

**Japanese Managers' Attitude towards the Transfer
of Japanese Management and Technology
to ASEAN Countries**

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1. Introduction

Japanese foreign investment has been accelerated since the Yen appreciation following the Plaza Agreement in 1985. Japanese investors consider the Southeast Asian region as one of the best investing location not only for cheap labor and government incentives but also political stability, diligence of the labor force, and the over all future market. For these reasons the region is now enjoying investment boom brought mainly by Japanese and NIEs private investors.

This rapid increase of Japanese investment to the countries in Southeast Asia is able to contribute to the host countries by assisting their industrialization and economic development. However, at the same time, certain conflicts have occurred between the host countries and Japanese investors. South-east Asian people fear that Japanese capital will become a dominant power in Asia again. Japan should be cautious about over-presence and over-influence of Japanese capital, and should have a sound relationship with local personnel as well as local community.

Our study aims at inquiring the closer and better relationship between the ASEAN countries and Japan in the future. For this purpose, the authors focus on the management practices of Japanese-affiliated companies in the ASEAN countries, since the private businesses are the main and actual fields of interaction which sometime cause conflicts. We have conducted a questionnaire survey and interviews to Japanese managers of Japanese affiliated companies in ASEAN (See Yamashita [1] and [2]). The survey and whole study project has been financially supported by the Toyota Foundation.

There are three main purposes in this survey: (1) to recognize the general condition of Japanese investment in the region; (2) to know the Japanese managers' attitude toward the adoptability of "Japanese-type management" to the local environment; (3) to understand the situation of the transfer of technology and management from the parent companies to the local Japanese-affiliated companies.

The survey has been conducted in Thailand, Indonesia, Malaysia and Singapore during March 1987 and February 1988. This report will show the survey results in the form of the comparison among the above four ASEAN countries.

We would like to acknowledge our appreciation to the Japanese Chamber of Commerce and JETRO of each country as well as to the companies which provided answers to our questionnaires and accepted our interviews.

2. The Present Situations of Japanese-Affiliated Companies

In our survey, we got 132 valid answers out of 818 Japan-affiliated companies in the four ASEAN countries to which the questionnaire sheets were sent (for more detail, see Yamashita et. al. [2]). The rate of return is as low as 16.1%, because of the extremely low rate of return in Malaysia. It grows up to 28.7% if Malaysia is excluded. Besides that, in general, Japan-affiliated companies have several subsidiaries or relating companies to which we sent questionnaires. Once we got a result from a representative company, it covers three or four related companies. So the survey actually represents wider range of Japan-related companies in the region.

Another feature of our study is that our survey focus on the following three industries: automobile, electrical and electronics machines, and textile. Japanese affiliated companies have centralized on these three industries.

Some basic information on the survey as well as the general features of the result of questionnaire survey to the Japanese-affiliated companies can be seen in Table 1 at the end.

(1) Trend of Localization

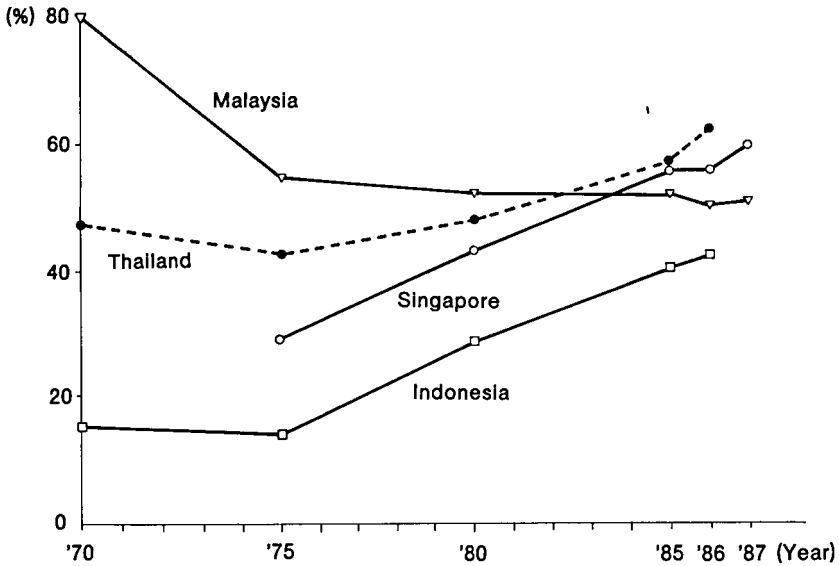
The government of each host country pays attention to the ratio of localization of foreign companies. The meanings of localization are (1) localization of capital; (2) localization of parts and materials; (3) localization of personnel. Here we examined the second category first, i.e., localization of parts and materials in terms of production cost.

