5-4. Electronics Industry Promotion Policies in Thailand

(1) Legal Assistance Policies

From around 1986, the electronics industry in Thailand finally began to approach a take-off position, but its share in total exports in 1986 remained extremely small, at 6.7% (exports of electronics products amounted to 7,613 million baht in contrast to total exports of 113,325 million baht). In addition, despite its rapid growth in the domestic market, exports continue to grow at a slow pace, showing little increase over the past few years.

Development of the electronics industry in Thailand has followed virtually the same path as the government's import-replacement industrialisation policies of the 1960s and the export-oriented industrialisation policy announced in 1972. Before these policies, however, it was the Industry Promotion Act of 1954 that had supported Thailand's industrialisation. In order to promote industrialisation, the Board of Investment (BOI) and the National Economic Development Bureau (NEDB) were established in April 1959, and in October of the following year the Industrial Investment Promotion Act was enacted to promote the introduction of foreign capital and the replacement of imports. The Industrial Investment Promotion Act prepared the legal foundation necessary for industrialisation, but the Sarit administration, deeming it insufficient, conducted an overall reevaluation and revision and established the Neo-Industrial Investment Promotion Act in February 1962.

The new law established a wide range of benefits for the electrical and electronics industries (e.g., radio and television assembly, electrical wire, home electrical appliances and other electrical tools), including exemption of raw materials and imported materials from taxation and exemption from business taxes.

As a result of these incentives, the period from the 1960s through the early 1970s saw numerous foreign corporations invest in Thailand. Foreign investment in the electronics industry in Thailand is characterised by the presence of well-known multinational corporations from Japan, Europe, and the U.S. -- among general manufacturers, Sanyo, Toshiba, Hitachi, and Mitsubishi; among manufacturers of individual products, Philips from the Netherlands and Singer from West Germany (televisions) and ITT of the U.S. (telecommunications equipment).

Many Thai electronics companies receive favorable treatment under the above-described investment promotion acts established since the 1960s, but many of these companies are joint ventures with foreign capital.

The production of the Thai electronics industry in 1985 totaled 5 billion baht in the home electrical appliances and electronics products field and 500 million baht in the industrial electronics sector. Products in each of these fields, however, depended almost entirely on imported raw materials, with most production taking the form of simple processing and assembly. It would be no overstatement to say that the Thai electronics industry has shown little progress since completion of the import-replacement phase. Consequently, in the Sixth Five-Year National Economic and Social Development Plan which began in October 1986, the government was very critical of past policy, noting that the hasty import replacement policies of the past had not necessarily brought satisfactory results for the Thai electronics industry. The intensive import-replacement policies, which involved the import of all key parts, in fact resulted in the nurturing of certain "preserved companies" concentrating on domestic demand. Protected by high tariffs on imported products, companies whose international price competitiveness was virtually nil and who had little interest whatsoever in "competitiveness" simply supplied domestic customers with electronics products priced several times higher than the going international rate.

Based on these criticisms, in April 1986, before the announcement of the sixth development plan, government heads consulted the National Economic and Social Development Board (NESDB) and the Export Electronics Industry Development Subcommittee, a suborganisation of the BOI, for advice on how to transform the Thai electronics industry into an internationally competitive export industry.

In response to this query, the Export Electronics Industry Development Subcommittee proposed "contract manufacturing" as a concrete method of electronics industry development. For all practical purposes "contract manufacturing" can be considered synonymous to OEM (Original Equipment Manufacture).

The Thai government, in its promotion of contract manufacturing, established the following product priority list.

First stage

1. Printed circuit boards

2. Electrical wires, wire harnesses
3. Components for printed circuit boards
4. IC packages
5. Home electrical appliances
6. General electronics equipment

Second stage
1. Electronics components (condensers, switches, speakers, etc.)
2. Liquid-crystal products

Third stage
1. ICs
2. Industrial electronics
3. Testing equipment
4. Medical electronics
5. Computers

Action plans for these three stages are currently being concretised by the government. Given the nation's low labour costs, abundant natural resources, and the diligence and skills possessed by its work force, if government incentives are effectively implemented and tax-related obstacles removed, the Thai electronics industry may well establish itself as an export industry in the near future.

(2) Tax and Financial Assistance and Problem Areas

As should be clear from the above, the Thai electronics industry has not yet achieved a take-off position. The main reasons for this are problems in policies for tax and financial assistance. This section will begin with an overview of current tariffs and financial systems and organisations and proceed to examine how problems with these are affecting the electronics industry.

1) Tariffs

In January 1988 the Harmonised System of import duties was introduced. Under this system, the majority of import items are assessed an ad valorem duty of 25% - 60%. As one of the import restriction measures for the protection of immature industries, import surcharges are frequently levied and tariff rates readjusted. There are two types of import

surcharges: those based on the above-described Investment Promotion Act and levied by the BOI on imported products being produced by local companies designated by the act; and those put into effect and levied on a temporary basis by the Ministry of Finance.

Business tax on imports is calculated as follows:
(CIF price + import duty) x standard profit rate = standard profit
(CIF price + import duty + standard profit) x business tax rate = business tax

This method has been criticised as showing an exaggerated standard profit based on the standard profit rate.

2) Finance

Public institutions providing financing for the manufacturing industry include the Industrial Finance Corporation of Thailand (IFCT) and the Small Industry Finance Organization (SIFO), under the jurisdiction of the Ministry of Industry. The Bank of Thailand also offers industrial bill refinancing through commercial banks, and the IFCT is provided with the System for Industrial Credit Guarantee Financing (SICGF).

IFCT financing, targeting small- to medium-sized companies (SSI finance facilities), is for corporations with fixed capital of less than 10 million baht, and loans are limited to 5 million baht. The Export Industry Modernisation Programme (EIMP) is currently applied to eight export-oriented industries. The greatest problem faced by IFCT activities in general is a lack of the assets required for a stable supply of low-cost financing. Since the interest must be determined on a cost-plus basis, rates are often higher than those offered by commercial banks.

SIFO financing is also limited to companies with fixed capital of less than 10 million baht. Loans are made either through the Krung Thai Bank or directly by the organisation itself. The maximum amounts borrowable are 3 million baht and 500,000 baht, respectively. Expansion of operations at SIFO is severely restricted by an insufficient budget. The 500,000-baht limit on direct loans, the use of which has been on the rise, is less than for comparable financing systems, and it is impossible for the organisation to provide the amount of money needed by corporate borrowers. Furthermore, since SIFO is not an independent corporate entity, it is ineligible for membership in the SICGF and hence cannot take advantage of the latter organisation's credit guarantee system for its direct loans.

The minimum loan amount under the industrial bill refinancing system of the Bank of Thailand is 30,000 baht for ordinary corporations and 10,000 baht for small enterprises. Problems with this system include complicated application procedures, insufficient promotional activities, and a small profit margin for financial institutions, making active use by private financial institutions difficult to expect.

Financing by the SICGF is targeted at companies with fixed assets of less than 10 million baht, with the loan amount falling between 200,000 baht and 5 million baht. Credit can be extended to 80% of insufficient collateral. This system is plagued by a lack of operating capital, since operating costs are financed by credit fees and fund interest.

3) Indirect Tax Refunds

Two types of indirect tax refund systems are in place for the promotion of industrial product exports. One of these is the indirect tax refund, in existence since before the Second World War and under which tariffs and sales tax assessed on imported raw materials for use in exports are refunded. Under the supervision of the Customs Department, evaluation of the amount to be refunded is based on a policy of merit, and it is the responsibility of the exporter to clearly indicate the amount of imported raw materials used. Since the paid amount (bank guarantees are also acceptable) is returned only at the time of export, the importer/exporter is forced to bear an interest burden.

The other indirect refund system is the indirect tax rebate system announced in October 1971. Targeting only exporters, this programme returns (in the form of tax coupons) a fixed percentage of the indirect taxes levied on all raw materials used in export production determined for each product. Originally under the supervision of the Fiscal Policy Office, day-to-day operation of the system was transferred to the Customs Department in 1979.

In addition to these two programmes, companies in industries designated in the Industrial Investment Promotion Act are able to receive exemptions from customs duties and sales tax upon registration of the imported raw materials. In other words, they can obtain bonded plant status.

The aim of each of these systems is to eliminate taxes on imported raw materials and thereby allow manufacturers to compete on the same terms as foreign competitors. Another objective is to make exports more attractive than domestic sales.

Still, there are many problems with the present programmes. The greatest of these is the time and money required to apply for the rebates. As a result, utilisation of the systems by small- to medium-sized exporters is difficult. In order to eliminate these obstacles, the Thai government is currently implementing reforms in cooperation with the World Bank.

4) Obstacles to Production Activities in the Electronics Industry

The greatest problem facing the Thai electronics industry is taxation. Others include raw material supply, financing, machinery, and export marketing.

Taxation involves import duties as well as the business tax. The reason for the current unfairness in the tax structure lies in the numerous tax incentives used for promotion of import replacement.

Assume, for example, that the import duty on electronic component B for electronic product A was reduced by 10%. As a result, the duty on parts C which comprise component B is as high or higher than the duty for component B, resulting in an unbalance that puts the local manufacturer of parts C at a relative disadvantage. The greatest problem currently facing the Thai tax structure is the business tax, which is not a value-added tax but rather a macro sales tax.

Since it is assessed when local component manufacturers supply products to the assembler, this tax results in a significant difference when the assembler compares the costs of directly importing a product and having it supplied from a local manufacturer.

A second major problem is that of raw materials. For Japanese-affiliate companies, the strength of the yen with respect to the baht has resulted in significant increases in manufacturing costs due to the inflated prices of imported raw materials. This is a problem that extends to industry as a whole and consequently is receiving a great deal of attention.

(3) Manpower Training Assistance

Non-formal education in Thailand is carried out in the form of vocational training under the supervision of the Ministry of Interior, the Ministry of Education, and other government institutions. When viewed from the standpoint of scale of organization and facilities, the programs being implemented by the Ministry of Education and the Department of Labour (of the Ministry of Interior) play a central role in the training of skilled workers and technicians. This section will focus on the Ministry of Interior's vocational training centres. This is because programmes being conducted by the Ministry of Education are: 1) centered around theory; 2) geared toward the needs of parents and young people; and 3) based on an academically fixed curriculum. Programmes under the Ministry of Interior, on the other hand, concentrate on practical training, are geared towards the needs of the business world (and are especially helpful to small- to medium-sized companies), and offer flexible curricula concentrating on the training required for employment.

In Thailand today, there are six regional vocational training centres across the country (in Ratchburi, Cholburi, Lampang, Khon Kaen, Songkhla, and Nakhorn Sawan) in addition to the National Institute for Skill Development (NISD). The construction of two more centres, one to be located in the Ubon Ratchathani region (with the complimentary financial and technical cooperation of the Japanese government) and one in Suratthani (with the cooperation of West Germany), is also in the works.

Since the training programmes being implemented at NISD and the six regional institutes are virtually identical, this section will deal primarily with the NISD.

NISD was established in 1969 in order to provide industry with a ready source of young labourers who have mastered necessary skills and to promote skills certification and skills conferences, the implementation of instructor training, and the development of training curricula and teaching aids for improving skill standards in the labour force.

NISD courses include pre-employment training, in-plant training, skill up-grading, non-technical training, foreman and supervisory training, and instructor training.

1) Pre-Employment Training

Roughly 20% of the training time is spent on theory, while the remaining 80% is

devoted to practice. Certain courses are divided into Module Units (MES) to allow employment after completion of certain stages (ILO Modules). This format was adapted for the sake of disadvantaged trainees and those who, because of family considerations, are forced to leave the programme midway through. With the ILO system, employment is possible after completing only a portion of the module units, numerous trainees can be accepted in rotation, and effective utilisation of the equipment is made possible.

The current project provides skilled labourer courses lasting three to eleven months in an attempt to allow idle, unemployed youths between the ages of 16 and 25 (who are unable to find work because of a lack of skills, regardless of whether they have completed a course of schooling) to master necessary skills. The electronics course requires its students to have graduated from the three-year middle school system, and the training period is ten to eleven months. Since employment in this field is relatively easy to find and salaries high, the number of applicants is extremely large.

2) Skill Up-Grading

This programme involves training to improve the skills of skilled workers already employed. With traditional skill development methods it is difficult to keep up with technological innovation. This programme aims to improve the quality of skilled labour by providing knowledge and skills concerning the latest technology. There are more than 30 courses, making it possible to respond to the diverse needs of industry, and they are held mainly at night to allow trainees to learn while they work. Average training time is approximately 60 hours. The courses tend to focus on specialised technologies required by industry; topics covered in electronics industry-related courses, for example, include electronics components, power-up, transistor circuits, digital circuits, and VTRs. Each course is limited to approximately 20 trainees. There is no entrance examination and the courses are free, making them very popular among the society's youth, who are keenly aware of technological advances and don't want to be "left behind." Furthermore, more specialised courses are often held at the request of corporations.

3) Non-Technical Training

This course covers training in service industries (hotel employees, waitresses, stenographers, etc.).

4) Instructor Training

In this 30- to 45-hour course, individuals in charge of in-company training are given special training concentrating on teaching methods in order to facilitate the transfer of technology to other labourers. By providing the latest skills and knowledge in accordance with corporate needs, the programme aims not only at improvement of skills and teaching methods but also at the raising of worker morale, including job attitude and sense of responsibility.

5) Foreman and Supervisory Training

This programme aims at the training of foremen and supervisors at the plant. Course content consists of such items as leadership, teaching methods, methods of transmitting indications, and safety. Courses last approximately 40 hours. The courses may be conducted at one of the training centers or at the plant itself.

6) Other

Other programmes include a training officers' course and mobile training programme, in which instructors take equipment to those living in remote areas and unable to attend training sessions at the regional vocational training centers.

The above has been an outline of NISD activities. The number of pre-employment training courses held for electronics-related fields at the regional vocational training centers in 1984 was as follows.

(Unit : Month)

Name of Center	Ratcha-buri	Cholburi	Lampang	Khon Kaen	Songkhla	Nakorn Sawan
Plot where the Training Carried Out						
in Center	6	10	10	6	-	-
in Plant	3	4	2	2	-	-

(4) Development Assistance Policies

This section will begin with a discussion of the Sixth Five-Year National Economic and Social Development Plan (October 1986 - September 1991), concentrating on the Technology Development and the Development Administration Reform Programme. An overview of the current state of the Thai electronics industry will then be presented. Finally, since the Thai electronics industry has yet to reach a take-off position and is dominated by joint ventures with foreign enterprises, the current state of the BOI-promoted Investment Promotion Act will be selected as a case study in development assistance policy for the semiconductor industry.

1) Sixth National Economic and Social Development Plan

This plan consists of ten programmes, two of which will be discussed below. Neither of these programmes targets the electronics industry exclusively.

