

Japanese Small Suppliers in the Chinese Market: A Global Value Chain Approach

Ding Ke

Abstract

The present study attempts to elucidate the role of developed country-based suppliers in global value chains (GVCs). Michael Porter emphasized the role of home-based suppliers in increasing global competitiveness of a country's industrial sectors. However, globalization has marked the increasing importance of suppliers from developed countries. An in-depth case study of Japanese small suppliers in the Chinese market revealed that Japanese suppliers formulate various service strategies to attract customers to their high-quality but expensive products and to help customers create value, which can provide ample learning opportunities to local customers. The study also showed that suppliers can reduce communication costs and shorten cultural distance by training the local staff, shifting the power to a local branch, and accumulating marketing capabilities. The technological advantages and the ever-increasing Chinese market enabled these small companies to independently adopt the aforementioned strategies. The study of developed country-based suppliers helps in understanding the consequences of globalization on industrial development in developing countries. It also provides useful insights to consider supplier strategies in GVCs.

Keywords: developed country-based suppliers, learning, localization

1 Introduction

It is well known that suppliers are vital to enhance a country's industrial competitiveness. Porter (1990:pp.101–103) states that the presence of internationally competitive supplier industries in a nation creates advantages in downstream industries in several ways, such as creating efficient access to intermediate goods, ongoing coordination, and greater opportunities for innovation and upgrading. The focus is mainly on the factor that “suppliers help firms perceive new methods and opportunities to apply new technology.

Firms gain quick access to information, to new ideas and insights, and to supplier innovations.”

Henke and Zhang (2010) stated that innovation-related supplier activities can help enhance the competitiveness of a supply chain. Suppliers invest resources in technology to create innovative products or processes that could support potential future business as well as share technology with the customer without the assurance of a purchase order.

Several studies on Japanese suppliers also suggested that qualified suppliers are the major sources of the international competitiveness of Japanese manufacturing sectors. Japanese suppliers are good at providing high-quality products in shorter delivery time as well as have superior technologies in some specific sectors. Given these advantages, suppliers can actively provide technical and design proposals to customers, collaborate in the process of final product development, and eventually strengthen the competitiveness of the Japanese supply chain (Asanuma 1989; Nishiguchi 1994).

Most literature share a common precondition that home-based suppliers are more significant than foreign suppliers. Porter (1990, p.103) noted that “having a competitive domestic supplier industry is far preferable to relying even on well-qualified foreign suppliers. ...Proximity of managerial and technical personnel, along with cultural similarity, tends to facilitate free and open information flow. Transaction costs are reduced.”

In contrast, the present study contends that in a highly globalized era, developing countries in particular are unable to promote their own competitive suppliers, thus, making the roles of developed country-based suppliers highly significant. Suppliers in developed countries provide not only good-quality materials, parts, intermediate goods, processing business, machineries, and equipment but also abundant learning opportunities. Industrial upgrading through trade with foreign suppliers is an important path to growth for firms in developing countries. A study on the role of developed country-based suppliers is imperative for an in-depth understanding of global value chains (GVCs).

The present study explores the role of developed country-based suppliers in GVCs through a case study of Japanese small suppliers with particular reference to their

activities in the Chinese market. On the one hand, these Japanese small suppliers have strong technological capabilities. In addition to high-quality intermediate goods, they also actively engage in customers' process of product development, production, and problem solving. These activities provided great learning opportunities to Chinese firms. On the other hand, the Japanese firms' supply chain is marked by the so-called subcontract relations (*Shitauke Torihiki*). The relationship between subcontract suppliers and customers is usually trust-based, long-standing, and captive (Sako 1992). However, it is argued that this system leads to lack of "geographical flexibility" in the Japanese production network, and, therefore, Japanese suppliers find it difficult to trade with non-Japanese customers (Sturgeon 2002). The present case study suggests that some Japanese small suppliers have succeeded in investing in the Chinese market and trading with non-Japanese customers. They have clearly overcome the captive relations with customers. Therefore, an in-depth case study of Japanese small suppliers in China contributes to further understanding of the role of developed country-based suppliers, and will be insightful to consider the methods of strengthening supplier competitiveness in GVCs.

Further to this, Section 2 reviews literature from the learning and supplier strategy viewpoint. Section 3 overviews the existing scenario of Japanese small suppliers. Section 4 studies the case of 29 small suppliers who have succeeded in exploring non-Japanese customers. Section 5 presents the conclusions.

2 Literature Review

Literature on GVC has focused so far on the discussion of business relations between lead firms of developed countries and suppliers of developing countries (Gereffi 1999; Schmitz and Knorringer 2000; Gereffi et al. 2005; Morrison et al. 2008; Pietrobelli 2011). However, few studies focus on the opposite pattern, that is, how developed country-based suppliers deal with firms of developing countries and its consequences on learning, industrial upgrading, and development. Limited case studies on Chinese manufacturing sectors suggest that developed country-based suppliers have indeed played a significant part in GVCs.