Fig.1 shows the time trend of ratio of localization by country which is calculated as a percentage share of parts and materials among their total production costs.

According to Fig.1, the localization ratio has been increasing after 1975. This trend can be understood as the results of localization efforts of Japanese-affiliated companies which followed the localization policy of each government.

In Fig.1, the figures of Malaysia show decreasing trend. It seems to be caused by electric and electronic companies which have newly come to Malaysia after 1973. It was since this period that the host governments' policy has been changed from that of import substitute industrialization to that of export oriented one. Hence, the local factories have to use the high quality parts and materials from abroad (especially from Japan) rather than to use the local ones.

Fig. 1 Rate of Localization in Terms of Production Cost
(Unit: %)



The ratio of localization differs from one industry to another, or by the length of operation. In the case of assembling industries such as auto manufacturing or electric appliances manufacturing, the ratio of localization increases along with the development of the relating industries. On the other hand, the industries like chemical industry or precision industry have difficulties in increasing the ratio of localization. For these reasons, it is impossible to treat every industries or companies on the same basis.

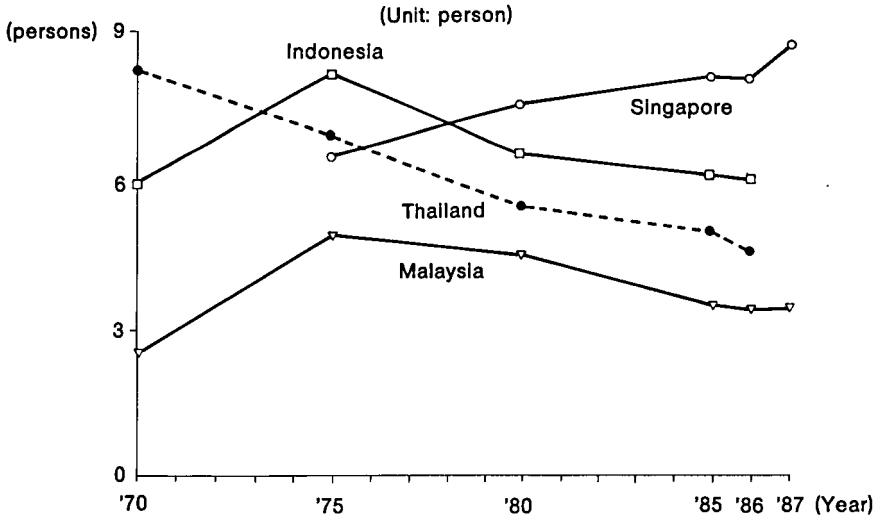
However, it is noteworthy that the ratio of localization of Japan-affiliated companies is increasing in the most of the ASEAN countries. It reaches more than 53% as an average of the four ASEAN countries in 1986 from below 40% in 1975.

(2) Localization of the Personnel

Concerning to localization of the personnel, firstly the numbers of Japanese expatriate is examined.

Fig.2 shows the trend of average number of Japanese expatriate per company by country. According to this figure it is noticeable that the number of Japanese

