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## TECHNOLOGICAL INNOVATION AND MANAGEMENT PROBLEMS IN JAPAN

— Japan's Economic Growth: Its Past and Future —

by

*Takashi Shiraishi*

### *Introduction*

This paper is designed to study the development of the Japanese economy from the viewpoint of Innovative Wave as termed by Professor Schumpeter and examine how Japan absorbed overseas technological innovation in the 1950's by referring to what the Japanese business management learned from the United States and Europe in the absorption process. The present paper will represent a case study on one of the characteristics of Japanese way of introducing technology.

I will also observe how the introduction of overseas technology, which started in the latter half of the 1950's, helped enhance the competitiveness of Japan's export industry while accelerating Japan's economic growth.

Increases in export in the 1960's reduced constraints on Japan's international balance of payments, which resulted in promotion of planned investment by Japanese companies; they had a macro-effect of eventually facilitating strategic investment. Behind the increased exports were both price and non-price factors. Based on such facts, an attempt will be made to explain how each industry tried to develop its international marketing strategy.

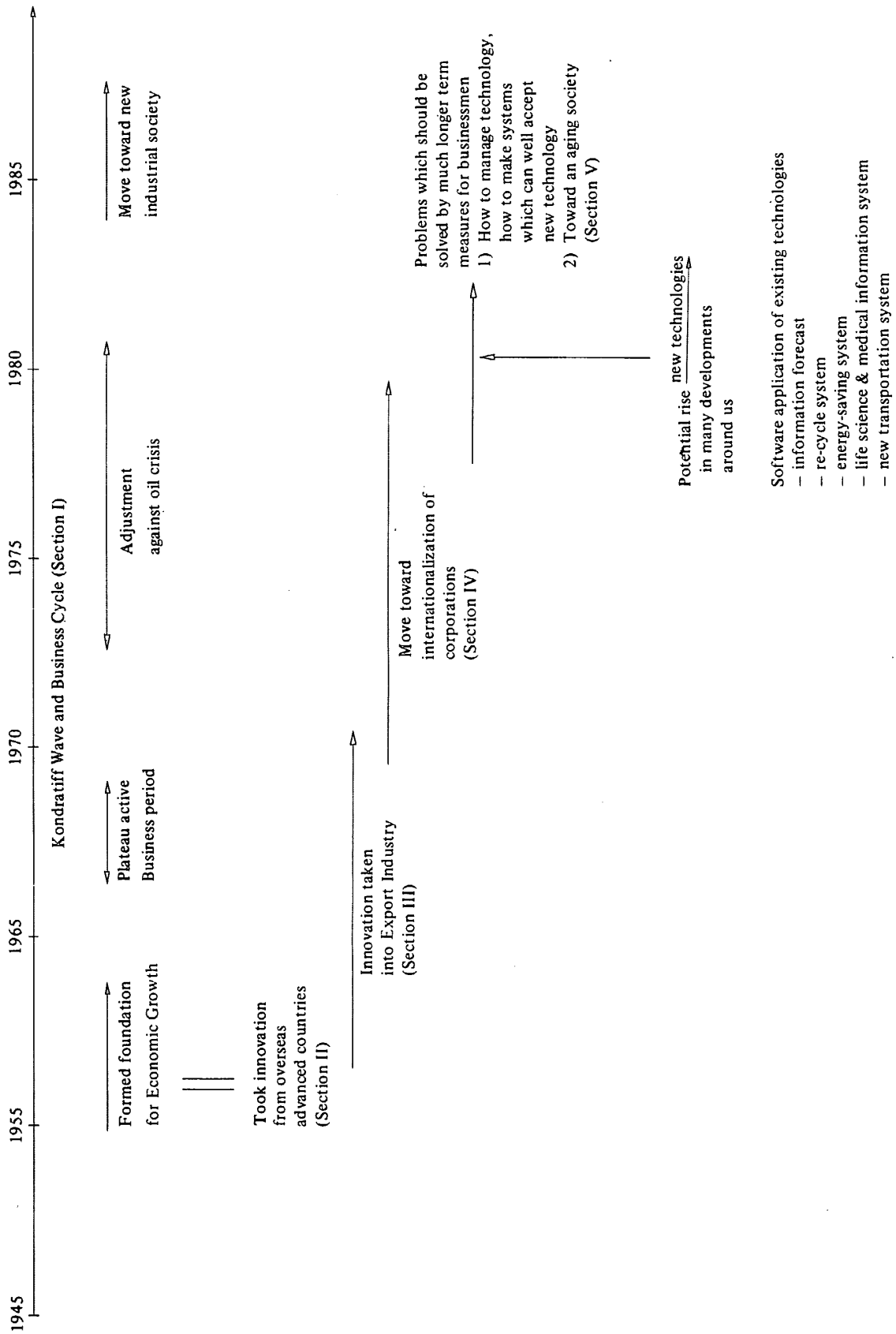
The sharp increase in Japan's direct investment overseas in the latter half of the 1960's, when this country entered the age of mixed overseas strategies, involved a number of problems and resulted in further internationalization of Japanese business enterprises. In this connection, I will describe my view on the course Japan's corporate internationalization and the related in-house education should take in the future. And, future Japanese economy and management problems will be forecasted at the end.

