indicated that they engage in FDI in order to make early entry advantage in the potential global market. For example, the companies invested in Thailand to take advantage of growing auto industry in South East Asia because Thailand is considered as a geographical advantage and an important base to automobile manufacturers. In addition, the investment in China aimed to meet expanding China's auto market. Therefore using their relationship with major customer, these companies can position themselves in these markets because of the initial market credibility from Mazda, which allows access to additional relationships that could not be formed while in Japan.

5.3.3 Need to reduce cost and increase productivity

The purchasing principle of Mazda and other joint venture between Mazda and Ford is a responsibility to ensure that the company business is placed with the most innovative and cost competitive suppliers, producing the highest quality products in support of production schedules. Purchasing focus is on total cost management and achievement of optimum material cost from a continually improving supply base.

It was indicated from the purchasing Strategy of Auto Alliance Thailand (AAT) a 50% joint venture between Mazda and Ford state that, "Quality is the driving force behind the sourcing strategy". For the purchasing strategy for this Mazda's subsidiary state that sourcing preference for AAT is given to long term suppliers who meet AAT quality, cost and delivery. This imply that Mazda's subsidiary sourcing strategy is developed to include these important requirement, supplier cost competitiveness, delivery performance (100% on time delivery), quality system, technical ability, supplier financial stability, past and current model service performance[26]. This kind of strategy reflects the purchasing strategy of Mazda to its suppliers in Japan.

This purchasing principle and strategy, which does not differ much from other auto companies in Japan indicates that the core to the relationship between suppliers and auto manufactures involved in the subcontracting is Quality, Cost, and Delivery (QCD). So having entered into contract to supply auto parts, a supplier is expected to continually improve in terms of quality and cost of the product and deliver them at the right time to be included in the assembly line. In our case study, Mazda requires its suppliers to come up with new and better products, while at the same time demand a cost reduction as in the case where Mazda required M-C to reduce cost by 3% every year. The same was noticed when we interviewed M-A's

[26] www.autoalliance.co.th/purchase_strat.asp (2008/11/27)

officials, they were asked to reduce waste by 30%, metal pressing time to three (3) times and ensure welding cost of less than 3 yen per product. This is in line with an initiative to secure significant reduction on unit prices for parts rolled out in 2002 by Mazda - Achieve Best Cost (ABC) activities. So supplier feels the pressure to find other ways to cut cost because there is a limit for cost reduction in by considering Japan alone.

Another pressure to cut cost comes from the way subcontracting system in Japan works. This system keeps potential rivals together supplying the same parts for different models. That is while a supplier might produce a car seat for one model, another firm would be making similar seat for a different model. This gives the customer access and ability to compare the direct cost with the costs of the similar process at the other company. Thus, as long as suppliers could match their rivals' prices and quality levels they were guaranteed repeat business. Therefore, to remain competitive and continue to supply to Mazda, suppliers have to look for a way to cut cost. This forces the suppliers to start overseas production to take advantage of low cost and productivity in order to remain competitive in Japan. The result of this FDI is the creation of export platforms to Japan, mainly in developing countries such as China, Thailand, and Indonesia.

From our case study, M-A started the production of medium size metal press in China. This was due to the fact that the company is less cost competitive in metal press production compared to its counterparts in China and Thailand. And since the company did not have the production facilities for medium size metal press in Japan, it decided to take advantage of low cost in China for the production of this product and export back to Japan to Mazda and other customers. As for M-B, 60% of output from its subsidiary in Jiangsu, and about 100% of output from its subsidiary in Fujian, China are exported back to M-B Japan as semi finished products or components. The case study also shows that about 50% of output from M-C's subsidiaries in China, and 30% of subsidiaries in Thai are exported to Japan for further processing. The data also shows that M-A's Tianjin subsidiary exports 60% of its output to Japan. These figures suggest that suppliers feel the pressure to lower cost of products they supply to main customer because they are involved in a business relationship of subcontractor. This leads to formation of export base in countries where components or finished parts can be produced at a lower cost than in Japan, in which case investment in China has taken this consideration for these three companies.

In such a case where firms start overseas production to seek reduction in the cost of their products less competitive part of production process and less productive

process will be transferred to overseas plants. For instance M-A produce metal press (medium size) in China, to take advantage of low cost of production, but this company manufactures fuel tanks in Japan and export them to China, because it possesses competitive advantage in fuel tanks technology and the productivity is high Japan.

5.3.4 To avoid problems associated artificial barriers

5.3.4.1 *Trade barriers*

When we asked the officials of the companies we visited why they prefer FDI to exporting, we got almost similar answers. The reason being export is a time consuming process and it encounters a long list of legal requirements and artificial barrier, tariffs and other non-tariff measures. Because many auto companies have invested in developing countries, exporting parts to these assembly facilities will face import barriers that aim at protecting local industry in the host country. So the Japanese suppliers opt to take advantage of investment incentives and the local content requirement in these locations to start overseas subsidiaries, which will make it easier and safe to maintain their relationship with their core customer, and at the same time create new business with local manufacturers.

According to the interviews with these companies, FDI facilitates the application of Just-In-Time production method in the host country, and it can represent the replication of Japanese supply system. FDI omits all uncertainties caused by artificial barriers on imports in the host country and there by render timely delivery of the auto parts in the assembly line. The giant Japanese automobile companies that have over years used the Japanese suppliers system to achieve global competitiveness prefer to replicate similar system in the host country, which means FDI is the best strategy for suppliers to meet the needs of their main customer if they have to keep their business relationship. To avoid the risk of delays in the assembly line schedules all three companies indicated that they prefer to set their production facilities close to the customer so that they can deliver quality products at low price and on time. The JIT production enables them to save on the cost of storage and capital held in inventory, thereby giving satisfaction to their major customer. Hence in order to continue in business and serve Mazda's overseas subsidiaries FDI seem to be a more appropriate for Japanese small and medium size automobile suppliers to encounter the artificial barriers that discourage importation in the host country.