Marukawa (2014) suggests that by providing turnkey solutions and other engineering supports, foreign key component makers have significantly lowered technological barriers to entry, which has enabled numerous Chinese firms having no strong technological capabilities to enter technology-intensive sectors. Marukawa (2014, p.58) argues that this is a new type of value chain governance and called it as “supportive value chain.” This study further argues that “in the case of supportive value chains, due to the lack of technological capability at the core firm, there will be a lot of black boxes in its suppliers’ processes, and the core firm will often fear that it will suffer from artificially high prices and low quality” (Marukawa, 2014, pp.66–67). However, this study did not show how Chinese firms can upgrade by overcoming this black box problem, and, thus, underestimated the role of foreign key component suppliers in facilitating learning and upgrading.

Humphrey et al. (2018) studied the role of technology platforms in GVCs through the case studies of mobile phone and electric two-wheeler (E2W) sectors in China. In contrast to the study of Marukawa (2014), the present study emphasizes that a platform vendor can provide rich learning opportunities to Chinese customers. It particularly emphasized that technological changes will alter the modularity of platform less codifiable, increase uncertainty and coordination along the chain, and eventually create greater learning opportunities to Chinese customers.

However, these studies have mainly considered the key component makers (mostly platform leaders), and, hence, lack a broader prospect for the numerous suppliers from developed countries supplying intermediate goods, machinery, equipment, and those engaged in processing business. More importantly, these studies did not explain why foreign suppliers can shorten the geographical and cultural distance with local customers such that they enjoy similar advantages that Porter (1990, p.103) considered only home-based suppliers can enjoy.

On the other hand, an increasing number of studies are deepening the discussion of supplier strategies in GVCs, through which suppliers can upgrade, innovate, and capture value. Sturgeon and Laster (2003, pp.46–47) highlighted five approaches that suppliers can adopt to balance or replace original equipment manufacturing (OEM) production with new higher-value activities: (1) to acquire or create a brand and sell some or all of the

firm's production under the brand name; (2) the classic original design manufacturing (ODM) route; (3) to specialize in process-specific technologies; (4) to move to the second tier of the supply base, providing domestic content for the local affiliates of global suppliers; (5) to follow the same outsourcing strategy of lead firms in the West. Sturgeon and Linden (2011, p.212) stress that suppliers do not respond automatically to the technical requirements that arise along with the changes in complexity of transactions and the codifiability of knowledge in GVCs unless "these requirements pass through the entrepreneur and the strategic filters of suppliers' founders and managers." This study also stressed that domestic market can allow suppliers to develop baseline capabilities that can help them to win initial business from lead firms in GVCs.

Sako and Zylberberg (2017, pp.19–20) systemically analyzed supplier strategies. In line with this study, by using corporate strategy, suppliers "can change the governance mode in which they operate to a varying degree, by diversifying their portfolio of buyers (sometimes across industries and geographies) and by reacting to opportunities provided by lead firms' strategic decisions and changes in institutional constraints." Using a technology strategy, suppliers can "capture value they create by upgrading if they operate under strong appropriability regimes or otherwise possess specialized complementary assets critical to their clients."

Although these studies underlined the importance of supplier strategy, they focused mainly on large-scale and highly globalized tier-one suppliers. These large suppliers could easily formulate strategies independently owing to the large firm size. By contrast, the study focuses on small suppliers with limited managerial resources. Strategic choice is particularly important to these suppliers.

3 Characteristics of Japanese Small Suppliers

From the perspective of value chain governance and supplier strategy, the study highlights three characteristics of new Japanese small suppliers.

First, because changes in technology and the market occurred, an increasing number of small suppliers have transitioned from captive suppliers to independent actors. The governance structure of Japanese manufacturing sectors has been characterized as captive

relations between a few large lead firms¹ and some specific small suppliers. According to the seminal work by Watanabe (1997, pp.291–293), based on the analysis of small suppliers in Japanese machine industry, this unique governance pattern largely resulted from the interaction between technology and market in the high economic growth period of Japan.² As the market was continually growing during this period of high economic growth, large lead firms can ensure long-standing and stable orders for specific small suppliers. On the other hand, lead firms not only had technological advantages over small suppliers, but also acted as intermediaries in transferring foreign technologies to suppliers. This scenario led to many small suppliers willingly maintaining long-term captive relations with their lead firms. At the end of high-growth period, however, the lead firm itself faced stagnant growth and was no longer able to ensure long-standing and stable orders for small suppliers. Meanwhile, in their specific sectors, as a result of long-term specialization, small suppliers accumulated similar or stronger technological capabilities over lead firms. Small suppliers began to engage in fundamental research or introduce foreign technologies on their own. In this situation, it was no longer attractive for small suppliers to maintain captive relations with lead firms. Many small suppliers began to seek new customers by independently formulating strategies, and the relationship

¹ In Japanese literature, as the dependence of small suppliers on a few lead firms (mostly one firm) is very strong, the lead firms are usually called as “parent company” (Oya Jigyosha). The present study uses the term “parent company” when directly cited from Japanese literature. In most cases, its meaning is interchangeable with “lead firm.”