The following table is a chronological illustration of subjects in each section of the present paper.

#### *1. Kondratiff Wave and Business Cycle*

First, this chapter outlines the development of Japanese economy since World War II from the viewpoint of Innovative Wave as termed by Professor Schumpeter. As you

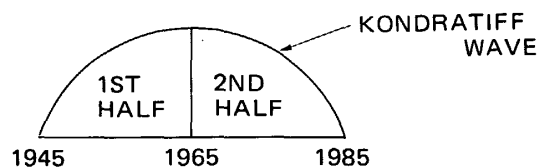
Table 1.



know, Kondratiff pointed out that economic growth had a cycle of 40 – 50 years length. Although this hypothesis is yet to be proven both theoretically and statistically, it will serve as a qualitative tool in explaining the direction of economic growth of the world from a macroscopic point of view, and especially useful in explaining economic growth of Japan<sup>1)</sup>. This concept of 'Kondratiff wave' hasn't been very much dealt with in Japanese academic associations. However, I used this concept in 1976 in one of my works entitled "Economic Development and Foreign Investment" where explained Japan's rapid growth and its slowdown. In January, 1981, the Nippon Keizai Shimbun, an economic newspaper in Japan, publicly featured this wave concept for the first time in Japan. It was also suggested in the business world that the slowdown in Japanese economic growth made distinct around 1975 might have been caused by the decline in the rate of technical advancement. The home electric appliances industry, which had previously been a 'growth industry' as well as the automobile industry, then entered a very hard period in developing post-television products; video tape recorder was not sold so well as initially had been forecasted; The home electric appliances industry spent a real hard time developing products with high growth possibilities in terms of Products Life Cycle.

If I adopt the 40-year cycle of the Kondratiff wave concept to the 40-year period from 1945, I would call the first 20 years a growth period, and the next 20 years from 1965 a decline one. If I look at the same 40-year period from an economic growth point of view, I would call 1945–1965 the first half of growth period, and 1965–1985 the second half. Chart 1 is a visual illustration of what I described above.