Technology Development Program

The importance of technology to national development was left virtually untouched in the past, and it was only in the fifth five-year plan that this problem was even mentioned. In reflection of its increasing importance, however, the problem is given special priority in the sixth plan. The overall aim of this programme is catching up with and overtaking the NIEs. Specifically, it sets up two objectives: to establish a technological base for the improvement of industrial capacity; and to utilise technology to improve living standards, increase competitiveness on the international market, and increase employment and labor productivity. Its methods include the effective development of R&D programmes, technology transfer, and human resource development. More specifically, the following strategies have been adopted.

a) To allow technology systems to fulfill their increasingly important role by promoting technology in the sectors that will form the foundation for future development and by training people in technology fields for the demands of the economic structure of the future.

b) To assist in the development of technology by revising laws and regulations that tended to form obstacles, preparing necessary mechanisms, and strengthening the foundation thereof.

c) To achieve more effective utilisation and improve the quality of technology-related human resources and to train people in the fields of technology through a larger supply of manpower to those fields with the greatest needs. (See previous section on "Manpower Training Assistance.")

d) To strive towards more effective national R&D through the enactment of appropriate policies. Budget allotments should be made to assist necessary research in fields requiring immediate development such as electrical engineering, genetic engineering, biotechnology, and metallurgy.

e) To improve the efficiency of technology transfer so that it can aid in economic development and the advancement of domestic technology.

f) To develop information systems for technology.

g) To encourage private-sector investment in technology fields by offering tax-exempt status and other measures to encourage the role of the private sector in the promotion of technology.

Development Administration Programme

As the nation comes under a variety of restrictions, efficient operation of development programmes becomes increasingly important. This programme comprises several sub-programmes to ensure the unified and systematic function of the government, their goal being to resolve problems such as duplication of responsibilities between government agencies and a lack of adjustment, improve existing information, regulatory, and public services, and strengthen the cooperative relationship that exists between government and the private sector.

2) Current State of the Electronics Industry

An overall view of the Thai electronics industry shows that, as of the end of 1978, 49 out of 86 small and large enterprises were funded with 100% Thai capital, while the remaining 39 were joint ventures. Although Thai companies represent a majority, they are concentrated in areas that are not very technology-intensive, such as miniature radio and room air conditioner production, and their operations are on a smaller scale than those of the joint ventures.

A glance at management scale in the Thai electronics industry at the end of 1978 shows aggregate capital of 773 million baht, of which Thai companies account for 314.6 million baht (40%), joint ventures with Japanese companies, for 221 million baht (29%), and joint ventures with other foreign companies, for 237.5 million baht (31%). In effect, the ratio of capital holdings at Thai companies to those at joint ventures is about 2:3.

Domestic production of components continues to increase each year, and with the exception of a very small portion, virtually all products were manufactured in Thailand. There was heavy dependence on imports for the key components in AV products. In an effort to further increase the ratio of domestic production, the Thai government has created measures such as investment promotion policies (described above) with the Investment Promotion Act and government administration guidance. In 1982 the production of compressors, the key component in appliances such as refrigerators and air conditioners, was localised, and at present the stage is set for the domestic production of CRTs, the key component in television sets.

During the past few years, there has been investment by leading U.S.-affiliate companies in the field of final IC assembly, which requires a great deal of labour, in order to take advantage of Thailand's inexpensive labour costs. The finished IC products are all exported, and tremendous growth has been recorded each year. Recently, in fact, ICs have come to be one of the nation's most important exports. (See Table Below)

Exported IC Trends in Thailand

	Exported Valume (Million Units)	Exported Sum (Million Bht)
1980	618.8	6,156
1981	592.5	6,145
1982	446.2	5,912
1983	454.6	5,819
1984	747.8	7,352

Source : Statistics Department

The IC is a labour-intensive product, and all products are exported. As a result, the government, with its desire to promote export-oriented industry, has high expectations for ICs, and the BOI has designated the field as an industry for promotion.

As of 1986, six corporations in the field were designated for promotion by the BOI and received benefits such as customs duty and income tax exemptions. Three of

these were U.S. affiliates: National Semiconductor (Bangkok) Co., Ltd., Signetics (Thailand) Co., Ltd., and Honeywell Synertek (Thailand).

National Semiconductor began production in October 1973. Current annual production capacity is estimated at 300 million chips, most of which are exported to the parent company in the United States.

Signetics began operation in 1980 and currently maintains production capacity of 200 million chips a year. Plans are in the works for an expansion project that will increase the company's capacity by another 1.1 billion units, and in 1984 the company received permission from the BOI for additional investment of 864.5 million baht. Here, too, the majority of production is exported to the parent company in the U.S.

Honeywell Synertek commenced production in July 1980. Production capacity currently stands at 60 million chips a year, but in 1984 permission was received for additional investment that would bring additional capacity of 445 million units.

The three other companies designated by the BOI are: Data General (Thailand) Co., Ltd. (commenced production in 1979 with an annual production capacity of 42 million units); Hana Semiconductor Co., Ltd. (establishment approved by the BOI in October 1984); and Ngan Tawee Electronics Co., Ltd. (establishment approved by the BOI in January 1985).

Foreign investment in the IC industry continued to attract attention into 1985, with Ngan Tawee Electronics receiving BOI approval in January and AT&T Microelectronics (Thailand) Co., Ltd. (investment of 900 million baht; IC manufacture; 100% exports) receiving designation as a firm for promotion in May. Additional investment by National Semiconductor (610 million baht; 100% exports) was also approved.

As can be seen from the above, Thai government assistance for electronics industry development has been taken up as an official government objective in name and in reality with the Sixth Five-Year National Economic and Social Development Plan, and development in this industry has only just begun. While sufficiently recognizing the importance of research and development, the government is currently placing the emphasis of its policies on the promotion of foreign capital investment and joint ventures.

6. Questionnaire Sheet for Survey in Japan

QUESTIONNAIRE TO THE ENTERPRISE THAT IS INTERESTED IN OVERSEAS INVESTMENTS

You are requested to make entries in articles below or to enclose proper numbers with circles about the epitome of your respective enterprise. (Management indices are expected to go with the financial statement base of 1987)

Name of Enterprise	
Location	
Establishment year	
Kind of Corporation	1.Japanese Enterprise 2.100% Foreign Affiliate 3.Over 50% Foreign Affiliate
Capital	(Paid-up Capital)
Gross Sales	(Yearly Turnover)
Ratio of Overseas Production	% (Amount of Overseas Production/Gross Sales x100)
Total Number of Employees	Persons
Main Products, Treated Items	
Name of the Department/ Division which is in charge of the Questionnaire Entry	
Official Position & Full Name of the Person who makes an Entry.	Official Position_____ Full Name_____

1. The way of answering Question.

(1) Questions are devided into 8 general items as follows:
Ⅰ. Policies & Institutions by the Government
Ⅱ. Tax Systems Ⅲ. Economic Circumstances
Ⅳ. Personnel Management Ⅴ. Infrastructures
Ⅵ. Parts Supply Ⅶ. Concerning the Overseas Production
Ⅷ. Concerning the Technical Tie-up

(2) Each general items Ⅰ to Ⅴ consists of 3 sections such as Item Section, Questionary Section, and Answering Section.

① With regard to the Item Section:
The items, which are supposed to be necessary for the examination of the plant establishment, are listed.
② With regard to the Questionary Section:
You are requested your respective enterprise's evaluation for each country about the aforementioned items.
③ With regard to Answering Section:
This section is for entering your evaluation owing to the examination of the plant establishment for each country about the aforementioned questions. You are requested to enclose the proper number with a circle by country.

2. The closing day of presentation:
You are requested to send back this questionnaire with the enclosed return envelope by the last day of November 1988.

3. In case that the way of entries is not clear for you, please make a reference to the undermentioned;

Japan External Trade Organization (JETRO)
Malaysia Industrial Product Development Survey Project Group
TEL : (03) 582-5525
Address: 2-2-5 Toranomon Minato-ku Tokyo 〒105

I. Policies & Institutions by the Government

Item	Qesution	Answer
(1) Basic stance of foreign capital	How do you evaluate the basic stance to foreign capital?	Great Plus Factor / Plus Factor / Fair / Minus Factor / Serious Minus Factor Malaysia 5 4 3 2 1 Thailand 5 4 3 2 1 Singapore 5 4 3 2 1 Korea 5 4 3 2 1
(2) Restriction of investment ratio	How do you evaluate each country's restriction of investment ratio?	Great Plus Factor / Plus Factor / Fair / Minus Factor / Serious Minus Factor Malaysia 5 4 3 2 1 Thailand 5 4 3 2 1 Singapore 5 4 3 2 1 Korea 5 4 3 2 1

II. Tax Systems

Item	Question	Answer
(1) Corporation Tax	How do you evaluate the corporation tax of each country?	Great Plus Factor / Plus Factor / Fair / Minus Factor / Serious Minus Factor Malaysia 5 4 3 2 1 Thailand 5 4 3 2 1 Singapore 5 4 3 2 1 Korea 5 4 3 2 1
(2) Preferential Tax System	How do you evaluate the preferential tax system of each country?	Great Plus Factor / Plus Factor / Fair / Minus Factor / Serious Minus Factor Malaysia 5 4 3 2 1 Thailand 5 4 3 2 1 Singapore 5 4 3 2 1 Korea 5 4 3 2 1

Ⅲ. Economic Circumstances

Item	Question	Answer
(1) Economic Scale	How do you evaluate the economic circumstances of each country (The figures show GDP)?	Great Plus Factor / Plus Factor / Fair / Minus Factor / Serious Minus Factor Malaysia 5 4 3 2 1 Thailand 5 4 3 2 1 Singapore 5 4 3 2 1 Korea 5 4 3 2 1
(2) Income level	How do you evaluate GDP per capita of each country?	Great Plus Factor / Plus Factor / Fair / Minus Factor / Serious Minus Factor Malaysia 5 4 3 2 1 Thailand 5 4 3 2 1 Singapore 5 4 3 2 1 Korea 5 4 3 2 1
(3) Rate of economic growth	How do you evaluate each country a rate of economic growth?	Great Plus Factor / Plus Factor / Fair / Minus Factor / Serious Minus Factor Malaysia 5 4 3 2 1 Thailand 5 4 3 2 1 Singapore 5 4 3 2 1 Korea 5 4 3 2 1

Ⅳ. Personnel Management

Item	Qestion	Answer
(1) Wage	How do you evaluate the wage level of each country? (Example of a worker's wage)	Great Plus Factor / Plus Factor / Fair / Minus Factor / Serious Minus Factor Malaysia 5 4 3 2 1 Thailand 5 4 3 2 1 Singapore 5 4 3 2 1 Korea 5 4 3 2 1
(2) Education level	1. How do you evaluate each country's percentage of school attendance?	Great Plus Factor / Plus Factor / Fair / Minus Factor / Serious Minus Factor Malaysia 5 4 3 2 1 Thailand 5 4 3 2 1 Singapore 5 4 3 2 1 Korea 5 4 3 2 1
	2. In general tendency, to what position do you think native person can be assigned? You are requested to put marks with circles on all columns which seem to be possible for native person. After this, please answer about the evaluation in right section.	Great Plus Factor / Plus Factor / Fair / Minus Factor / Serious Minus Factor Malaysia Thailand Singapore 5 4 3 2 1 Korea 5 4 3 2 1
(3) Worker's fixing condition	How do you evaluate the each country's samples councerning occupational change ratio?	Great Plus Factor / Plus Factor / Fair / Minus Factor / Serious Minus Factor Malaysia 5 4 3 2 1 Thailand 5 4 3 2 1 Singapore 5 4 3 2 1 Korea 5 4 3 2 1

V. Infrastructures

Item	Questi	Answer
(1)Infrast-ructures	You are requested to put the suitable number (5 to 1) on each column with the fallowing standard according to your evaluation. Based on the data, please answer about your evaluation to each country in right section. 5 = very excellent 4 = excellecnt 3 = fair 2 = bad 1 = very bad	Great Plus Factor / Plus Factor / Fair / Minus Factor / Serious Minus Factor Malaysia 5 4 3 2 1 Thailand 5 4 3 2 1 Singapore 5 4 3 2 1 Korea 5 4 3 2 1
(2) Costs of lands and buildings	How do you evaluate each country's samples concerning costs of lands and buildings?	Great Plus Factor / Plus Factor / Fair / Minus Factor / Serious Minus Factor Malaysia 5 4 3 2 1 Thailand 5 4 3 2 1 Singapore 5 4 3 2 1 Korea 5 4 3 2 1

VI. Parts Supply

Item	Questi	Answer
Parts Supply	Are you supplying the following parts on the spot ? You are requested to put the mark with a circle by each parts with the selection of supplying country. • Plastic injection moulding item • press copper plate item • cutting, grinding, and shaft item • transistor • diode, IC • ROM/RAM, MPU • condenser, resistance • motor • electric source unit • modem • keyboard • FDD, CRT • Conductor, harness • CCD sensor • switches, connectors, sockets	

Malaysia	Thailand	singapore	Korea

Ⅶ. Concerning the Overseas Production

(1) Presently do you have production base(s) abroad?
You are requested to write down the number of production base(s) and main production item(s) by country and by form.

	Number of Production Base(s)				Main Production Item(s)
	Self-Investment 100%	Joint	Others	Total	
Malaysia					
Thailand					
Singapore					
Korea					
others *					

* Please write down the name(s) of country/countries

(2) How do you evaluate Malaysia if you choose her as the production base in future?
You are requested to answer about your general evaluation. (Please put the mark with an circle to the suitable number by supposed item.)

Supposed Production Item	Impossible for a while	Around 4-5 Years Later There is Possibility	Within 2-3 Years There is Possiblity as the Proposed	Possible to Investigate or Under Investigation as one of the Proposed	There is a Concrete Plan

(3) When you answer that you are under investingation or you fave a concrete plan in the above question, please answer the following questions as long as they suit your convenience.

Advance Form : _____

Time of Production Commencement : Year _____ month _____

(4) Presently do you have a plan of construction advance besides in Malaysia?
Please answer it as long as it suits your convenience.

Name of the Country : _____ ;
Planned Production Item(s) : _____

(5) JETRO has Potential Investment Register System
(This system is for carrying out services such as no charge offers of reference information in sake of enterprises that are interested in overseas investments.
Concerned about it, you will be separately sent an information guide.)

- Would you like to join this system?

  1. Yes 2. No.

- Would you like to be mediated and introduced the joint or technical tie-up partner by JETRO?

  1. Yes 2. No.

Ⅷ. Concerning the Technical Tie-up

(1) Presently are you carrying out the technical tie-up abroad?

Name of the Country	Contents of the Technical Tie-up (including loyalty)	Duration (unit: year(s))
Malaysia		
Thailand		
Singapore		
Hong Kong		
Taiwan		
Korea		
Others *		

* Please write down the name(s) of country/countries.

(2) How do you evaluate Malaysia as the country with which the technical tie-up will be done? (After entering the contents of the supposed technical tie-up, you are requested to put the mark with a circle to the suitable number for the evaluation.)

