

# Formations and Strategies of Japanese Supplier Systems in China

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## Abstract

The paper tries to clarify how supplier systems of Japanese automakers have been relocated into Chinese markets, and discusses the related issues of new strategies and gaining a competitive advantage in those markets.

While the layered supplier system of Japanese auto-makers are known as a key factor supporting Japanese competitiveness, transferring these systems to China has still been problematic. Incorporating the capabilities of Japanese automaker keiretsu into global supply chains that include China remains an important issue.

## 1. Introduction

### 1) Research Objectives

This article clarifies how the supplier systems of Japanese automakers have relocated into Chinese markets, and discusses the related issues of new strategies and gaining a competitive advantage in those markets.

The reason the Chinese market was selected for this study is that it is already the biggest automobile market in the world in terms of production and sales, and is thus viewed as a market in which success or failure can have major impacts on the sustainable growth of global corporations. It has been said that the success of Germany's VW in winning out over Toyota to become the world's No. 1 automobile producer is due to its success in this market<sup>1</sup>, while in comparison, Toyota, Nissan and Honda are fighting a hard battle in China. Thus, an analysis of how global corporations can forge a competitive advantage in the Chinese market can no longer be omitted from the formulation of the growth and development strategies of these companies.

Also, the Chinese market already has a high potential to shift qualitatively - the Chinese government's 12th 5-year plan strongly questions what form the auto industry should take to be optimal for the country's economy, rather than advocating for even more expanded automobile production. Thus in this regard, China is shifting to a path that focuses on efficiency rather than increased production volumes<sup>2</sup>, which means foreign-owned manufacturers operating in the Chinese market must also localize development to raise their competitiveness to the next level<sup>3</sup>.

In moving into the Chinese market, Japanese automakers failed to catch on to the period of motorization China, and have thus lagged behind Western companies in terms of market participation. These companies tried to create competitiveness by transferring their supplier systems built up in Japan to their production bases in China, but obviously, facing a range of

different conditions in China, it isn't possible to shift the systems formed in Japan without altering them<sup>4</sup>. Adaptation to the local situations in China by transfiguring the Japanese systems could not be avoided, and now on top of that the competition in the market is becoming even more intense with the ever-quickenning pace of globalization. Thus, questions are being asked about how to change Japanese-style supplier systems to give them a competitive advantage under these increasingly competitive global conditions.

## 2) Background to Research

Japanese automakers have relocated their supplier systems to overseas bases to enable production and sales in those localities. There are a number of factors driving these developments. First are the problems associated with exporting under the high-priced Yen. Second are the trade dispute problems that stem from tariffs and restrictions placed on the amounts of goods that can be exported from Japan by its trading partners. Also, the countries to which those exports are destined also have been expressing strong desires that local production be fostered to create local employment. Thus, following those shifts, the level of relocation has progressed even further because of the associated rise in local procurement rates.

The third reason is that automakers have been proactive in developing their overseas operations is to optimize procurement around the world as part of their global strategies. Setting up and operating overseas production systems entails transformation of systems dependent on technical development and differences in the state of the competition, although the fact remains that the automaker as the assembler and the companies that supply them with parts must form cooperative relationships to develop their businesses overseas.

The assembler and its suppliers both play crucial roles in assembling automobiles, and are indispensable to each other<sup>5</sup>. However, getting consumers in the market to buy an automobile product starts at the very inception of the vehicle's production, which means it's the assembler who is exposed to the competition in the market place. This means that normally the assembler is usually in a dominant position with respect to its suppliers.

However, Japanese automaker supplier systems are characteristically multilayered, and these Japanese automaker-formed multilayered systems are called "keiretsu." Keiretsu do not just entail simple divisions of labour in the manufacturing process, but are multilayered structures formed for unitizing and modularizing parts for the assembly stage (involving inter-organizational relationships), which means they are also deeply rooted cooperative formations crucial for parts development and technological innovation. Behind the smooth functioning of these multilayered supplier systems is the aggregation of industries within Japan, in which many companies with high-level technical standards compete fiercely with each other.

The global market expansion of Japanese automakers into the ranks of the big three American companies (GM, Ford, Chrysler), German VW and French Renault was made possible by these characteristically Japanese keiretsu supplier systems. For this reason, 'transplanting' keiretsu into China, a developing country, seemed like a natural choice. However, it goes without saying that conditions in Chinese markets are different to those faced in Japan, which means it has never been easy to just 'transplant' Japanese keiretsu into them. Accordingly, to gain a keiretsu-based competitive edge will require new strategies to transfigure keiretsu, but in reality, transplanting keiretsu into Chinese markets is a more serious issue. The first reason is that the secondary and tertiary suppliers who support the primary suppliers have neither sufficient capital nor the

personnel to make the shift into the Chinese markets, while the second reason is that the local automotive parts industry in China has not yet fully matured, making it impossible to incorporate these Chinese parts suppliers into multilayered, keiretsu-type supplier systems. These limitations present Japanese automakers and their primary suppliers operating in China with large impediments to forging a competitive advantage in those markets.