Fig. 2 Number of Japanese Employees per Company



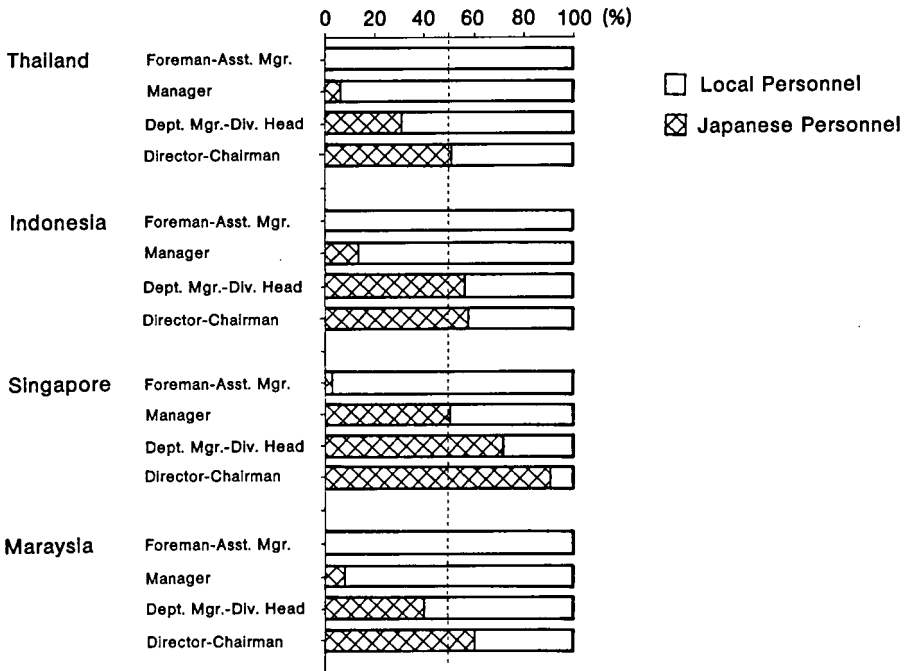
expatriate per company decreases year by year, and it may be able to understand as the results of Japan-affiliated companies' efforts to meet the host government's policy on localization of personnel.

The only exception is Singapore where the number of Japanese expatriate is increasing. This is the consequence of the increase of the Japanese direct investment to that country in recent years especially in the fields of electric / electronic industries. For these industries are high-technology oriented and require more Japanese engineers and managers. In addition, the samples of the questionnaire survey in Singapore are concentrated upon the electric and electronic industries while in other three countries the questionnaire is sent to all member companies of Japanese Chamber of Commerce.

Secondly, the composition of Japanese and local staff is surveyed in terms of several jobs stratifications (see Fig.3). At the level of workers it must be naturally occupied by local personnel, so the survey examines the levels higher than the middle management, i.e., foreman or assistant manager, manager, division head and director.

According to Fig.3, up to the level of manager, the Japanese-affiliated companies assign more local personnel than Japanese, however, when it goes higher than the level of department manager the posts are occupied by more Japanese

Fig. 3 The Composition of Local and Japanese Personnel by the Level of Position (Unit: %)



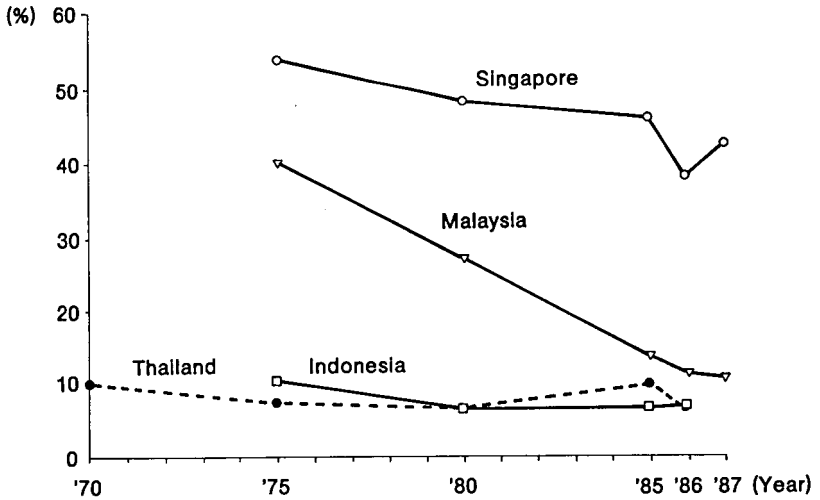
personnel than local personnel. It can be said that the post of department manager will become the focal point in near future in consideration of localization of personnel.

Again, Singapore shows somewhat unique composition vis-à-vis other ASEAN countries. The Japan-affiliated companies in Singapore are mostly newly established one as mentioned above and they still need to have many Japanese technicians and managers.

(3) The Ratio of the Labor Turnover

Fig.4 shows the ratio of the labor turnover (annual) by country. According to this figure, the ratios in Thailand and Indonesia are low, while the ratio in Singapore is as high as around 50%. In Malaysia the ratio of the labor turnover decreases significantly. Malaysia has experienced economic depression since the early 1980's, and for the reputation of Japanese companies becomes more favorable in this period.