Chart 1

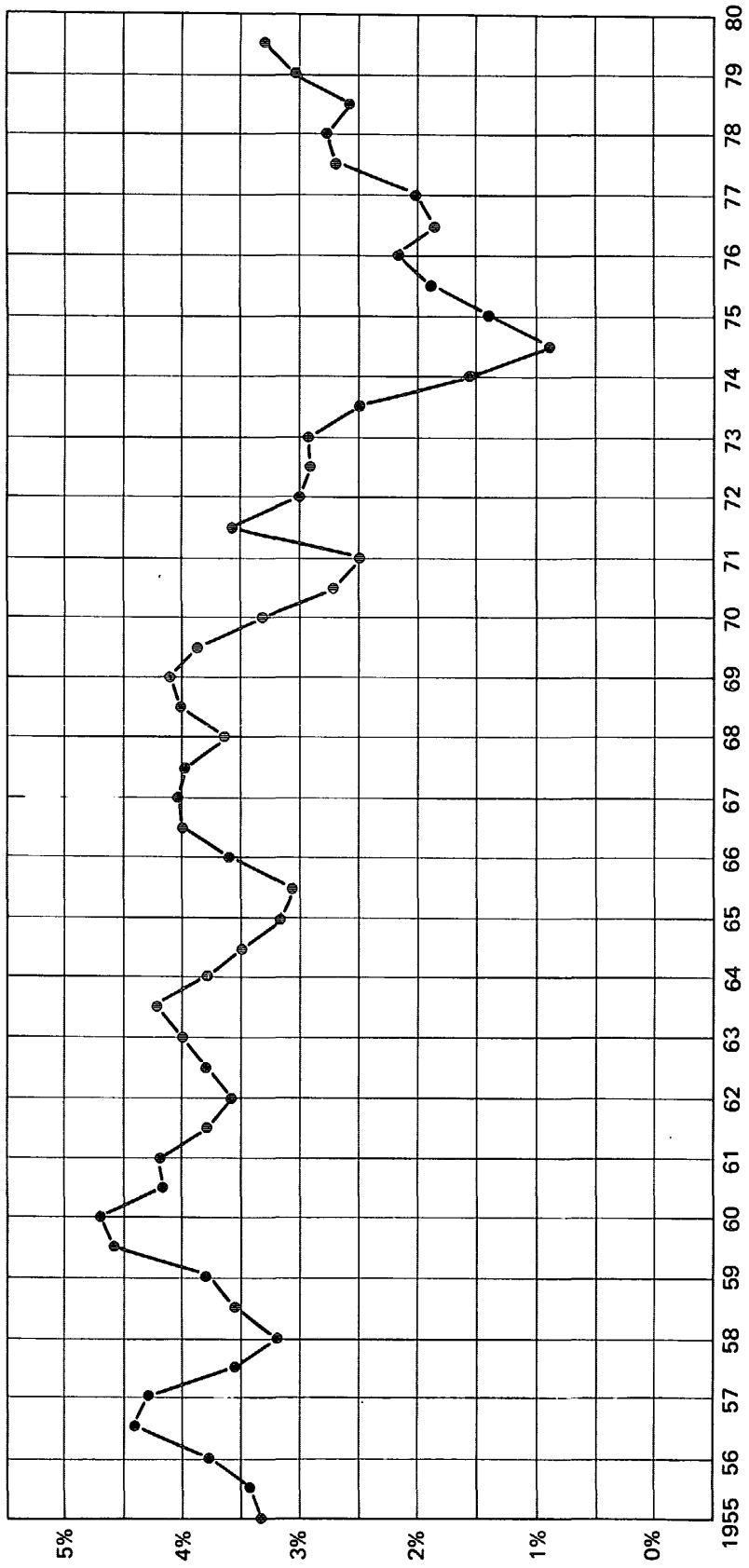


Obviously, this wave has a short-term business cycle in it which is clearly indicated in the changes of the sales profit ratio in most industrial sections in Japan. Chart 2 illustrates them.

Chart 2 shows changes in the ratio of profit to sales since 1955 according to the semi-annual financial reporting method adopted by major business enterprises in Japan. The reason why I chose the year 1955 as a start is that experts see Japan nearly completed its post-war reconstruction and made a new start for autonomous development in this year.

1) W.W. Rostow, Kondratiff, Schumpeter, and Kuznet—Trend Period Revisited. (The Journal of Economic History, Dec., 1975), W.F. Stolper, Fiscal and Monetary Policy in the Context of Development; Schumpeter Approach, 37th Congress IIPF 1981. Also, Keith Trace examined the economy in the 1980's using this wave at Management Education's Conference, August 1982: The Economy in the 1980s—Are We in the Depression Phase of a Kondratiff Long Wave? Takashi Shiraishi, *Keizai Kakushin to Kyoso no Sekai* (International Competition and Technological Innovation) 1976. Tokyo.

Chart 2



Two things can be seen from the chart. One is that the ratio fluctuates in a rather regular orderly manner. In other words, therein lie short-term cycle waves with each cycle lasting 3–4 years. It would be three and a third years on the average. These short-term cycle waves occur due to inventory investment movements. In Japan, they result from moneytightening caused by the governmental monetary and fiscal policies, because without these policy measures, a rise in business activities would result in an increase in imports, and a deficit in the international balance of payments. Governmental policy interventions for this purpose are distinctively seen in the waves, especially in the early years between 1955 and 1979.

The other you must have noticed from Chart No. 2 is that the ratio fluctuates quite differently before and after 1965, or the first half and second half of economic growth period which I explained before. That is, in the period from 1955 to 1965, there are three distinct mountain-shape waves. It means that there were large differences in the profit/sales ratio between good years and bad years, and in general, it fluctuated at the level of 3.8% on the average. But, just where the Kondratiff wave reached a peak, the short-term cycle waves represented a plateau with a much smaller range of fluctuations although they maintained a cyclic trend. In Japan, we call this a 'Plateau Active Business Period'. But the picture changed completely after 1970. Although it still maintained a cyclic trend, the average level went down to 3% in the period 1970 to 1974, and further plunged to 2% in the following several years. There was certainly some improvement during 1979–1980, recovering from the bottom in 1975, but it did not go up as high as in the period 1955–1970. Perhaps this trend can be interpreted as the result of the Oil Shock and the movements of corporates' recovery after the Oil Shock. But, if we look at this trend in a much longer perspective, say starting in 1955, I think it should be explained by some factor other than oil shock, that is the 'Decline Period' in the Kondratiff wave to be resulted from the slowing down of technical advancement.