5.3.4.2 *Local content requirements*

The local content requirement law which is practiced in many developing countries, where major Japanese automobile manufacturers settled, also forces the suppliers in Japan to take FDI as a means to continue doing business with their principal customer while taking an opportunity do develop new relationship with other Japanese affiliates. It is observed that even major auto makers now follow the strategy of localization of suppliers in order to not only give a local touch in their final products but also to enjoy the benefit of localization of suppliers. For example in addition the purchasing strategies mentioned above, Auto Alliance (Thailand) Co., Ltd. - a joint venture company between Ford Motor Company (50%) and Mazda Motor Corporation (45%), (remaining 5% is of Mazda Sales (Thailand) Co., Ltd.) - developed localization purchasing strategies to support the effectiveness, production volume of both AAT and suppliers and speed of part delivery. This primary objective to introduce 100% part localization in Thailand is due to the fact that local sourcing helps develop biggest market, local sourcing protects against currency movement, many local source provide a competitive source of supply due to attractive overhead & labor costs, local sources have logistical advantages and lastly Local sourcing is tax efficient. In this case, Japanese suppliers must invest close to their principle customer as opposed to exporting to this customer.

5.4 CASE STUDIES ANALYSIS: Determinants for location choice

From the interviews with these companies together factors that determined the decision and pace of overseas investment following Mazda's strategies were identified as the type of the products, the level of technology the company has, the geographical location advantage, competitors, local government investment laws and regulation and level of industry and market development. These factors were in addition to one discussed in the paragraph above. When looking at these six factors the case study companies indicated that, they were important factors in deciding the investment location of their overseas plants. As the officials of M-A explained, although they feel the pressure to respond to the overseas strategies of their principal customer, they will take these factors into consideration: local government incentive, competitors, industrial level of host country and technology level required to be transferred. Therefore, although it seems that, although these firms would respond to the request by major customer but they will evaluate the investment based on other factors.

The company that supplies large parts such as outer panels and car seats and the

final products to be used in the assembly line, preferred to be close to the auto assembler to facilitate the delivery of the parts into the assembly line. This case could be seen as a motive for M-B and M-A to decide to invest in China and Thailand (in case of M-B). The company such as M-A, which does not possess a very advanced technology, and not very competitive compared to other suppliers feels that it must follow Mazda at any risk to maintain its business relationship. Further more the company of this type rely on their major customer for the blue prints of their products, and thus leaving them without strong bargaining power when it comes to business relationship with customers. Therefore, the survival of the company will depend on the close relationship with customers. Moreover, been close to customers production facilities will make it easy to learn what the customer wants and deliver it on time.

Because FDI requires a substantial amount of investment, the response to the foreign investment by a major customer will to a large extent be influenced by the opportunities that are available in the new location. The geographical advantage is important determining factor in this situation where customer (Mazda) does not commit how much business will be given to the supplier will follow it. Further, because the production volume in the developing markets is not big enough compared to the investment the suppliers will make, it is worth investing where there are opportunities to serve other customers. So a country like Thailand which is the important base for global auto makers, China which is a fastest growing economy and car market and USA the largest world car market will be a strategic location for the suppliers to follow Mazda even without guaranteed business.

Apart from the opportunity to create business with other auto companies in the host country, suppliers prefer to set up their overseas plants in the location easier to export back to Japan. This is because these companies want to supply to their core customers in Japan, where auto manufacturing and assembly is more than in the developing economies, a more price competitive parts in order to stay competitive in the industry and maintain the relationship. Therefore, a location close to Japan is more preferable for the suppliers. This evidenced by large percentage of output exported from overseas subsidiaries to Japan, for example more than 50% (100% when started) of the output from a M-B's subsidiary in Jiangsu, China is exported to M-B in Japan for further process before supplied to Mazda. The same behavior could be observed from other suppliers we visited

From this study, it was evident that before the suppliers could follow there core customer in overseas they considered the level of industrial development. This was important because these companies required appropriate skills for their overseas

subsidiaries, materials and other suppliers to their production processes and the hence for the market. Therefore where auto or related industry developed attracted these suppliers to invest because it could be easy for them to employ skilled workers such as engineers, get access to good infrastructure, reliable suppliers and creation of new business with customers in the host country.

The kind of the local government and investment incentives such as fast truck company registration, tax incentives preferential treatment and infrastructure also played a major role on FDI decision by many suppliers. The three companies' cases presented above shows that, when considering investing abroad this was one of the main reasons why they decided to set up plants in particular areas in China.