Fig. 4 The Rate of Annual Leave
(Unit: %)



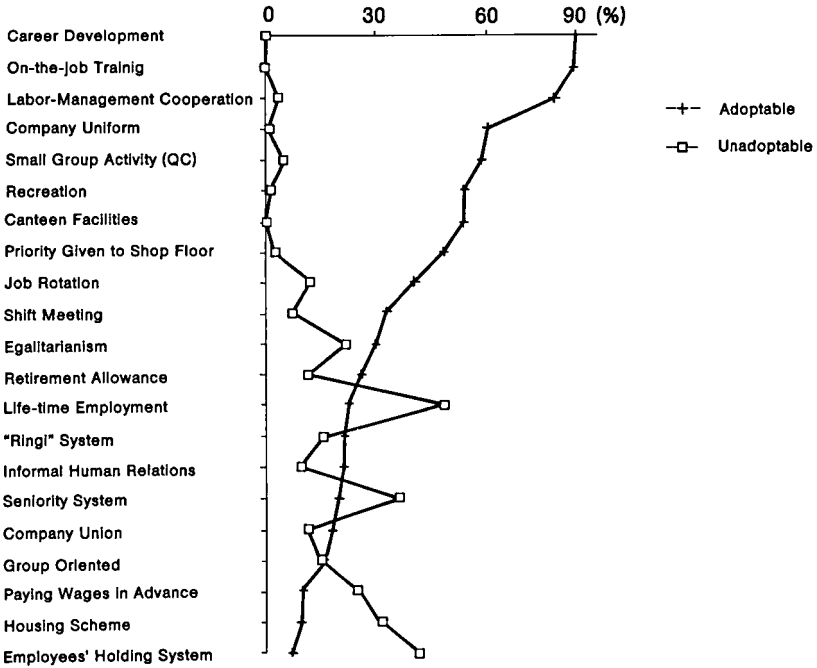
3. Evaluation of Japanese-style Management

Japan-affiliated companies (especially manufactures) are welcomed by the Southeast Asian countries as promoters of industrialization of the host countries. Such prominent evaluation is caused by strong competitiveness of Japanese products in the world market, and consequently it draws peoples attention to Japanese-style management, and makes favorable attitude toward Japanese-affiliated companies.

However, it is not every aspects of Japanese-style management that are highly appreciated. Japanese managers who are residing in this region are also aware of the limitation of the adoptability of Japanese-style management to ASEAN countries. Our survey results in the four ASEAN countries clearly show this aspect.

Fig.5 shows the response of the Japanese managers who reside in the four ASEAN countries (only manufacturing industries; 119 companies). According to this figure, it is generally observed that the three items, namely, "life-time employment", "seniority system" and "ringi system", which are long considered as the core of Japanese-style management, are less evaluated in its adoption to

Fig. 5 Japanese Manager's Evaluation on the Effectiveness of "Japanese-Style Management" (Unit: %)



(Note) Average of four countries.

the local managerial environment. Especially the first two items are considered as decisively, "unadoptable". It may be that because these two items automatically cause high labor cost in the future, they show negative response.

The items to which Japanese managers answer as "highly adoptable" are: "career development", "labor-management cooperation", "on-the-job training", and "QC circle or small group activity". Interpreting these items, it seems that Japanese managers have confidence in production management among Japanese-management styles. It is also notable that the items like "company uniform" and "canteen facilities" receive high evaluation as well.

Responses among the four ASEAN countries are slightly different since they have different circumstances and conditions. Uniqueness of each country is clearly seen in the responses to the items like "egalitarianism", "life-time employment", or "seniority system".

Responses are also differ according to the industry, size of the company, or length of the operation. For example, the companies which had been established in the 1960's before the oil crises and have more than 20 years of operation experience tend to appreciate the items of "life-time employment" and "seniority system". These companies acknowledge advantage of these aspects of Japanese-style management in human resources development because they can spend long time for the personnel training.

On the contrary, the companies which had been established after the 1970s do not appreciate these conventional Japanese-management style management, but introduce rational production management techniques from the beginning of their operation. In the case of newly established companies, the priority is to establish the export base to the world market rather than to develop human resources for their business activity. To do so, they are installing high-tech production lines which are much more automatic, i.e., the factory does not need qualified personnels or even technicians to handle. It means that they are introducing the former western style management.