If we follow the above view, Japan is now at the bottom of the Kondratiff wave, but at the same time we can say that a potential rise in the next wave is being made. We certainly feel it in many developments around us: development of alternative energy sources, advancement of power-saving technology such as the use of robots in production process, wider use of computers as reflected in their penetration into home and the diffusion of personal computers and optical transmission. All of these are new areas of innovation which are absolutely different from what we had before. The book entitled "The Third Wave" written by Alvin Toffler was on the best-seller list a little while ago in Japan, and a special mini-series of interviews and talks with the author were broadcast by a nationwide TV station, NHK. Personally, I don't think that such social changes as described by A. Toffler would all occur in Japan. For instance, Electronic cottage would not be generally accepted in Japan in view of the Japanese social climate and corporate structure. But now in the decade of 1980's, new technologies are being developed in the form of 'soft-ware application' of existing technologies; information forecast system, re-cycle system, labor-saving system, life science and medical information system, and new transportation system – all of these are expected rapidly develop during the 80's, and a forecast is made by the Japanese government offices such as the Ministry of Inter-

national Trade and Industry, and the Technology Development Agency that “gregarious survival of innovative corporations” as termed by Professor Schumpeter will probably be realized in the 1990’s.

## *2. Absorption of Innovation and Japanese Corporate Management*

Next topic is how the wave of technical advancement has been formed in Japan. I would like to outline not only how technology has been developing but also how the innovation of business administration has been made.

Japan actively introduced innovation from overseas advanced countries and formed the foundation for economic growth during the 10 years from 1955.

When Japan was under the military occupation by the United States after World War II, we were impressed and even refreshed by American made consumption goods and American way of administration. It was partly because inflow of foreign cultures was suspended and our consumption life was completely isolated from the West during the war that we showed strong interest and curiosity in whatever we saw and heard during the postwar period. Since we barely managed to cope with starvation especially for several years immediately after the war, we could not at all afford to buy western products. As the Japanese economy gradually recovered, not only consumption became active on a survival level but the potential demand for brand-new western products became real. Reconstruction of industrial production on the initial stage was limited to the expansion of physical facilities with a use of old technology. However, modernization using new technology was gradually proceeding.

During the decade from 1955, we actively took in innovation on the economic base of enhanced income level, lowering Engel figures and rising savings ratio. What I would like to point out in connection with this period is the fact that observation teams were sent to the United States. The Japan Productivity Center which was established after the war dispatched various observation teams, separately formed by industry and specialty field, to the United States and Europe, with cooperation of ICA of the United States. This, I think, was a very significant project. Each team consisted of 12 people including scholars, top corporate management, and leaders of labor unions from wide varieties of industries and specialty fields. As Table No. 1 shows, 174 people were formed into 15 teams in 1955, 307 people into 27 teams in 1956, 430 people into 43 teams in 1957, 652 people into 62 teams in 1958, and further increased gradually year by year. In total, 4,471 people in 430 teams were dispatched during the eight years from 1955 to 1962. Most of them went to the United States up until 1960. In 1962, their directions were almost halved between the United States and Europe. They conducted detailed observations, by industry, of a wide range of aspects of the United States and Europe including production techniques, corporate organization management, management-labor relations, management policies and principles, market, and sales. During the four years from 1955, the inspection teams were formed by top management in key industries, but after that, there were a growing number of teams comprising members from various regions and from medium- and small-sized enterprises. The names of the observation

teams dispatched in the first year are shown in Table 2 below:

Table 2.

The Iron & steel industry observation team
The Automobile industry observation team
The Observation team for improving business administration
Top management observation team
Cost control observation team
The Electric machinery industry observation team
The Agricultural industry observation team
The Shoemaking industry observation team
The Conveyance (transportation) industry observation team
The Automobile parts industry observation team
The Multi-purpose industrial machinery observation team
The Electric works observation team
The Life insurance business observation team
The Marketing observation team
The Construction observation team

Table 3.

