

The ASEAN Strategies of Electronics Makers

– Production Linkages Continue to Deepen After the Currency Crisis –

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1. Introduction

The ASEAN currency crisis, led by the Thai baht's decline in July 1997, dealt a severe blow to local subsidiaries of Japanese manufacturers. A JETRO survey of Japanese electronics makers one year later revealed that the greatest harm was to production sites supplying the local market (Table 1)

Impact of currency crisis (%)			Response to currency crisis (%)		
			First	Second	Third
Minuses	Reduced local demand depresses sales	64.7	Reduce operating rate 55.0	Rationalize operations 40.4	Divert to exports 18.5
	Higher import prices increase parts procurement cost	57.4	Reduce operating rate 38.1	Rationalize operations 35.8	Increase local procurement ratio 23.9
	Higher interest rates raise financing cost	30.2	Rationalize operations 57.7	Reduce operating rate 45.1	Divert to exports 25.4
	Falling currencies elsewhere reduce export competitiveness	19.1	Reduce operating rate 51.1	Rationalize operations 20.0	Increase local procurement ratio 11.1
Plus	Falling export prices boost exports	12.8	Boost operating rate 50.0	Divert to exports 33.3	Rationalize operations 23.3

Source: JETRO survey (May 1998)

On the other hand, the export-oriented production sites benefited from weak local currencies and turned in good performances.

However, with the ensuing Russian currency crisis in August 1998, followed by the Brazilian currency crisis in September, exports intended for Russia, Eastern Europe and Latin America suffered heavily, amplifying the setback in export markets to a global scale. Thus the export-oriented production sites also suffered as their utilization rates fell.

To examine the condition of Japanese electronics makers in the ASEAN region, NLI Research

Institute conducted on-site interviews from October 1998 to February 1999. While the makers all reported that times were tough, we also found that makers – primarily the large makers – were deepening their production linkages with ASEAN.

2. Serious Impact to Domestic Market Oriented Makers

(1) No End in Sight to Domestic Market Slump

Production sites that primarily supply the local domestic market have been hardest hit by the Asian currency crisis. No end is in sight yet for a business recovery.

The number of these production sites is limited, as many have been in operation for two decades or longer (Table 2)

Table 2 Leading Production Sites with Multiple Product Lines in ASEAN

Country	Company	Parent co.	Est.	Products
Thailand	Thai Toshiba Electric Industries	Toshiba	1969	TV, electric fan, refrigerator, washer, other
	Kang Young Electric Public	Mitsubishi	1964	TV, electric fan, refrigerator, washer, other
Malaysia	Matsushita Electric	Matsushita	1965	TV, refrigerator, washer, other
	SHARP-Rocy Appliances	Sharp	1985	TV, refrigerator, washer, other
Philippines	SANYO PHILIPPINES	Sanyo	1970	TV, electric fan, refrigerator, air conditioner, other
	SHARP PHILIPPINES	Sharp	1982	TV, headphone stereo, radiocassette, washer, other
	Matsushita Electric Philippines	Matsushita	1967	TV, stereo, electric fan, refrigerator, washer, air conditioner, other
Indonesia	SANYO INDUSTRIES INDONESIA	Sanyo	1970	TV electric fan, refrigerator, washer, air conditioner, other
	National Gobel	Matsushita	1970	TV, radio, radiocassette, electric fan, refrigerator, washer, air conditioner
	LIPPO MELCO MANUFACTURING	Mitsubishi	1991	TV, refrigerator, air conditioner, other

Source: EIAJ

The leading sites in this category manufacture multiple product lines (including both AV products and white goods) These sites date back to the 1970s when plants were built for export substitution. While they are small and do not offer significant economies of scale, they were effective in establishing brand presence at a relatively small investment cost.

In the 1990s, later arrivals from Japan and Korea began building large-scale plants, threatening the less cost-competitive multiple-product plants.

Makers with small local market shares restructured their multiple-product plants in the early 1990s by product line, and constructed a system of functional allocation in the ASEAN region. The makers with large market shares spun off their multiple-product plants and beefed up their capability to supply local markets.

(2) Integration of Product Lines

After the currency crisis struck, the average utilization rates of domestic-oriented production sites fell below 50%.

Many of these sites responded to the drop in utilization rate by combining or eliminating product lines. Some products were diverted to exports to maintain utilization rates, but the effect was limited because product specifications were designed for the domestic market.