Relating to the above subject, the survey inquires wage of local employees of Japan-affiliated companies in the four ASEAN countries in terms of their educational background as well as their age. The wage system reflects the attitude of human resources development especially the build-up of "middle management", which is one of the crucial factor of Japanese-style management. (See Fig.6). Several characteristics of the findings can be described as follows:

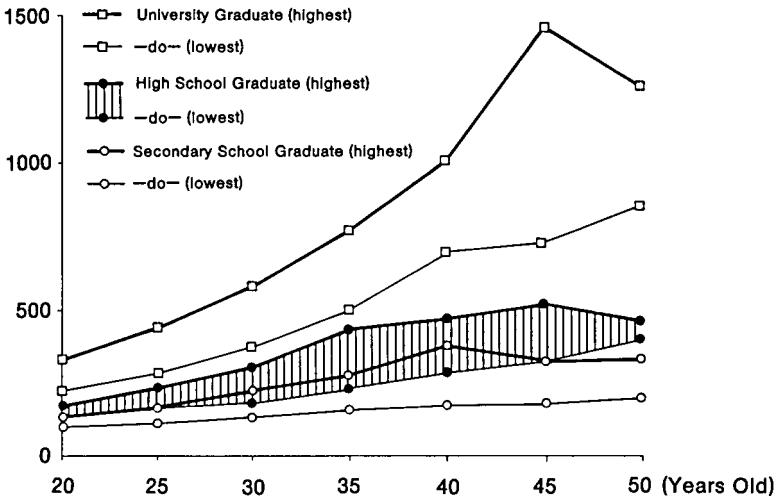
(1) The lower range of the wage for the less educated employees has been kept flat, determined by the minimum wage of each host country. Beside that, the less educated, the more narrow wage range is, and it hardly increases while the employees get older.

(2) The wage range for the employees with high school level education is wider than that of the low educated employees. It can be observed that, in Fig.6, there are certain interruption between the lower range wage of the high school educated employees and the higher range wage of the low educated employees.

(3) The wage range for the highly educated employees is the widest. The lower range of their wage never overlap with the higher range of the low educated employees of the same age category.

**Fig. 6 The Range of Wage by Age and Educational Background
(Average of 4 Countries)**

(Unit: The Wage of Secondary School Graduate of 20 Years Old=100)



(4) While the increase of the wage along with the age level is slow in the cases of secondary and high school educated employees. The wage for the highly educated employees increases significantly along with their age.

The characteristics of the wage range which are explained above are quite different from those seen in Japan. Talking about the adoption of Japanese-style management, the existence of this kind of class stratification in the ASEAN countries must be taken into consideration.

4. Japanese Managers' Attitude toward the Transfer of Technology and Management Style

The survey includes the items concerning Japanese managers' attitude toward the transfer of technology and Japanese style management. The questionnaire survey with interviews has been carried out in three countries, i.e., Thailand, Malaysia and Singapore (See Yamashita et. al., [2]).

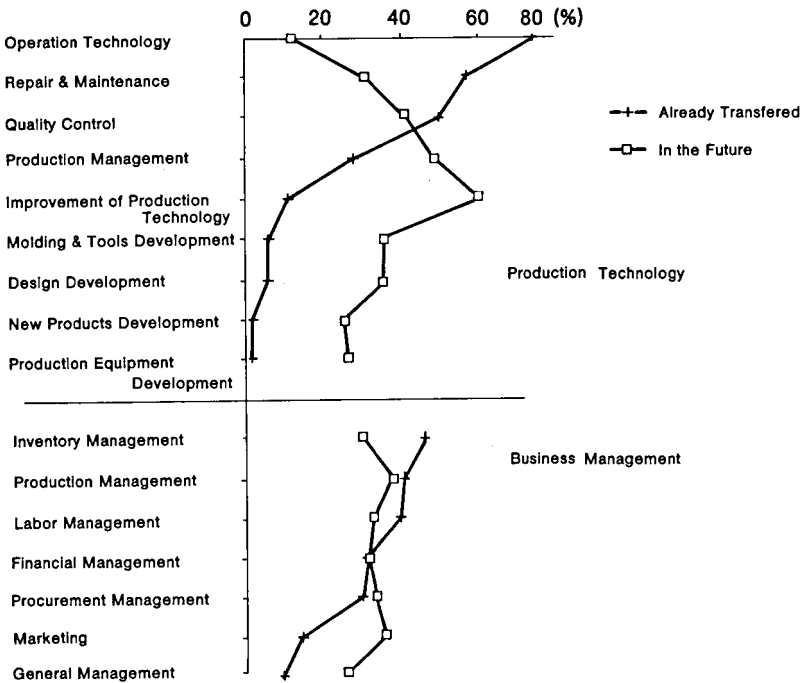
The uniqueness of this opinion survey on technology transfer is that we have distinguished nine stages of technology transfer. Technology transfer proceeds stagewise as follows: (1) operation technology; (2) repair and maintenance tech-

