Collaboration between Foreign Direct Investments by Japanese Manufacturers in Vietnam and the Domestic Suppliers

HUA-LIN TSAI[1], CHUN-WEI, LU[2], WEN-YU CHEN[3], YENTE WU[4]
[1]Department of Information Management
[1]Southern Taiwan University of Technology
[2,3]Cheer & Share International Ltd
[4]Shu-Te University
[1]No. 1, Nan-Tai Street, Yongkang Dist., Tainan City 710
TAIWAN
[1]kittyhl@gmail.com
[2] wini882003@yahoo.com.tw
[3]wenyu.kate@gmail.com
[4]wu370900@gmail.com

Abstract: - With the competitive global environment, firms were faced with the question of where and how to launch their operation in world markets or to expand and integrate their existing international operations. Some of them determined to collaborate with their partners. Supply chain management (SCM) had been exploded onto the business scene as one of corporate management's major concerns over the past decades. Firms with the most competitive supply chains were and will continue to be the big winners in contemporary business. SCM had become a key to competitive advantage. This research explored the relations between foreign direct investments by Japanese manufacturers in Vietnam and the domestic suppliers. Base on collaboration theories and supply chain theories, a specialist questionnaire was utilized to evaluate the relationships. As a result, the view of vertical integration, the Japanese manufacturers in Vietnam collaborated with domestic suppliers helped both of them prepare future more clearly and faithfully. Japanese manufacturers in Vietnam thought domestic suppliers were reliable and they would like to make long term collaborations with their domestic suppliers.

Key-Words: - Collaboration, Supply Chain, Foreign Direct Investment, Japanese Manufacturers, Vietnam

1 Introduction

2010 was 37th anniversary for established of diplomatic relations between Japan and Vietnam. Vietnam was one of the fastest growing Asian Economy with a consistent growth rate of 7.00% during the 2003 to 2006. During last decade, Vietnamese government had adopted radical economic decisions which had helped in eradicating poverty and improving the economic condition of Vietnam. Vietnam had a population of 86 million, and due to its enormous economic and political reforms, the country was moving towards the economic boom.

Under the circumstances of the economic globalization, Japanese manufacturers faced with more challenge and competition. They must overcome the core challenges as they attempted to go global. Their immediate challenge was to break out of the mind-set that they could not compete successfully on the global stage. Growth of firms was important, and research and development were crucial lessons for firms.

2 Literature Review

Many studies had been conducted on competitiveness, collaboration, FDI, and supply chain. In order to get competitiveness, the purposes of FDI were resource-seeking, market-seeking and efficiency-seeking. Kojima [5] conducted that most of Japanese invested to developing countries in Asia was less capital-intensive or to put it more appropriately, was highly labor-intensive, a great deal of manpower being involved on the part of both the investors and transferees.

This research focused on the relations between the foreign investments by Japanese manufacturers in Vietnam and the domestic suppliers; therefore, the supply chain collaboration was a point in this study. In addition, this research examined relations

between Japanese manufacturers (wholly-owned subsidiary and international joint venture) in Vietnam and domestic suppliers. And how the two different types of FDI effected the relations were analyzed

2.1 Value Chain

Firms needed to develop a unique set of skills that other organization do not have. This kind of abilities were supposed to be incorporated into the business's activities, but attaining them requires a detailed analysis of these very activities, which Porter groups under another fundamental notion in his thought-the value chain. Porter introduced a generic value chain in 1985. Value chain focused on cost management efforts and allows alignment of process with customers. It provided for efficient process which improves the timeliness of operations. The following drawing was of the value chain model [8].

The primary activities of value chain were inbound logistic, operations, outbound logistics, sales and marketing, service and supporting; and the support activities were general management, human resource management, technology development and procurement. The goal of these activities was to offer customers a level of value that exceeded the cost of the activities, thereby resulting in a profit margin. Multiple infrastructures increased costs at all levels, with respect to operations, maintenance/support, security and services [7]. Because technology was employed to some degree in every value creating activity, changes in technology can impact competitive advantage by incrementally changing the activities themselves or by making possible new configurations of the value chain.

The business unit was the appropriate level for construction of a value chain, not the divisional level or corporate level. Products passed through all activities of the chain in order, and at each activity the product gains some value. The chain of activities gave the products more added value than the sum of added values of all activities. It was important that not to mix the concept of the value chain with the costs occurring throughout the activities.