5.5 CASE STUDIES ANALYSIS: Conclusion

The case studies indicate that, these firms respond to the stimuli similar to those of large-scale enterprises in the thirsty to achieve growth and profitability. Any changes that send signals for uncertainty in the business relationship will prompt the three companies to consider their strategies including the need for FDI in order to remain in the business. The analysis of the study of these companies illustrates that SMEs auto parts suppliers engage in FDI to seek for market and efficiency. That means firms open overseas production operations to respond to the request from their main customer; because of fear to lose business to competitors due to increasing demand for lower price and new technology; to look for new business opportunities both from affiliates of Japanese companies or from global player in the host country in order to be independent. These motives are well explained by the theories on FDI of firms discussed in chapter 3 such as different factor price model, gravity model, and corporate decision making model. Trying to apply the FDI behavior of these three companies, representing SMEs in Japanese auto industry, to explain why and how they exist in foreign markets, the existing internationalization theories seem not sufficient explain the FDI by SMEs as it was discussed in section 3.16 and 3.3. The existing internationalization theories provide a well explanation as to why and how MNEs exists by putting more weight on the firms specific advantages and disregarding that firms exist as embedded actors in the markets. This weakness however was addressed using the network approach to firms' internationalization. The strength network approach, like other process model, in explaining the FDI by these three cases lies on the explanation of how firms engage in FDI. This approach argues that firm's internationalization is a process of establishing and developing position in relation to counterparts in foreign networks.

This argument that firm internationalize because other firms in their (inter)national network are so doing does not explain what determine these SMEs to engage in FDI.

Because of the above weaknesses in the existing model, a conceptual customer-supplier relationship model (developed in section 4.3) build is logics upon basic insights developed in network approach to industrial system and firm's internationalization (Richardson, G., 1972; Johanson and Mattsson, 1987, 1988) to explain the FDI behavior of these SMEs in automobile industry. As rational firms, the three companies M-A, M-B and M-C strive to achieve growth and profitability. In this case, they will be seeking for ways to increase or maintain their market share and efficiency level. At the background of their relationship with major customer(s) these companies have invested significantly in specific assets and skills due to the long mutual relationship with major customer. What was indicated in these cases is the high degree of reliance on one customer. This implies that the specialized assets for Mazda's model have little or no value to other automobile manufacturers. Constrained with resources to modify or adjust the existing assets and human resource skills to serve another customer prove to be costly and time consuming. These high degrees of relation specific investment impose a switching and monitoring cost to the supplier. Therefore, it is obvious that, as long as FDI will ensure the continuity of the business relationship with Mazda, these three companies are ready to engage in FDI. This is in agreement with the model developed in this study.

From this model, it can be derived that, as business environments changes, such as declining home markets, increasing global competition, increasing demand for low cost but high quality products and need for new technology, these three companies feel uncertainty to continue business with their major customers because of the competitive nature of Japanese suppliers system. As an alternative to switch to new customers with less strict requirements, because of the specificity of the investments in M-A, M-B, and M-C, feel the pressure to implement overseas production to respond to major customers increasing overseas production, and reduce cost of production while improving its products and learning technology from more competitive manufacturers. These companies indicated also entry to the new overseas sales networks would enable acquisition of new customers that could not have been approached domestically, because Mazda can give them initial market credibility. In this way these parts manufacturers may reduce over dependency on one customer while increasing their business, which was shrinking by serving only Japan market.

Commenting on asset specificity, from these case studies it is indicated that the

mutual orientation between major customer and supplier is principally a mutual orientation among individual actors in these companies. It is therefore a matter of interpersonal relationships between owners, and a number of persons on different levels and with different specialization is crucial in maintaining specialized skills. The Mutual orientation among individuals between these companies and Mazda has been developed through, emphasis on face-to-face communication, engineers of each party acting together in some technical development matters, dispatch of suppliers engineers to Mazda's sites and the former Mazda's engineers permanently working as top managers in suppliers. These interactions create adaptations in attitudes and knowledge of the parties. It can therefore be argues that knowledge based on personal experience strength and characterize the relationships between companies and make it difficult for both supplier and major customer to develop new relations because it is time consuming and involve a lot of development and monitoring costs. With this specialized knowledge and skills, the customer(s) would prefer to avoid or minimize competitive costs (cost of losing market due to poor quality of products) by embracing its existing suppliers system and suppliers of specialized parts.

CHAPTER 6

6 APPLICATION AND DISCUSSION

6.1 An application of customer-supplier relation model to analyze the FDI by Japanese SMEs in auto industry

This paper centers on the investigation of the characteristics and features of Japanese suppliers system in an attempt to identify the determinants of FDI by SMEs. The focus of this paper is on the Japanese SMEs manufacturers of automobile parts. The discussion in this paper start by presenting the overseas expansion by SMEs (chapter 2) to show that not only large scale organizations which engage in FDI but also recently increasing number of SMEs take an active part in the overseas production. It has been shown that, many parent firms that are SMEs most of which enter the supply chain of the large-scale manufacturers characterize Japanese MNEs. Many questions have come up to enquire about the engagement in FDI by SMEs. Such questions include: why, despite of their simple organizational objectives and less resources, SMEs engage in FDI? What determine the overseas production of SMEs? Another question is, why SMEs, despite the fact that they possess less competitive advantages compared to other local suppliers do continue to supply to the subsidiaries of their principal customers?

Corresponding to chapter 2, the case studies presented in chapter 5 show that, SMEs in auto industry respond to very similar stimuli as large-scale organizations as for both groups the prospects of profitable and growth of business are crucial. The motives for overseas expansion by SMEs were identified as to respond to major customers' request, to reduce cost of manufacturing; to maintain or expand business with Japanese affiliates, to obtain new customers in the host country, and to avoid artificial trade barriers. These motives for FDI are driven by the changes in the industrial landscape and the transition in the network relationship between Japanese firms. These changes include declining domestic demand due to overseas manufacturing operations by their major customers and mature home market, increasing demand for price reduction and environmentally friendly technology, intensifying competition from both Japanese subcontractors and foreign auto parts suppliers.