² Watanabe (1997) highlighted that, in addition to common captive suppliers, there is also a unique small supplier group in Japan, which does not belong to any parent company and usually receives orders from multiple customers across several sectors. These small suppliers are generally in tier 2 or a lower layer of Japanese production network. As there is intense competition among them, and as the market is always drastically changing, it is difficult for them to survive by relying on a specific parent company or concentrating on a specific sector. The existence of this small supplier group enabled Japanese manufacturing sectors to flexibly adapt to rapid changes in the market. As they receive orders from multiple customers across multiple sectors, like a mountain having several peaks, Watanabe (1997) thus called the structure of Japanese production network as “mountain structure,” in comparison to the conventional understanding of “pyramid structure.”

between the two parties became increasingly equivalent. Using the term of GVC literature, a more “relational” governance structure has been formed.

The aforementioned structural changes are supported by statistical data. Tables 1 and 2 show that the number of customers catered by small suppliers has continued to grow since 1990s, and small suppliers’ dependence on the largest customer in terms of transaction volume has continued to decline. The data in Tables 1 and 2 cover the major sectors including manufacturing, service, and construction. Specific data of manufacturing sectors in early 1990s could not be obtained. However, the data of manufacturing sectors in 2011 show that there are no significant differences between manufacturing and other sectors. This survey was conducted in Japan. As stated below, in overseas markets such as China, Japanese small suppliers rely much less on any single customer, which implies that they have thoroughly overcome captive relations.

Table 1 The number of customers with whom subcontractors have continuous transactions (%)

	1	2~3	4~5	6~9	10~19	20~49	50 and more
95	19.7	29.7	19.5	10.3	10.5	6.2	4.1
96	20.5	28.0	17.8	11.0	11.0	7.4	4.3
97	20.9	28.5	18.1	9.4	11.9	7.6	3.6
98	21.6	30.9	19.2	9.4	10.3	5.7	2.9
99	22.9	30.3	17.3	8.4	11.8	6.0	3.5
00	21.7	26.7	19.3	9.8	11.4	7.2	3.8
01	17.7	28.2	17.8	12.0	12.0	7.8	4.6
02	17.8	29.3	18.8	10.1	12.3	8.4	3.2
03	24.9	23.3	15.9	9.8	11.9	8.6	5.6
04	28.6	19.5	14.9	9.5	11.9	9.2	6.5
05	20.0	21.0	15.5	11.8	13.8	10.2	7.7
06	22.4	20.0	14.4	10.9	13.1	11.4	7.8
07	17.2	24.2	15.9	11.5	14.0	10.5	6.7
08	16.1	18.2	14.7	11.9	15.5	13.1	10.5
09	17.7	20.7	14.6	12.6	15.2	10.8	8.4
10	15.6	22.0	14.6	11.2	14.9	11.9	9.8
11	14.6	21.4	16.5	12.5	15.8	11.8	7.5

Of these, manufacturing sector	14.6	18.5	14.9	12.2	16.1	13.9	9.9
--------------------------------------	------	------	------	------	------	------	-----

Source: Tokyo Shoko Research (2012)

Note: This survey used the term of “parent company (Oya Jigyosha)” to denote all the major customers that the suppliers always transact with. However, in most Japanese literature (see Footnote 1), parent company refers to one or a small number of major customers. Therefore, in this table, this term is translated to “customer.”

Table 2 Dependence on the largest customer in terms of transaction volume (%)

	More than 90%	More than70 %~90%	More than50 %~70%	More than 30%~ 50%	More than 10%~ 30%	10% and below
91	17.6	12.9	20.0	26.5	19.3	3.7
92	19.0	13.3	18.6	26.1	19.0	4.0
93	18.9	13.2	19.2	24.9	20.1	3.7
94	19.9	13.0	19.2	22.3	22.0	3.6
95	19.9	13.1	19.4	22.5	21.9	3.3
96	18.8	13.8	17.8	22.0	23.9	3.7
97	19.3	12.1	18.8	21.9	23.8	4.1
98	18.6	13.0	18.8	25.2	19.4	5.0
99	18.3	12.6	18.3	23.8	21.7	5.3
00	16.3	12.2	17.8	24.3	22.9	6.6
01	17.5	13.5	17.4	27.3	18.7	5.5
02	19.7	12.7	15.3	27.2	19.4	5.6
03	15.5	11.5	17.6	24.3	22.4	8.7
04	15.4	11.3	16.6	24.2	23.4	9.0
05	16.1	11.3	15.6	24.3	22.7	10.1
06	14.0	10.8	16.6	24.1	23.6	10.9
07	14.9	10.6	14.9	25.9	23.1	10.7
08	11.2	9.1	13.8	24.9	28.7	12.2
09	12.8	9.5	15.2	25.2	25.8	11.5
10	13.7	11.5	15.0	24.2	25.9	9.7
11	13.6	11.3	15.5	22.0	28.1	9.5
Of these, manufacturin g sector	15.0	11.5	15.9	21.8	27.3	8.5

Source: Tokyo Shoko Research (2012)

Second, although the managerial resources of these small firms are limited, these Japanese suppliers have strong technological, production, and design capabilities, which are particularly important for providing learning opportunities to customers from developing countries.

Watanabe (1997, p.314) underlines three unique characteristics of the capabilities of Japanese small suppliers: first, Japanese suppliers typically have world-class technological capabilities. In their own specific sectors, the technological levels of Japanese suppliers are usually higher than “parent companies.” According to a survey conducted by Shoko Chukin Bank in 1982, the technological levels of 51.5% of small subcontract suppliers were as similar to or better than their parent companies. In 1988, this level increased to 60.2%. Of these suppliers, 48.6% answered that their technological levels were clearly higher than parent companies (Watanabe 1997, p.314).