At the same time, there has been ongoing rapid scale up of global parts manufacturers through M&A accompanying the escalation of the global competition, which is bringing with it even stronger demands for more advanced technical capabilities. Japanese automakers are also finding more opportunities to trade with international parts companies, and thus have begun handling parts supply systems that differ from the Japanese-style keiretsu trading systems while Western-style systems in which all participants are treated as equals have become the global standard.

Thus, in today's environment of rapid globalization, keiretsu, the traditional source of competitive advantage for Japanese automakers, is now the subject of fresh questioning about how these systems can function in these new markets. Even among Japanese auto companies, movements to 'break free from keiretsu' or 'move beyond keiretsu' are increasingly coming into view<sup>6</sup>. However, if the breaking free from or moving beyond keiretsu phenomena progress, Japanese automakers could lose an important source of their global competitiveness. Thus, considering the direction of keiretsu from various angles should be a central issue.

Nevertheless, it is not possible only to interpret modern globalization as the spread of a single standard or some kind of universality. In contrast, there is now a heightened necessity to develop competitive strategies that focus on the various unique characteristics of regional economic zones such as those in America, Europe, Asia and others. In addition, regional governments also make demands while offering incentives which means that the pursuit of efficiency through localization is also becoming more important. In that regard, the drive is for corporate systems to take a global view, but engage in local production and encourage local consumption - the so called 'glocal' (global/local) strategy developments. Also, technologies with information at their core are also rapidly advancing while there are predictions for rapid and further increases of component computerization and modularization - signs that the way vehicles are created as products will substantially change<sup>7</sup> - automakers and parts suppliers must prepare their systems to quickly respond to these changes.

In light of the above issues, this article clarifies what kind of supplier systems Japanese automakers in China should form. Thus, taking a demonstrable standpoint, this article looks at 3 major Japanese companies set up in an aggregation of automobile production companies in Guangzhou city, and discusses the characteristics of their supplier systems and the issues they have with making them more efficient. Then, the article discusses the potential for developing new competitive strategies to sharpen the competitive edge into the future.

## 2. Foreign owned businesses participation in the Chinese auto market and their industry agglomerations

### 1) Chinese Government policies for growing industries and industry agglomerations

After the Chinese economic reform ("Reform & Opening up") in 1978, many foreign-owned

companies began participating in the Chinese auto market. The Chinese automobile industry has grown rapidly in a short time, producing 13.8 million units in 2009, and 18.3 million in 2010, beating Japan and America for 2 years running to jump into the world's No. 1 position.

Western automakers and major parts manufacturers led the way in establishing bases in China having predicted rapid market growth, but in contrast, Japanese automakers were not proactive in developing their business in China. However, in the latter half or the 90's, once they saw that the market reforms had begun to take effect in earnest, Japanese automakers and major parts manufacturers quickly expanded their Chinese operations. By this stage, all the world's major automakers and parts manufacturers had set themselves up in the Chinese market.

The Chinese government accelerated restructuring and consolidation with foreign-owned companies to make the Chinese automakers and parts manufacturers more competitive. Following the automotive industry adjustment and promotion plan of 2009-2011, the government introduced a policy under which the four large (FAW, SAIC, DFM, CHANGAN) were to restructure nationally, while the four small (BAW, GAC, CHERY, heavy automotive) were to restructure in individual regions<sup>8</sup>. Also, in 2009, directions for automobile industry technological progress and investments for technological improvement were announced, which entailed policies to support technical improvement in the parts industry to nurture technologies for electrically operated parts for the next generation of automobiles, and to reinforce competitiveness in the global market.

These important government policies drove the expansion and strengthening of industry groups and the strengthening and development of automotive parts, which led to the birth of agglomerations in the automotive industry. These agglomerations have been established in 6 regions, the Northeast region (Changchun City), Bohai Sea region (Beijing and Tianjin), the Yangtze River Delta (Shanghai), the Central Region (Wuhan), the Pearl River Delta (Guangzhou City) and the Southwest (Chongqing City).<sup>9</sup>

Looking at the automotive industry agglomerations in these 6 large industry agglomerations, business restructuring and consolidation continues in the Northeast region, which include 17 automakers and more than 1000 parts manufacturers, and there is also engagement in joint ventures and partnerships with foreign-owned parts manufacturers. Major Western parts manufacturers such as Delphi, Lear, Continental AG, Johnson Controls, Bosch and ZF have all set up production bases in these areas.<sup>10</sup>

In the Bohai Sea area there are 7 automakers and more than 700 parts manufacturers, while there are 67 Japanese parts manufacturers in Tianjin following Toyota's move into the area.