Observation Teams Dispatched Overseas by Japan Productivity Center

Year	Number of people dispatched	To U.S.A.	To Europe	Number of teams	
				to U.S.A.	to Europe
1955	174	174	0	15	0
56	307	307	0	27	0
57	430	430	0	43	0
58	652	604	48	58	4
59	680	620	60	62	6
60	821	639	192	71	13
61	853	673	180	68	19
62	554	295	259	24	23
Total	4,471				

Source: Business Reports, Japan Productivity Center

As you can see from this example, many industries were covered and observation was conducted on various aspects including technology and management. The observation results were not fragmentary. Rather, they were brought to Japan as a package of workable information on things American ranging from corporate strategies and administration



to its social environments. It is often said that a technological transfer plays an important role for the economic growth in the transferred country. In the case of Japan, we must have learned a lot more by visiting advanced countries and directly learning from them. Nearly 4,500 people were dispatched in the eight years under the Japan Productivity Center's project alone. Its effect must have been beyond description. With regards to the observation in Europe, it is especially worth noting that in 1959 a technological observation was conducted mainly on the iron and steel industry, and in 1960, the chemical and machinery industries were chosen as target.

With regards to how Japan absorbed and internalized the innovation which it had learned on these observation trips, I would like to introduce to you three aspects which are concerned with typical examples of Japanese way of corporate management. First, Japan started to develop as a democratic nation through reform of its social system after World War II. Since it was rather a rapid reform made in a socialistic way, questions were raised as to whether democracy would ever be able to make a stable society and what capitalism would be like in Japan. And top management of Japanese corporations were not confidently aware about how corporate management should be conducted under democracy. In addition, since Japan was long isolated from the western society during the war, most Japanese knowledge about the United States mostly concerned the dark aspect of its capitalism which had caused the World Panic. In this respect, the direct observation of the post-war American society by Japanese scholars, top corporate management and leaders of labor unions must have been very useful for them in having the right knowledge about the United States and confidence in the free economic system.

Secondly, the efficiency principle was introduced into Japanese corporate management as a product of learning from corporate strategies of the United States. Attention had been paid to efficiency also in Japanese profit-seeking corporations. However, in this country, other concepts had dominated in corporate management. It was considered a taboo in the Japanese value concept then to talk about efficiency openly in public. But, it is a fact that Japanese business leaders gradually became used to the American way of management principle which takes much stock in efficiency in corporate management. It was also a benefit to have learned that American corporations make much of "Opportunity Loss" while Japanese business leaders respect "Actual Loss". Also with regards to organization structure, in Japan, decision-making authority had been mainly in the hands of top management under centralized organizational structure, and authorities and responsibilities had not been formally and clearly assigned to middle management and general employees. This was adjusted with introduction of 'division system' around 1960.

Third, we learned that there were two major factors behind innovation and corporate growth in the United States; R & D, and management training. Although Japan could not afford to spend a sizable amount of money on R & D in those days, major Japanese companies directly observed the splendid R & D facilities in the United States and became keenly aware that high productivity and innovation over there came from these factors. The expenses and the number of people engaged in R & D in Japan started to rapidly increase in 1959.

Table 4.

Year	R & D Expenses (¥million)	Number of People engaged	Average annual rise in private plant invest	Heavy & chemical industries in total industry
1955	14,309	7,107	↑ 26.5% ↓	51.5%
56	15,646	7,534		58.5%
57	19,921	8,485		
58	27,268	10,061		
59	32,565	11,451		
60	95,615	42,938		61.2%
61	124,374	43,666		
62	163,848	47,035		
63	179,422	54,909		61.7%

(Statistical Survey of Researches, Bureau of Statistics, Office of the Prime Minister, 1963)

The lessons learned in America resulted in a significant change in management training, especially in 'in-house training'. Each Japanese company not only conducted democratic education for employees under instructions from the General Headquarters of the American Army, but also conducted various trainings for self-enlightenment. CCS (Civil Communication Session) was provided for top corporate management, MTP (Management Training Program) for middle management, and TWI (Training within Industry) for supervisors. The differences among these programs had also been learned in the observation visit to the United States. (Source: The Report of Industrial Training and Productivity, 1957). This Report indicates that Japanese personnel management "tends to be carried out under the family-patterned company system" and that Japanese management are characterized by 'Maternal Protection' and 'Paternal Discipline'. The issue at stake was whether productivity would be improved by these methods. Some other observation teams, which had seen American management education placing a strong emphasis on developing managers' total administrative ability and effective corporate strategies, keenly felt the need to develop education projects which would excel the conventional training method conducted within the sphere of personnel management. But in actuality, specially trained instructors were required to realize the new type of education, and its adoption was not very easy. One of the difficulties was that top management of major Japanese corporations were hesitant to be trained themselves although they were eager to train their people. They thought CCS, MTP and TWI were something like technical training for rank and file engineers. However, corporate leaders who joined the observation trips gradually changed their ideas as they saw graduate students and corporate middle management people aggressively train themselves in business schools at American universities. Keio University which established a close tie with Harvard Business School around 1955, has been holding Keio-Harvard Executive

Seminar in Japan, and sending its faculty members to Harvard so that a similar education might be available in Japan with the use of 'Case Method' under Japanese professors' instructions. I was one of those sent to that Seminar at Harvard in the first year. As a result, major corporations learned a lot by inviting well-trained instructors, and the case method education began to rapidly widespread in Japan since 1960<sup>2)</sup>.