Second, Japanese small suppliers are supported by a flexible, specialized production network that enabled these firms to respond to rapidly changing market demands. According to a survey on small subcontract suppliers, with regard to “sudden orders from customers,” 59.1% of suppliers in manufacturing sectors answered that “that is not a problem,” 17.1% answered that that is even desirable to “differentiate from other firms.” Nearly 16.4% of the suppliers answered “it is a problem” and others accounted for 7.4% (Tokyo Shoko Research 2012).

Third, Japanese suppliers have strong capabilities of proposing new designs or technological advices to lead firms such they can collaborate to new product development.³ According to this survey, in response to the question “to what extent your company adopt a “proposal type marketing to customers,” 42.7% of manufacturing subcontractors answered that “we do not actively propose to customers, but we can provide proposal if our customers have the requests,” 16.6% of suppliers said that “we actively propose to customers, rather than provide proposal only if customers have the

³Asanuma (1989) termed this type of suppliers as Design-Approved (Shoninzu) Suppliers, in comparison to the common Design Supplied (Taiyozu) suppliers. Design-approved suppliers are highlighted as the major source of competitiveness among Japanese supply chain.

request.”⁴ This indicates that nearly 60% of small manufacturing subcontractors have a fairly good ability to propose to their customers. This survey was conducted in Japan where the market is matured and customers generally have strong technological, production, or design capabilities. In an emerging market such as China, as analyzed in Section 4, Japanese suppliers play a more active role in proposing technological advices to customers.

Table 3 Determinants of foreign direct investments by small businesses (%、multiple answers)

Determinants	2004	2005	2006	2007	2008	2009	2010	2011
To ensure cheap and qualified labor	31.2	19.9	22.8	26.3	27.7	20.4	28.4	27.2
Strong local demands or good expectation on local demands	29.3	28.7	30.4	31.6	33.2	39.5	45.5	49.0
Follow customers and other Japanese firms	23.7	17.0	18.5	20.6	21.1	16.4	25.5	30.1

Source: Small business white paper 2014.

Moreover, Japanese small suppliers have been actively exploring overseas markets (particularly China) through direct investments in recent years. As Table 3 illustrates, “strong local demands or good expectation on local demands,” compared to “to ensure cheap and qualified labor,” or “follow customers and other Japanese firms” has become an increasingly important purpose for small businesses to determine whether to invest in an overseas market or not. China is the most important country in which Japanese small suppliers have invested. In 2011, the geographical distribution of small firms’ overseas branches is China (including Hong Kong, 44.6%), other Asian countries (34.4%), North America (11.4%), Europe (6.0%), and others (3.6%) (Small Business White Paper 2014). Most small firms in China are aiming at its huge domestic demands. According to another

⁴ About 13.5% of suppliers answered that they have rare opportunities to conduct proposal-type marketing and 27.1% answered that they do not conduct proposal-type marketing.

survey, regarding the question about “why does your company plan to expand or maintain the Chinese business,” 61.9% of Japanese small businesses answered that “we can expect business expansion based on the size and potential of the market,” far ahead from the second largest answer (25.6%), “our business is established, and it is on track” (JETRO 2014). These firms appear to have better performance in China than in Japan. In the Japanese market, the average share of loss-making small manufacturers between 1983 and 2007 was 37.1%, while in China only 24.9% small manufacturers predicted they would be making a loss in 2013.⁵

4 Case study of Japanese small suppliers in China

4.1 Data

From 2009 to 2011, Japan External Trade Organization (JETRO) Shanghai Branch conducted interviews with Japanese small and medium-sized suppliers who had achieved significant successes in exploring the Chinese market and, particularly, in establishing business relations with non-Japanese customers. The interview records have been edited as three reports (JETRO Shanghai 2010, 2011, 2012). These reports contain detailed information on supplier strategy and chain governance, including the strength of each supplier, on how they explored non-Japanese customers, how they managed relations with customers, and how they facilitated localization. These interview records present in-depth understanding of supplier strategy and the role of suppliers in GVCs.

Based on these reports, 29 suppliers were taken as case study samples. The criteria for the selection of cases are as follows. First, the samples included small and medium-sized enterprises companies with headquarters in Japan (Chusho Kigyo, the number of employees is 300 or less, or the company capital is 0.3 billion yen or less), or mid-sized firms (Chuken Kigyo, the number of employees is 1000 or less). The information of a few large firms (the number of employees is more than 1000) was excluded.

⁵ Data of Japan are cited from Small Business White Paper 2009; data of China are cited from JETRO (2014).

Companies engaged in the production of intermediate goods, machineries, or processing business, as per the requirements of this study, were selected. Therefore, companies engaged in the production of consumer goods, medical equipment, environmental equipment, as well as companies in the service sector were excluded. Of the 29 firms, 15 were parts or materials manufacturers, 15 manufactured machineries and equipment, and 5 were processing business providers. As five firms are engaged in both providing parts and manufacturing machines and one firm is engaged in parts production and processing business simultaneously, the total number of companies considered for the study is more than 29. A parts supplier also developing machines is characteristic for in industrial upgrading of small Japanese suppliers.