The Yangtze Delta area agglomeration features more than 20 automakers with several thousand related parts manufacturers. Following the move by major Western automakers such as VW and GM into Shanghai, major Western parts manufacturers such as Delphi, Lear, Continental, AG, Johnson Controls, Bosch and ZF have also set up more than 70 bases in the Shanghai area. The Yangtze Delta has 111 Western parts manufacturers in it, making it the area with the largest agglomeration of Western companies.

There are 37 automakers in the central region, with some 2000 related parts manufacturers, of which 24 are Western companies, and 25 are Japanese parts manufacturers.

The Pearl River Delta area features the largest agglomeration of Japanese automakers and parts manufacturers. The 3 major Japanese companies (Honda, Nissan, Toyota) and Hino Motors have established bases there with some 200 parts companies also operating in the vicinity.

The Southwest region has 2 automakers with more than 1000 parts manufacturers.

## 2) Participation by Western automakers in the Chinese market

As a view of the move of Western automakers and parts manufacturers into China<sup>1 1</sup>, and the characteristics of their supplier systems, VW was the first foreign-owned company to move into China establishing Shanghai Volkswagen with a 50/50 joint venture with SAIC in 1985, while “FAW-VW” was established with Changchun FAW in 1991. These companies have 6 factories each for a combined total of 12. VW procures more than 90% of its parts from within China, and is aiming to increase this level to 100% to further reduce costs.

GM first formed a joint venture called “Jinbei GM” with Jinbei Automobile in the early 1990s, then in 1997 established Shanghai GM with SAIC, and then established the General Motors Investment Co., Ltd. as a holding company in 1998. After 2002, Daewoo Motors Yantai, Wuling Motors of Liuzhou and Jinbei GM came under the umbrella of Shanghai GM Motors. This company currently produces in 11 factories and has achieved 90% local parts procurement.

Ford was slow to move into China, but established a joint venture with Jiangling Motors in 1997, then established Changan Ford in 2001 which went on to become Changan Ford Mazda in 2007, operating 2 factories. However in 2010, the Chongqing factory was assigned to Ford and CHANGAN, while the Nanchang factory was assigned to CHANGAN and Mazda, splitting the company. Currently, their local procurement rate remains at 80%.

## 3. Formation of Japanese automaker agglomerations and supplier systems

The biggest agglomeration of Japanese automakers is in the Guangzhou area on the Pearl River Delta. All 3 major Japanese companies have production bases in Guangzhou and there are 183 leading Japanese parts manufacturers established in Guangdong, which make up 30 % of all the Japanese automotive bases in China.<sup>1 2</sup>

In total, there are 203 parts manufacturers operating in the Guangdong area central to Guangzhou city, 183 of which are Japanese businesses. The agglomerations of automobile industries in Guangzhou are divided into 3 areas, the north, east and south. The north area features the Huadu International Automobile City in which on Dongfeng Nissan plays the central role. The east area features the Guangzhou Economic and Technological Development Zone, the Huangpu Automobile Industrial Park and the Zo City Industrial Park. Mainly Honda, Guangqi Honda and related parts manufacturers operate in these areas. In the south lies the Nansha International Automobile Industrial Park which is mainly occupied by Toyota.<sup>1 3</sup>

### 1) Guangqi Honda supplier systems

In the Guangzhou Economic and Technological Development Zone, in the Huangpu Automobile Industrial Park and the Zo City Industrial Park in the east region, there are 44 leading Japanese parts companies centered on Guangqi Honda. Guangqi Honda has its No. 1 factory in the Huangpu Automobile Industrial Park, an engine factory jointly run by Honda, Dongfeng Motors and GAC. Honda (China) has an export dedicated factory in the Guangzhou Economic and Technological Development Zone, which produces 50,000 “Jazz” vehicles headed for Europe every year. As well as that, under its “eastward strategy” the Guangzhou city government established the Zo City Industrial Park, in which there are already 80 assembler and parts manufacturers operating around No. 2 Guangqi Honda factory and Wuyang Honda.<sup>1 4</sup>

Regarding local procurement, in November of 1999, the Honda Accord production cleared the

regulation 40 % level of local production, reaching just below 60% in July of 2002, and then reaching the 90% level in 2011. The Honda Odyssey is slightly lower at 80%, while FIT and City have achieved 90%. The Everus and Jazz cars made for the Chinese market have exceeded the 95% level, making Honda's local procurement rate in China the highest among the Japanese automakers.<sup>1 5</sup>