nology; (3) quality control; (4) improvement of production technology; (5) total production management; (6) design technology; (7) molding and tool development; (8) new product development; and (9) development of production equipment. Through these stages the levels of technology have been improved.

The questionnaire then asked the Japanese managers by which stage of technology transfer they proceeded already, and about their plan to transfer in the future in case they did not transfer yet.

Fig.7 shows the results of Japanese manager's responds concerning both "already transfered" and "will transfer in the future". From these results we observed the followings.

Fig. 7 Japanese Manager's Attitude toward Technology Transfer (Unit: %)



(Note) Average of 3 countries; Thailand, Singapore, Malaysia

Firstly, "operation technology" has almost been transferred . The 80% of the Japanese managers answered as "already transfered" at their factories. And they are still trying the further transfer of operation techniques so that we can con-

clude that Japanese-affiliated companies are positive to the transfer of “operation technology.”

Secondly, concerning the transfer of “repair and maintenance” and “quality control” technology, roughly 60% of the respondents have answered as “already transferred.” They also showed high interest in transferring the second and third stage of technologies which the Euro-American affiliated companies may not pay much attention.

Thirdly, the technologies which Japanese-affiliated companies consider the most important are “total production management” and “improvement of production technology.” Although both of them receive relatively low percentage (less than 30%) of response as “already transferred”, but the Japanese managers answered that they would proceed to the technology transfer of these higher technologies and knowhow in the future.

Those five stages of technology transfer, i.e., from “operation technology” to “total production management”, can be described as the “former stages of technology transfer.”

We have distinguished these from the rest of the four stages which we call the “latter stages of technology transfer,” such as “development of molding & tools,” “design and the modification of existing products,” “development of new products,” and “development of equipment.”

We may say that Japanese are much active in the transfer of technologies which relate to the machines and production lines which are already installed.

However, the question still remains in the process of the “latter stages” of technology transfer. We may say that, in fourth, Japanese managers are quite negative to the transfer of further developed technologies, such as development of molding & tools, design development and its modification, development of new products, and/or development of production equipment.

There are two contrasting views concerning the future prospect of technology transfer in the Japanese affiliated companies. One is, as is shown in the results of the questionnaire survey (Fig.7), positive attitude of Japanese in transferring technologies, and the other is negative in these fields.

According to our interviews with Japanese managers of a number of Japanese-joint ventures, they have basically positive ideas on technology transfer. However, it is not to transfer the whole technologies in one time, but rather to transfer technologies step by step, by taking time.

In conclusion, they consider, at this moment, it is too early to proceed to the

latter stages of technology transfer. They are positive to the former stages, but negative to the latter stages.

Japanese managers think that it is essential to give a basic education to their personnels as well as an on-the-job training (OJT). However, there are many limitations and obstacles in transferring higher technologies to Southeast Asia, mainly because of low quality of labor forces.

In the latter stages of technology transfer, it is true that some of the Japanese companies do not want to train them. For if all the technology had been transferred to Southeast Asia, nothing will be left in Japan. Another reason why the Japanese joint ventures do not want to train personnel is because of the job hopping of personnels who obtained higher technical and managerial training. Therefore, they are still thinking not to transfer the higher technologies and managerial know-how.

The above mentioned situation is the target of criticisms from the Asian developing countries, as "unwillingness of technology transfer of Japanese companies." Developing countries are expecting to receive higher technologies, and on the contrary, the Japanese side claims that developing countries' absorptive condition is not yet ready for it, and is trying to postpone the timing of technology transfer. Therefore, there arises certain kind of conflict.