Following these two criteria, 23 cases (of which four firms are middle size) were selected from JETRO Shanghai reports. In addition, interviews with five small firms and one mid-size firm were conducted. Therefore, the sample size is 29, including 24 small and medium-sized firms and five mid-sized firms.

4.2 Findings

The interview records obtained from the 29 Japanese small suppliers revealed the following findings.

Japanese suppliers are deeply involved in their customers' value creation activity, which makes the customers accept their highly qualified but expensive products. With regard to the query on "what is the strength of your company" (multiple answers), of the 23 firms that clearly responded, 13 firms answered high quality, 4 firms stressed the strong capability of processing, while only 2 companies answered low costs.⁶ But these two companies also stressed upon the high quality of their products. Only one company stressed that Japanese firms need to lower the product quality in order to adapt to the low-end demands of the Chinese market. However, high quality also implies high costs. In an extreme case of a supplier dealing with superhard alloy material, wear resistant tool, and

⁶ Other answers include strong product development and design capabilities (8 firms), short lead time (3 firms), brand image (2 firms), energy-saving function (2 firms), and product diversity (2 firms).

molds, the price of its products is five times higher than that of Chinese competitors, but the life span extends to nearly three to five times of the Chinese products. Therefore, most Japanese suppliers emphasized that they would not be involved in the price competition with their Chinese counterparts.

To increase the acceptability of high-quality, high-cost products among Chinese customers, a Japanese supplier must help their customers to develop final products with higher value added. Therefore, many Japanese suppliers actively adopted a service strategy. Of the 29 suppliers, at least 15 firms were actively engaged in providing various services to customers, including normal after-services such as maintenance or repair, careful coordination, rapid problem solving, or more active technological advice and proposal. Service is considered an efficient strategy to create long-term and stable revenues for a company (Cusmano 2010, Chapter 2). The present case study suggested that service strategy can also help create value along the chain, for both the suppliers and customers.

Considering the Japanese suppliers' service strategies in detail, in addition to normal after service, many suppliers highlighted the importance of careful coordination during the transaction process. As a latecomer, Chinese customers generally dislike complex and costly coordination. In order to manufacture high-quality final products with higher value added, however, such coordination is inevitable. Therefore, Japanese suppliers attempted to lead the process of coordination. A manager at a spring washer supplier stated its practice in detail:

In the case of Chinese firms, the product standards are not as unified as in Japan, and the drawings are rough. The bolt and our spring washer are thus often slightly unfit with each other. In this situation, we usually make a sample first, and visit the customer to adjust the fitness with bolt. If they are unfit, then, we will alter our production process as quickly as we can. Our experiences accumulated in Japan for a long time enabled this quick and accurate response.

Some suppliers view rapid problem solving as another vital avenue to strengthen customer relations. A bearing supplier stated the following:

Our company has a way of thinking that “to be a problem solver of your customers!” We believe in that if a customer is facing problems, new business opportunities must be lurking around there. We always train staff to respond to problems as quickly as they can. Then, when other problems occurred, more and more customers would soon recall us.

Additional active technological advice is also crucial to strengthen customer relations. Japanese suppliers insist on providing technical advice at a similar level as that in Japan, in spite of the weak technological and production capabilities of their customers. Generally, the advice is not limited to the supplier’s own business. It even extends to how to be a good manufacturer. This provides great learning opportunities to customers. A supplier engaged in laser cutting and precision sheet metal processing business stated an interesting case in this regard.

When a customer is facing a problem, if we give explanation on technology or quality at as similar level as in Japan, the customer usually show strong interest. For example, in semiconductor and food sectors, scratches at the surface of an equipment are likely to cause problems. However, local firms usually throw things to equipment or tread on materials. They do not understand their activities will affect the completion of products and cause serious problems. In this situation, we always explore first what kinds of (deep) problems the customer is facing in the environment of Chinese manufacturing, and then provide suitable solution to them.

Some suppliers are more deeply involved in the customer’s process of product development and production as they are competitive in product development and design.⁷ For example, company A is a supplier of reinforcement material for automobiles.⁸ The company manager claimed that Chinese customers often found out their products during the process of reverse engineering. However, they did not understand why this material was important and just wanted to purchase it at a cheap price. Meanwhile, Chinese automobile makers are very keen to learn any type of auto-related knowledge. In this

⁷ As stated before, in the interview records, regarding the question about the strength of the company, eight suppliers answered that they are very competitive in product development and design.

⁸ Author’s interview with Company A (December 2013)

background, Company A teaches customers the knowhow of the usage of its reinforcement materials, actively joins the design process of automobile by providing technical proposals, as well as provides knowledge and information on other types of auto parts, and the knowledge on how to produce the entire vehicle. In order to respond to Chinese customer's strong demands on knowledge and information, the company even planned to establish a new design department in China.

A few suppliers even helped customers to develop new products in order to enter a new market. For example, a supplier of controller for loom spent five years to jointly develop a new loom with their Chinese customers. Prior to that, the global market was dominated by a few Italian loom makers. The huge and continually growing Chinese market enabled the newly entry of Chinese firms and this new type of collaborative innovation.