To achieve these local procurement rates, Guangqi Honda has put efforts into procuring parts from local companies that meet the level of quality and technical standards required by the company, as well as engaging in in-house manufacture. In addition to setting up parts production bases to build main components such as engines and transmissions in-house to advance its localization, this company has achieved a stable supply of parts by urging keiretsu and partner suppliers to move into China. For this reason, the company provides support through joint capital to medium-sized suppliers who do not have the sufficient finances to make the move themselves.<sup>1 6</sup>

There were 217 Honda suppliers in China in 2011 in 149 bases, with 166 companies in 124 bases supplying Guangqi Honda. Of these, 97 companies (58.4%) have moved into Guangdong. As well as that, there are 48 companies in an agglomeration in Guangzhou, of which 30 are Japanese parts suppliers that have bases in the Guangzhou Economic and Technological Development Zone where Guangqi Honda has its 2 factories and export-dedicated factory. There are also several companies who have set up to supply Guangqi Honda in the areas surrounding the Guangzhou Economic and Technological Development Zone. There are 13 companies supplying Guangqi Honda in the Huadu District, and 12 in Foshan.<sup>1 7</sup>

Based on the idea of 'Made-by-Global-Honda', Honda HQ has set up basic parts suppliers in the American, European, Asian and Japanese regions to build a globally optimized parts procurement network. From among those, the company is continuing to expand adoption of Chinese made parts for its Japanese-manufactured light vehicles with the aim of increasing the level of overseas parts procurement.<sup>1 8</sup>

As future strategy, Guangqi Honda is rethinking its parts production systems to solve the issue of improving product cost performance to expand its sales in China, and is thus expanding procurement from locally-owned parts manufacturers. In the past, the company did not proactively procure parts from local manufacturers because of a focus on product quality, however in recent years, the quality of locally-produced products has increased, and the excessive quality standards of the past have been relaxed to enable more procurement from local manufacturers.<sup>1 9</sup>

## 2) Dongfeng Nissan supplier systems

Established in June of 2003, Dongfeng Nissan has 2 bases in Huadu in Guangzhou city, Guangdong Province, and Xiangfan in Hubei Province. The Huadu factory was completed in May of 2004, while an engine factory and passenger car technology center were completed in the grounds of the facility in 2006. In 2010, the Huadu factory produced 530,000 units. In December of 2011, the No. 2 Huadu factory began operations. Combined, the No. 1 and No. 2 Huadu factories produce 600,000 units annually, making it the biggest automobile production base in the Southern China, and the world's biggest Nissan production base.<sup>2 0</sup>

The Huadu International Automobile City was certified by the Guangdong Provincial Government in 2003, and is managed independently by the Huadu District Government. Many Japanese primary and secondary parts manufacturers centered on Dongfeng Nissan have moved

into Huadu Auto City. Currently, there are more than 160 automobile and related parts companies operating in this Auto City, among which are 22 leading Japanese parts manufacturers.<sup>2 1</sup>

With production beginning in earnest in the Huadu factory in 2004 and Nissan parts suppliers moving full-scale into China, these movements are characteristic of the simultaneous movement into the area of secondary and tertiary manufacturers along with the move of the primary parts suppliers. Looking at the provincial distribution of Japanese keiretsu part suppliers, there are 88 companies agglomerating in Guangdong, the area of the Huadu factories. There are 21 companies in Huadu Auto City and its surrounds, they being Nissan primary suppliers, while secondary suppliers including steel producers, die companies and part suppliers also operate in and around the area.<sup>2 2</sup>

There is already a 90% local procurement rate involving Japanese keiretsu and partner suppliers and their subsidiaries, as well as ongoing procurement from local factories. Also, a Chinese plan to expand production was amended in September 2010 to increase overall production capacity by 200,000 units in 2012, bringing Dongfeng Nissan's output to 1.2 million units per year. This capacity increase also spurred key trading partners to large-scale expansion. For example, Calsonic Kansei expanded its existing facilities in its Guangzhou factory to add dedicated lines to build higher capacity production systems.<sup>2 3</sup>

### 3) Guangqi Toyota supplier systems

Established in 2004, Guangqi Toyota is the 3rd production base after the establishment of Tianjin FAW Toyota in 2000 followed by Sichuan FAW Toyota in 2003, and performs production in its facility in the International Automobile Industrial Park located in the Guangzhou Nansha District. Nansha International Automobile Industrial Park is divided into A zone (20 Km<sup>2</sup>) and B zone (1.5 Km<sup>2</sup>). A zone features 10 leading automotive parts manufacturers (primary parts manufacturers) centered on Guangqi Toyota, while B zone features many Toyota-related secondary and tertiary parts manufacturers. This industrial area features assembly and parts manufacture, R&D and distribution zones etc to provide many functions and comprehensive services.<sup>2 4</sup> However, due to delays in moving into the area and few models on offer, production here is lower than Guangqi Honda and Dongfeng Nissan.