The authors, ideas on such kind of conflict and its solution are as follows:

(1) It is understandable that developing countries seek higher technologies. However, the criticisms of Japanese "unwillingness of technology transfer" come mostly from the local academic and administrative circles who are not familiar with the actual situations of production activities. The major local staff of Japan-affiliated companies do not necessarily agree with these criticisms, but they rather understand that it takes time before absorbing higher technologies.

(2) For developing countries' side, it is necessary to understand that the decrease of the number of Japanese expertise doesn't necessarily indicate the progress of technology transfer. It is important to recognize that there are certain steps in the technological progress, and it takes time to train technicians through the whole stages of technology transfer. If the technology transfer is limited only to the operational technology stage like the Euro-American companies, Japanese advisors have no need to stay longer. For the long run, it is important to proceed the integrated technological development policy including improvement of national education system, such as fulfillment of the compulsory education as well as science education from the low grades at school.

(3) Japanese-affiliated companies should not, however, underrate the ability of local employees. It is necessary to understand their educational background and environment of locals. There is a wide gap between their knowledge or technological level and company's expectation. Japanese-affiliated companies should be more patient with the conditions and attitudes of local employees.

(4) Japanese-affiliated companies should not aim only at profit. They should pay more attention to the situations where they are. They should consider they work together with local people not only for the company but also for the local society. They need to communicate much closer with the local society.

5. The Roles and Tasks of Japanese-affiliated Companies

The more Japanese-affiliated companies operate in the Southeast Asian region, the closer the relationship between this region and Japan is. It is not only that the economic relationship becomes stronger, but it also accompanies political, social and cultural relationships with advantages and disadvantages. Concerning the activities of Japanese-affiliated companies they should positively evaluate their advantages and improve their short-comings. The followings are the contributing factors of Japanese direct investment.

Firstly, Japanese direct investment to Southeast Asia has contributed to local industrialization and economic development. It has made the positive influences on the development of relating industries, creation of jobs, acquisition of foreign exchange, transfer of technology and management, etc.

Secondly, the education and training of local managers and employees can help supplying necessary human resources for national development. The people who got the training with modern ideas can also contribute to the modernization of the society.

Thirdly, by teaching Japanese advanced knowhow and management techniques to locals, it is possible to change local employees' value judgement and even their way of life. Developing local companies into modern firms with international standards, it contributes the internationalization of the economy as well.

However, there also arise several problems surrounding the Japanese-affiliated companies. Japanese foreign direct investments to ASEAN countries

are increasing year by year both in numbers and volume. Japanese are not aware seriously of the increasing influences and pressure of Japanese companies on the local society, but locals fear that Japanese capital will become dominant.

Concerning this problem, firstly, it should be kept in mind that there still exists anti-Japanese sentiment which has been caused by various reasons since the World War II. Japanese businessmen should recognize that such sentiment is fostered by the increase of Japanese influences and their rough behaviors.

Secondly, the attention should be paid, as a new type of conflict, to the fact that Japanese people's biased image toward Asia may be gradually exaggerated because of the increase of Japanese-affiliated companies.

Thirdly, there are criticisms as mentioned earlier that Japan-affiliated companies do not promote local staff, and also they are unwilling to transfer their technology. The Japanese companies should open their ways of management and adjust the ways to the local conditions.

Fourthly, there is a problem concerning obscureness of activities of Japanese-affiliated companies and their headquarters. Japan-affiliated companies are always criticized as, for example, they do not prepare detailed manuals, they use the Japanese language at their important meetings, ambiguous decision makings, etc. It also used to be pointed out that there is a lack of communication and the obscureness of information at work and in human relations.

There are still many things which Japanese-affiliated companies must improve and pay attention to. They must take the local conditions into account and have close contact with the local side. Among many problems, human relationship is the most important aspects in the local activities, especially in the Southeast Asian countries.

In this sense, the experience of the companies which have been operating more than 20 years in local societies are valuable. There must be many useful experiences and suggestions for newly establishing companies, for example, on human relations, promotion of local personnel, or the ways of technology transfer.