Contents of the Supposed Technical Tie-up	Impossible for a while	Around 4-5 Years Years Later There is Possibility	Within 2-3 Years There is Possibility as the Proposed	Possible to Investigate or Under Investigation as one of the Proposed	There is a Concrete Plan

(3) Presently do you have a plan of technical tie-up besides with Malaysia?
Please answer it as long as it suits your convenience.

Name of the Country	Contents of the Technical Tie-up

Thank you very much for your cooperation.

QUESTIONNAIRE TO THE ENTERPRISE THAT IS INTERESTED IN OVERSEAS INVESTMENTS

You are requested to make entries in articles below or to enclose proper numbers with circles about the epitome of your respective enterprise. (Management indices are expected to go with the financial statement base of 1987)

Name of Enterprise	
Location	
Establishment year	
Kind of Corporation	1.Japanese Enterprise 2.100% Foreign Affiliate 3.Over 50% Foreign Affiliate
Capital	(Paid-up Capital)
Gross Sales	(Yearly Turnover)
Ratio of Overseas Production	% (Amount of Overseas Production/Gross Sales x100)
Total Number of Employees	Persons
Main Products, Treated Items	
Name of the Department/ Division which is in charge of the Questionnaire Entry	
Official Position & Full Name of the Person who makes an Entry.	Official Position_____ Full Name_____

I. Concerning the Overseas Production

(1) Presently do you have production base(s) abroad?
You are requested to write down the number of production base(s) and main production item(s) by country and by form.

	Number of Production Base(s)				Main Production Item(s)
	Self-Investment 100%	Joint	Others	Total	
Malaysia					
Thailand					
Singapore					
Korea					
others *					

* Please write down the name(s) of country/countries

(2) How do you evaluate Malaysia if you choose her as the production base in future?
You are requested to answer about your general evaluation. (Please put the mark with an circle to the suitable number by supposed item.)

Supposed Production Item	Impossible for a while	Around 4-5 Years Later There is Possibility	Within 2-3 Years There is Possiblity as the Proposed	Possible to Investigate or Under Investigation as one of the Proposed	There is a Concrete Plan

(3) When you answer that you are under investingation or you fave a concrete plan in the above question, please answer the following questions as long as they suit your convenience.

Advance Form : _____

Time of Production Commencement : Year _____ month _____

(4) Presently do you have a plan of construction advance besides in Malaysia?
Please answer it as long as it suits your convenience.

Name of the Country : _____ ;
Planned Production Item(s) : _____

(5) JETRO has Potential Investment Register System
(This system is for carrying out services such as no charge offers of reference information in sake of enterprises that are interested in overseas investments.
Concerned about it, you will be separately sent an information guide.)

- Would you like to join this system?

  1. Yes 2. No.

- Would you like to be mediated and introduced the joint or technical tie-up partner by JETRO?

  1. Yes 2. No.

II. Concerning the Technical Tie-up

(1) Presently are you carrying out the technical tie-up abroad?

Name of the Country	Contents of the Technical Tie-up (including loyalty)	Duration (unit: year(s))
Malaysia		
Thailand		
Singapore		
Hong Kong		
Taiwan		
Korea		
Others *		

* Please write down the name(s) of country/countries.

(2) How do you evaluate Malaysia as the country with which the technical tie-up will be done? (After entering the contents of the supposed technical tie-up, you are requested to put the mark with a circle to the suitable number for the evaluation.)

Contents of the Supposed Technical Tie-up	Impossible for a while	Around 4-5 Years Years Later There is Possibility	Within 2-3 Years There is Possibility as the Proposed	Possible to Investigate or Under Investigation as one of the Proposed	There is a Concrete Plan

(3) Presently do you have a plan of technical tie-up besides with Malaysia? Please answer it as long as it suits your convenience.

Name of the Country	Contents of the Technical Tie-up

Ⅲ. Concerning the Licenced Production

(1) Presently are you carrying out the licenced production abroad?

Name of the Country	Contents of the Licenced Production (Brand Name)	Production Volume (Unit : million pairs)
Malaysia		
Thailand		
Singapore		
Hong Kong		
Taiwan		
Korea		
Others *		

* Please write down the name(s) of country/countries.

(2) How do you evaluate Malaysia as the country with which the licenced Production will be done?
(If Planning the supposed licenced production, you are requested to put the mark with a circle to the suitable number for the evaluation.)

Contents of the Supposed Technical Tie-up	Impossible for a while	Around 4-5 Years Years Later There is Possibility	Within 2-3 Years There is Possibility as the Proposed	Possible to Investigate or Under Investigation as one of the Proposed	There is a Concrete Plan

(3) Presently do you have a plan of licenced production besides with Malaysia? Please answer it as long as it suits your convenience.

Name of the Country	Contents of the Licenced Production

Thank you very much for your cooperation.

7. Results of the questionnaire Survey Conducted in Malaysia - Electronics

Profile of 87 Companies Which Responded to the Questionnaire

1) Nationality of parent company

Japan	41	(47.1%)
Eurepe and North Am.	17	(19.5%)
Other foreign countries	6	(6.9%)
Malaysia	23	(26.4%)
	87Co.	100.0%)

2) Type of namufacture according to sector and ownership

	Total	Japan	Europe and Notth Am.	Other foreign countries	Malaysia
Consumer product	21 (24.1)	14(34.1)	3(17.6)	3(50.0)	1(4.3)
Industrial product	5 (5.7)	2(4.9)	1(5.9)	—	2(8.7)
Component	55 (63.2)	24(58.5)	11(64.7)	3(50.0)	17(73.9)
Others	6 (6.9)	1(2.4)	2(11.8)	—	3(13.0)
Total	87Co.(100.0%)	41Co.	17Co.	6Co.	23Co.

3) Date of establishment

1959	~1961	Aug.	1	(1.1%)
1961	Sep.~1964	July	2	(2.3%)
1964	Aug.~1967	June	4	(4.6%)
1967	July~1970	May	5	(5.7%)
1970	June~1973	Apr.	20	(23.0%)
1973	May ~1976	Mar.	8	(9.2%)
1976	Apr.~1979	Feb.	10	(11.5%)
1979	Mar.~1982	Jan.	13	(14.9%)
1982	Feb.~1984	Dec.	9	(10.3%)
1985	Jan.~1988		15	(17.2%)
			87Co.	(100.0%)

4) Size of paid-up capital

M$ 1,000 more than	M$3,240 less than	46	(52.9%)
3,240	6,380	23	(26.4%)
6,380	9,520	5	(5.7%)
9,520	12,660	5	(5.7%)
12,660	15,800	1	(1.1%)
15,800	18,940	3	(3.4%)
18,940	22,080	2	(2.3%)
22,080	25,220	1	(1.1%)
25,220	28,360	0	(0.0%)
28,360	31,500	1	(1.1%)
		87Co.	(100.0%)

5) Number of Employees according to Ownership

	Total		Japan	Europe and North Am.	Other foreign countries	(%) Malaysia
1,000 more than	17	(19.5)	11(26.8)	3(17.6)	1(20.0)	2(8.7)
500 more than	19	(21.8)	11(26.8)	6(35.3)	1(20.0)	1(4.3)
100 more than	30	(34.5)	15(36.6)	5(29.4)	2(40.0)	8(34.8)
50 more than	11	(12.6)	3(7.3)	2(11.8)	—	6(26.1)
50 less than	8	(9.2)	1(2.4)	1(5.9)	1(20.0)	5(21.7)
N.A.	2	(2.3)	—	—	1	1(4.3)
	87Co	(100.0)	41Co.	17Co.	6Co.	23Co.

6) Export Orientation

More than halves of all products are exported	47	(54.0%)
More than halves of some products are exported	17	(19.5%)
All products are for domestic market	7	(8.0%)
N.A.	16	(18.4%)
	87Co.	(100.0%)

Table －1 Job Category According to Sector and Ownership

	ordinary	Semi-skilled sorkers	Skilled workers	Foreman/ inspector	Engineer	Clerical staff	Manager
Total	23.0	27.7	25.4	8.3	3.3	8.6	3.6 %
Sector							
Consumer product	29.2	36.7	14.6	9.4	2.5	5.1	2.4
Industrial product	20.0	5.6	23.7	15.3	10.8	18.7	6.1
Component	23.7	26.2	26.9	8.1	2.8	8.9	3.4
Others	4.1	30.6	42.9	2.6	4.3	8.9	6.5
Ownership							
Japan	27.6	36.2	16.6	6.6	3.3	6.5	3.3
Europe and North Am.	16.2	17.2	44.3	8.7	3.0	7.9	2.6
Other foreign countries	43.9	33.6	7.8	3.3	2.0	7.7	1.7
Malaysia	13.8	18.4	32.4	12.6	4.1	13.2	5.5

Table －2 Education Level of Factory Workers According to Sector and Ownership

	University	Technical Institute	Upper Secondary School	Lower Secondary School	Elementary School
Total	3.4	11.2	34.8	36.6	14.0
Sector					
Consumer product	4.9	12.4	28.1	43.9	10.7
Industrial product	2.4	21.6	51.4	23.3	1.2
Component	2.9	8.1	35.3	36.5	17.1
Others	3.7	23.5	41.4	22.5	9.0
Ownership					
Japan	4.1	9.4	39.7	42.9	3.9
Europe and North Am.	2.6	15.5	31.0	31.9	19.0
Other foreign countries	2.5	12.3	16.3	39.5	29.5
Malaysia	3.0	11.5	32.3	28.1	25.1

Table －3 Experience of Factory Workers According to Sector and Ownership

	less than 1 year	1～3 years	3～5 years	5～10 years	Over 10 years
Total	24.1	25.0	18.1	22.7	10.0
Sector					
Consumer product	30.1	18.4	17.3	23.4	10.7
Industrial product	16.1	14.1	14.2	31.5	24.0
Component	24.3	30.4	15.7	21.1	8.5
Others	9.0	14.7	43.2	25.3	7.8
Ownership					
Japan	30.0	27.7	13.5	20.2	8.9
Europe and North Am.	14.7	15.3	22.6	28.1	19.3
Other foreign countries	41.8	22.4	17.0	18.0	0.8
Malaysia	14.1	28.2	24.8	25.6	7.3

Table – 4 Labour Situation According to Sector, Ownership and Employment Size

	Total	a.	b.	c.	d.	e.	f.	g.	h.	i.	
Total	87 Co.	16	37	29	10	10	20	1	11	5	Co
		22.9	52.9	41.4	14.3	14.3	28.6	1.4	15.7	7.1	%
Sector											
Consumer product	21	3	11	7	3	3	7	-	2	2	
		15.8	57.9	36.8	15.8	15.8	36.8	-	10.5	10.5	
Industrial product	5	-	1	1	-	1	1	-	2	-	
		-	25.0	25.0	-	25.0	25.0	-	50.0	-	
Component	55	13	22	19	7	6	10	1	5	3	
		31.0	52.4	45.2	16.7	14.3	23.8	2.4	11.9	7.1	
Others	6	-	3	2	-	-	2	-	-	-	
		-	60.0	40.0	-	-	40.0	-	-	-	
Ownership											
Japan	41	9	16	17	4	3	9	-	5	-	
		25.7	45.7	48.6	11.4	8.6	25.7	-	14.3	-	
Europe and	17	2	9	4	2	2	5	-	4	2	
North Am.		13.3	60.0	26.7	13.3	13.3	33.3	-	26.7	13.3	
Other foreign	6	1	3	1	1	-	1	-	-	2	
countries		25.0	75.0	25.0	25.0	-	25.0	-	-	50.0	
Malaysia	23	4	9	7	3	5	5	1	2	1	
		25.0	56.3	43.8	18.8	31.3	31.3	6.3	12.5	6.3	
Employeement size											
more than 1,000	17	3	7	6	2	2	3	1	4	1	
		23.1	53.8	46.2	15.4	15.4	23.1	7.7	30.8	7.7	
more than 500	19	4	12	7	-	1	4	-	-	2	
		25.0	75.0	43.8	-	6.3	25.0	-	-	12.5	
more than 100	30	7	10	12	6	5	11	-	3	1	
		25.9	37.0	44.4	22.2	18.5	40.7	-	11.1	3.7	
more than 50	11	2	4	3	1	1	2	-	2	1	
		25.0	50.0	37.5	12.5	12.5	50.0	-	25.0	12.5	
less than 50	8	-	3	1	-	-	-	-	1	-	
	100.0	-	60.0	20.0	-	-	-	-	20.0	-	

※Multiple answer

a. Shortage of workers

b. Lack of skilled workers or engineers

c. Frequent job hopping

d. Difficulty in Labour negotiation

e. High fringe benefit payment

f. Rapid increase of labour costs

g. Strong government request for the increased use of local workers

h. Expenses for training a technical support are very high

i. Others

Table －5 In-house Training Provided Accoring to Sector and Ownership

	Total	Yes	No	N.A.
Total	87	73	12	2社
	100.0	85.9	14.1	-%
Sector				
Consumer	21	18	3	-
Product	100.0	85.7	14.3	-
Industrial	5	5	-	-
Product	100.0	100.0	-	-
Component	55	46	7	2
	100.0	86.8	13.2	-
Others	6	4	2	-
	100.0	66.7	33.3	
Ownership				
Japan	41	37	4	-
	100.0	90.2	9.8	-
Europe and	17	16	1	1
North Am.	100.0	93.8	6.3	-
Other foreign	6	3	2	1
countries	100.0	60.0	40.0	-
Malaysia	23	18	5	-
	100.0	78.3	21.7	-

Table – 6 Companies Having R&D Department According to Sector and Ownership

	Total	Yes	No	N.A.
Total	87	26	59	2 Co.
	100.0	30.6	69.4	- %
Sector				
Consumer	21	8	13	-
product	100.0	38.1	61.9	-
Industrial	5	3	2	-
product	100.0	60.0	40.0	-
Component	55	12	41	2
	100.0	22.6	77.4	-
Others	6	3	3	-
	100.0	100.0	100.0	-
Ownership				
Japan	41	9	31	1
	100.0	22.5	77.5	-
Europe and	17	8	8	1
North Am.	100.0	50.0	50.0	-
Other foreign	6	-	6	-
countries	100.0	-	100.0	-
Malaysia	23	9	14	-
	100.0	39.1	60.9	-

Table －7 Use of Export Incentives
According to Sector and Ownership

	Total	Using	Not Using
Total	87	48	31
	100.0	60.8	39.2
Sector			
Consumer	21	17	4
product	100.0	81.0	19.0
Industrial	5	2	2
product	100.0	50.0	50.0
Component	55	26	22
	100.0	54.2	45.8
Others	6	3	3
	100.0	50.0	50.0
Ownership			
Japan	41	27	10
	100.0	73.0	27.0
Europe and	17	11	4
North Am.	100.0	73.3	26.7
Other foreign	6	4	1
countries	100.0	80.0	20.0
Malaysia	23	6	16
	100.0	27.3	72.7

Table －8 Use of Export Incentives
According to Sector and Ownership

	ECR	Abatment of Adjust Income for Export	Double Deduction of Export Credit Insurance Premiums	Industrial Building Allowance	Others
Total	22	35	12	12	15
Sector					
Consumer product	9	10	6	3	4
Industrial product	-	1	-	1	1
Component	12	22	6	8	9
Ownership					
Japan	10	18	7	6	6
Eurepe and North Am.	7	10	1	3	2
Other foreign countries	2	2	1	-	2
Malaysia	3	5	3	3	5

* Multiple answer

Table －9 Use of GSP According to Sector and Ownership

	Total	Using	Not Using
Total	81	40	41
	100.0	49.4	50.6
Sector			
Consumer	21	11	10
product	100.0	52.4	47.6
Indsutrial	4	1	3
product	100.0	25.0	75.0
Component	51	25	26
	100.0	49.0	51.0
Others	5	3	2
	100.0	60.0	40.0
Ownership			
Japan	41	23	15
	100.0	60.5	39.5
Europe and	17	10	6
North Am.	100.0	62.5	37.5
Other foreign	6	3	3
countries	100.0	50.0	50.0
Malaysia	23	4	17
	100.0	19.0	81.0

Table －１０ Use of Investment Incentives (Past)
According to Sector and Ownership

	Sum	PS	ITA	Export Insentives	Accelerated Depreciation Allowance	Reinvestment Allowance
Total	66 Co.	49	14	19	21	4
		74.2	21.2	28.8	31.8	6.1 %
Sector						
Consumer	17	14	1	7	6	3
product		82.4	5.9	41.2	35.3	17.6
Industrial	4	3	2	1	1	-
product		75.0	50.0	25.0	25.0	-
Component	41	29	10	10	13	1
		70.7	24.4	24.4	31.7	2.4
Others	4	3	1	1	1	-
		75.0	25.0	25.0	25.0	-
Ownership						
Japan	31	27	5	10	6	3
		87.1	16.1	32.3	19.4	9.7
Europe and	13	10	2	4	7	-
North Am.		76.9	15.4	30.8	53.8	-
Other foreign	5	4	2	-	-	-
countries		80.0	40.0	-	-	-
Malaysia	17	8	5	5	8	6
		47.1	29.4	29.4	47.1	-

＊ "Total" indicate the number of companies which answered.