Guangqi Toyota Engine was established in Nansha International Automobile Industrial Park to provide Guangqi Toyota with engines, while on the other side of the main street is a supplier park featuring 9 parts companies such as Sango, Denso and Toyota Boshoku. There are service roads beneath the main street connected by 2 tunnels, with dedicated tow vehicles circulating at least every 30 minutes enabling direct supply of parts to production lines. The Camry AZ gasoline engine is procured from Guangqi Toyota Engine while its trades with more than 100 parts supply companies. 69 companies, or more than half of the Toyota parts suppliers operating in China, are located in Guangdong, the home of the Guangqi Toyota production base. Guangqi Toyota's supplier system is characterized by factories adjacent to the supplier park to achieve a truly ideal 'just-in-time' supply of parts.

As well as the 9 companies in the Nansha zone, the parts supply production base of Guangqi Toyota, there are also 18 companies that have moved into neighboring Foshan City. Guangqi Toyota's supplier system is also characterized by the agglomeration of parts suppliers in these 2 Nansha and Foshan districts. It has been suggested that the reason why parts suppliers moved into Foshan, just about 30 kilometers away from Guangqi Honda, Dongfeng Nissan and

Guangqi Toyota, is because it was not ideal to move to Nansha where The Toyota itself and core manufacturers had moved, and there were also demands to move to Foshan because of its convenient proximity to Toyota in Nansha, Honda in Guangzhou and Nissan in Huadu. Among the 18 Japanese supplier companies in Foshan, companies such as Asahi Glass, Orotex, and Kanemitsu supply the 3 factories of Guangqi Honda, Dongfeng Nissan and Guangqi Toyota. While Toyota has so far focused on supplier systems built around Japanese suppliers, the company has put in place a policy to progressively open up to local suppliers into the future.<sup>2 5</sup>

Guangqi Toyota has a high local procurement rate of 98%. Compared to the lower rates of Tianjin FAW Toyota's at 70% and Sichuan FAW Toyota's rate about 60 %, Guangqi Toyota's near-total local procurement means the company can be evaluated as having almost completely localized.

## Interpretation of results

### 1) Differences and issues between Western and Japanese supplier systems

The automobile market in China is undergoing dramatic change both quantitatively and qualitatively. Obviously, the changes in quantity has put the number of units manufactured and sold in China in the number 1 global position, while in terms of quality, the Chinese government has embarked on policies to shift from expanding production to focus on efficiency.

Till now, automotive and component manufacturers have formed joint businesses in line with the Chinese government's policy of fostering production, and have established their various bases in special regions. Because automobiles are assembled from a large number of parts, relationships with parts manufacturers must be close, which is why these companies build their bases in special areas in close proximity with other businesses. However, there are significant differences between Western and Japanese-style relationships between automobile and parts manufacturers, although these differing styles use their respective unique characteristics to fight for the competitive edge.

Japanese supplier systems in China are pursuing new ways of responding in the rapidly growing Chinese market. Companies must form strategies not only to respond to the changes in the Chinese market, but must also respond to the continuing progress of globalization. Thus, sorting out the current differences in Western and Japanese supplier systems will be useful for creating new strategies to respond to this globalization.

By generally comparing Japanese, American and European systems, the differences between them can be arranged as described in the following table (Table 1).

**Table 1 Comparison of Western and Japanese automotive parts supplier systems in China**

	<b>Automaker</b>	<b>Primary parts suppliers</b>
<b>European systems</b>	Vertical, functional components imported from home country	Procurement from local Western and local Chinese companies
<b>American systems</b>	Horizontal, procurement from foreign-owned companies operating in China	Procurement from local Western and local Chinese companies
<b>Japanese</b>	Pyramid-type, mainly procuring	Procurement from Japanese



	<b>Automaker</b>	<b>Primary parts suppliers</b>
<b>systems</b>	from local Japanese companies. Critical materials imported from Japan	companies in China. Secondary affiliated suppliers encouraged to relocate to China

Created from Fourin (2010) “Development and Procurement Strategies of the Automotive Industry in China” (In Japanese)

Western automakers have generally penetrated into the Chinese market independently. Regarding parts procurement, these companies mainly procure parts from other Western parts manufacturers, who have formed joint businesses with local Chinese companies, while designs and samples are passed to foreign-owned and local suppliers to procure parts locally.<sup>2 6</sup> In terms of research and development, large-scale capital investments have been made in China to establish component R&D bases to enable local development of new products. Furthermore, engineer training systems from home countries have been deployed to systemize local development while automobile design functions are undergoing localization for the long term. Western parts manufacturers maintain sales channels with local Chinese automakers using networks connecting these joint venture companies.