These cases show that, by adopting service strategies, Japanese suppliers led the change in the competition structure from pricing to quality, and shaped the governance structure from "market" to a more complex pattern. During this process, it is confirmed that 12 suppliers transferred technological information to their customers. This implied that there are numerous learning opportunities along the value chain, which Chinese customers and Japanese suppliers joined in.

The second study finding is that although most suppliers have strong capabilities to establish barriers to entry, they are still very keen to adopt these service strategies. These Japanese small suppliers are generally capable to create entry barriers. This is revealed by the response to the question, "how did your company explore non-Japanese customers" (multiple answers); of the 29 firms, 16 firms answered that "customers took the initiative to contact to us," which is surprisingly the most important method to explore non-Japanese customers. This method can be further classified into three types. First, the suppliers' products have a strong brand image worldwide or in the Chinese market and were thus well known. Second, although the products did not have a preexisting strong brand image, through word of mouth, an increasing number of customers began to recognize them and decide to purchase. Third, and the most interesting case, is that Chinese manufacturers (similar to the case of company A) are inclined to conduct reverse engineering of products supplied by firms of developed countries. During this process, they often discovered some key parts made by Japanese suppliers, which is important but

technologically difficult to copy or provide by other suppliers. In this situation, Chinese customers took the initiative to contact the Japanese suppliers for purchase.

Sako and Zylberberg (2017, pp.13–14) consider that supplier strategy is relevant only if a company cannot create sufficiently high barriers to entry. However, the cases considered in the present study suggest that certain strategies are still required even for suppliers who can establish barriers to entry. Among the 16 firms that answered “customers took the initiative to contact us,” 7 suppliers still provide various services and take the lead in shaping value chain governance. This is because supplier strategy not only helps in differentiating from competitors, but also contributes to create a new market. Through service strategies, Japanese suppliers can nurture their customers and, eventually, create new market for their products. For an emerging market such as China, this factor is particularly important.

The third study finding is that Japanese suppliers attempt to establish a very Japanese-style business relationship with non-Japanese customers, while the governance structure is not a pure “relational” one. Compared to the high economic growth period, in recent years, the manufacturer–supplier relationship in Japan has evolved into a “relational” one, characterized by long-standing and trust-based relations, active technical and design proposals from suppliers, and frequent face-to-face communication (Asanuma 1989, Sako 1992, Nishiguchi 1994, Fujimoto 1999). In the cases in the present study, this relationship has been clearly observed.⁹ This statement from a precision functional parts supplier typically represents this relation:

Our company always keep in mind that we need to actively propose to users, and get technological consultation from them. Through this practice, we can establish trust with customers. If some problems we cannot resolve in China, we collaborate with Japanese headquarter to respond as soon as we can. We open the composition of costs to users. By doing so, we can let Chinese customers to understand us. It is as similarly important to create a long-term partnership with customers in China as in Japan.

In the framework of GVC governance theory, this kind of relation is typically relational. Under this governance structure, there is usually serious asset specificity problem within

⁹ Also see the cases of Shanghai Microspring, Orijin Shanghai, and Shanghai Ikeuchi.

the chain (Gereffi et al. 2005). It is considered that relational governance will limit the number of customers, and the number of customers will increase only if the governance structure changed from relational into modular (Sako and Zylberberg 2017, p.14).

However, Japanese suppliers are largely different. Of the 29 firms, only three firms clearly stated that they primarily sell products to one major customer in China. Of the 15 firms that actively provide services in order to take the lead in shaping the governance structure with customers, only one supplier primarily focuses sales on a single customer. These factors indicate that in the value chain including the Japanese suppliers, there are paradoxically relational governance on the one hand, and low asset specificity (and large numbers of customers) on the other hand. This paradox can be explained by the following reasons.

First, some suppliers are engaging in processing businesses rather than making products. In general, a processing technology can be applied to multiple sectors. For these suppliers, there exist fewer asset specificity problems. Second, asset specificity often results from the requirement of product differentiation and strong design ability of lead firms. In China, however, local companies generally do not have such capabilities and, thus, have to accept specifications proposed by suppliers. Third, as a huge emerging market, new players are constantly appearing, and business relations are continuously reorganized. This has largely reduced the difficulties of creating new business relationships.¹⁰

The fourth study finding is that suppliers who actively adopt service strategies are generally eager to explore new customers and to facilitate localization. Of the 15 suppliers who adopted service strategies, 13 suppliers adopted some methods to explore new customers rather than only wait for the contact from customers or depend on one particular customer. Of these 13 suppliers, 10 directly visited customers. On the contrary, of the 14 suppliers that did not adopt service strategies, only 6 adopted some methods to

¹⁰ The aforementioned laser cutting and precision sheet metal processing company showed an extreme case. The number of this company amounts to 160, because the manager explained that “in Japan, we are tier two or tier three subcontractors. But in China, there is no middle layer, and we can directly trade with customers.”

actively explore new markets and 8 suppliers only waited for the contact from customers or to sell products to a specific company.