Table — 1 1 Use of Investment Incentives (Present)
According to Sector and Ownership

	Total	P S	I T A	Export Incentives	Accelerated Depreciation Allowance	Reinvestment Allowance
Total	66 Co.	26	13	11	22	8
		39.4	19.7	16.7	33.3	12.1 %
Sector						
Consumer	14	7	-	3	5	4
product		50.5	-	21.4	35.7	28.6
Industrial	4	2	1	-	1	1
product		50.0	25.0	-	25.0	-
Component	45	16	11	7	16	3
		35.6	24.4	15.6	35.6	6.7
Others	3	1	1	1	-	-
		33.3	33.3	33.3	-	-
Ownership						
Japan	32	12	7	5	8	7
		37.5	21.9	15.6	25.0	21.9
Europe and	14	5	2	4	6	-
North Am.		35.7	14.3	28.6	42.9	-
Other foreign	4	3	1	-	1	-
countries		75.0	25.0	-	25.0	-
Malaysia	16	6	3	2	7	1
		37.5	18.8	12.5	43.8	6.3

* "Total" indicate the number of companies which answered.

Table — 1 2 Reasons of Investment in Malaysia
According to Sector and Ownership

	Total	a.	b.	c.	d.	e.	f.	g.	h.
Total	223	45	25	41	37	44	8	21	2 Co.
	100.0	20.2	11.2	18.4	16.6	19.7	3.6	9.4	0.9
									%
Sector									
Consumer	69	10	11	13	13	14	4	4	-
Product	100.0	14.5	16.5	18.8	18.8	20.3	5.8	5.8	-
Industrial	9	1	1	1	2	2	-	2	-
Product	100.0	11.1	11.1	11.1	22.2	22.2	-	22.2	-
Component	135	32	12	25	21	27	4	13	1
	100.0	23.7	8.9	18.5	15.6	20.0	3.0	9.6	0.7
Others	10	2	1	2	1	1	-	2	1
	100.0	20.0	10.0	20.0	10.0	10.0	-	20.0	10.0
Ownership									
Japan	132	25	12	27	25	29	4	9	1
	100.0	18.9	9.1	20.5	18.9	22.0	3.0	6.8	0.8
Europe and	67	14	11	9	9	12	4	7	1
North Am.	100.0	20.9	16.4	13.4	13.4	17.9	6.0	10.5	1.5
Other Foreign	15	4	1	4	2	2	-	2	-
countries	100.0	26.7	6.7	26.7	13.3	13.3	-	13.3	-

a. Low level of labour cost.

b. Availability of high quality labour force.

c. Good investment incentive systems.

d. Good infrastructure.

e. Political and economic stability.

f. Business of the procurement of raw material.

g. Expectation for the expansion of Malaysia domestic market.

h. Others.

Table －13 Nature of Investment in Malaysia

According to Sector and Ownership

	Total	Expansion from home base	Relocation from home base	
Total	61	49	12	Co.
	100.0	80.3	19.7	%
Sector				
Consumer	15	14	1	
Products	100.0	93.3	6.7	
Industrial	3	1	2	
Product	100.0	33.3	66.7	
Component	40	32	8	
	100.0	80.0	20.0	
Others	3	2	1	
	100.0	66.7	33.3	
Ownership				
Japan	35	29	6	
	100.0	82.9	17.1	
Europe and	17	12	5	
North Am.	100.0	70.6	29.4	
Other foreign	4	3	1	
countries	100.0	75.0	25.0	

Table －14 Export Market to be Directed by the Firms According to Sector and Ownership

	Total	Malaysia	Home Country	Asia (except Japan)	Europe	Others
Total	49	19	20	30	19	16
	100.0	39.6	41.7	62.5	39.6	33.3
Sector						
Consumer	14	4	6	9	6	6
Product	100.0	28.6	42.9	64.3	42.9	42.9
Investment	1	1	-	1	1	1
Product	100.0	100.0	-	100.0	100.0	100.0
Component	32	14	14	18	12	9
	100.0	45.2	45.2	58.1	38.7	29.0
Others	2	-	-	2	-	-
	100.0	-	-	100.0	-	-
Ownership						
Japan	49	16	11	19	12	12
	100.0	55.2	37.9	65.5	41.4	41.4
Europe and	29	1	7	7	3	3
North Am.	100.0	8.3	58.3	58.3	25.0	25.0
Other foreign	3	1	1	1	1	-
countries	100.0	33.3	33.3	33.3	33.3	-

Table – 15 Status of Expansion in Investment
According to Sector, Ownership and Size of Employees

	Times of Expansion	Total Additional Investment
Total	3.3 times	M$ 41.35
Sector		
Consumer product	4.2	111.96
Investment product	1.0	3.00
Component	3.2	12.23
Others	0	0
Ownership		
Japan	2.8	58.95
Europe and North Am.	8.5	14.66
Other foreign countries	3.0	2.10
Malaysia	1.6	1.76
Size of Employees		
more than 1,000	4.2	134.61
more than 500	3.5	29.20
more than 100	2.6	5.91
more than 50	3.0	5.15
less than 50	0	0

Table －16 Evaluation of the Malaysian Invest Climate by the Results of the Questionnaire Survey in Malaysia

Item	Japanese Affiliates	U.S. and European Affiliates	Other Foreign Affiliates	Local Firms	Total
Basic Position Regarding Foreign Capital Investment	4.111	4.200	3.600	3.200	4.016
Foreign Equity Restrictions	3.571	3.667	3.800	2.600	3.533
Corporate Taxes	2.778	3.000	2.800	2.750	2.833
Tax Incentive	3.629	3.533	3.800	2.800	3.550
Infrastructure	3.667	3.400	3.000	3.500	3.533
Land and Con-structure Costs	3.694	3.333	3.000	3.400	3.533
Distribution	3.333	3.133	3.000	3.000	3.233
Wases	3.556	3.467	4.200	3.800	3.607
Educational Levels of Workers	3.417	3.667	3.200	3.400	3.459
Turnover Rate	2.972	3.200	3.200	3.600	3.098

Note) The Figures are Average scores of the evaluations graded from 1(Big Negative factor) to 5 (Big Positive Factor).

8. Results of the Questionnaire Survey Conducted in Japan - Electronics

Table-1 Profile of the Japanese Firms which Filled Out the Questionnaire

[Annual Turnover]	Total	Less than ¥500 Million	Less than ¥1 Billion	Less than ¥3 Billion	Less than ¥5 Billion	Less than ¥10 Billion	Less than ¥20 Billion	Less than ¥30 Billion	Less than ¥50 Billion	Less than ¥100 Billion	Less than ¥500 Billion	Less than ¥1,000 Billion	¥1,000 Billion or More	Not Available
Total	136	3	3	13	8	16	19	8	14	14	19	8	7	4
(%)	100.0	2.2	2.2	9.6	5.9	11.8	14.0	5.9	10.3	10.3	14.0	5.9	5.1	2.9
[Capital]														
Less than ¥100 Million	34	3	3	11	6	8	1	—	1	—	—	—	—	1
(%)	100.0	8.8	8.8	32.4	17.6	23.5	2.9	—	2.9	—	—	—	—	2.9
Less than ¥5 Billion	54	—	—	2	2	8	17	6	10	6	1	—	—	2
(%)	100.0	—	—	3.7	3.7	14.8	31.5	11.1	18.5	11.1	1.9	—	—	3.7
¥5 Billion or more	48	—	—	—	—	—	1	8	3	2	18	8	7	1
(%)	100.0	—	—	—	—	—	2.1	16.7	6.3	4.2	37.5	16.7	14.6	2.1

[Number of Employees]	Total	Less than 30	Less than 50	Less than 100	Less than 300	Less than 500	Less than 1,000	Less than 3,000	Less than 5,000	Less than 10,000	10,000 or more
Total	136	4	2	10	18	18	19	32	6	8	19
(%)	100.0	2.9	1.5	7.4	13.2	13.2	14.0	23.5	4.4	5.9	14.0
[Capital]											
Less than ¥100 Million	34	3	2	9	8	10	2	—	—	—	—
(%)	100.0	8.8	5.9	26.5	23.5	29.4	5.9	—	—	—	—
Less than ¥5 Billion	54	1	—	1	10	7	16	18	—	1	—
(%)	100.0	1.9	—	1.9	18.5	13.0	29.6	33.3	—	1.9	—
¥5 Billion or More	48	—	—	—	—	1	1	14	6	7	19
(%)	100.0	—	—	—	—	2.1	2.1	29.2	12.5	14.6	39.6

Table-2 Overseas Production Ratio of the Japanese Companies Which Filled Out the Questionnaire

	Total	0%	5% or Less	10% or Less	15% or Less	20% or Less	30% or Less	More than 30%	N.A.
Total	136	59	19	13	9	10	11	4	11
	100.0	43.4	14.0	9.6	6.6	7.4	8.1	2.9	8.1
[Capital]									
Less than ¥100 million	34	26	3	–	1	2	–	1	1
(%)	100.0	76.5	8.8	–	2.9	5.9	–	2.9	2.9
Less than ¥500 million	54	26	6	5	2	6	2	1	6
(%)	100.0	48.1	11.1	9.3	3.7	11.1	3.7	1.9	11.1
¥500 million or more	48	7	10	8	6	2	9	2	4
(%)	100.0	14.6	20.8	16.7	12.5	4.2	18.8	4.2	8.3

N.A.= Not Available

Table.3 Overseas Production of the Japanese Companies Which Filled Out the QUESTIONNAIRE (By product and by Country)

	Total	Plastic Moulding and Metal Press	Switch, Socket, and Connector	Sencer	Wire Harness	Power Supply Unit and Transformer	Computer Component	Condenser and Resistor	IC. Trandister Semi-Conduction	Other Electornic Computers	Other Equipment and Machinery	Audio Equipment	Home Electric Appliance	Communication Equipment	Ohter Equipment	Others	N.A.
Total	247	5	21	1	6	23	2	26	15	32	47	57	20	20	5	27	21
(%)	100.0	2.0	8.5	0.4	2.4	9.3	0.8	10.5	6.1	13.0	18.0	23.0	8.1	8.1	2.0	10.9	8.5
[Country]																	
Malaysia	30	—	3	—	1	3	—	4	4	3	6	11	1	—	—	3	2
(%)	100.0	—	10.0	—	3.3	10.0	—	13.3	13.3	10.0	20.0	36.7	3.3	—	—	10.0	6.7
Thailand	22	—	—	—	1	3	—	1	1	2	1	7	1	2	—	3	2
(%)	100.0	—	—	—	4.5	13.6	—	4.5	4.5	9.1	4.5	31.8	4.5	9.1	—	13.6	9.1
Singapore	24	1	1	—	1	4	—	3	2	7	5	5	2	1	1	2	1
(%)	100.0	4.2	4.2	—	4.2	16.7	—	12.5	8.3	29.2	20.8	20.8	8.3	4.2	4.2	8.3	4.2
Korea	35	1	6	—	3	5	—	7	2	5	7	3	2	4	—	2	1
(%)	100.0	2.9	17.1	—	8.6	14.3	—	20.0	5.7	14.3	20.0	8.6	5.7	11.4	—	5.7	2.9
U.S.A.	26	1	1	—	—	—	1	1	2	3	5	6	3	3	—	4	4
(%)	100.0	3.8	3.8	—	—	—	3.8	3.8	7.7	11.5	19.2	23.1	11.5	11.5	—	15.4	15.4
Taiwan	35	—	4	—	—	5	—	5	2	4	10	7	7	2	2	3	1
(%)	100.0	—	11.4	—	—	14.3	—	14.3	5.7	11.4	28.6	20.0	20.0	5.7	5.7	8.6	2.9
Hong Kong	10	—	—	1	—	1	—	—	1	3	—	2	1	—	—	—	2
(%)	100.0	—	—	10.0	—	10.0	—	—	10.0	30.0	—	20.0	10.0	—	—	—	20.0
People's Republic China	5	—	1	—	—	—	—	—	—	1	1	1	—	—	1	—	1
(%)	100.0	—	20.0	—	—	—	—	—	—	20.0	20.0	20.0	—	—	20.0	—	20.0
Indnesia	5	—	—	—	—	—	—	1	—	—	2	2	—	1	—	1	—
(%)	100.0	—	—	—	—	—	—	20.0	—	—	40.0	40.0	—	20.0	—	20.0	—
U.K.	10	1	1	—	—	1	1	—	—	1	1	4	—	—	—	—	1
(%)	100.0	10.0	10.0	—	—	10.0	10.0	—	—	10.0	10.0	40.0	—	—	—	—	10.0
Federal Pepublic of Germany	10	—	1	—	—	—	—	1	—	1	1	1	—	1	—	3	2
(%)	100.0	—	10.0	—	—	—	—	10.0	—	10.0	10.0	10.0	—	10.0	—	30.0	20.0
Netherlands	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—
(%)	100.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	50.0	—