Many questions can arise from the FDI behavior of Japanese SMEs in

automobile industry such as what determine the engagement of SMEs in FDI. If the domestic market declines because major customers establish overseas production facilities, why SMEs should follow? What guarantees them a position in the foreign markets? Why a major customer prefers to maintain a Japanese auto parts supplier? Moreover, why SME supplier cannot diversify customers or export to overseas markets in order to respond to declining market? The answer for this behavior is because of switching, monitoring and competitive costs as presented in the model for FDI by SMEs in the chapter 4 (fig. 4.3).

6.1.1 Individual firm's activities as determinant for FDI by SMEs

A typical auto part supplied is specific to one model of one manufacturer, and often requires expensive tooling or dedicated production lines. The cost of investment and tooling for these specific requirements make it costly for SMEs suppliers, which are constrained with resources, to serve multiple customers at the same level. And since these specific investments have little or no value if they are to be deployed to other customers without any modification, SMEs suppliers in auto industry feel the pressure to engage in FDI because they must develop and protect their relationships position. For example, the manufacture of dies for stamping parts is often in accordance with the specifications of a particular automobile model for a particular automobile manufacturer. These specifications give value to these dies specialized to the assembler, which implies an appropriable quasi rent in those dies. Therefore, the die owner would not want to be separated from the assembler.

SMEs auto parts suppliers must develop or maintain their existing position at home in order to get access to increased business and survive. To form new mutual business relationships with different customers as an alternative instead of following existing major customer's production plans will involve not only significant amount of time and efforts as we have seen but also substantial expenses for new tooling, the arrangement of production lines and learning time for production employees. From the nature of Japanese subcontracting system in automobile industry, it is indicated that SMEs supplier are at risk of losing business with major customer if its competitors perform better in term of quality, price and adjustments to major customer's plans. It is observed that, parallel sourcing, where assemblers maintain at least two rival suppliers together but solely supplying for a particular model characterize the Japanese subcontracting. The promise for more business or increased profit margin to these suppliers is

based on the ability to innovate ways to offer quality products at low cost. This environment plus Japanese auto assemblers' practice of sharing technology among all its suppliers, makes suppliers more or less equal competitors. To survive and avoid development cost for a new customer, SMEs will engage in FDI as efficiency-seekers. The efficiency-seeking motive will be to save the important home market with quality and low price inputs, and also will aim at reducing the cost of the supplied products to the overseas subsidiaries of the major customers. In the overseas subsidiaries, just like in Japan, close proximity to major customer facilitates the JIT production system (adapted from the relationships in Japan) and thereby reduce the inventory cost as a percentage of product price. In this way the supplier will increase efficiency of the logistic system, while minimizing the risks of artificial barriers to trade such as tariffs, and local content requirements.

It has been observed that, with overseas production increasing, automobile manufacturers also require their suppliers to implement global supply systems. Hence, a parts manufacturer that offered outstanding quality in technological terms but could only supply its parts domestically would be very unlikely to meet an automobile manufacturer's criteria for selection as a supplier at home. In other worlds, automobile manufacturers are sure to select companies that are capable of supplying parts internationally ahead of companies that can supply products of equal quality, but only in Japan. Therefore, in order to secure their position in Japan, SMEs feel the pressure to meet these new requirements by their major customer and establish overseas production otherwise other eligible suppliers from the group of the major customer suppliers may take over the business relationships, and the supplier's specific investment may be obsolete.

In an effort to achieve independency from over reliance on a particular customer(s), SMEs suppliers may use the existing network position to establish new relationships in the foreign markets. We have seen in the previous chapters that, mutual orientation between firms may help to reduce cost of exchange and production, promote development of knowledge of the respective parties, give parties some control over each other and may be used as a bridge to other firms. When a principal customer operates production overseas, it will give initial market credibility to their important suppliers who have responded to its investment. To ensure quality and cost competitiveness, the customer will be concerned not to let a supplier's capacity utilization fall too low, in which case suppliers can have access to more market, either by their efforts or by the connection of their major customer.

6.1.2 Major customers as a determinant for FDI by SMEs

On the side of major customer, the model for FDI by SMEs indicates that, in order to avoid the switching, monitoring and competitive costs, the incentive to extend the relationships with the existing supplier increases. This is because as more specialized assets are utilized by suppliers and without internal capacity, the auto firm no longer has the ready option of pulling work back in house or of looking for another supplier, instead it will offer the opportunity to the established supplier. Especially in transactions where suppliers have close, exclusive (or near exclusive) ties to a given assembler, as it has been observed the three case studies, an assembler will communicate with suppliers to plan for the investment in a new market. In this case, provided the relation specific investment generates returns to scale, auto assembler will try to maximize supplier's sales in the new market in order to continue to enjoy the competitive advantages it achieved in the home market. This is partly because the cost of investment in specialized equipment and tooling makes it costly for an auto company to use multiple suppliers if it has to be supplied with high quality parts at low cost and bound to assure the market for a particular supplier in order to ensure optimal utilization is achieved.

We have seen in the previous chapter automobile manufacturer incurs costs to transfer technology and management skills, which enable supplier to meet performance requirements and build design capability. Such development costs have little value to the assembler and supplier if the relationship is terminated. In this case, for a customer switching suppliers means incurring these costs again. The time and efficiency losses incurred by switching to a new supplier and moving back on the experience curve constrain the possibilities to change counterparts make it expensive for customers to change suppliers especially when differentiation is high or buyer has special requirements. Switching suppliers therefore may require substantial search, adaptation, development costs as well a great deal of time.