Responses vary slightly depending on location. Since Malaysia originally had a small domestic demand and high export ratio, few production sites are dedicated to the domestic market. In addition, the existence of a sizable domestic parts industry facilitates the rationalization of parts procurement and conversion to exports.

By contrast, since production in Indonesia is geared toward the domestic market of 200 million people, conversion to exports is difficult. In response to the plunge in domestic demand, one manufacturer moved its television production line to Malaysia.

Since production sites in Thailand are more export competitive than in Indonesia, some degree of export conversion has been possible (but only about 10%) Moreover, because the slump in domestic demand is not as large as in Indonesia, efforts to concentrate production lines in Malaysia have been limited.

(3) Layoffs are the Exception

The brunt of cost cutting efforts is in reducing procurement costs for parts and materials. Since the onset of the currency crisis, parts makers have been under intense and growing pressure to cut prices.

While there are instances of workers being laid off in the cost cutting effort, in the electronics industry layoffs are limited to part-time workers, and regular employees have for the most part been untouched.

This point marks a decisive difference between Japanese firms and their western counterparts. Locally, Japanese firms have been praised for stubbornly protecting jobs despite the worsening business situation.

(4) Capital Injection from Parent Company is Indispensable

Domestically oriented production sites often borrow in foreign currencies while receiving revenue in the local currency. Thus when local currencies dropped from one-half to one-fifth in value, most companies found themselves burdened with excess liabilities. Moreover, their cash flow situation deteriorated since revenue was actually halved. Nevertheless, practically none of the companies has gone bankrupt. This is because their parent companies in Japan have come to the rescue with capital infusions.

The parent companies extend this financing because they remain confident about the long-term prospects for the Asian market. However, since the local subsidiaries cannot regain their independence until the local markets recover, the parent companies may be committed to continue financing for some time.

3. Limited Effect on Export Production Sites

(1) Few Sites Purely Serve Local Market

When electronics makers set up production in Asia in the early 1990s, their primary stated objective was to respond to local markets. As a result, Japanese electronics makers were said to have moved their production to be close to the markets they supply.

However, the only product line that had actually been locally produced for purely local consumption were television sets (when the currency first erupted, all ASEAN countries except for Laos and Myanmar had television production lines supplying local markets)

On average, the sales composition for home electronics and AV equipment other than TVs made by local Japanese manufacturers is as follows: 5-10% for the domestic market, 20% for export within Asia, 30-40% for export to North America, and 20-30% for export to other destinations including Japan.

Table 3 Export Market Composition of Local Japanese Manufacturers(%)

	Domestic use	Regional export	North America	Europe	Russia, E. Europe	Japan, other
Before currency crisis	5	30	30	10	20	5
After currency crisis	5	10	40	20	20	5
After Russian crisis	5	10	45	25	5	10

Source: Interviews

In this way, for export-oriented manufacturers, despite the negative impact of the currency crisis on the ASEAN market, the impact on these manufacturers was limited mostly to domestic demand and regional exports. Many set makers were able to minimize the impact of the currency crisis by diverting the 30% that used to go to the domestic and regional market to Europe and the U.S. For this reason, export-oriented production sites were less affected by the currency crisis than domestically oriented production sites.

(2) Few Benefits to Currency Devaluation

Immediately after the currency crisis struck, there was speculation that devalued local currencies would boost export competitiveness. Actually, this did not happen except in limited cases.

While some production sites enjoyed strong exports and earnings growth, this was the result not of the currency crisis so much as of the strong demand for computer related exports (printers, HDDs, etc.)

Although demand for computer-related products slipped in early fiscal 1998, its recovery in the second half limited the pressure to cut prices based on currency devaluation, resulting in strong performances for both price and volume.

Due to currency devaluations throughout ASEAN countries, most of the export-oriented production sites did not see differences in relative competitive strength. (However, since the Chinese yuan did not weaken, export competitiveness recovered vis a vis Chinese products.)

Moreover, most Japanese manufacturers have conducted their borrowing, parts imports, and sales in U.S. dollars since before the currency crisis. While the devaluation of local currencies did reduce labor costs, since labor and other costs denominated in local currency generally account for less than 10% of manufacturing costs, the direct positive effect was limited.

After the currency crisis erupted, some manufacturers switched from dollar denominated to yen denominated borrowing. These makers, however, suffered even more when the yen appreciated in the second half of 1998.