Meanwhile, of the 15 suppliers that actively adopted service strategies, 12 suppliers actively engaged in localization, including training local personnel or shifting power of decision making from Japanese headquarter to local branch. Moreover, of these 12 suppliers, 11 suppliers simultaneously adopted some methods to actively explore new customers.

Although the sample size is too small to obtain statistically significant results, the above overlap remains stimulating to consider the logical linkages among the three factors, namely, adopting services strategy, actively exploring new customer, and localization. A supplier can gain in-depth understanding of customer demands if it actively seeks new customers, and particularly when the supplier often directly visits customers. This in-depth understanding will help the supplier to formulate more precise service strategy. On the other hand, active localization will help to shorten the cultural and communication distance with local customers in order to improve the efficiency of customer service.

The above three supplier strategies required investments in capabilities and human resource development. Many suppliers stressed that Japanese staff alone cannot efficiently interact with local customers. As foreign suppliers, training local marketing personnel greatly contributes to shorten cultural distance and improve communication efficiency with local customers. Many companies confirmed this point.¹¹

Localization also requires training local technology personnel. Investments in these capabilities will strengthen suppliers' technological advantages in order to ensure the qualities of products and service. In many cases, a local staff is required to have these capabilities simultaneously. With regard to this point, the aforementioned bearing supplier had a very insightful message:

Our product itself would not be well sold if you do not understand technology. Therefore, we always try to train staffs who (understand both technology and marketing so that) can conduct deep marketing. We invite lecturers from China and other countries to implement

¹¹ See the case of Fuji Dice.

technical training. For some very important customers, we provide technical support from Japanese headquarter, or I myself, as a person with technological background, will visit the customer with our marketing staff simultaneously. We consider this is also an important part of training.

5 Conclusion

The case study of Japanese suppliers suggested that in a highly globalized era, foreign suppliers, especially developed country-based suppliers, are able to play a more active role in GVCs. Porter (1990) argues that only home-based suppliers can enjoy the advantages of proximity of managerial and technical personnel and the cultural similarity with customers. The present case study, however, suggests that foreign suppliers can similarly enjoy these advantages. They can reduce communication costs and shorten cultural distance by training local staff, shifting the power of decision making to the local branch, and strengthening marketing capabilities. Porter (1990) failed in noticing that there is asymmetry in knowledge and capabilities between developed country-based suppliers and local customers. These gaps generated a unique learning mechanism and strengthened the role of foreign suppliers in GVCs.

The present study also differs from the study of “supportive value chain” proposed by Marukawa (2014). The basic thinking of supportive value chain comprises three points.

- 1, In a supportive chain, foreign key component suppliers can help downstream customers with little technological capabilities to enter technology-intensive sectors, but customers are unable to create products with high value-added.
- 2, Key component suppliers always attempt to avoid complex coordination with customers.
- 3, An efficient way to achieve these purposes is to provide a highly modularized technological platform, which integrates complex core technologies and coordination activities within the platform.

The present study shows that the case of Japanese small suppliers, however, largely differs.

- 1, Japanese suppliers attempt to help customers to add value into their final products in order to attract customers to purchase their high-quality, high-cost intermediate goods.
- 2, There are frequent face-to-face communications and sophisticated coordination between foreign suppliers and local firms, which provide learning opportunities to customers, and eventually contribute to technological capabilities formation.
- 3, Suppliers usually take the lead in the communication and coordination with customers rather than provide technological platforms.

The differences arise from the customers' target markets. In the case of a supportive value chain, Chinese firms generally aim at the low-end market. In the case of Japanese suppliers, the non-Japanese customers (mostly Chinese firms) that the Japanese suppliers serve, are aiming at higher market segments and, thus, are motivated to improve qualities and increase value. From the supplier side, Japanese suppliers are strongly motivated to adopt sophisticated service strategies, including after service, technical supports, technical advices, and more active technical proposals so that customers accept their high-quality, high-cost products.

This case study confirmed the importance of supplier strategy in GVC again. Both the present study and that of Sako and Zylberberg (2017) discussed how suppliers can improve their positions by making strategic choices under captive relations. But the two studies vastly differ. Sako and Zylberberg (2017) discussed how large-scale captive suppliers without sufficient capabilities to establish barriers to entry can capture value by adopting corporate and technology strategies. In contrast, the present study discussed how small suppliers having strong capabilities to establish barriers to entry enhance their competitiveness in an emerging market by formulating strategies.¹² The case suggested

¹² In the present study, corporate strategy and technology strategy remain important. On the one hand, Japanese suppliers actively explore non-Japanese customers, which can be regarded as a typical buyer diversification corporate strategy. On the other hand, they actively present technological proposals to customers by using their own technological capabilities. This technological capability can be regarded as a complementary asset, which is a key factor of technology strategy.

that even though the entry barriers are high, supplier strategy still matters as new markets must be created by promoting customers.

Whether these strategic choices can be achieved, however, depends on the interaction between market expansion and capability formation. In fact, after the high economic growth period, technological capabilities of Japanese small suppliers in their own sectors have largely moved beyond lead firms, while a single-parent company can no longer ensure a stable purchasing channel for suppliers. These changes first appeared in the Japanese market and the emergence of the Chinese market has provided further opportunities. In China, the market is huge, expanding, and upgrading, while the technological capabilities of Chinese customers are generally poor. These factors helped suppliers to more easily diversify their customers and formulate strategies. During this process, Japanese suppliers have invested heavily in capability formation through training local staffs. Therefore, in order to enhance supplier competitiveness in GVCs, all the factors of supplier strategy, supplier capabilities, and market condition need to be considered.