2.2 Value Chain, Innovation and Supply Chain

Hosein and Thomas (2004) [6] pointed out that much of the competitive advantage due to the globalization of the supply chain and value chain functions and "lean manufacturing" slowing disappeared as global companies converge to a similar management models. Today, business with a supply chain strategy required integration, and it based on value chain that firms integrated with customers and suppliers in value chain. Companies were competing more and more on their ability to innovate effectively and efficiently. To compete, FDI had to integrate globally dispersed technological and market know-how to innovate products, services and process for the global market. To achieve cost advantage in operations, companies continued to the search for cheaper labors and better materials. The fact that many companies were present in clusters around the worlds was not an accident. The precondition for global innovativeness was access to market and technology know-how. Hosein and Thomas conduct the trend in globalizing the different functions of the value chain was depicted in Figure 1.

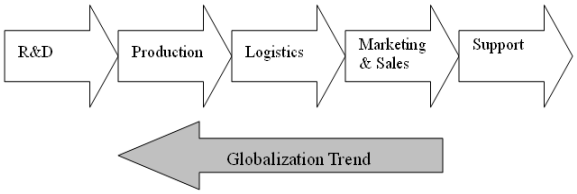

Fig. 1 Tradition Trend in Globalization
Sources: Hosein and Thomas[6]

Technology alliance was defined as technological collaboration in some researches and reflects the nature that two or more partners contribute differential resources and technological know-how to jointly agree and develop their innovation that aimed of such a collaboration activity.

A supply chain could be defined as an integrated process consists of a number of various business entities including suppliers, manufacturers, distributors, and retailers. Firms worked together in an effort to acquire raw materials, converted them into specified final products, and finally delivered these final products to retailers then to final customers [1]. According to Beamon, there were 3 supply chain modeling issues as following:

(1) Product Postponement: the practice of delaying one or more operations to a later point in a supply chain, thus delaying the point of product differentiation was occurred.
(2) Global vs. Single-Nation Supply Chain Modeling: Global supply chains were supply chain that operated in multiple nations.

(3) Demand Distortion and Variance Amplification: it was a phenomenon in which "orders to the supplier had larger variance than sales to the buyer" and variance amplification occurred when the distortion of the demand happened-propagates upstream in amplified form. As a result, a number of strategies had been developed to counteract the effects of demand distortion and variance amplification

2.3 Defining Collaboration

In order to help firms to keep of some issues related with strategic alliance, James, Benjamin and Michael [3] designed the "arc of alliance strategy". Although mastery of these individual elements of alliance strategy was essential, it was the overall workings of the arc that drive to the success. Within the arc, the strongest links were the cooperation spirit between alliance design and management. The success of one clearly depended on the other. The design must set the stage for management, and management must strive to bring to fruition the goals set at design. These two elements applied to every alliance of the firm, and carry roughly equal weight in the success of any given alliance. On the left side, constellation design always set the stage for the design of individual alliances, because it influenced goals and partner selection criteria. On the right side, the firm's alliance capability often determined how it would tackle alliance management.

In 21st century, there were characteristics of capitalism that made it entirely different from its predecessors. Historically, collaboration strategists were not particularly concerned with business models, because each industry had a stand model, and strategists assumed the model in that industry. However, collaboration activities can dramatically reduce search, coordination, contracting, and other transaction costs between firms. Through collaboration, customers and suppliers can get greater power because of their increased access to information, enhanced ability to communicate with each other, and greater freedom of choice-collaboration choice.

According to Rosabeth [9], alliances between companies, whether they were from different parts of the world or different ends of the supply chain, were a fact of life in business today. Some alliances were no more than fleeting encounters, lasting only as long as it took on partner to establish a beachhead in a new market. Others were the prelude to a full merger of two or more companies' technologies and capabilities. Learning how to learn and how to collaborate was important for partners. Also operational dissimilarities require working out more communication than anyone could have anticipated. It was important to establish many interpersonal relationships between partners helped resolve small conflicts before they escalate.

Collaboration should be stressed that the partners of a strategic alliance need "not" have common goals. They may have different goals. What important was that the goals were known and that it was agreed that the different goals can be fulfilled within one and the same strategic alliance [4].