In looking back our post-war history, the new development of Japanese economy in the late 1950's was brought about by our direct exposure to the United States, or in other words, by innovation introduced from the United States as a result of direct observation and experience of American management by Japanese corporate leaders. We digested it as a refreshing element in the Japanese climate and internalized it in ourselves in various fields of technology, management administration, organization management, management strategy, and education. In a way we imitated the originals, but in another way, we demonstrated our unique skill to apply new, foreign things to the Japanese business and social climate.

### 3. *Innovation Taken into Export Industries*

On the groundwork laid in the late 1950's, economic growth was pursued by the aggressive taking of new technology from abroad. Chart 3 illustrates the rapid economic growth achieved during the period, 1950–1969. Technology was more actively introduced especially since 1960, and the number of new technologies introduced began to distinctively increase since Import Liberalization was adopted in 1968. Most of the technologies taken during 1950's were from the United States.

After 1960, an increasing number of technologies were coming from West Germany, Switzerland, the United Kingdom, and France. Most of the technologies taken were of course newly-developed ones. However, in the late 1960's, the ratio of new technologies

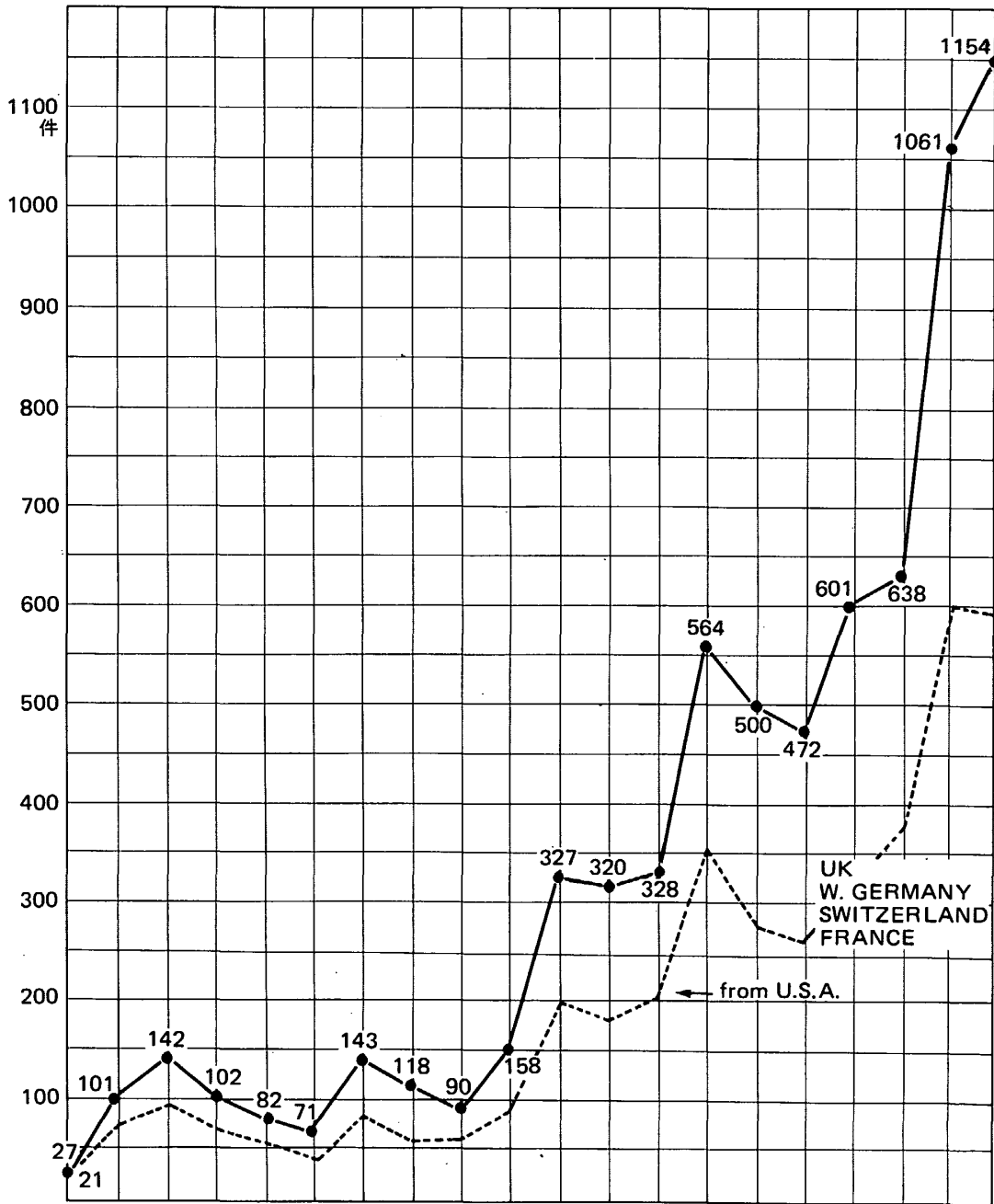
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2) (On the other side) Around this period, numerous institutions of business management were established in Japan. They are study and research institutions of management, management training institutions, schools of business and so on. Among them are big institutions organized by leading companies in various industrial fields: Japanese Industrial Training Incorporation for workshop and Japanese Industrial Consulting Incorporation are well known in the business world. They have been developed by zealous organizers and expert trainers who were sent from training and education departments of firms those leading corporations. Also the Japan productivity Center, I mentioned before, has held top management seminars almost annually. These seminars were introduced by famous leading executives who have had strong influence on the business circle in Japan. Also sometimes the Minister of Finance, the Minister of Trade and Industry and well-known scholars were invited as guest speakers at these seminars.