Well aware of the competitive advantages of geographically proximity plants in their production network and their subcontractors in the design and production of auto parts, Japanese manufacturers have replicated this strategy outside Japan with their important supplier from Japan next to them. The accumulated experience on this production system makes the manufacturer reluctant to use or try suppliers who cannot guarantee the continuity of the core company's production process. The assemblers want to reduce or avoid the

competitive costs that can be incurred because of poor supplier performance, which can adversely affect the customer's ability to compete in its product market. On top of that, the manufacturers prefer to offer opportunities for their established suppliers in order to reduce or eliminate administrative costs of purchasing and receiving, monitoring supplier performance, enforcement of contracts, contract modifications and correcting deficiencies in supplier performance. Therefore the his case it is likely that the manufacturer and the existing supplier will be located in the closer proximity to endure their accumulated experience on production system and help in reducing inventory cost as a percentage of sale prices.

6.1.3 Major customers as facilitators of FDI by SMEs

To be able to establish position in the foreign market SMEs suppliers need to have sufficient resources. These resources are in terms of financial resources for equipments and tooling, management resources to manage foreign subsidiaries, and information about the new market in terms of investment partners, strategic location and legal and other necessary information. It has been shown in the previous chapter that, most of the important suppliers to major Japanese auto manufacturers have their top level managers who are former workers of major customers. These personnel draw in not only specialized knowledge of the major customer but also the experience on how to deal with foreign operations, since major auto manufacturers are highly internationalized. Another aspect of assistance the SMEs get from the major suppliers is the information and contact introduction with prospective investment partners. Major customers may use their established network to bridge their important suppliers to new networks in terms of investment partners, source of inputs or markets. As it is indicated above, principal customer provides initial market credibility for SMEs suppliers, therefore reducing their business risk.

The availability of finance is often considered to be a constraint on the expansion of SMEs. SMEs face a challenge in rising capital without disclosing their competitive advantage secrets or loosing control of the company. Moreover, the availability of external finance for expansion from financial institutions such as banks is limited to the profits generated in the past investment. Beyond this, SMEs must win the confidence of the market for funds. This confidence can be won by technological achievement, attempts at proof of future success, recruiting individuals who have the confidence of the market or astute political lobbying

(Buckley, 1989). These limitations for FDI by Japanese SMEs in auto industry are minimized by the use of the main bank. Important suppliers of the major auto assemblers are linked together to a main bank of the major manufacturer. For instance Mazda's supplier group use Mitsui Sumitomo Bank as their main bank, and all transactions between then and Mazda take place in through this bank. Since the main bank posses the detailed information about the suppliers and their relationship with Mazda, when applying for expansion financing instrument that relate to Mazda the assessment of firm based on profit generated in the past, or proof of future success or technological achievements can easily be done with reference to Mazda. A bank that ties the keiretsu may be very generous and lenient to firms in its keiretsu alliance as long there is a maintained relationship with the major customer. Therefore, a position in the network means that, SMEs can easily finance overseas expansion projects that are linked to the major customer.

6.1.4 Summary

The small and medium size auto parts suppliers studied in this paper indicated that in the strive to maintain their relationship with major customer, they feel the pressure to set-up overseas manufacturing operations even though they are constrained by lack of adequate resources. As long as the FDI could assure their continued business they could do whatever possible to pursue it. The fear to lose business with their major customer is a main drive to respond to the requirements by the major customer. These requirements which have been discussed in the previous chapter include continuous improvement and cost reduction, and to replicate similar Japanese supplying system in major customer's overseas subsidiaries. Major Japanese automobile companies want to maintain their source of competitiveness by embracing their important suppliers even in the overseas subsidiaries because of what is explained as mutual orientation and adaptation to each other. But since a supplier has more to lose if the customer walks away or if the industrial restructuring could result in the reduced volume of orders in Japan, the threats that supplier could not realize the returns on relation specific investments determine the decision to engage in FDI.

This discussion therefore shows that, FDI by SMEs can be explained by looking at its position in the industrial network. The switching costs, monitoring costs and competitive costs can be identifies as the determinants for SMEs to respond to the changes in the industrial landscape by engaging in FDI. This

explanation of inter-organizational coordination explains why SMEs in Japanese auto industry can maintain their business relationship with the principal customer even in the overseas subsidiaries even where they could be considered to have less competitive advantages relative to the other suppliers in the host country as it was indicated in the case studies in previous chapter. The use of firms' network therefore provides an appropriate framework for understanding firms as embedded actors in business networks and we can view international growth of firms as based largely on sharing respective complementary, competitive advantages with other firms.

Figure 6.1 provides the summery of the knowledge generated from whole this work. This table outlines the motives for FDI by SMEs, their stimuli or cause and the reason for response to the stimuli by FDI.

6.2 Discussion

Chapter 3 of this work re-visited previous studies on the internationalization and FDI theories in an effort to try to explain the FDI by Japanese SMEs as identified above. This chapter provides a rich base of theoretical frameworks on the FDI with the ability to explain the existence of different institutional forms in different situations. With the focus on necessary conditions for FDI, these theories offer a good explanation on why and how MNEs establish overseas production and seem to have quite a wide area of applicability in explaining why the FDI by SMEs despite the fact that they have been tailored to offer explanations of why overseas productions are characterized by large-scale organizations. However from these previous studies, the explanation about what or who determines the engagement of non-MNEs in the FDI has not received greater attention. Except for Network approach to internationalization (Johanson and Valhne, 1990; and Johanson and Mattson 1988) and behavioral approach to FDI (Aharoni, 1966), which considered organization as a social unit, other theories give necessary but not sufficient explanation about the FDI by SMEs in the Japanese auto industry. Based on the nature and features of the Japanese automobile industry suppliers system, behavioral and network approach offers a benchmark against which the FDI by SMEs can be explained.