For firms seeking to innovate within their supply chain, it was important that in entering into relationships, the firms that need to innovate ensure the relationship allowed them to acquire additional knowledge and build capabilities that add to their innovative capacity. Soosay, Hyland and Ferrer [10] distinguished collaboration types to be five parts.

1. Strategic Alliance
2. Joint Ventures
3. Cooperative Arrangements
4. Virtual Collaboration
5. Vertical, Horizontal and Lateral Integration

These research formed parts of a large study on benefits from collaborate with domestic suppliers for Japanese manufacturers in Vietnam. According to the most references, FDI depended on respecting domestic culture to integrate domestic resources and firms' core value to apply to firms' distant views. Therefore, we defined collaboration between FDI and domestic supplier brought innovation for both companies in order to get competitiveness

3 Research Methodology

According to Ichikawa Kyoshiro (2007) [2], most of Japanese manufacturers invested Vietnam as 100% wholly-owned subsidiary, and most of them were export processing type. Most of joint venture firms sought for domestic market. The percentage of wholly-owned subsidiary and joint venture of Japanese manufacturers in Vietnam from 1990 to 2004 were showed in Figure 2 Light gray was the percentage of wholly-owned subsidiary.

ISBN: 978-1-61804-084-8

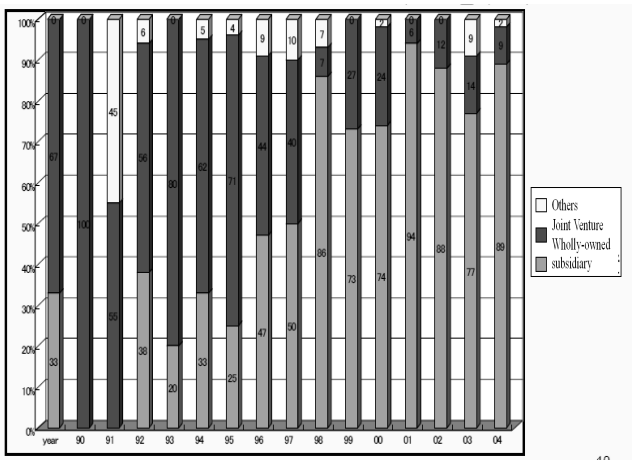

Fig. 2 The Ratio of Wholly-owned Subsidiary and Joint Venture of Japanese Manufacturers in Vietnam

Since 1997, the Japanese manufacturers invested Vietnam as wholly-owned subsidiary was over 50%, and in 2004, it was over 89%.

In order to costs down, Japanese manufacturers invested overseas. Some of their products were sold to domestic markets and some of them were exported to Japan or other countries. Moreover, recent years, Japan firms invest Vietnam much more than China or Thailand, because they know the value of being able to tap into Vietnam's cheap labor force. Regarding literature review, collaboration was a kind of knowledge sharing made innovation for the partners. In a partnership, both customer and supplier commit to continuous improvement and shared benefits. To maximize benefits, complementary activities and behaviors must be exhibited by both partnering organizations. Problems may occurred in the areas of joint buyer-supplier cost reduction, supplier integration into the new product-development process, logistics management, and core business strategies. Furthermore, the cultural changes in both organizations must accompany successful collaborative relationships (McIvor, Ronan and McHugh's, 2000).

This study focused on how different types-joint venture and wholly-owned subsidiary affected their relations. Moreover, this research questions addressed in this paper were as follows:

A. How Japanese manufacturers in Vietnam collaborated with their domestic suppliers?
B. Did their domestic supplier support them as well?
C. Were the relations differently between two types of FDI (joint venture/wholly-owned subsidiary types of Japanese manufacturers) and domestic suppliers?

3.1 Hypotheses

The education taking network as the foundation
According to the framework of this research, the hypotheses were as follows.

H1: The motivation for investing in Vietnam of Japanese manufacturers was lower labor force.

H2: Different types of FDI (joint venture or wholly-owned subsidiary) affected the collaboration with domestic suppliers.

3.2 Methodology

We examined the details of the establishment years of firms, the capitals, and the motivations of investing to Vietnam. Total of 194 foreign direct investments for Japanese manufacturers in Vietnam were chosen from the data of 2008 Data Bank Series (published by Toyo Keizai Inc.) [11]. And 71 effective returns were received in August 2009. According to reviews of Japanese papers and previous experiences, most of Japanese firms did not want to enclose their information or answer questionnaires to the others except that they know the scholar as well; effective returns less than 50 were common. Lehr's equation showed that while numerator for sample size formula-two sided alternative hypothesis with type one error and α=0.05 and power 0.80, 29 sample size was needed.