In other words, we can say that the decade from 1955 was epoch making in business world, during which period management organized themselves so as to develop new management techniques and skills which would enable them to well accept new production technology.

Since 1965, many leading companies have been moving towards the establishment of an in-house education system where executives can obtain so-called made-to-measure training specifically designed for their own environments and climate. In general, they sent managers to outside educational institutions for training, while training them in-house. Gradually year by year the latter has become a general way of education and training in big businesses. As a result, outside educational insitutes have met servere competition.

Chart 3 Imported Technology



Source: Science and Technology Agency, 1969

began to decrease, while more and more improvements and grade-ups of the already-introduced technologies were made. We can notably point out that these improvements and grade-ups were combined in a greater proportion with a similar or the same types of technologies then available in Japan. The ratio was 44.2 per cent in 1966, and it was increased to 71.8 per cent in 1969<sup>3)</sup>. These figures were kept rather low reflecting the fact

3) Science and Technology Agency, The Report of Foreign Technologies Taken. 1969.

that (1) technologies were not fully utilized due to their different nature, (2) there were some problems in users' credit, (3) and there was an intense technological competition among companies, although Japanese companies actively developed R & D, and they were able to produce their own technology as advanced as imported ones.

These imported technologies raised economic growth rates in the metal, machinery, and chemical industries, and brought about a 'grade-up' of the Japanese industrial structure. But conventional, old-types of products still continued to be exported in the early 1960's, which kept Japan's international competitiveness at a rather weak level.

In the period 1965-69, however, export increased at a rate of 19.34 per cent per annum. This increase was made possible partially by the active world market condition in those days. But as more major elements which improved our international competitiveness, I would like to point out the following: (1) new types of products were developed in those years as to satisfy the new growing demand, and mass production method was successfully introduced, (2) a lot of new plants with high productive efficiency were built, and (3) sales networks were expanded; marketing and PR method were improved; quality and functions of products were upgraded; better designs were developed. Especially new investments in plants increased at a rate of more than 20 per cent per annum during the four years from 1965. Most of them were a sizable amount of investments in new innovative technology.