In contrast, Japanese automakers are mostly characterized by large, broad-footed pyramids of multi-layered supplier systems. For instance, in the case of the automaker Toyota as the parent company, major primary suppliers such as Denso or Aisin are responsible for supplying main components, but there are actually many subordinate small to medium parts companies operating as secondary and tertiary suppliers supporting the parent in a layered organizational form. These layered pyramidal supplier systems are production and development systems that were formed during the development of the Japanese automobile industry as competitive strategies by all automakers primarily for production in Japan<sup>2 7</sup> - the industrial aggregation of Japanese automakers in Guangdong is also an attempt to make a competitive foray into China with these pyramid-type supplier systems, and in this locality, parts are almost entirely supplied to the Japanese automaker (the parent company) by affiliated or cooperating Japanese parts manufacturers, who supply few or no parts to the local Chinese or Western automakers.<sup>2 8</sup>

In this way, Japanese automakers have tended to focus on dealings with their affiliated (keiretsu) suppliers even in their operations in China. For this reason, automakers pressure many keiretsu suppliers to relocate to these areas around the time of their own shift into these regions, but to maintain the traditional level of product quality, Japanese automakers and primary parts suppliers have to procure parts and materials from Japan or provide support to secondary and tertiary keiretsu parts suppliers to establish themselves in China. However, due to the harsh problem of maintaining cost competitiveness and restrictions surrounding percentages of locally sourced products, there are limitations to the amount of materials and components that can be imported. On top of that, because the Chinese automotive part industry is still developing, there are not a great many local suppliers who can meet the demands of primary parts suppliers. Thus, so that they can establish bases in China (in particular in Guangzhou and its surrounds), these factors have resulted in a drive to provide capital and management assistance to small to medium Japanese secondary suppliers and below who cannot easily set up overseas.

However, not enough progress has been made in relocating primary suppliers, and secondary or tertiary suppliers with advanced and unique processing technologies to China – for one reason,

one of the characteristic functions of a keiretsu is the so-called “design-in” joint development systems between automakers and their parts suppliers, a function which is currently proving difficult to incorporate into the local Chinese systems. Thus, the preparedness of the R&D systems of Japanese parts companies cannot yet be said to be fully satisfactory.

Also, the intense price battles that rage in Chinese markets means that compared to Western or local Chinese automakers, Japanese automakers relying on keiretsu groups have a clear disadvantage in terms of their ability to compete on costs. Thus, in the Chinese market, in which the competition is predicted to intensify even further, Japanese automakers who have so far preferred to procure parts from keiretsu suppliers will also have to begin adopting more parts made by local Chinese companies.<sup>29</sup>

## 2) Strategies Japanese automakers should take

The Chinese market is substantially different to the Western and Japanese markets in which a balance between quantity and quality has been struck, in that the Chinese market is neither one in which the number one global position is achieved only with state-of-the-art technologies, nor is it a market in which there is only competition on price or among leading models, but in spite of the fact that the Chinese market is still developing, for the world’s automakers it’s also a competitive place in which success must be attained, because success here is crucial for survival in the broader global competition. That makes choosing strategy a tricky and difficult issue.<sup>30</sup>

Compared to Western supplier systems, Japanese systems characteristically entail Japanese automakers asking or expecting numbers of keiretsu suppliers to follow them into China to establish layered keiretsu systems. However, even if they have excellent development capabilities, it has not been easy for secondary or tertiary suppliers to move overseas due to a lack of business resources and suitable personnel. Thus, setting up a multi-layered Japanese-style supplier system in China has proven to be difficult. As well as that, Japanese parts manufacturers mainly supply their affiliated Japanese automakers, and hardly have any dealings with Western or local Chinese automakers.<sup>31</sup> Therefore, Japanese parts manufacturers lag way behind Western companies regarding investment in R&D in China due to the seriously retarded state of transfer of these keiretsu systems, while the competitive capabilities of supplier systems relying on these keiretsu groups are clearly weaker than those of the Western and local Chinese businesses in the face of the fierce competing on costs in the Chinese market. This points to an impending need to add new competitive angles to the strategy of relocating keiretsu.