Finally, the present study is merely a starting point of supplier studies. More cases from more developed countries need to be studied to confirm the existing roles of suppliers in GVCs. Meanwhile, the present study mainly focused on the learning mechanism from the supplier perspective. It needs further verification of the outcome of learning from the perspective of a local customer as well. Furthermore, there is a need for large sample size data-based quantitative studies in the future.

References

English

- Asanuma, Banri. 1989. Manufacturer-supplier relationships in Japan and the concept of relation-specific skill. *Journal of the Japanese and international economies*, 3(1): pp.1-30.
- Cusumano, Michael A. 2010. *Staying Power*. New York: Oxford University Press.
- Fujimoto, Takahiro. 1999. *The evolution of a manufacturing system at Toyota*. Oxford university press.
- Gereffi, Gary. 1999. International Trade and Industrial Upgrading in the Apparel Commodity Chain, *Journal of International Economics*, 48: pp.37–70.
- Gereffi, Gary, John Humphrey, and Timothy Sturgeon. 2005. The Governance of Global Value Chains. *Review of International Political Economy*, 12(1), pp.78–104.
- Henke, John W., and Chun Zhang. 2010. Increasing supplier-driven innovation. *MIT Sloan Management Review*, 51(2): p.41.
- Nishiguchi, Toshihiro. 1994. *Strategic industrial sourcing: The Japanese advantage*. Oxford University Press.
- Humphrey, John, Ke Ding, Mai Fujita, Shiro Hioki and Koichiro Kimura. 2018. Platforms, Innovation and Capability Development in the Chinese Domestic Market. *The European Journal of Development Research*, 30 (3), pp. 408–423.
- Marukawa, Tomoo. 2014. The “make or buy” decision and supply-chain governance. In Watanabe, Mariko, (ed.) *The Disintegration of Production*. Cheltenham and Northampton: Edward Elgar Publishing, pp.51-73.
- Morrison, Andrea, Carlo Pietrobelli and Roberta Rabellotti. 2008. Global Value Chains and Technological Capabilities: A Framework to Study Learning and Innovation in Developing Countries, *Oxford Development Studies*, 36: pp.39-58.
- Porter, Michael. 1990. *The Competitive Advantages of Nations*. New York: Free press.
- Sako, Mari. 1992. *Price, quality and trust: Inter-firm relations in Britain and Japan*. Cambridge University Press.
- Sako Mari and Ezequiel Zylberberg. 2017. Supplier Strategy in Global Value Chains: Shaping Governance and Profiting From upgrading. *Socio-Economic Review*, <https://doi.org/10.1093/ser/mwx049>.
- Schmitz, H. and P. Knorringa. 2000. Learning From Global Buyers, *Journal of Development Studies*, 37: pp.177–205.

- Sturgeon, Timothy J. and Greg Linden. 2011. Learning and Earning in Global Value Chains: Lessons in Supplier Competence Building in East Asia', in Kawakami, Momoko and Timothy J. Sturgeon, (eds.), *The Dynamics of Local Learning in Global Value Chains: Experience from East Asia*. New York: Palgrave Macmillan.
- Timothy J. Sturgeon and Richard K. Lester. 2003. The New Global Supply-base: New Challenges for Local Suppliers in East Asia'', *MIT Working Paper IPC-03-006*.
- Timothy Sturgeon, John Humphrey, and Gary Gereffi .2011. Making the Global Supply Base, In *The Market Makers: How Retailers Reshaping the Global Economy*, Oxford University Press.

Japanese

- Japan External Trade Organization (JETRO). 2014. *2013 Nendo Nihon Kigyo No Kaigai Jigyotenkai Ni Kansuru Ankeito Chosa* (Questionnaire survey on overseas business development of Japanese company in 2013).
- JETRO Shanghai. 2010. *Chugoku Naihanshi Ni Seiko Shiteiru Chushokigyo Jirei Chosa Hokokusho* (Case study report on small businesses that succeeded in exploring the Chinese market).
- 2011. *Chugoku Naihanshi Ni Seiko Shiteiru Chushokigyo Jirei Chosa Hokokusho* (Case study report on small businesses which succeeded in exploring Chinese market II).
- 2012. *Chugoku Naihanshi Ni Seiko Shiteiru Chushokigyo Jirei Chosa Hokokusho* (Case study report on small businesses which succeeded in exploring Chinese market III).
- Small Business Agency. 2014. *Chushokigyo Hakusho* (Small Business White Paper).
- Tokyo Shoko Research. 2012. *Heisei 23 Nendo Hattchu Hoshiki Tou Torihiki Joken Kaizen Chosa Jigyo Hokokusho* (2011 report on survey on improvements in transaction conditions, including ordering method).
- Watanabe, Yukio. 1997. *Nihon Kikaikogyo No Shakaiteki Bungyo Kozo*. (The structure of social division of labor of Japanese Machine Industry). Tokyo: Yohikaku Press.