Table-4 Results of Evaluations of Investment Climates

1 – (1) Basic Position Regarding Foreign Capital Investment

	Total	Very Positive	Positive	Neither Positive nor Negative	Negative	Very Negative	No Answer
Malaysia	136	29	70	34	0	1	2
(%)	100.0	21.3	51.5	25.0	0.0	0.7	1.5
Thailand	136	23	71	40	0	0	2
(%)	100.0	16.9	52.2	29.4	0.0	0.0	1.5
Singapore	136	1	14	16	3	0	0
(%)	100.0	0.7	10.3	11.8	2.2	0.0	0.0
Korea	136	8	27	65	30	4	2
(%)	100.0	5.9	19.9	47.8	22.1	2.9	1.5

1 – (2) Foreign Equity Restrictions

	Total	Very Positive	Positive	Neither Positive nor Negative	Negative	Very Negative	No Answer
Malaysia	136	19	70	33	14	0	0
(%)	100.0	14.0	51.5	24.3	10.3	0.0	0.0
Thailand	136	23	65	37	11	0	0
(%)	100.0	16.9	47.8	27.2	8.1	0.0	0.0
Singapore	136	54	60	22	0	0	0
(%)	100.0	39.7	44.1	16.2	0.0	0.0	0.0
Korea	136	12	52	54	17	1	0
(%)	100.0	8.8	38.2	39.7	12.5	0.7	0.0

2 – (1) Corporate Taxes

	Total	Very Positive	Positive	Neither Positive nor Negative	Negative	Very Negative	No Answer
Malaysia	136	0	23	85	27	0	1
(%)	100.0	0.0	16.9	62.5	19.9	0.0	0.7
Thailand	136	9	43	74	9	0	1
(%)	100.0	6.6	31.6	54.4	6.6	0.0	0.7
Singapore	136	0	27	87	21	0	1
(%)	100.0	0.0	19.9	64.0	15.4	0.0	0.7
Korea	136	7	39	76	12	1	1
(%)	100.0	5.1	28.7	55.9	8.8	0.7	0.7

2－（2）Tax Incentives

	Total	Very Positive	Positive	Neither Positive nor Negative	Negative	Very Negative	No Answer
Malaysia	136	44	70	21	1	0	0
(%)	100.0	32.4	51.5	15.4	0.7	0.0	0.0
Thailand	136	8	62	62	4	0	0
(%)	100.0	5.9	45.6	45.6	2.9	0.0	0.0
Singapore	136	44	70	22	0	0	0
(%)	100.0	32.4	51.5	16.2	0.0	0.0	0.0
Korea	136	3	34	71	27	1	0
(%)	100.0	2.2	25.0	52.2	19.9	0.7	0.0

3－（1）Economic Scale

	Total	Very Positive	Positive	Neither Positive nor Negative	Negative	Very Negative	No Answer
Malaysia	136	2	51	71	10	0	2
(%)	100.0	1.5	37.5	52.5	7.4	0.0	1.5
Thailand	136	5	62	61	6	0	2
(%)	100.0	3.7	45.6	44.9	4.4	0.0	1.5
Singapore	136	3	41	76	13	1	2
(%)	100.0	2.2	30.1	55.9	9.6	0.7	1.5
Korea	136	17	56	43	17	1	2
(%)	100.0	12.5	41.2	31.6	12.5	0.7	1.5

3－（2）Income Level

	Total	Very Positive	Positive	Neither Positive nor Negative	Negative	Very Negative	No Answer
Malaysia	136	0	52	77	6	0	1
(%)	100.0	0.0	38.2	56.6	4.4	0.0	0.7
Thailand	136	15	41	58	20	1	1
(%)	100.0	11.0	30.1	42.6	14.7	0.7	0.7
Singapore	136	20	39	39	34	3	1
(%)	100.0	14.7	28.7	28.7	25.0	2.2	0.7
Korea	136	8	38	69	17	3	1
(%)	100.0	5.9	27.9	50.7	12.5	2.2	0.7

3－（3）Economic Growth Rate

	Total	Very Positive	Positive	Neither Positive nor Negative	Negative	Very Negative	No Answer
Malaysia	136	7	48	4	6	0	1
(%)	100.0	5.1	35.3	2.9	4.4	0.0	0.7
Thailand	136	6	63	64	2	0	1
(%)	100.0	4.4	46.3	47.1	1.5	0.0	0.7
Singapore	136	12	56	58	9	0	1
(%)	100.0	8.8	41.2	42.6	6.6	0.0	0.7
Korea	136	12	47	42	30	4	1
(%)	100.0	8.8	34.6	30.9	22.1	2.9	0.7

4－（1）Wages

	Total	Very Positive	Positive	Neither Positive nor Negative	Negative	Very Negative	No Answer
Malaysia	136	38	76	18	4	0	0
(%)	100.0	27.9	55.9	13.2	2.9	0.0	0.0
Thailand	136	48	70	13	5	0	0
(%)	100.0	35.3	51.5	9.6	3.7	0.0	0.0
Singapore	136	0	18	47	63	8	0
(%)	100.0	0.0	13.2	34.6	46.3	5.9	0.0
Korea	136	0	25	65	44	2	0
(%)	100.0	0.0	18.4	47.8	32.4	1.5	0.0

4－（2）Educational Levels 1.Enrollment Ratio

	Total	Very Positive	Positive	Neither Positive nor Negative	Negative	Very Negative	No Answer
Malaysia	136	5	14	51	57	9	0
(%)	100.0	3.7	10.3	37.5	41.9	6.6	0.0
Thailand	136	5	29	59	39	3	1
(%)	100.0	3.7	21.4	43.4	28.7	2.2	0.7
Singapore	136	9	40	65	18	2	2
(%)	100.0	6.6	29.4	47.8	13.2	1.5	1.5
Korea	136	14	71	42	8	0	1
(%)	100.0	10.3	52.2	30.9	5.9	0.0	0.7

4－（2）Educational Level 2. Employment of Natives

	Total	Very Positive	Positive	Neither Positive nor Negative	Negative	Very Negative	No Answer
Malaysia	136	2	18	71	29	2	14
(%)	100.0	1.5	13.2	52.2	21.3	1.5	10.3
Thailand	136	3	21	69	26	3	14
(%)	100.0	2.2	15.4	50.7	19.1	2.2	10.3
Singapore	136	9	59	54	0	0	14
(%)	100.0	6.6	43.4	39.7	0.0	0.0	10.3
Korea	136	16	60	45	1	0	14
(%)	100.0	11.8	44.1	33.1	0.7	0.0	10.3

4－（3）Turnover Rate

	Total	Very Positive	Positive	Neither Positive nor Negative	Negative	Very Negative	No Answer
Malaysia	136	10	44	65	16	1	0
(%)	100.0	7.4	32.4	47.8	11.8	0.7	0.0
Thailand	136	6	39	73	17	1	0
(%)	100.0	4.4	28.7	53.7	12.5	0.7	0.0
Singapore	136	0	5	56	64	11	0
(%)	100.0	0.0	3.7	41.2	47.1	8.1	0.0
Korea	136	0	5	23	80	28	0
(%)	100.0	0.0	3.7	16.9	58.8	20.6	0.0

5－（1）Infrustructure

	Total	Very Positive	Positive	Neither Positive nor Negative	Negative	Very Negative	No Answer
Malaysia	136	1	17	65	29	1	23
(%)	100.0	0.7	12.5	47.8	21.3	0.7	16.9
Thailand	136	0	0	37	65	9	25
(%)	100.0	0.0	0.0	27.2	47.8	6.6	18.4
Singapore	136	35	57	24	0	0	20
(%)	100.0	25.7	41.9	17.6	0.0	0.0	14.7
Korea	136	10	55	48	2	0	21
(%)	100.0	7.4	40.4	35.3	1.5	0.0	15.4

5－（2）Land and Construction Costs

	Total	Very Positive	Positive	Neither Positive nor Negative	Negative	Very Negative	No Answer
Malaysia	136	14	72	45	1	0	4
(%)	100.0	10.3	52.9	33.1	0.7	0.0	2.9
Thailand	136	9	69	50	4	0	4
(%)	100.0	6.6	50.7	36.8	2.9	0.0	2.9
Singapore	136	6	27	65	31	3	4
(%)	100.0	4.4	19.9	47.8	22.8	2.2	2.9
Korea	136	6	40	76	8	1	5
(%)	100.0	4.4	4.4	55.9	5.9	0.7	3.7

Table-5 Types of Jobs which can be Occupied by Local Employees

	Total	Factory Workers	Super-visors	Clerical Workers	Engineers	Managers	Executives	N.A.
Malaysia	136	102	83	92	44	40	10	11
(%)	100.0	75.0	61.0	67.6	32.4	29.4	7.4	8.1
Thailand	136	104	80	91	45	45	11	11
(%)	100.0	76.5	58.8	66.9	33.1	33.1	8.1	8.1
Singapore	136	92	92	98	83	85	33	11
(%)	100.0	67.6	67.6	72.1	61.0	62.5	24.3	8.1
Korea	136	95	94	97	93	94	49	11
(%)	100.0	69.9	69.1	71.3	68.4	69.1	36.0	8.1

N.A.= Not Available

Table-6 Evaluation of Infrastructure

1. Airports/Harbours/Roads

	Total	Very Good	Good	Neither Positive nor Negative	Bad	Very Bad	No Answer
Malaysia	136	1	31	57	27	1	19
(%)	100.0	0.7	22.8	41.9	19.9	0.7	14.0
Thailand	136	0	4	32	58	20	22
(%)	100.0	0.0	2.9	23.5	42.6	14.7	16.2
Singapore	136	60	49	9	1	0	17
(%)	100.0	44.1	36.0	6.6	0.7	0.0	12.5
Korea	136	16	67	31	3	0	19
(%)	100.0	11.8	49.3	22.8	2.2	0.0	14.0

2. Telecommunications

	Total	Very Good	Good	Neither Positive nor Negative	Bad	Very Bad	No Answer
Malaysia	136	0	11	77	23	5	20
(%)	100.0	0.0	8.1	56.6	16.9	3.7	14.7
Thailand	136	0	0	45	54	14	23
(%)	100.0	0.0	0.0	33.1	39.7	10.3	16.9
Singapore	136	45	54	17	2	0	18
(%)	100.0	33.1	39.7	12.5	1.5	0.0	13.2
Korea	136	9	64	41	2	0	20
(%)	100.0	6.6	47.1	30.1	1.5	0.0	14.7

3. Electricity/Water/Drainage

	Total	Very Good	Good	Neither Positive nor Negative	Bad	Very Bad	No Answer
Malaysia	136	0	11	67	35	2	21
(%)	100.0	0.0	8.1	49.3	25.7	1.5	15.4
Thailand	136	0	0	47	52	13	24
(%)	100.0	0.0	0.0	34.6	38.2	9.6	17.6
Singapore	136	28	55	32	3	0	18
(%)	100.0	20.6	40.4	23.5	2.2	0.0	13.2
Korea	136	6	52	56	1	0	21
(%)	100.0	4.4	38.2	41.2	0.7	0.0	15.4

Table.7 Average Scores of Evaluations of Investment Climates

Comprehensive Evaluation

	Government Policies	Economic Conditions	Labour Situation	Instrastrucre	Land and Construcion Costs
Malaysia	3.691	3.364	3.240	2.894	3.750
Thailand	3.634	3.465	3.333	2.252	3.629
Singapore	3.748	3.351	2.964	4.095	3.015
Korea	3.207	3.335	3.072	3.635	3.321

Government Policies

	Basic Position Regarding Foreign Capital Investment	Foreign Equity Restrictions	Corporate Taxes	Tax Insentives
Malaysia	3.948	3.691	2.970	4.154
Thailand	3.873	3.735	3.385	3.544
Singapore	3.552	4.235	3.044	4.162
Korea	3.037	3.419	3.289	3.081

Economic Conditions

	Economic Scale	Income Level	Economic Growth Rate
Malaysia	3.336	3.341	3.415
Thailand	3.493	3.363	3.541
Singapore	3.239	3.289	3.526
Korea	3.530	3.230	3.244

Labour Situation

	Wages	Educational Levels	Employment of Natives	Turnover Rate
Malaysia	4.088	2.625	2.910	3.338
Thailand	4.184	2.956	2.959	3.235
Singapore	2.551	3.269	3.631	2.404
Korea	2.831	3.674	3.746	2.037

Infrastructure

	Airports/ Harbours/Roads	Tele- Comunications	Electricity/ Water/Drainage	Comprehensive Rating
Malaysia	3. 034	2. 810	2. 757	2. 894
Thailand	2. 175	2. 274	2. 304	2. 252
Singapore	4. 412	4. 203	3. 915	4. 095
Korea	3. 821	3. 690	3. 548	3. 635

Land and Constructure Costs

	Land and Constructuer costs
Malaysia	3. 750
Thailand	3. 629
Singapore	3. 015
Korea	3. 321

Note) The figures are average scores of the evaluations graded from 1 (big negative factor) to 5 (big positive factor).