From the network approach, the interpretation of the engagement in FDI by SMEs can be derived from the argument that industrial system is a division of work in a network. By examining the institutional governance of relationships between firms in the Japanese automobile industry, it was possible to find out

that the industrial system is characterized by division of work that indicates firms are dependent on each other. The coordination in the activities of these firms is not achieved through a central plan or on organizational hierarchy, nor does it take place through the traditional market model. Instead, coordination takes place through interaction among firms in the network, in which price is just one of the several influencing conditions. However, although the link with other firms creates opportunities it constraints the firms' possibilities to change counterparts because individual business transactions among firms usually take place within the framework of established relationships.

The functional activities in the individual firm especially those related to transaction and relation specific investment as an aspect of the relationships create bonds between participating firms. Respectively products and process adjustments (physical asset specificity), knowledge about other counterparties, personal confidence and liking (human asset specificity) and logistical coordination (site proximity) can exemplify bonds of various kinds. These kinds of bonds were discussed and evidently presented in chapter 4 and chapter 5, on Japanese subcontracting system and case studies respectively. The basic assumption from these bonds is that the individual firm is dependent on resources controlled by other firms (relation specific investment). It is obvious that the suppliers whose products or processes are modified to fit a specific customer's needs becomes dependent on that customer, and a customer who has adjusted production processes and scheduling systems to fit a supplier's capabilities is dependent on that supplier. The relationship specific investment suggests that, since the use of assets in auto parts suppliers is dependent on the use of the major customer (automobile manufacturer), investment processes and their consequences are also interdependent in the firms' relationships. That means, the value of the assets in supplier depends on the continue trade with a particular customer.

Although mutual orientation relation between firms, constitute the framework within which further interactions (business) can take place, linked to the relationships which involve significant adaptation of assets might influence the degree and type of uncertainty in continuation of business. This is especially to the firm, which depends more on the relationship, in this case suppliers. Hence based on this argument any adjustment in the industrial or network landscape such as major customer's production plans will force SME suppliers to respond positively in order to maintain its position.

Applying the behavioral approach in corporate decision making, pioneered by

a prominent author in this stream, Aharoni (1966), in the Japanese suppliers system, FDI can be identified as a continual cooperative social process rather than a matter of established activity. The feature of Japanese auto industry suppliers system as presented in subcontracting system shows that there is a mutual orientation towards each other as a result of long lasting interaction. In addition, because individuals carry out the interaction processes between firms, the mutual orientation among firms is principally a mutual orientation among individual actors on different levels and different specialization as we have indicated in the case of Japanese auto industry. Therefore, as Aharoni indicates, there is a strong initiating force from the firm's relation with principal customer that propels SMEs along the path towards FDI. Such pressure to engage in FDI may come in reaction to factors, such as the fear of losing market, and competition[27] from other firms since SMEs face a shortage of enough resources to diversify specific needs of many customers. The overseas investment decision by SMEs may be as a result of outside proposal from a powerful source, such as customer or from within a firm where an executive may push a project in favor of the continuing relation because these individuals' skills and knowledge are oriented toward major customer. The implication of this approach is that, the decision to invest abroad is not necessarily the result of short term economic reasoning, as many authors on FDI theories have argued, but rather the reaction to other factors which can assure the continued relationships at home. These factors, which have long-term orientation, include the fear of losing market, competition, and maintaining the firm's network relationship position. Therefore, behavioral approach of corporate decision making can explain the FDI by SMEs by taking into consideration about decision maker, the organization, the business environment at home and specific characteristics of firms such as their actual market position in the home market.