According to Fourin, local development strategies for foreign-owned companies in China have entailed the following 3 stages. Firstly is the ‘model implementation’ stage from the latter half of the 90s, followed by the ‘model improvement’ stage from 2005 onward, which was then followed by the full-scale ‘localized development’ stage that began in 2009. The model implementation stage mainly consisted of local implementation and improvement of existing models, while the model improvement stage entailed ongoing development of cars for the Chinese market while continuing improvements to existing models. The localized development stage then entailed the beginnings of development of automobiles for the Chinese market based on existing PE.

The reason for the demand for localized development is also the marginally different characteristics of the Chinese market compared to its Western or Japanese counterparts, as it has arrived at a new stage of development with a demand to introduce suitable technical development

capabilities. In short, the emerging Chinese market is not a place where cutting-edge automobiles can be easily sold, but is a market that requires the launch of vehicles priced to fit the coming increases levels of ownership and the prevalent and common models of the era of globalization (i.e. environmentally-friendly and fuel efficient engines in vehicles built with 21st century safety features and functionality).

## Conclusion

With the rapid globalization of the Chinese auto market, many major global automakers and parts suppliers have already established production bases in China. Conditions have been established to form global supply chains that incorporate parts procurement in China. The Chinese auto market is becoming the biggest in the world, and is shifting towards small cars with thin margins while competition with local Chinese manufacturers is becoming more intense - having different characteristics to Western and Japanese markets, suitable low-cost parts supplies and efficient production are a must for competing in it. Not only are Western automakers operating in China making parts procurement from foreign-owned companies in China more efficient, but they are also aiming to reduce costs by increasing procurement from local Chinese parts manufacturers. Japanese automakers and parts manufacturers must also make this strategic shift - it's essential that global automakers seek out and foster good suppliers in China who can provide low cost parts suited to the Chinese market.

Nevertheless, that alone is not enough. These low-cost parts will need to have their quality improved, which places even more importance on the R&D capabilities of the parts manufacturers - raising world standards on price and quality and creating globally optimized networks of part supplies by bringing parts manufacturers in China into those supply chains, regardless of whether they are Japanese or Chinese, is a strategy challenge facing the automakers of today.

The layered supplier systems of Japan are known as a key factor supporting Japanese R&D systems, a strong source of the country's competitiveness, but transferring these systems to China has been problematic, and neither can it be said that relocation is ever a desirable strategy. Nevertheless, with price, quality and development technique as their competitive advantages, incorporating the capabilities of Japanese automaker keiretsu into global supply chains that include China remains an important issue.

## Notes

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<sup>1</sup> The Japan Research Institute, Research Focus, N0.2012-015

<sup>2</sup> Zhou Zheng Yi (2012) "Automotive market shifts focus to efficiency, away from scale expansion," China Business 2012, Nikkei Business

<sup>3</sup> Fourin (2010) "Development and Procurement Strategies in the Automotive Industry in China"

<sup>4</sup> Takeshi Ono "Advancing Globalization and Changes to Local Auto Parts Makers: the Impacts of Optimized Global Procurement and Modularization," Okayama Economic Review published by Economic Association of Okayama University, No. 37 (3)

<sup>5</sup> Organization for Small & Medium Enterprises and Regional Innovation, JAPAN, Management Support Information Center (2008) "Multilayered supplier systems and the role of small to

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medium-sized suppliers in the automotive industry - Supplemented development functions and responses to overseas production”

<sup>6</sup> Aoki, Katsuki and Thomas Taro Lennerfors, The New, Improved Keiretsu, Harvard Business Review, September 2013, Vol. 91

<sup>7</sup> Nikkei Business Special Edition, Mai 2015

<sup>8</sup> Zhou Zheng Yi (editorial supervisor), Fourin China Research Dept. (written and edited) (2009) “Automakers that win in China will win globally,” Fourin Inc.

<sup>9</sup> China Association of Automotive Manufacturers (2011) “China Automotive Industry Yearbook”

<sup>10</sup> IRC Co., Ltd. (2011) “State of the Automotive Industry in China”

<sup>11</sup> IRC Co., Ltd. (2011) “State of the Automotive Industry in China”

<sup>12</sup> IRC Co., Ltd. (2011) “State of the Automotive Industry in China”

<sup>13</sup> Fourin (2010) “Development and Procurement Strategies in the Automotive Industry in China”

<sup>14</sup> Fourin (2010) “Development and Procurement Strategies in the Automotive Industry in China”

<sup>15</sup> IRC Co., Ltd. (2011) “State of the Automotive Industry in China”

<sup>16</sup> IRC Co., Ltd. (2011) “State of the Automotive Industry in China”

<sup>17</sup> IRC Co., Ltd. (2011) “State of the Automotive Industry in China”

<sup>18</sup> Fourin (2010) “Development and Procurement Strategies in the Automotive Industry in China”