Table 8. Possiblity of Investment in Malaysia by Type of Product

	Totla	Unthinkable for the Investment	May be possible Four or Five From now	May be possible within Two or Three Years	Currently Considering of any consider	Have a Plan
Toatal	171	96	19	24	24	8
(%)	100.0	56.1	11.1	14.0	14.0	4.7
Plastic Moulding and Metal Press	9	6	3	–	–	–
(%)	100.0	66.7	33.3	–	–	–
Switch, Socket, and Connector	15	8	2	–	5	–
(%)	100.0	53.3	13.3	–	33.3	–
Sensor	1	1	–	–	–	–
(%)	100.0	100.0	–	–	–	–
Wire Harness	6	2	–	2	–	2
(%)	100.0	33.3	–	33.3	–	33.3
Power Supply, Unit and Transformer	6	2	2	2	–	–
(%)	100.0	33.3	33.3	33.3	–	–
Computer Component	1	–	–	–	1	–
(%)	100.0	–	–	–	100.0	–
Condenser and Resistor	18	12	2	5	–	–
(%)	100.0	66.7	5.6	27.8	–	–
IC, Transister Semiconductor	1	–	–	1	–	–
(%)	100.0	–	–	100.0	–	–
Other Electric Component	14	2	5	–	3	4
(%)	100.0	14.3	35.7	–	21.4	28.6
Audio Equipment	13	2	1	5	5	–
(%)	100.0	15.4	7.7	38.5	38.5	–
Home Electric Appliance	11	5	–	1	4	1
(%)	100.0	45.5	–	9.1	36.4	9.1
Communication Equipment	12	5	2	2	3	–
(%)	100.0	41.7	16.7	16.7	25.0	–
Other Electronic Equipment	5	3	–	–	1	1
(%)	100.0	60.0	–	–	20.0	20.0
Other Equipment and Muchinery	1	–	–	1	–	–
(%)	100.0	–	–	100.0	–	–
Other	3	2	–	–	1	–
(%)	100.0	66.7	–	–	33.3	–
N.A.	55	46	3	5	1	–
(%)	100.0	83.6	5.5	9.1	1.8	–

N.A. = Not Avaitable

Table. 9 Investment Plans in Countries Other than Malaysia (By procuct)

Product	Total	Plastic Moulding and Press	Switch Socket and Connector	Sencer	Wire Harness	Power Supply Unit and Transformer	Computer Component	Condenser and Resistor	IC. Transister Semiconductor	Other Electronic Components	Audio Equipment	Home Electronic Appliance	Communication Equipment	Other Electronic's Equipment	Other Equipment and Machinery	Others	N.A.
Total	46	—	6	—	—	4	—	—	5	9	2	2	3	1	—	2	12
(%)	100.0	—	13.0	—	—	8.7	—	—	10.9	19.6	4.3	4.3	6.5	2.2	—	4.3	26.1
[Country]																	
Thailand	17	—	1	—	—	—	—	—	5	4	—	2	2	—	—	—	3
(%)	100.0	—	5.9	—	—	—	—	—	29.4	23.5	—	11.8	11.8	—	—	—	17.6
People's Republic	11	—	2	—	—	4	—	—	—	3	1	—	—	—	—	1	—
of China (%)	100.0	—	18.2	—	—	36.4	—	—	—	27.3	9.1	—	—	—	—	9.1	—
Hong Kong	4	—	1	—	—	—	—	—	—	2	—	—	1	—	—	—	—
(%)	100.0	—	25.0	—	—	—	—	—	—	50.0	—	—	25.0	—	—	—	—
Indnesia	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3
(%)	100.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	100.0
U.S.A.	4	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	2
(%)	100.0	—	25.0	—	—	—	—	—	—	—	—	—	—	—	—	25.0	50.0
U.K.	3	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	2
(%)	100.0	—	33.3	—	—	—	—	—	—	—	—	—	—	—	—	—	66.7
Federal Republic	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
of Germany (%)	100.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	100.0
Mexico	1	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—
(%)	100.0	—	—	—	—	—	—	—	—	—	100.0	—	—	—	—	—	—
Others	2	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1
(%)	100.0	—	—	—	—	—	—	—	—	—	—	—	—	50.0	—	—	50.0

	Total	Plastic Moulding and Metal Press	Switch, Socket, and Connector	Sencer	Wire Harness	Power Supply Unit and Transformer	Computer Component	Condenser and Resistor	IC. Trandister Semi-Conduction	Other Electornic Computers	Other Equipment and Machinery	Audio Equipment	Home Electric Appliance	Communication Equipment	Ohter Equipment	Others	N.A.
Bergium	2	—	1	—	—	—	—	—	—	—	1	—	—	—	—	1	—
(%)	100.0	—	50.0	—	—	—	—	—	—	—	50.0	—	—	—	—	50.0	—
France	6	—	1	—	—	—	—	—	—	—	3	2	1	1	—	2	1
(%)	100.0	—	16.7	—	—	—	—	—	—	—	50.0	33.3	16.7	16.7	—	33.3	16.7
Italy	2	—	—	—	—	—	—	—	—	—	1	—	—	1	—	—	—
(%)	100.0	—	—	—	—	—	—	—	—	—	50.0	—	—	50.0	—	—	—
Spain	1	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—
(%)	100.0	—	—	—	—	—	—	—	—	—	—	—	100.0	100.0	—	—	—
Brazil	7	—	1	—	—	—	—	1	—	1	1	—	—	1	—	1	2
(%)	100.0	—	14.3	—	—	—	—	14.3	—	14.3	14.3	—	—	14.3	—	14.3	28.6
Mexico	4	—	—	—	—	1	—	1	—	—	1	1	—	—	—	1	—
(%)	100.0	—	—	—	—	25.0	—	25.0	—	—	25.0	25.0	—	—	—	25.0	—
Austraia	2	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
(%)	100.0	—	—	—	—	—	—	—	—	—	—	50.0	—	50.0	—	—	—
Phillippine	3	—	—	—	—	—	—	—	—	—	1	1	1	1	—	—	—
(%)	100.0	—	—	—	—	—	—	—	—	—	33.3	33.3	33.3	33.3	—	—	—
Others	6	—	—	—	—	—	—	1	1	1	—	3	—	—	1	—	1
(%)	100.0	—	—	—	—	—	—	16.7	16.7	16.7	—	50.0	—	—	16.7	—	16.7

N.A. = Not Arailable

Table. 10 Possibility of a Technical Tie-up with a Malaysian firm

Answer	Number of Answers
Have a concrete Plan	0
Are currentry considering or may consider.	2
May be possible within Two or Three Years.	7
May be possible Four or Five Years from now.	6

9. Background Data for the Sensitivity Analysis of Alternative C-CRT Plants

Table-1 C-CRT Plant IRR Calculation - Original Plan

(Unit: M$1,000)

	Cash Outflow	Cash Inflow			Balance
		Operating Rev.	Depreciation	Total Inflow	
0	-308,746				-308,746
1	-138,398	-18,765	15,569	-3,196	-141,594
2	-5,231	-17,633	24,679	7,046	1,815
3	-5,909	1,121	24,679	25,800	19,891
4	-3,972	15,481	24,679	40,160	36,188
5	-2,034	24,190	24,679	48,869	46,835
6	-894	27,870	24,679	52,549	51,665
7		29,655	24,679	54,334	54,334
8		29,655	24,679	54,334	54,334
9		29,655	24,679	54,334	54,334
10		29,655	24,679	54,334	54,334
11	-400	29,655	24,679	54,334	53,934
12		29,655	24,679	54,334	54,334
13		29,655	24,679	54,334	54,334
14		29,655	24,679	54,334	54,334
15	53,906[1]	29,655	24,679	54,334	108,240

1] Residual value of Land (5,167), Building (15,785),
Auxiliary facilities (13,579) and Working capital (19,375)

IRR = 4.84%

Table-2 C-CRT Plant Cash Flow Projection - Original Plan

(UNIT: M$ 1,000)

		BEFORE OPERATIO	1 ST YEAR	2ND YEAR	3 RD YEAR	4 TH YEAR	5 TH YEAR	6 TH YEAR	7 TH YEAR	8 TH YEAR	9 TH YEAR	1 0 TH YEAR	1 1 TH YEAR	1 2 TH YEAR	1 3 TH YEAR	1 4 TH YEAR	1 5 TH YEAR
CARRY-OVER		0	128,904	450	605	511	984	533	143	132	151	7,160	33,319	36,783	91,117	145,451	199,785
CAPITAL		200,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OPERATION REVENUE	SALES	0	20,925	83,700	154,613	202,275	226,688	232,501	232,501	232,501	232,501	232,501	232,501	232,501	232,501	232,501	232,501
	PRODUCT COST	0	38,003	96,879	145,912	177,162	191,740	193,617	191,832	191,832	191,832	191,832	191,832	191,832	191,832	191,832	191,832
	ADMINIST.	0	1,687	4,454	7,580	9,632	10,758	11,014	11,014	11,014	11,014	11,014	11,014	11,014	11,014	11,014	11,014
	BALANCE	0	-18,765	-17,633	1,121	15,481	24,190	27,870	29,655	29,655	29,655	29,655	29,655	29,655	29,655	29,655	29,655
WORKING CAPITAL	PREV. YEAR	0	0	1,744	6,975	12,884	16,856	18,891	19,375	19,375	19,375	19,375	19,375	19,375	19,375	19,375	19,375
	THIS YEAR	0	1,744	6,975	12,884	16,856	18,891	19,375	19,375	19,375	19,375	19,375	19,375	19,375	19,375	19,375	19,375
	BALANCE	0	-1,744	-5,231	-5,909	-3,972	-2,034	-484	0	0	0	0	0	0	0	0	0
INVESTMENT BALANCE	DEPRECIATION	0	15,569	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679
	INVESTMENT	308,746	136,654	0	0	0	0	400	0	0	0	0	400	0	0	0	0
	BALANCE	-308,746	-121,085	24,679	24,679	24,679	24,679	24,279	24,679	24,679	24,679	24,679	24,279	24,679	24,679	24,679	24,679
FINANCING BALANCE	LONG-TERM FINANCING L/T BORROW	245,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PRINCIPAL	0	0	0	24,500	24,500	24,500	24,500	24,500	24,500	24,500	24,500	49,000	0	0	0	0
	INTEREST	7,350	14,700	14,700	13,965	12,495	11,025	9,555	8,085	6,615	5,145	3,675	1,470	0	0	0	0
	(YEAR-END)	245,000	245,000	245,000	220,500	196,000	171,500	147,000	122,500	98,000	73,500	49,000	0	0	0	0	0
	BALANCE	237,650	-14,700	-14,700	-38,465	-36,995	-35,525	-34,055	-32,585	-31,115	-29,645	-28,175	-50,470	0	0	0	0
	SHORT-TERM FINANCING S/T BORROW	0	29,000	45,000	68,000	75,000	69,000	56,000	38,000	17,000	0	0	0	0	0	0	0
	PRINCIPAL	0	0	29,000	45,000	68,000	75,000	69,000	56,000	38,000	17,000	0	0	0	0	0	0
	INTEREST	0	1,160	2,960	4,520	5,720	5,760	5,000	3,760	2,200	680	0	0	0	0	0	0
	(YEAR-END)	0	29,000	45,000	68,000	75,000	69,000	56,000	38,000	17,000	0	0	0	0	0	0	0
	BALANCE	0	27,840	13,040	18,480	1,280	-11,760	-18,000	-21,760	-23,200	-17,680	0	0	0	0	0	0
BALANCE		237,650	13,140	-1,660	-19,985	-35,715	-47,285	-52,055	-54,345	-54,315	-47,325	-28,175	-50,470	0	0	0	0
CORP.TAX		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTL BALANCE		128,904	-128,454	155	-94	473	-450	-390	-11	19	7,009	26,159	3,464	54,334	54,334	54,334	54,334
CARRY-OVER		128,904	450	605	511	984	533	143	132	151	7,160	33,319	36,783	91,117	145,451	199,785	254,119

Table-3 C-CRT Plant IRR Calculation - Alternative I

	Cash	Cash Inflow			Balance
	Outflow	Operating Rev.	Depreciation	Total Inflow	
0	-308,746				-308,746
1	-138,490	-17,772	15,569	-2,203	-140,693
2	-5,493	-13,658	24,679	11,021	5,528
3	-6,205	8,464	24,679	33,143	26,938
4	-4,171	25,089	24,679	49,768	45,597
5	-2,136	34,958	24,679	59,637	57,501
6	-909	38,914	24,679	63,593	62,684
7		40,698	24,679	65,377	65,377
8		40,698	24,679	65,377	65,377
9		40,698	24,679	65,377	65,377
10		40,698	24,679	65,377	65,377
11	-400	40,698	24,679	65,377	64,977
12		40,698	24,679	65,377	65,377
13		40,698	24,679	65,377	65,377
14		40,698	24,679	65,377	65,377
15	54,875[1]	40,698	24,679	65,377	120,252

1) Residual value of Land (5,167), Building (15,785),
Auxiliary facilities (13,519) and Working capital (20,344)

IRR = 7.22%

Table-4 C-CRT Plant Cash Flow Projection - Alternative I

(UNIT: M$ 1,000)

		BEFORE OPERATIO	1 ST YEAR	2 ND YEAR	3 RD YEAR	4 TH YEAR	5 TH YEAR	6 TH YEAR	7 TH YEAR	8 TH YEAR	9 TH YEAR	1 0 TH YEAR	1 1 TH YEAR	1 2 TH YEAR	1 3 TH YEAR	1 4 TH YEAR	1 5 TH YEAR
CARRY-OVER		0	128,904	396	504	177	540	196	345	27,937	62,199	26,636	92,013	156,990	222,367	287,744	353,121
CAPITAL		200,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OPERATION REVENUE	SALES	0	21,971	87,885	162,343	212,389	238,022	244,126	244,126	244,126	244,126	244,126	244,126	244,126	244,126	244,126	244,126
	PRODUCT COST	0	38,034	97,005	146,144	177,466	192,080	193,985	192,181	192,181	192,181	192,181	192,181	192,181	192,181	192,181	192,181
	ADMINIST.	0	1,709	4,538	7,735	9,834	10,984	11,247	11,247	11,247	11,247	11,247	11,247	11,247	11,247	11,247	11,247
	BALANCE	0	-17,772	-13,658	8,464	25,089	34,958	38,914	40,698	40,698	40,698	40,698	40,698	40,698	40,698	40,698	40,698
WORKING CAPITAL	PREV. YEAR	0	0	1,831	7,324	13,529	17,699	19,835	20,344	20,344	20,344	20,344	20,344	20,344	20,344	20,344	20,344
	THIS YEAR	0	1,831	7,324	13,529	17,699	19,835	20,344	20,344	20,344	20,344	20,344	20,344	20,344	20,344	20,344	20,344
	BALANCE	0	-1,831	-5,493	-6,205	-4,171	-2,136	-509	0	0	0	0	0	0	0	0	0
INVESTMENT BALANCE	DEPRECIATION	0	15,569	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679
	INVESTMENT	308,746	136,854	0	0	0	0	400	0	0	0	0	400	0	0	0	0
	BALANCE	-308,746	-121,085	24,679	24,679	24,679	24,679	24,279	24,679	24,679	24,679	24,679	24,279	24,679	24,679	24,679	24,679
FINANCING BALANCE	LONG-TERM FINANCING L/T BORROW	245,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PRINCIPAL	0	0	0	24,500	24,500	24,500	24,500	24,500	24,500	98,000	0	0	0	0	0	0
	INTEREST	7,350	14,700	14,700	13,965	12,495	11,025	9,555	8,085	6,615	2,940	0	0	0	0	0	0
	(YEAR-END)	245,000	245,000	245,000	220,500	196,000	171,500	147,000	122,500	98,000	0	0	0	0	0	0	0
	BALANCE	237,650	-14,700	-14,700	-38,465	-36,995	-35,525	-34,055	-32,585	-31,115	-100,940	0	0	0	0	0	0
	SHORT-TERM FINANCING S/T BORROW	0	28,000	40,000	55,000	51,000	32,000	5,000	0	0	0	0	0	0	0	0	0
	PRINCIPAL	0	0	28,000	40,000	55,000	51,000	32,000	5,000	0	0	0	0	0	0	0	0
	INTEREST	0	1,120	2,720	3,800	4,240	3,320	1,480	200	0	0	0	0	0	0	0	0
	(YEAR-END)	0	28,000	40,000	55,000	51,000	32,000	5,000	0	0	0	0	0	0	0	0	0
	BALANCE	0	26,880	9,280	11,200	-8,240	-22,320	-28,480	-5,200	0	0	0	0	0	0	0	0
	BALANCE	237,650	12,180	-5,420	-27,265	-45,235	-57,845	-62,535	-37,785	-31,115	-100,940	0	0	0	0	0	0
CORP.TAX		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTL BALANCE		128,904	-128,508	108	-327	363	-344	149	27,592	34,262	-35,563	65,377	64,977	65,377	65,377	65,377	65,377
CARRY-OVER		128,904	396	504	177	540	196	345	27,937	62,199	26,636	92,013	156,990	222,367	287,744	353,121	418,498

