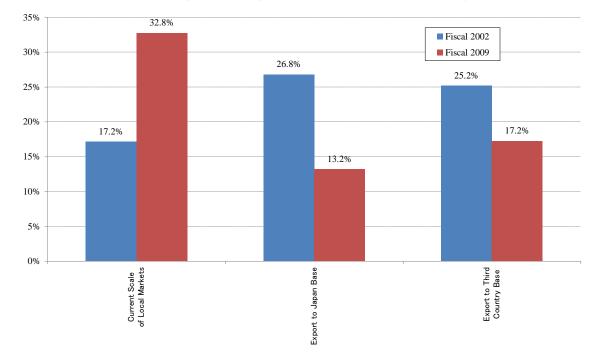
<u>Chapter 2</u> Japan growing with Asia's development - Asia -Pacific framework toward <u>sustainable growth</u>

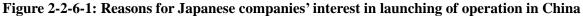
Section 2 East Asia: Development from production networks into production/sales network

6. Developing from production networks to production and sales networks

(1) Expansion to Asia to establish a sales base

Due to China's processing trade scheme and changes in the foreign capital utilization policy as well as increased income levels of customer groups in Asia, Japanese companies are more interested in launching an operation in China not only as a production base but also as a sales base (see Figure 2-2-6-1).





Note: For fiscal 2002, n=373, and for fiscal 2009, n=348, multiple responses possible.

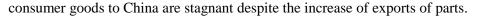
Source: Created from Bank for International Cooperation (2009), "Survey of Overseas Operations of Japanese Manufacturers".

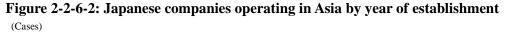
According to "Survey report on overseas business operations by Japanese manufacturing companies" conducted by Japan Bank for International Cooperation, Japanese companies' intention to expand to China was to set up a base to export to Japan and the third countries in 2002. In 2009, more Japanese companies tended to view China as consumer market.

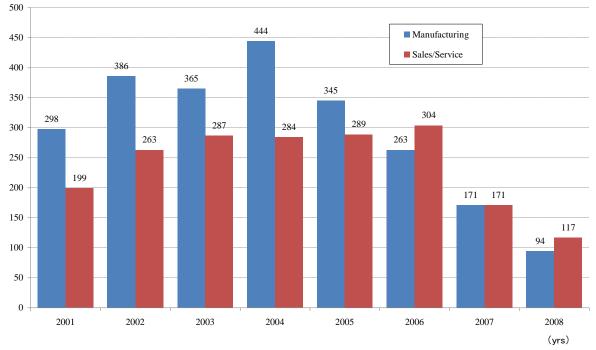
Moreover, according to the number of Japanese companies operating in Asia by sector, the number of companies in the manufacturing industry exceeded the number of corporations in the commercial service industry by 2005. After 2006, the number of manufacturing companies that had started operations abroad declined while the advancement of corporations in the commercial service industry including wholesale and retail company was remarkable (see Figure 2-2-6-2).

(2) Developing into an area as a production base and consumer market

While Asia, mainly China, is increasing its attractiveness as "consumer market", Japan's exports of



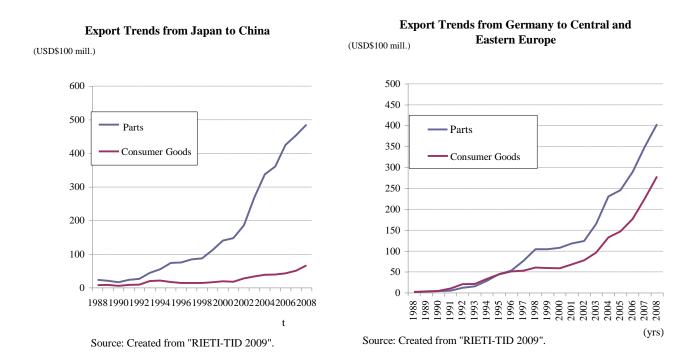




Source: Created from Toyo Keizai (2009) "List of Companies Operating Overseas.

On the other hand, the trend of Germany's exports to the Central and Eastern European countries that are serving as EU's processing and assembling bases shows that Germany's exports of both parts and consumer goods are increasing. It represents that the Central and Eastern European countries are functioning as both a production base and a sales base (see Figure 2-2-6-3).