(3) Small Impact on Electronic Component Makers

Because electronic component makers moved their production into Asia with the global market in mind, the impact of the currency crisis has been smaller than on the set makers.

For this reason, the devaluation of local currencies has increased their export competitiveness.

However, in reality set makers have pressured them to reduce prices because of the currency devaluation, causing the sales revenue of most component makers to decline.

This situation remains largely unchanged today. Indeed, since local set makers are doing even worse, they are putting greater price-cutting pressure on component makers.

(4) Diverse Impacts of Performance

Even production sites enjoying relatively strong exports may be turning in poor business results depending on the country they are located in.

In Thailand, since even 100% export-oriented companies must convert all foreign exchange earnings into baht, they have continued to post currency exchange losses on the income statements denominated in local currency since the currency crisis began. However, the mandatory baht buying imposed on exporters has caused the baht to recover against the dollar, so that exporters are starting to see a recovery in their baht-denominated business results.

In contrast, since Malaysia switched to a fixed rate system in September 1998, exporters have been freed from the effect of exchange rates. Japanese makers are generally glad to see relief from exchange rate effects, it is unclear how much longer Malaysia's foreign currency reserves can sustain the fixed rate, and the prevailing consensus for the medium term is that factors that could cause devaluation are growing stronger.

(5) Damage from Russian Crisis is Greater

In terms of the impact on export-oriented production sites, the ASEAN currency crisis pales in comparison to the Russia/Eastern Europe crisis and Brazilian crisis.

When the ASEAN currency crisis caused the regional export market to shrink, Japanese makers increased their export ratio to other areas. For the average export production site making low-end AV equipment, exports to Russia, Eastern Europe, and Latin America comprised approximately 20% of total sales. Almost all of this disappeared due to the crises. The same thing happened to component makers.

As a result, except for computer-related parts makers, the utilization rate of export-oriented production sites plunged to around 80%, and poor results for fiscal 1998 were unavoidable.

(6) North America Holds Key to the Short Term

With other export markets in a slump, Japanese export producers in the ASEAN region are currently exporting almost half of their production to North America, currently the only export market that is healthy. If North America falters, the impact will be greater than that of the Asian currency crisis.

For the next two to three years, at least, the performance of Japanese electronics makers in the ASEAN region will be strongly affected by conditions in the North American market.

4. ASEAN Linkages Deepen

(1) No Change in Asian Strategies of Japanese Companies

Due to the currency crises in Asia, Russia and Brazil, and the resulting slump in the regional and export markets, Japanese electronics makers in the ASEAN region face the greatest crisis since moving into the region. Until recently, even the leading electronics makers reviewed their strategy in Asia and seriously considered pulling out.

However, in the end almost none of them chose not to pull out completely. This shows that their basic ASEAN strategy has not changed: to make the ASEAN region the supply base for the global market.

Compared to the consistent losses plaguing Japanese producers in North America and Europe, the overall performance in the ASEAN region remains high. In addition, the production base that has been built is the largest in the world. The fact is that for Japanese makers, no other mass production base is comparable to the ASEAN region.

Table 4 ASEAN Ratio of Production of Major Product Lines(Units)

Group	Air conditioner		Color TV		VTR	
	Overseas production ratio	of which, ASEAN share	Overseas production ratio	of which, ASEAN share	Overseas production ratio	of which, ASEAN share
Matsushita	64%	76%	75%	35%	40%	58%
Sony	-	-	91%	40%	90%	40%
Toshiba	42%	100%	82%	30%	100%	0%
Hitachi	56%	45%	80%	16%	80%	100%
Sanyo	56%	95%	98%	18%	100%	54%
Mitsubishi	52%	52%	100%	100%	100%	100%
Sharp	56%	28%	89%	5%	90%	73%
Fujitsu	65%	60%	—	—	—	—

Source: Compiled from various sources.