Table-5 C-CRT Plant IRR Calculation - Alternative II

	Cash	Cash Inflow			Balance
	Outflow	Operating Rev.	Depreciation	Total Inflow	
0	-308,746				-308,746
1	-138,311	-19,758	15,569	-4,189	-142,500
2	-4,970	-21,608	24,679	3,071	-1,899
3	-5,614	-6,224	24,679	18,455	12,841
4	-3,773	5,873	24,679	30,522	26,749
5	-1,933	13,422	24,679	38,101	36,168
6	-860	16,824	24,679	41,503	40,643
7		18,611	24,679	43,290	43,290
8		18,611	24,679	43,290	43,290
9		18,611	24,679	43,290	43,290
10		18,611	24,679	43,290	43,290
11	-400	18,611	24,679	43,290	42,890
12		18,611	24,679	43,290	43,290
13		18,611	24,679	43,290	43,290
14		18,611	24,679	43,290	43,290
15	52,937[1]	18,611	24,679	43,290	96,227

1] Residual value of Land (5,167), Building (15,785),
Auxiliary facilities (13,579) and Working capital (18,406)

IRR = 2.19%

Table-6 C-CRT Plant Cash Flow Projection - Alternative II

(UNIT: M$ 1,000)

		BEFORE OPERATIO	1 ST YEAR	2 ND YEAR	3 RD YEAR	4 TH YEAR	5 TH YEAR	6 TH YEAR	7 TH YEAR	8 TH YEAR	9 TH YEAR	1 0 TH YEAR	1 1 TH YEAR	1 2 TH YEAR	1 3 TH YEAR	1 4 TH YEAR	1 5 TH YEAR
CARRY-OVER		0	128,904	504	706	842	466	949	17	242	177	942	697	242	537	147	16,397
CAPITAL		200,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OPERATION REVENUE	SALES	0	19,879	79,515	146,882	192,161	215,354	220,876	220,876	220,876	220,876	220,876	220,876	220,876	220,876	220,876	220,876
	PRODUCT COST	0	37,971	96,753	145,680	178,859	191,400	193,268	191,483	191,483	191,483	191,483	191,483	191,483	191,483	191,483	191,483
	ADMINIST.	0	1,666	4,370	7,426	9,429	10,532	10,784	10,782	10,782	10,782	10,782	10,782	10,782	10,782	10,782	10,782
	BALANCE	0	-19,758	-21,608	-6,224	5,873	13,422	16,824	18,611	18,611	18,611	18,611	18,611	18,611	18,611	18,611	18,611
WORKING CAPITAL	PREV. YEAR	0	0	1,657	6,626	12,240	16,013	17,946	18,406	18,406	18,406	18,406	18,406	18,406	18,406	18,406	18,406
	THIS YEAR	0	1,657	6,626	12,240	16,013	17,946	18,406	18,406	18,406	18,406	18,406	18,406	18,406	18,406	18,406	18,406
	BALANCE	0	-1,657	-4,970	-5,614	-3,773	-1,933	-460	0	0	0	0	0	0	0	0	0
INVESTMENT BALANCE	DEPRECIATION	0	15,569	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679
	INVESTMENT	308,746	138,654	0	0	0	0	400	0	0	0	0	400	0	0	0	0
	BALANCE	-308,746	-121,085	24,679	24,679	24,679	24,679	24,279	24,679	24,679	24,679	24,679	24,279	24,679	24,679	24,679	24,679
FINANCING BALANCE	LONG-TERM FINANCING L/T BORROW	245,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PRINCIPAL	0	0	0	24,500	24,500	24,500	24,500	24,500	24,500	24,500	24,500	24,500	24,500	0	0	0
	INTEREST	7,350	14,700	14,700	13,969	12,495	11,025	9,555	8,085	6,615	5,145	3,675	2,205	735	0	0	0
	(YEAR-END)	245,000	245,000	245,000	220,500	196,000	171,500	147,000	122,500	98,000	73,500	49,000	24,500	0	0	0	0
	BALANCE	237,650	-14,700	-14,700	-38,465	-36,995	-35,525	-34,055	-32,585	-31,115	-29,645	-28,175	-26,705	-25,235	0	0	0
	SHORT-TERM FINANCING S/T BORROW	0	30,000	50,000	81,000	98,000	106,000	107,000	105,000	101,000	96,000	88,000	78,000	66,000	26,000	0	0
	PRINCIPAL	0	0	30,000	50,000	81,000	98,000	106,000	107,000	105,000	101,000	96,000	88,000	78,000	66,000	26,000	0
	INTEREST	0	1,200	3,200	5,240	7,180	8,180	8,520	8,480	8,240	7,880	7,360	6,640	5,760	3,680	1,040	0
	(YEAR-END)	0	30,000	50,000	81,000	98,000	106,000	107,000	105,000	101,000	96,000	88,000	78,000	66,000	26,000	0	0
	BALANCE	0	28,800	16,800	25,760	9,840	-160	-7,520	-10,480	-12,240	-12,880	-15,360	-16,640	-17,760	-43,680	-27,040	0
	BALANCE	237,650	14,100	2,100	-12,705	-27,155	-35,685	-41,575	-43,065	-43,365	-42,525	-43,535	-43,345	-42,995	-43,680	-27,040	0
CORP.TAX		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTL BALANCE		128,904	-128,400	201	136	-376	483	-932	225	-65	765	-245	-455	295	-390	16,250	43,290
CARRY-OVER		128,904	504	706	842	466	949	17	242	177	942	697	242	537	147	16,397	59,687

Table-7 C-CRT Plant IRR Calculation - Alternative III

	Cash	Cash Inflow			Balance
	Outflow	Operating Rev.	Depreciation	Total Inflow	
0	-277,871				-277,871
1	-124,733	-17,208	14,012	-3,196	-127,929
2	-5,231	-15,165	22,211	7,046	1,815
3	-5,909	3,589	22,211	25,800	19,891
4	-3,972	17,949	22,211	40,160	36,188
5	-2,034	26,658	22,211	48,869	46,835
6	-844	30,338	22,211	52,549	51,705
7		32,123	22,211	54,334	54,334
8		32,123	22,211	54,334	54,334
9		32,123	22,211	54,334	54,334
10		32,123	22,211	54,334	54,334
11	-360	32,123	22,211	54,334	53,974
12		32,123	22,211	54,334	54,334
13		32,123	22,211	54,334	54,334
14		32,123	22,211	54,334	54,334
15	50,453[1]	32,123	22,211	54,334	104,787

1] Residual value of Land (4,650), Building (14,207),
Auxiliary facilities (12,221) and Working capital (19,375)

IRR = 6.04%

Table-8 C-CRT Plant Cash Flow Projection - Alternative III

(UNIT: M$ 1,000)

		BEFORE OPERATIO	1 ST YEAR	2ND YEAR	3 RD YEAR	4 TH YEAR	5 TH YEAR	6 TH YEAR	7 TH YEAR	8 TH YEAR	9 TH YEAR	1 0TH YEAR	1 1 TH YEAR	1 2TH YEAR	1 3TH YEAR	1 4TH YEAR	1 5TH YEAR
	CARRY-OVER	0	159,779	17,150	4,265	91	4	353	10,723	32,472	55,691	9,085	63,419	117,393	171,727	226,061	280,395
	CAPITAL	200,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OPERATION REVENUE	SALES	0	20,925	83,700	154,613	202,275	226,688	232,501	232,501	232,501	232,501	232,501	232,501	232,501	232,501	232,501	232,501
OPERATION REVENUE	PRODUCT COST	0	36,446	94,411	143,444	174,694	189,272	191,149	189,364	189,364	189,364	189,364	189,364	189,364	189,364	189,364	189,364
OPERATION REVENUE	ADMINIST.	0	1,687	4,454	7,580	9,632	10,758	11,014	11,014	11,014	11,014	11,014	11,014	11,014	11,014	11,014	11,014
	BALANCE	0	-17,208	-15,165	3,589	17,949	26,658	30,338	32,123	32,123	32,123	32,123	32,123	32,123	32,123	32,123	32,123
WORKING CAPITAL	PREV. YEAR	0	0	1,744	6,975	12,884	16,856	18,891	19,375	19,375	19,375	19,375	19,375	19,375	19,375	19,375	19,375
WORKING CAPITAL	THIS YEAR	0	1,744	6,975	12,884	16,856	18,891	19,375	19,375	19,375	19,375	19,375	19,375	19,375	19,375	19,375	19,375
	BALANCE	0	-1,744	-5,231	-5,909	-3,972	-2,034	-484	0	0	0	0	0	0	0	0	0
INVESTMENT BALANCE	DEPRECIATION	0	14,012	22,211	22,211	22,211	22,211	22,211	22,211	22,211	22,211	22,211	22,211	22,211	22,211	22,211	22,211
INVESTMENT BALANCE	INVESTMENT	277,871	122,989	0	0	0	0	360	0	0	0	0	360	0	0	0	0
	BALANCE	-277,871	-108,977	22,211	22,211	22,211	22,211	21,851	22,211	22,211	22,211	22,211	21,851	22,211	22,211	22,211	22,211
FINANCING BALANCE	LONG-TERM FINANCING L/T BORROW	245,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FINANCING BALANCE	LONG-TERM FINANCING PRINCIPAL	0	0	0	24,500	24,500	24,500	24,500	24,500	24,500	98,000	0	0	0	0	0	0
FINANCING BALANCE	LONG-TERM FINANCING INTEREST	7,350	14,700	14,700	13,965	12,495	11,025	9,555	8,085	6,815	2,940	0	0	0	0	0	0
FINANCING BALANCE	LONG-TERM FINANCING (YEAR-END)	245,000	245,000	245,000	220,500	196,000	171,500	147,000	122,500	98,000	0	0	0	0	0	0	0
FINANCING BALANCE	BALANCE	237,650	-14,700	-14,700	-38,465	-36,995	-35,525	-34,055	-32,585	-31,115	-100,940	0	0	0	0	0	0
FINANCING BALANCE	SHORT-TERM FINANCING S/T BORROW	0	0	0	15,000	17,000	7,000	0	0	0	0	0	0	0	0	0	0
FINANCING BALANCE	SHORT-TERM FINANCING PRINCIPAL	0	0	0	0	15,000	17,000	7,000	0	0	0	0	0	0	0	0	0
FINANCING BALANCE	SHORT-TERM FINANCING INTEREST	0	0	0	600	1,280	960	280	0	0	0	0	0	0	0	0	0
FINANCING BALANCE	SHORT-TERM FINANCING (YEAR-END)	0	0	0	15,000	17,000	7,000	0	0	0	0	0	0	0	0	0	0
FINANCING BALANCE	BALANCE	0	0	0	14,400	720	-10,960	-7,280	0	0	0	0	0	0	0	0	0
FINANCING BALANCE	BALANCE	237,650	-14,700	-14,700	-24,065	-36,275	-46,485	-41,335	-32,585	-31,115	-100,940	0	0	0	0	0	0
	CORP.TAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTL BALANCE	159,779	-142,629	-12,885	-4,174	-87	350	10,370	21,749	23,219	-46,606	54,334	53,974	54,334	54,334	54,334	54,334
	CARRY-OVER	159,779	17,150	4,265	91	4	353	10,723	32,472	55,691	9,085	63,419	117,393	171,727	226,061	280,395	334,729

Table-9 C-CRT Plant IRR Calculation - Alternative IV

	Cash	Cash Inflow			Balance
	Outflow	Operating Rev.	Depreciation	Total Inflow	
0	-339,621				-339,621
1	-152,063	-20,322	17,126	-3,196	-155,259
2	-5,231	-20,101	27,147	7,046	1,815
3	-5,909	-1,347	27,147	25,800	19,891
4	-3,972	13,013	27,147	40,160	36,188
5	-2,034	21,722	27,147	48,869	46,835
6	-924	25,402	27,147	52,549	51,625
7		27,187	27,147	54,334	54,334
8		27,187	27,147	54,334	54,334
9		27,187	27,147	54,334	54,334
10		27,187	27,147	54,334	54,334
11	-440	27,187	27,147	54,334	53,894
12		27,187	27,147	54,334	54,334
13		27,187	27,147	54,334	54,334
14		27,187	27,147	54,334	54,334
15	57,360[1]	27,187	27,147	54,334	111,694

1] Residual value of Land (5,684), Building (17,364),
Auxiliary facilities (14,937) and Working capital (19,375)

IRR = 3.80%

Table-10 C-CRT Plant Cash Flow Projection - Alternative IV

(UNIT: M$ 1,000)

		BEFORE OPERATIO	1 ST YEAR	2ND YEAR	3 RD YEAR	4 TH YEAR	5 TH YEAR	6 TH YEAR	7 TH YEAR	8 TH YEAR	9 TH YEAR	1 0 TH YEAR	1 1 TH YEAR	1 2 TH YEAR	1 3 TH YEAR	1 4 TH YEAR	1 5 TH YEAR
	CARRY-OVER	0	98,029	70	385	131	124	793	43	272	51	580	99	408	627	44,561	98,895
	CAPITAL	200,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OPERATION REVENUE	SALES	0	20,925	83,700	154,613	202,275	226,688	232,501	232,501	232,501	232,501	232,501	232,501	232,501	232,501	232,501	232,501
	PRODUCT COST	0	39,560	99,347	148,380	179,630	194,208	196,085	194,300	194,300	194,300	194,300	194,300	194,300	194,300	194,300	194,300
	ADMINIST.	0	1,687	4,454	7,580	9,832	10,758	11,014	11,014	11,014	11,014	11,014	11,014	11,014	11,014	11,014	11,014
	BALANCE	0	-20,322	-20,101	-1,347	13,013	21,722	25,402	27,187	27,187	27,187	27,187	27,187	27,187	27,187	27,187	27,187
WORKING CAPITAL	PREV. YEAR	0	0	1,744	6,975	12,884	16,856	18,891	19,375	19,375	19,375	19,375	19,375	19,375	19,375	19,375	19,375
	THIS YEAR	0	1,744	6,975	12,884	16,856	18,891	19,375	19,375	19,375	19,375	19,375	19,375	19,375	19,375	19,375	19,375
	BALANCE	0	-1,744	-5,231	-5,909	-3,972	-2,034	-484	0	0	0	0	0	0	0	0	0
INVESTMENT BALANCE	DEPRECIATION	0	17,126	27,147	27,147	27,147	27,147	27,147	27,147	27,147	27,147	27,147	27,147	27,147	27,147	27,147	27,147
	INVESTMENT	339,621	150,319	0	0	0	0	440	0	0	0	0	440	0	0	0	0
	BALANCE	-339,621	-133,193	27,147	27,147	27,147	27,147	26,707	27,147	27,147	27,147	27,147	26,707	27,147	27,147	27,147	27,147
FINANCING BALANCE	LONG-TERM FINANCING L/T BORROW	245,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PRINCIPAL	0	0	0	24,500	24,500	24,500	24,500	24,500	24,500	24,500	24,500	24,500	24,500	0	0	0
	INTEREST	7,350	14,700	14,700	13,965	12,495	11,025	9,555	8,085	6,615	5,145	3,675	2,205	735	0	0	0
	(YEAR-END)	245,000	245,000	245,000	220,500	196,000	171,500	147,000	122,500	98,000	73,500	49,000	24,500	0	0	0	0
	BALANCE	237,650	-14,700	-14,700	-38,465	-36,995	-35,525	-34,055	-32,585	-31,115	-29,645	-28,175	-26,705	-25,235	0	0	0
	SHORT-TERM FINANCING S/T BORROW	0	75,000	95,000	122,000	133,000	133,000	125,000	113,000	98,000	81,000	60,000	37,000	10,000	0	0	0
	PRINCIPAL	0	0	75,000	95,000	122,000	133,000	133,000	125,000	113,000	98,000	81,000	60,000	37,000	10,000	0	0
	INTEREST	0	3,000	6,800	8,680	10,200	10,640	10,320	9,520	8,440	7,160	5,640	3,880	1,880	400	0	0
	(YEAR-END)	0	75,000	95,000	122,000	133,000	133,000	125,000	113,000	98,000	81,000	60,000	37,000	10,000	0	0	0
	BALANCE	0	72,000	13,200	18,320	800	-10,640	-18,320	-21,520	-23,440	-24,160	-26,640	-26,880	-26,880	-10,400	0	0
	BALANCE	237,650	57,300	-1,500	-20,145	-36,195	-46,165	-52,375	-54,105	-54,555	-53,805	-54,815	-53,585	-54,115	-10,400	0	0
	CORP.TAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTL BALANCE	98,029	-97,959	315	-254	-7	673	-750	229	-221	529	-481	309	219	43,934	54,334	54,334
	CARRY-OVER	98,029	70	385	131	124	793	43	272	51	580	99	408	627	44,561	98,895	153,229