Figure 2-2-6-3: Comparison of Asian production networks with EU's



As previously confirmed in "5. Changes in the processing trade in China, the world's factory" of this section, while the demand of Europe and the U.S. declined after the global financial crisis, East Asia decreased exports to Europe and the U.S. but increased imports from Europe and the U.S. We would like to expect that China and ASEAN will grow not only as Japan's production base but also as consumer market to build up active trade for both parts and consumer goods as observed with EU member country, Germany, and the Central and Eastern European countries.

(3) Progress of establishment of research and development (R&D) centers in Asia

In Asia that is receiving huge expectation as potential consumer market, the establishment of research and development (R&D) center is progressing to develop new products that match with local consumer characteristics to target growing consumer market.

Since 2000, the increase of establishment of local R&D centers such as that in Shanghai city in China is notable. Not only electric machinery and transport machinery manufactures, but also food products and daily products producers are increasingly building R&D centers (see Table 2-2-6-4).

Operating	Company Name	Location	Details
2002	Ajinomoto	Shanghai, China	Global Food Industry R&D Support, and Product Development for the Chinese Market
	Toray	Jiangsu, China	Textile R&D
	Wacoal Holdings	Shanghai, China	Lab (Basic human research in China)
	Honda	Shanghai, China	Motorcycle Surveys and R&D
2003	Sharp	Shanghai, China	White Goods R&D
	Honda	Haryana, India	Motorcycle, Power Products and Related Product R&D
	Nissan	Samut Prakan, Thailand	Promotion of Domestic Production of Parts etc in ASEAN
2004	Toray	Shanghai, China	Polymer and Water Treatment R&D
2005	Panasonic	Shanghai, China	White Goods R&D
	Hitachi	Beijing/Shanghai, China	Social Infrastructure, Telecommunications and Digital Appliance R&D
	Honda	Bangkok, Thailand	Auto R&D and Surveys through Asia Pacific
2006	Kao	Shanghai, China	R&D into Skin Care and Hair Care Products etc.
	Nissan	Guangdong, China	Design and Experimentation of Automobiles etc.
2007	Denso	Samut Prakan, Thailand	Auto Parts R&D
2009	NSK	Jiangsu, China	Industrial Machinery, Auto Related Products, and Precision Machinery and Parts R&D
	Panasonic	Hangzhou, China	White Goods R&D

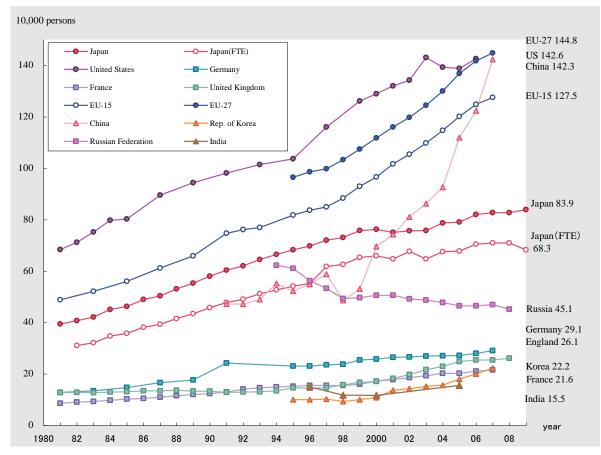
Table 2-2-6-4: Trend of major establishment of research and development (R&D) centers in Asia

Source: Created by METI from the home pages, press releases and reports of each company.

The motivation behind the launch of R&D centers in Asia is to fulfill the need to develop products that accommodate to local consumption market and to secure high-level researchers of which costs are lower than that of Japan.

The number of researchers is increasing in East Asia, mainly in China, that has been developing as a production base (see Figure 2-2-6-5) New production and sales networks that facilitate R&D center for locally consumed products are evolving in East Asia.

Figure 2-2-6-5: Changes of number of researchers in major countries and regions



Note 1. Includes humanities and social sciences for each country. However, for Korea, humanities and social sciences not included up to 2006.

Note 2. For Japan, values as at April 1 prior to 2001, and as at March 31 from 2002.

- Note 3. Full time equivalent values for Japan prior to 1995 are estimated from OECD figures, and 2009 values are Ministry of Education estimates based on data from the Bureau of Statistics.
- Note 4. Values for the US after 2000, and values for EU are estimated from OECD figures.
- Note 5. Values for England up to 1983 are totals of industry (scientists and engineers) and national research institute (degree level or higher) researchers, and do not include universities or private research institutions. Also, values for 1999-2004 are estimated from OECD figures, values for 2005-2007 are estimates, and values for 2008 are provisional.
- Note 6. Chinese values do not necessarily correspond to the definitions of OECD researchers.

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