6.3 Conclusion

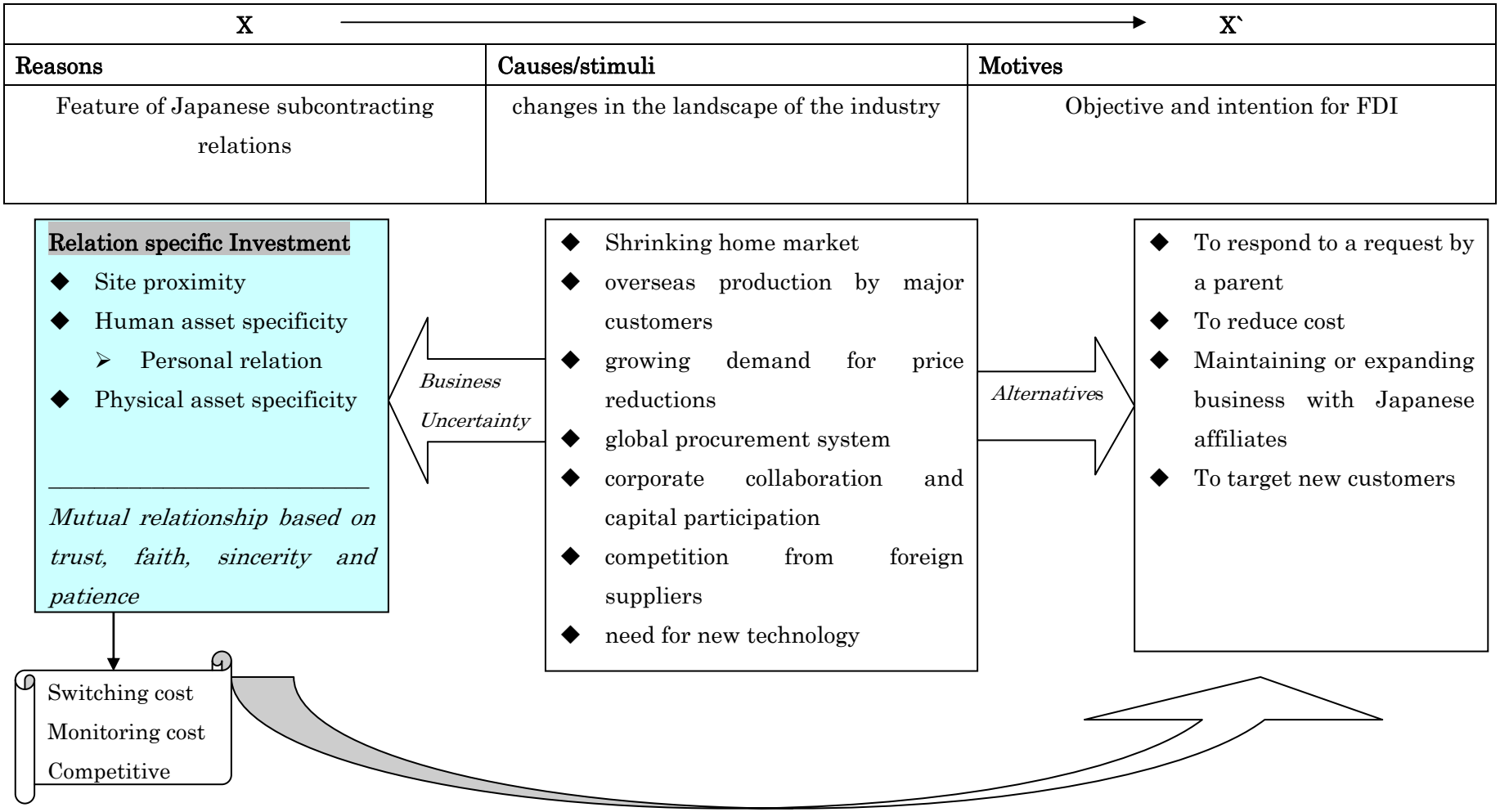
In this end, since SMEs respond to the same stimuli as large-scale organizations (profitability and growth), I will describe Japanese small and medium size auto parts suppliers' decision makers are intentionally rational when they make their decisions. They adopt FDI by following the rule of maximizing the expected return and minimizing risks. The decision makers will

[27] In Japanese subcontracting system, multiple suppliers are deployed. So with rival suppliers together, and a long list of prospective suppliers of the same product is in place, therefore a customer is flexible to choose the source but smaller suppliers rely on one customer for significant portion of their sales.

maximize the expected returns if they can be able to maintain the relationship because the value of investment in relation specific assets (physical assets and human assets) depends on a continued trade with their customer. These firms will minimize the risk if they respond to the requirements by the major customer. Such requirements include establishing overseas production (to replicate Japanese system such as JIT delivery), continuous improvement and cost reduction, and innovation in new technology. Therefore, as long as FDI will assure the continued relationship with its major customer, SMEs will engage in overseas production in order to gain the expected return on the relation specific investments it has incurred.

Figure 6.1: Summary of knowledge generated from this study

Consider a company X, a small and medium size manufacturer of automobile specific parts, setting overseas production subsidiary X`
Over the past 40year, X has depended on one car assembler for more than 50% of its sale. The following figure shows under certain conditions (cause/stimuli) X will be motivated to engage in the FDI because of the determinants (reasons) from its relationship with major firm.



6.4 Implication

The examination on the determinants of FDI by SMEs, which is based on the firm's relational perspective derived from the Japanese suppliers system, touches not only the interests of the business world but also the future researches on the explanation of FDI of firms. As we have seen, firm's specific advantages are not sufficient in explaining the FDI by Japanese small and medium size auto-parts suppliers. Because firm-specific advantages (FSAs) asymmetrically favor international firm, the mutual relationship between suppliers and customers indicated to have powerful implication on the FDI by SMEs. This relational approach indicates the possibilities of actions by firms involved in the mutual relationship, which means that mutual orientation between firms can be a useful tool in analyzing strategies to approach different markets. Relational bonding indicates an opportunity and a threat, as it provide the possibilities for future transaction but on the other side, it can limit the participating firms to change counterparts.

As automobile manufacturers proceed to do business with companies outside their keiretsu, automobile parts manufacturers become increasingly aware of intensifying competition with foreign parts manufacturers who have realized the need for mutual relationship. If foreign parts manufacturers continue to improve in terms of quality and delivery, it is likely that the traditional superiority of Japanese parts manufacturers will be eroded. The other side that can threat to erode the superiority is the trend of Japanese SMEs to use their limited resources to keep up with overseas expansion of their main customers instead of concentrating these resources in technological innovation and new products production in Japan. Since the product innovation for major automobile manufacturers is still in Japan, SMEs are forced to divert their limited resources to follow the overseas subsidiaries of their customers, which mainly manufacture matured products. In this way, they weaken their capability to innovate in the most important market at home (Japan).