<sup>19</sup> IRC Co., Ltd. (2011) “State of the Automotive Industry in China”

<sup>20</sup> Organization for Small & Medium Enterprises and Regional Innovation, JAPAN, Management Support Information Center (2008) “Multilayered supplier systems and the role of small to medium-sized suppliers in the automotive industry - Supplemented development functions and responses to overseas production”

<sup>21</sup> IRC Co., Ltd. (2011) “State of the Automotive Industry in China”

<sup>22</sup> IRC Co., Ltd. (2011) “State of the Automotive Industry in China”

<sup>23</sup> IRC Co., Ltd. (2011) “State of the Automotive Industry in China”

<sup>24</sup> IRC Co., Ltd. (2011) “State of the Automotive Industry in China”

<sup>25</sup> Fourin (2010) “Development and Procurement Strategies in the Automotive Industry in China”

<sup>26</sup> Japan Finance Corporation for Small and Medium Enterprise (JASME), Research Department (2003) “Major automakers moving to China, impacts on the small to medium-sized parts industry, and responses,” JASME Report, No. 2002-2

<sup>27</sup> Takahide Kosaka (1993) “The formation of the pyramid system in the automotive industry and its functions - Systems for division of labor with “Competition” and “Control mechanisms,” Shogaku Syushi, Vol. 63, No. 2

<sup>28</sup> Satoshi Nagashima (2011) “Being a successful parts manufacturer in China,” Nikkei Automotive Technology, March 2011 issue, Nikkei Business Publications

<sup>29</sup> Fourin (2010) “Development and Procurement Strategies in the Automotive Industry in China”

<sup>30</sup> Tomoo Marukawa (2007) “Modern Chinese industries” Chuokoron-Shinsha

<sup>31</sup> Satoshi Nagashima (2011) “Being a successful parts manufacturer in China,” Nikkei Automotive Technology, March 2011 issue, Nikkei Business Publications

## References

- Kensuke Hazeyama, Nobuo Kawabe edited (2011) “China, Guangdong Automobile Industry - An agglomeration home to 3 major Japanese companies,” Research Institute of Business Administration, Waseda University
- Takahide Kosaka (1993) “The formation of the pyramid system in the automotive industry and its functions - Systems for division of labor with “Competition” and “Control mechanisms,” Shogaku Syushi, Vol. 63, No. 2
- Takahide Kosaka (1998) “Japanese auto business ASEAN parts procurement networks,” Asian Management Research, No. 4

- 
- Takahide Kosaka (2005) “New Toyota Strategies to Advance Globally,” Economy, No. 122, Shin Nihon Shuppan
  - Takahide Kosaka (2007) “Toyota’s Overseas Expansion Strategies and the Toyota Way,” Industrial Management Study, Vol. 21, Association for the Study of Industrial Management (Japan)
  - Hiromi Shioji (2008) “The competitiveness of Leading Industries in East Asia: Factors and Competition, Divisions of labor,” Minerva Publishing
  - Mitsuhiro Seki (2006) “China Automobile Town Formations - Guangdong Province, Guangzhou City, Huadu District Development Strategies,” Japan Institute of Management and Labor Science
  - Mitsuhiro Seki (2007) “Made in China,” Shinhyoron Publishing
  - Akira Takeishi (2003) “Divisions of Labor and Competition: Outsourcing Management with a Competitive Advantage,” Yuhikaku Publishing
  - Takahiro Fujimoto, Toshihiro Nishiguchi, Hideshi Ito (1997) “Leading Supplier Systems,” Yuhikaku Publishing
  - Takahiro Fujimoto, Junjiro Shintaku (2006) “Architecture Analysis of China manufacturing,” Toyo Keizai
  - Tomoo Marukawa (2003) “Supplier Networks in the Chinese Automobile Industry - Historical Analysis,” Asian Economy XLIV-5, 6
  - Yoshinari Maruyama (2001) “Development and Technology Transfer in the Chinese Automobile Industry,” Tsuge Shobo Shinsha
  - Shuji Yamazaki (2010) “Automotive Industry Supplier Systems in China and Japan,” Horitsu Bunka Sha
  
  - Kunihiko Fujiki (2002) “Changes in Auto Parts Trading” EconomistSha Publishing
  - Hideo Kobayashi, Haruo Ono (2005) “The Auto Parts Industry of Japan Facing Global Changes,” Kogyo Chosakai Publishing
  - Takahiro Fujimoto (2009) “(Expanded edition) Product Development Capabilities,” DIAMOND, Inc.
  - Hideo Kobayashi (2004) “Japanese Automobile and parts industries and Strategies in China,” Kogyo Chosakai Publishing