Table-11 C-CRT Plant IRR Calculation - Alternative V

	Cash	Cash Inflow			Balance
	Outflow	Operating Rev.	Depreciation	Total Inflow	
0	-308,746				-308,746
1	-138,398	-18,044	15,569	-2,475	-140,873
2	-5,231	-14,821	24,679	9,858	4,627
3	-5,909	6,202	24,679	30,881	24,972
4	-3,972	22,001	24,679	46,680	42,708
5	-2,034	31,376	24,679	56,055	54,021
6	-884	35,135	24,679	59,814	58,930
7		36,831	24,679	61,510	61,510
8		36,831	24,679	61,510	61,510
9		36,831	24,679	61,510	61,510
10		36,831	24,679	61,510	61,510
11	-400	36,831	24,679	61,510	61,110
12		36,831	24,679	61,510	61,510
13		36,831	24,679	61,510	61,510
14		36,831	24,679	61,510	61,510
15	53,906[1]	36,831	24,679	61,510	115,416

1] Residual value of Land (5,167), Building (15,785),
Auxiliary facilities (13,579) and Working capital (19,375)

IRR = 6.45%

Table-12 C-CRT Plant Cash Flow Projection - Alternative V

(UNIT: M$ 1,000)

		BEFORE OPERATIO	1 ST YEAR	2 ND YEAR	3 RD YEAR	4 TH YEAR	5 TH YEAR	6 TH YEAR	7 TH YEAR	8 TH YEAR	9 TH YEAR	1 0 TH YEAR	1 1 TH YEAR	1 2 TH YEAR	1 3 TH YEAR	1 4 TH YEAR	1 5 TH YEAR
	CARRY-OVER	0	128,904	211	378	885	918	373	688	7,773	38,168	70,033	55,838	116,948	178,458	239,968	301,478
	CAPITAL	200,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OPERATION REVENUE	SALES	0	20,925	83,700	154,613	202,275	226,688	232,501	232,501	232,501	232,501	232,501	232,501	232,501	232,501	232,501	232,501
OPERATION REVENUE	PRODUCT COST	0	37,282	94,067	140,831	170,642	184,554	186,352	184,656	184,656	184,656	184,656	184,656	184,656	184,656	184,656	184,656
OPERATION REVENUE	ADMINIST.	0	1,687	4,454	7,580	9,632	10,758	11,014	11,014	11,014	11,014	11,014	11,014	11,014	11,014	11,014	11,014
	BALANCE	0	-18,044	-14,821	6,202	22,001	31,376	35,135	36,831	36,831	36,831	36,831	36,831	36,831	36,831	36,831	36,831
WORKING CAPITAL	PREV. YEAR	0	0	1,744	6,975	12,884	16,856	18,891	19,375	19,375	19,375	19,375	19,375	19,375	19,375	19,375	19,375
WORKING CAPITAL	THIS YEAR	0	1,744	6,975	12,884	16,856	18,891	19,375	19,375	19,375	19,375	19,375	19,375	19,375	19,375	19,375	19,375
	BALANCE	0	-1,744	-5,231	-5,909	-3,972	-2,034	-484	0	0	0	0	0	0	0	0	0
INVESTMENT BALANCE	DEPRECIATION	0	15,569	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679
INVESTMENT BALANCE	INVESTMENT	308,746	136,654	0	0	0	0	400	0	0	0	0	400	0	0	0	0
	BALANCE	-308,746	-121,085	24,679	24,679	24,679	24,679	24,279	24,679	24,679	24,679	24,679	24,279	24,679	24,679	24,679	24,679
FINANCING BALANCE	L/T BORROW	245,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FINANCING BALANCE	PRINCIPAL	0	0	0	24,500	24,500	24,500	24,500	24,500	24,500	24,500	73,500	0	0	0	0	0
FINANCING BALANCE	INTEREST	7,350	14,700	14,700	13,965	12,495	11,025	9,555	8,085	6,615	5,145	2,205	0	0	0	0	0
FINANCING BALANCE	(YEAR-END)	245,000	245,000	245,000	220,500	196,000	171,500	147,000	122,500	98,000	73,500	0	0	0	0	0	0
FINANCING BALANCE	BALANCE	237,650	-14,700	-14,700	-38,465	-36,995	-35,525	-34,055	-32,585	-31,115	-29,645	-75,705	0	0	0	0	0
FINANCING BALANCE	S/T BORROW	0	28,000	41,000	59,000	58,000	43,000	21,000	0	0	0	0	0	0	0	0	0
FINANCING BALANCE	PRINCIPAL	0	0	28,000	41,000	59,000	58,000	43,000	21,000	0	0	0	0	0	0	0	0
FINANCING BALANCE	INTEREST	0	1,120	2,760	4,000	4,680	4,040	2,580	840	0	0	0	0	0	0	0	0
FINANCING BALANCE	(YEAR-END)	0	28,000	41,000	59,000	58,000	43,000	21,000	0	0	0	0	0	0	0	0	0
FINANCING BALANCE	BALANCE	0	26,880	10,240	14,000	-5,680	-19,040	-24,560	-21,840	0	0	0	0	0	0	0	0
FINANCING BALANCE	BALANCE	237,650	12,180	-4,460	-24,465	-42,675	-54,565	-58,615	-54,425	-31,115	-29,645	-75,705	0	0	0	0	0
	CORP.TAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTL BALANCE	128,904	-128,693	167	507	33	-544	315	7,085	30,395	31,865	-14,195	61,110	61,510	61,510	61,510	61,510
	CARRY-OVER	128,904	211	378	885	918	373	688	7,773	38,168	70,033	55,838	116,948	178,458	239,968	301,478	362,988

Table-13 C-CRT Plant IRR Calculation - Alternative VI

	Cash	Cash Inflow			Balance
	Outflow	Operating Rev.	Depreciation	Total Inflow	
0	-308,746				-308,746
1	-138,398	-19,486	15,569	-3,917	-142,315
2	-5,231	-20,445	24,679	4,234	-997
3	-5,909	-3,960	24,679	20,719	14,810
4	-3,972	8,961	24,679	33,640	29,668
5	-2,034	17,004	24,679	41,683	39,649
6	-884	20,605	24,679	45,284	44,400
7		22,479	24,679	47,158	47,158
8		22,479	24,679	47,158	47,158
9		22,479	24,679	47,158	47,158
10		22,479	24,679	47,158	47,158
11	-400	22,479	24,679	47,158	46,758
12		22,479	24,679	47,158	47,158
13		22,479	24,679	47,158	47,158
14		22,479	24,679	47,158	47,158
15	53,906[1]	22,479	24,679	47,158	101,064

1] Residual value of Land (5,167), Building (15,785),
Auxiliary facilities (13,579) and Working capital (19,375)

IRR = 3.13%

Table-14 C-CRT Plant Cash Flow Projection - Alternative VI

(UNIT: M$ 1,000)

		BEFORE OPERATIO	1 ST YEAR	2 ND YEAR	3 RD YEAR	4 TH YEAR	5 TH YEAR	6 TH YEAR	7 TH YEAR	8 TH YEAR	9 TH YEAR	1 0 TH YEAR	1 1 TH YEAR	1 2 TH YEAR	1 3 TH YEAR	1 4 TH YEAR	1 5 TH YEAR
	CARRY-OVER	0	128,904	689	832	137	90	773	638	171	854	847	390	283	526	36,244	83,402
	CAPITAL	200,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OPERATION REVENUE	SALES	0	20,925	83,700	154,613	202,275	226,688	232,501	232,501	232,501	232,501	232,501	232,501	232,501	232,501	232,501	232,501
	PRODUCT COST	0	38,724	99,691	150,993	183,682	198,926	200,882	199,008	199,008	199,008	199,008	199,008	199,008	199,008	199,008	199,008
	ADMINIST.	0	1,687	4,454	7,580	9,632	10,758	11,014	11,014	11,014	11,014	11,014	11,014	11,014	11,014	11,014	11,014
	BALANCE	0	-19,486	-20,445	-3,960	8,961	17,004	20,605	22,479	22,479	22,479	22,479	22,479	22,479	22,479	22,479	22,479
WORKING CAPITAL	PREV. YEAR	0	0	1,744	6,975	12,884	16,856	18,891	19,375	19,375	19,375	19,375	19,375	19,375	19,375	19,375	19,375
	THIS YEAR	0	1,744	6,975	12,884	16,856	18,891	19,375	19,375	19,375	19,375	19,375	19,375	19,375	19,375	19,375	19,375
	BALANCE	0	-1,744	-5,231	-5,909	-3,972	-2,034	-484	0	0	0	0	0	0	0	0	0
INVESTMENT BALANCE	DEPRECIATION	0	15,569	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679	24,679
	INVESTMENT	308,746	136,654	0	0	0	0	400	0	0	0	0	400	0	0	0	0
	BALANCE	-308,746	-121,085	24,679	24,679	24,679	24,679	24,279	24,679	24,679	24,679	24,679	24,279	24,679	24,679	24,679	24,679
FINANCING BALANCE	L/T BORROW	245,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LONG-TERM FINANCING	PRINCIPAL	0	0	0	24,500	24,500	24,500	24,500	24,500	24,500	24,500	24,500	24,500	24,500	0	0	0
	INTEREST	7,350	14,700	14,700	13,965	12,495	11,025	9,555	8,085	6,615	5,145	3,675	2,205	735	0	0	0
	(YEAR-END)	245,000	245,000	245,000	220,500	196,000	171,500	147,000	122,500	98,000	73,500	49,000	24,500	0	0	0	0
	BALANCE	237,650	-14,700	-14,700	-38,465	-36,995	-35,525	-34,055	-32,585	-31,115	-29,645	-28,175	-26,705	-25,235	0	0	0
SHORT-TERM FINANCING	S/T BORROW	0	30,000	49,000	77,000	91,000	95,000	92,000	84,000	75,000	63,000	48,000	31,000	11,000	0	0	0
	PRINCIPAL	0	0	30,000	49,000	77,000	91,000	95,000	92,000	84,000	75,000	63,000	48,000	31,000	11,000	0	0
	INTEREST	0	1,200	3,180	5,040	6,720	7,440	7,480	7,040	6,360	5,520	4,440	3,160	1,680	440	0	0
	(YEAR-END)	0	30,000	49,000	77,000	91,000	95,000	92,000	84,000	75,000	63,000	48,000	31,000	11,000	0	0	0
	BALANCE	0	28,800	15,840	22,960	7,280	-3,440	-10,480	-15,040	-15,360	-17,520	-19,440	-20,160	-21,880	-11,440	0	0
	BALANCE	237,650	14,100	1,140	-15,505	-29,715	-38,965	-44,535	-47,625	-46,475	-47,165	-47,615	-46,865	-46,915	-11,440	0	0
	CORP.TAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTL BALANCE	128,904	-128,215	143	-695	-47	684	-135	-467	683	-7	-457	-107	243	35,718	47,158	47,158
	CARRY-OVER	128,904	689	832	137	90	773	638	171	854	847	390	283	526	36,244	83,402	130,560

10. Criteria for the Selection of Sites for High-Tech Industrial Parks

Criteria for the Selection of Sites for High-Tech Industrial Parks

<Outline of the technopolis concept>

First, a brief outline of the "technopolis concept" is shown in the following figure. The "technopolis concept" was made public in 1980 as part of the international trade and industrial policy visions for the 1980s. It is intended; [1] to disperse production and research functions of high-tech industries to provincial areas, in order to promote the vitalization and the self-sustenance of local economics through the spread of results from its dispersion to local enterprises, [2] to provide environments which have industrial sites, industrial water supplies and talented people and which are favorable for creative research and development in high-tech industries such as semiconductors, computers and biotechnology on a stable long-term development basis, and [3] to draw on the potential of individual areas through the dispersion of high-tech industries. The local self-governing bodies which contain the areas designated as technopolis are given preferential tax and financial treatment and aids for the improvement of housing, roads and other facilities by the state administration. As of 1989, 26 areas throughout the nation have been approved as technopolis. Approval is given, with the judgement of the four government agencies mentioned below, to the development plans worked out by prefectures which want designation as technopolis based on the development guidelines drawn up by the Ministry of International Trade and Industry, Ministry of Construction, National Land Agency and Ministry of Agriculture, Forestry and Fisheries.

<Necessary conditions for specified areas>

Any area designated as technopolis should primarily satisfy the seven conditions stated below.

[1] It should be an area with a high degree of industrial accumulation in the immediate vicinity and in its surrounding areas, excepting the areas stipulated by government ordinances.

[2] It should be an area recognized as suitable for industrial development as one site based on high technology from the viewpoints of natural, economic and social conditions.

[3] There should exist a good deal of enterprises with the potential of growing into ones which develop high technology or use it for the development or manufacture of products in the area.

[4] Industrial sites, industrial water supplies and housing sites should be easily available.

[5] There should exist a city equipped with the necessary condition (population: more than 150 thousand inhabitants) laid down by government ordinances in or near the area.

[6] There should exist a university which conducts education and study pertaining to high technology in or near the area.

[7] High-speed motor expressways, airports and other rapid transit facilities should be readily available.

Figure. The High Technology Industry Accumulation Area Development and Promotion Ordinance (Outline of the Technologies Ordinance)