6.5 Limitations

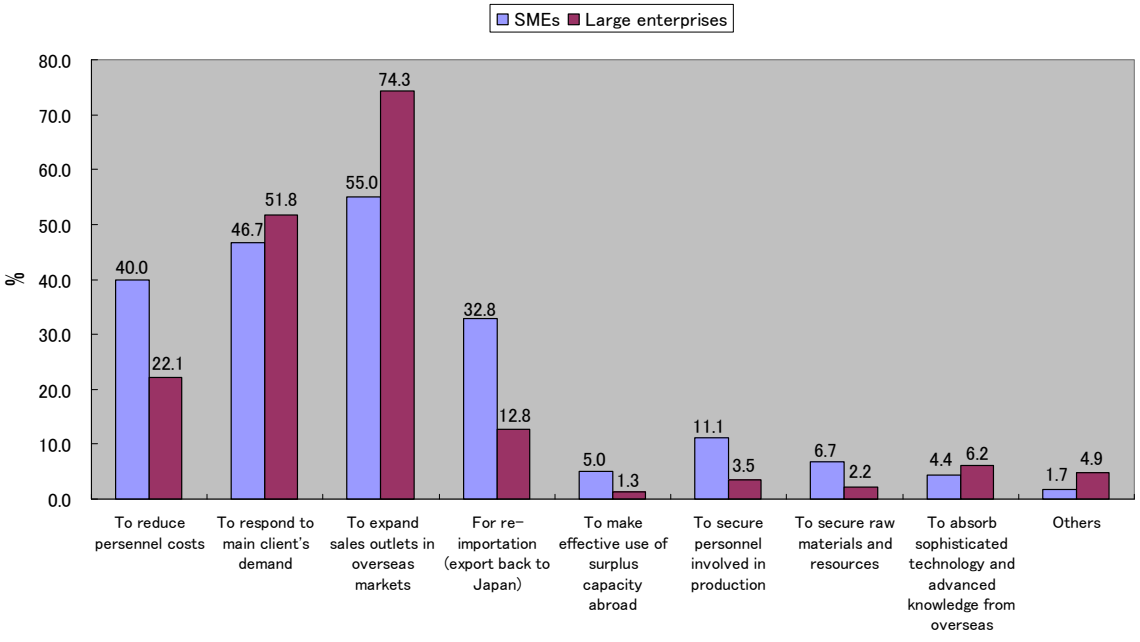
This paper is narrowly drawn to analyze only one line of linkages between customer and supplier. As a social unit firms engage in production, distribution and use of goods, which means that more linkages exists not only vertically but also horizontally. Further more, this study narrowly examined the automobile

industry from the case studies of three companies. Although the case study analysis provides the necessary depth of information required to understand the complex nature of the FDI by SMEs, this sample is narrow in the sense that it narrates the relationship of suppliers to one major manufacturer. Limiting the examination of customer-supplier relationship in one automobile manufacturer and its business partners may result in observing only the methods unique to this manufacturer. Moreover, the arguments in this paper come from only one industry in one country. Therefore, it is likely that if all the relationships between firms, and industries were considered this conclusion could be modified. Since this paper is not a theoretical paper, the conclusion makes much more modest point that FDI of SMEs can be explained from a different perspective. The perspective, which considers the existence of intermediate organization, which coordination that, can be achieved not through traditional markets or organizational hierarchy. This limitation is due to time and financial resources limitation.

The other limitation is that, the model, which is presented here strongly, explains the FDI by SMEs in a highly internationalized market. That is customers and competitors of the firm are international, that they can influence the location decision of the firm. In the early starter situation of internationalization this model may be viewed as weak explanation of FDI by SMEs.

APPENDICES

Appendix 1: Objectives of overseas expansion by size of the enterprise



Source: *Nomura Research Institute, Ltd., Questionnaire survey on the situation of the business environment in globalization (December 2007) (White paper for Japanese SMEs, 2008).*

Appendix 2

Appendix 3: Six MAJOR KEIRETSU (*roku dai kigyo shudan)*

Although the divisions between them have blurred in recent years, there are six major postwar *keiretsu*:

Name	Bank	Major group companies
Mitsubishi	Mitsubishi Bank (until 1996) Bank of Tokyo-Mitsubishi (1996–2005) Bank of Tokyo-Mitsubishi UFJ (2006–)	Mitsubishi Corporation, Kirin Brewery, Mitsubishi Electric, Mitsubishi Fuso, Mitsubishi Motors, Nippon Yusen, Nippon Oil, Tokio Marine and Fire Insurance, Nikon, Mitsubishi Chemical, Mitsubishi Estate, Mitsubishi Heavy Industries, Mitsubishi Rayon Co., Ltd., Mitsubishi Materials Corp., Mitsubishi Paper Mills Ltd., Pacific Consultants International Ltd.
Mitsui	Mitsui Bank (until 1990) Sakura Bank (1990–2001) Sumitomo Mitsui Bank (2001–)	Fuji Photo Film, Mitsui Real Estate, Mitsukoshi, Suntory, Toshiba, Toyota
Sumitomo	Sumitomo Bank (until 2001) Sumitomo Mitsui Bank (2001–)	Asahi Breweries, Hanshin Railway, Keihan Railway, Mazda, Nankai Railway, NEC, Sumitomo Real Estate
Fuyo	Fuji Bank (until 2000) Mizuho Bank (2000–)	Canon, Hitachi, Marubeni, Matsuya, Nissan, Ricoh, Tobu Railway, Yamaha
Dai-Ichi Kangyo	Dai-Ichi Kangyo Bank (until 2000) Mizuho Bank (2000–)	Fujitsu, Hitachi, Isuzu, Itochu, Tokyo Electric Power
Sanwa ("Midorikai")	Sanwa Bank (until 2002) UFJ Bank (2002–2006) Bank of Tokyo-Mitsubishi UFJ (2006–)	Hankyu Railway, Keisei Railway, Kobe Steel, Konica Minolta, Kyocera, Orix, Shin-Maywa, Takashimaya, Toho

Toyota is considered the biggest of the "vertically-integrated" keiretsu groups

Source: http://en.wikipedia.org/wiki/Keiretsu (2008 June 17)

Appendix 4

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