4 Estimation Results and Findings

From the result, question a. and b. could be answered: collaboration with domestic supplier perceived by the Japanese manufacturers in Vietnam was high (average score: 4.14). Moreover, Japanese manufacturers in Vietnam thought that in the processes of collaboration with domestic suppliers, it brought benefits to costs down, less customers' claims and shorted operation time for them. However, they were worry about the postponing deliveries of their domestic suppliers

The descriptive statistics of the returns were sorted in Table 1 as below

Table 1 Background Information of Responds

Background information of objects	Percentage
The Position of Answers	
• CEO/President/General manager/ Vice general manager	71.95%
• Manager/Assistant manager/ middle-high level manager	14.63%
• The others (assistant)	13.42%

ISBN: 978-1-61804-084-8

Establishment years:	
Jan. 1991~Dec. 1995	18.29%
Jan. 1996~Dec. 2000	35.37%
Jan. 2001~until now	46.34%
Capital: (Japanese Yen)	
Less than 50 million	42.69%
50 million ~ 100 million	20.73%
100 million ~ 500 million	30.49%
500 million ~ 1 billion	4.87%
1 billon ~ 5 billion	1.22%
More than 5 billion	9.76%
Motivations for investing in Vietnam:	
• Governments (Japan and Vietnam governments' promotion)	3.04%
• Labor (salaries in Vietnam are cheaper than in Japan)	23.78%
	2.44%
• Logistical services	17.07%
• Domestic market	5.49%
• Easy to export goods	1.83%
• Same business promotion	33.54%
• Globalization	2.44%
• The other reasons	10.37%
• Cannot be answered	
Average employees' age	
Male	27 years
Female	25 years

Source: this research

Most of the manufacturers were established in Vietnam after Jan. 1996. And the motivations for investing in Vietnam were labor, domestic market and globalization. Globalizations meant under the economic globalization, depended on value chain, firms were not only focus on their local business activities but also expand their business globally. And globalization took 33.54% higher than labor force. H1 was not significant.

In order to understand would different motivation of Japanese manufacturers investing Vietnam affect their relations with domestic suppliers, the motivations were separated to be labor force (code: 2), domestic market (code: 4), globalization (code: 7) and the others (code: 1).

Japanese manufacturers in Vietnam with the motivation on investing Vietnam was "domestic market" emphasized on collaborate with domestic suppliers more than the others.

By questionnaires, the average score of Japanese manufacturers in Vietnam respected domestic management was 3.67 (score from 1 to 5). And the results of percentage on proceeding domestic management currently were sorted in Table 2.

Table 2the Percentage of Proceeding on Domestic Management

Items	Percentage
• Research and development	4.90%
• Producing domestically	17.10%
• Selling products domestically	14.66%
• Hire domestic employees	61.00%
• Others	2.40%

Source: this research

Comparing Table 1 and 2, the motivation of Japanese manufacturers investing in Vietnam was globalization (33.54%) and labor force (23.78%). And about proceeding on domestic management, "hire domestic employees" got the highest percentage which meant that "labor force of Vietnam" was a crucial factor that attracted Japanese manufacturers to invest in Vietnam.

There were 47 effective returns of wholly-owned subsidiary and 24 effective returns of joint venture. We could see the different average scores between wholly-owned subsidiary and joint venture firms; in order to verify the different, t-test was used. When comparing the scores of the two groups, it was important to examine the difference between their mean scores relative to the spread or variability of their scores; the t-test statistic did this (Ciaran Action Robert Miller). The t-test was accessed to examine H2: Different types of FDI (joint venture or wholly-owned subsidiary) affected the collaboration with domestic suppliers.

Joint venture firms perceived that "domestic suppliers sometimes postpone their deliveries made trouble" and "in the processes of collaborations with domestic suppliers, if there is any problem occurred, your domestic suppliers always contact to you immediately" more than wholly-owned subsidiary. And although question 10 and 12 were significant, the average scores were low and near 2.50.