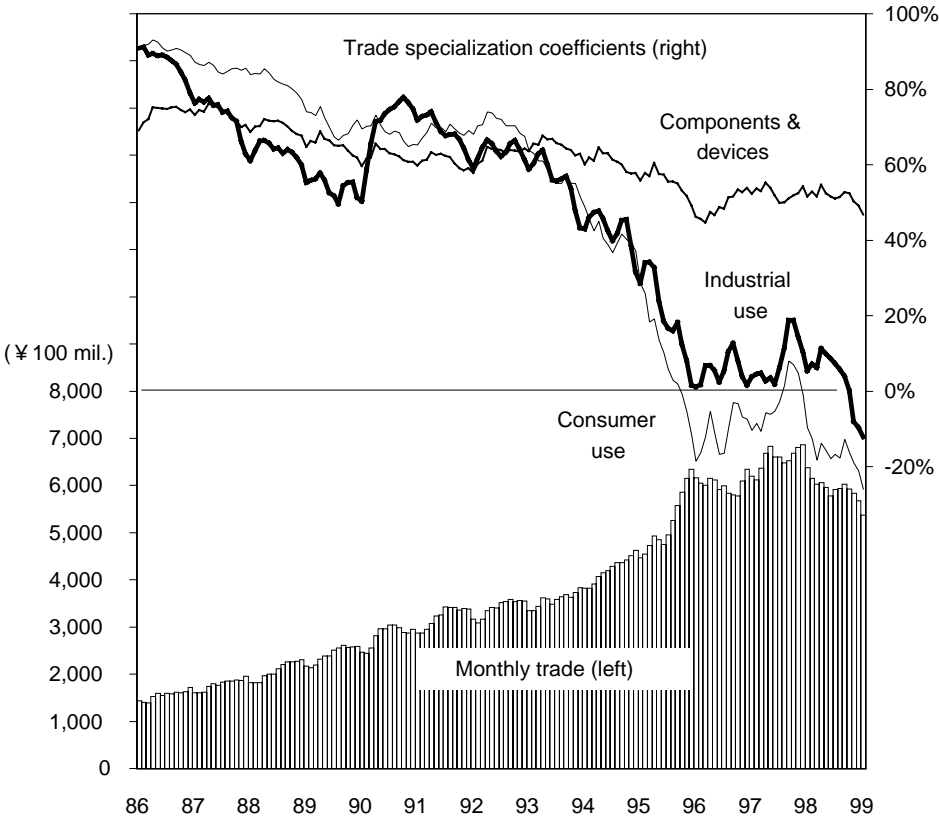
Moreover, according to JETRO, of the four leading ASEAN countries, Japanese makers contribute most to Thailand's exports at 45%, and least to Malaysia's exports, although still a hefty 19%.

While the ASEAN market is presently in a slump, its future prospects remain as bright as ever. Japanese electronics makers have built a large presence, no longer consider withdrawing a viable option.

(2) Asia's Trade Remains at High Level

Meanwhile, the mass production capabilities of ASEAN are becoming increasingly indispensable to the production systems of Japanese companies.

Figure1 Asian Trade and Trade Specialization Coefficients



Note: Trade specialization coefficient = $(X - M) / ((X + M) \times 100)$
 Source: MOF

In the electronics industry, Japan's monthly trade volume (exports plus imports) with Asia (excluding China) has dipped following the currency crisis, but is still equivalent to the 1995 level. The growth rate is negative, but the level of trade itself has not declined appreciably.

Moreover, looking at the trade specialization coefficient by product category, even the coefficient for industrial electronics equipment (communications equipment, computer-related equipment, etc.) which has greater added value than consumer electronics equipment, has shifted significantly toward Asia, indicating that imports from ASEAN have increased. The bulk of ASEAN imports to Japan are manufactured by Japanese makers.

In fact, imports of components and semi-finished products from Asia and ASEAN in particular are growing steadily. These intermediate products have become indispensable to Japan's domestic production. The division of labor between Japan and ASEAN thus continues to deepen after the currency crisis.

(3) Greater Presence in ASEAN is Crucial

Unfortunately, as far as short-term results are concerned, what Japanese companies have done to overcome the ASEAN market's slump will only have a limited impact. Japanese production sites in the region, including the export oriented sites, will simply have to bear down and weather the storm.

However, the bright outlook for the ASEAN region remains unchanged. Some companies have taken advantage of local currency devaluations to invest cost-effectively in R&D centers in Singapore and Malaysia, and thereby strengthen design and development capabilities locally.

The most advanced makers are preparing to localize all functions from product development to production for low-end AV equipment and home electronics products.

Presently, Thailand and Malaysia have some of the largest concentrations of electronics facilities in the world. In the long term, competitiveness will be sustainable only by concentrating the design, development and group control functions locally.

When the effects of the currency crisis wear off in two to three years, the ASEAN region centered around Malaysia is likely to form a key mass production base for electronics including leading-edge digital network home electronics.

Thus from a long-term perspective, it will be increasingly important to train and develop more personnel for functions including design and development.