On the other hand, Japanese-affiliated companies should have their own managerial ideal vis-à-vis Western companies. Western companies, to say extremely, are doing their business on the same line from their colonial time, and are producing standardized products by using manuals. They are praised in host countries because their promotion of local staff as well as transfer of technology are faster. However, the reality is that they simply transfer the low-level produc-

tion processes which are able to be handled by unskilled labors in developing countries. They are also utilizing automatic production equipments so that technical training of the local staff can be limited to operation technology only. They send engineers from their home countries when machines have gotten troubles, so they do not need to keep many foreign advisors and they can promote local staff easily.

On the contrary, Japanese-affiliated companies, especially which have long experience in host countries, are more keen on human resources development and technology transfer. However, it seems that the way of human resource development and technology transfer at the Japanese-affiliated companies have been changing. After the Yen appreciation, the role of their factories in Southeast Asia has changed from the import-substitution type of production base to the export-oriented one which provides their products to all over the world.

Those small and medium scale new-comers cannot afford to train their employees. Instead they hire the trained personnels who used to work at other Japanese companies. This type of job-hopping causes other long operating companies to stop training, which decreases the merit of human resource development of Japanese companies.

Although it is important for Japanese-affiliated companies to improve business achievement or listening to the headquarters, they should carry the business by locally adoptable way with keeping positive aspects of Japanese-type management. When Japanese companies' activities widened they should pay more efforts to minimize conflicts with local societies. They should seek new management style and human relationship together with local employees and try to create a new corporate culture. The authors expect Japanese-affiliated companies in Southeast Asia to create a new hybrid corporate culture which is adoptable to the local conditions.

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- [2] Yamashita, S., J. Takeuchi, N. Kawabe, and S. Takehana, "ASEAN Shokoku ni okeru Nikon-gata Keiei to Gijutsu Iten ni Kansuru Keieisha no Ishiki Chosa" (Japanese Managers' Conciousness on the Transfer of Japanese Management and Technology to ASEAN Countries), *Hiroshima Economic Journal*, March 1989

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Table 1 Profiles of the Respondents to the Questionnaire Survey of the Japanese-Type Management in Southeast Asia

	Total	Thailand	Indonesia	Singapore	Malaysia
Survey Period	87.3-88.2	87.4-87.9	87.3-87.5	87.12-88.2	87.12-88.2
No of Respondents	132 ¹⁾	47	42 (製造業 29)	19	24
No of Distribution	818	142 ²⁾	195 ³⁾	39 ⁴⁾	(442) ⁵⁾
Rate of Return	16.1	33.1	21.5	48.7	5.4
Type of Industry					
Automobile	19.3	25.5	34.5	.0	4.2
Textile & Garments	13.4	21.3	13.8	.0	8.3
Electrics & Electronics	23.5	10.6	3.4	73.7	33.3
Others	43.7	42.6	48.3	26.3	54.2
Years of Establishment					
Before 1966	12.6	27.7	.0	5.3	4.2
67-73	25.2	29.8	20.7	10.5	33.3
74-80	40.3	31.9	58.6	47.4	29.2
81-88	16.8	10.6	20.7	15.8	25.0
Unknown	5.0	.0	.0	21.1	8.3
Japanese Capital Share					
Less than 40%	12.6	19.1	6.9	.0	16.7
40-50%	29.4	53.2	17.2	.0	20.8
More than 50%	56.3	27.7	72.4	100.0	58.3
Unknown	1.7	.0	3.4	.0	4.2
No of Employees					
Less than 50	9.2	12.8	3.4	.0	16.7
51-100	13.4	12.8	24.1	10.5	4.2
101-200	15.1	12.8	20.7	15.8	12.5
201-300	9.2	6.4	13.8	5.3	12.5
301-500	16.0	17.0	10.3	21.1	16.7
501-1000	19.3	17.0	24.1	10.5	25.0
More than 1000	14.3	17.0	3.4	26.3	12.5
Unknown	3.4	4.3	.0	10.5	.0

Note

- 1) Analysis is made only of 119 manufacturers.
- 2) Questionnaire are sent to all the manufacturers who belong to the Japanese Chamber of Commerce in Bangkok.
- 3) Questionnaire are sent to all the companies who belong to the Japanese Chamber of Commerce in Indonesia. Among the respondents 29 are manufacturers.
- 4) Questionnaires are sent to 39 companies chosen from electric and electronic industries.
- 5) Questionnaire are sent to all the companies who belong to the Japanese Chamber of Commerce in Malaysia. The exact number of distribution is, however, not known.