5 Conclusions and Findings

This study focused on what motivation of the Japanese manufacturers invested in Vietnam, and how different types-joint venture and wholly-owned subsidiary affected their relations and we assumed two hypotheses and three questions in this study. The examined conclusions were summarized as below:

H1: The motivation for investing in Vietnam of Japanese manufacturers was lower labor force-was not significant. The motivation of Japanese manufacturers invested in Vietnam was globalization (33.54%) and lower labor force was 23.78%.

ISBN: 978-1-61804-084-8

H2: Different types of FDI (joint venture or wholly-owned subsidiary) affected the collaboration with domestic suppliers-was significant.

Furthermore, the three questions addressed in this paper and by analyzing, the answers were summarized as follows:

A. How Japanese manufacturers in Vietnam collaborated with their domestic suppliers? Answer: Collaboration with domestic supplier perceived by the Japanese manufacturers in Vietnam was high (average score: 4.14). Moreover, Japanese manufacturers in Vietnam thought that in the processes of collaboration with domestic suppliers, it brought benefits to costs down, less customers' claims and shorted operation time for them. However, they were worry about the postponing deliveries of their domestic suppliers.

B. Did their domestic supplier support them as well? Answer: Yes. Japanese manufacturers wanted to make long term collaborations with their domestic suppliers (average score 4.14), and they thought that their domestic suppliers could not be replaced (average score 3.43). It might because domestic suppliers were experiential and they could support the business activities of FDI more smoothly (average score 3.71). And also in the processes of collaborations with domestic suppliers, if there is any problem occurred, they always contacted to FDI immediately (average score 3.82). Moreover, Japanese manufactures in Vietnam thought their domestic suppliers always support your company (average score 3.49).

C. Were the relations differently between two types of FDI (joint venture/wholly-owned subsidiary types of Japanese manufacturers) and domestic suppliers? Answer: through t-test analysis, Japanese manufacturers in Vietnam with the type of joint venture perceived that "domestic suppliers sometimes postpone their deliveries made trouble" and "in the processes of collaborations with domestic suppliers, if there is any problem occurred, your domestic suppliers always contact to you immediately" more than the type of wholly-owned subsidiary.

Notably, Japanese manufacturers were worry about their domestic suppliers sometimes postpone their deliveries that made them in trouble. And they also thought that the communication between your employees and your domestic suppliers must be improved (average score 4.03) which conducted that enhancing on communication between Japanese manufactures and domestic suppliers might improve the collaboration closely. Finally, the results of this study could be used as a guide for Japanese manufacturers to review, improve and enhance their collaboration with domestic suppliers in the future.

References:

[1] Beamon BM, Supply chain design and analysis: models and methods, *International Journal of Production Economics*, Vol. 55, 1998, pp. 281-294.

[2] Ichikawa Kyoshiro, Investors gazed at Vietnam, *Foreign Investment Agency, Ministry of Planning Investment*, Japan, Oct. 23, 2007, pp. 29.

[3] James D. Bamford, Benjamin Gomes-Casseres, and Michale S. Robinson, 2002, *Mastering Alliance Strategy*, pp. 5-15.

[4] Joan Vuust, *Towards an International Economy of Strategic Alliances*, Kopicentralen, Aalborg Universitet Press, 1999.

[5] Kojima Kiyoshi, Transfer of technology to developing countries-Japanese type versus American Type, *Hitotsubashi Journal of Economics*, Vol. 17, No. 2, 1977, pp. 2-13.

[6] M. Hosein and Thomas G. Lechler, 2004, *Competing in the New Paradigm of Global Innovation Management*, IAMOT.

[7] Patricia Mayer Milligan, Donna Hutcheson, Business Risks and Security Assessment for Mobile Devices, *Proceedings of the 8th WSEAS International Conference on Mathematics and Computers in Business and Economics*.

[8] Porter, M.E., *Competitive Advantage*, N.Y.: The Free Press, 1985.

[9] Rosabeth Moss Kanter, *Collaborative Advantage: The Art of Alliances*, Harvard Business Review on Strategic Alliances, 2002.

[10] Soosay, C.A., Hyland, P.W., Ferrer, M., Supply chain collaboration: capabilities for continuous innovation, *International Journal of Supply Chain Management*, Vol. 13. No. 2, 2008, pp. 160-169.

[11] "Data Bank Series for Research & Analysis" June 19, 2008, Toyo Keizai, Inc.