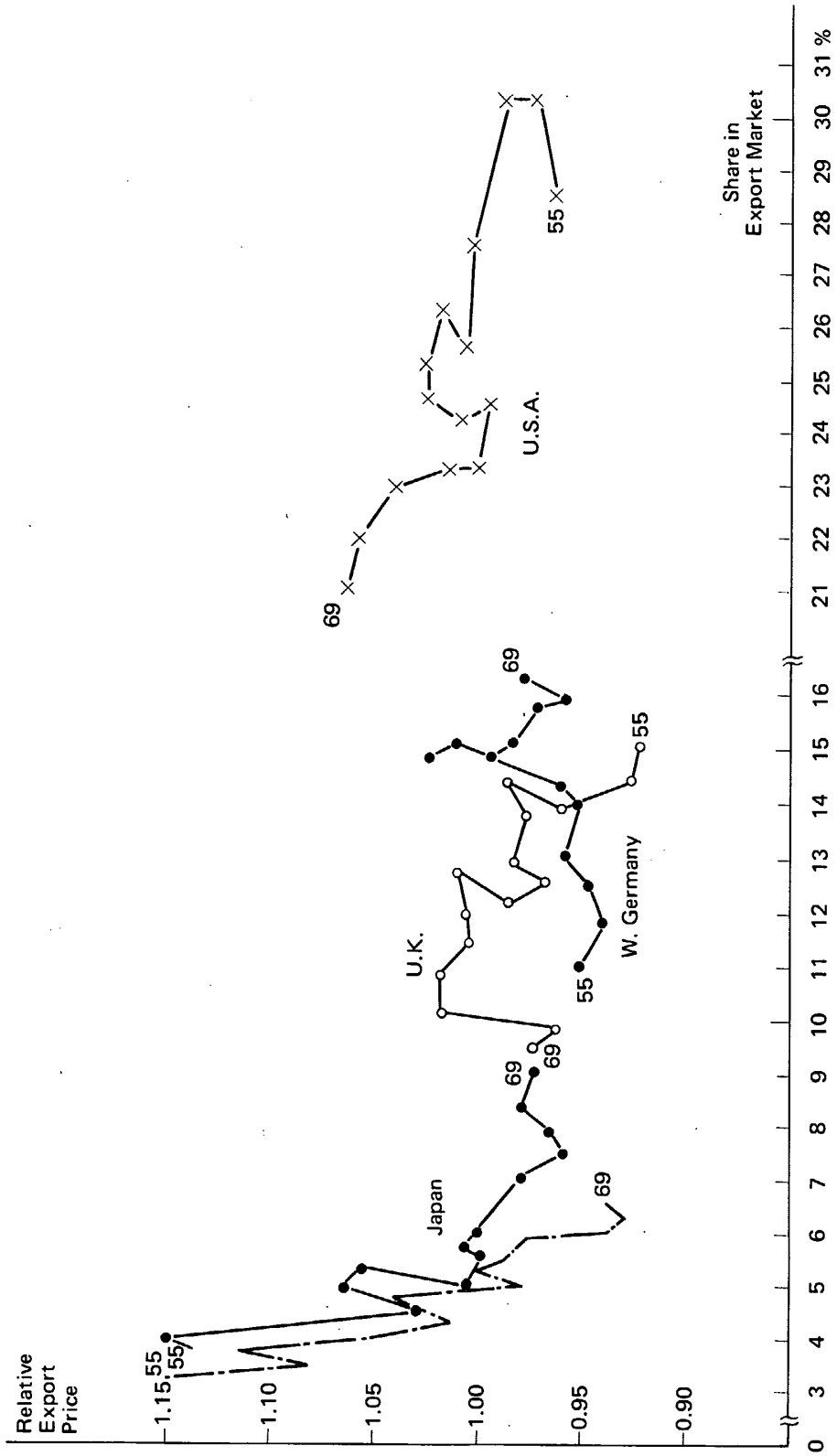
A statistical survey on the link between Relative Export Price and Share in Export Market, released from the Ministry of International Trade and Industries (MITI) in 1967, is illustrated in Chart 4.

The vertical line shows the relative average export prices in Japan, Italy, West Germany, the USA, and the UK as compared to the average of 14 industrial countries in 1963. The horizontal line shows those five countries' shares in the total export volume of the 14 industrial countries. This chart illustrates Japan and Italy increased their export shares as their relative export prices went down during 1955-1969. On the other hand, west Germany increased its share even with rising export prices, whereas the United States and the United Kingdom decreased their shares as their relative export prices went up. We can safely say that export prices delicately worked on international competitiveness. However, West Germany was an exceptional case. It mainly exported technologically advanced products, which also served as a factor of competitiveness. Such a 'non-price' factor thus drew our attention.

The following table, prepared by the MITI, illustrates what factors contributed to the increased Japan's Export during 1960-68.

According to Table 5, the export increase arising from improved international competitiveness accounted for 58.5 per cent of the total export increase during 1960-64. Of the 58.5 per cent, 40.4 per cent were by price factor, and the remaining 18.1 per cent were by non-price factors. In the period 1964-68, the increase caused by enhanced international competitiveness accounted for 38.4 per cent and the remaining by increases in world demand and market product advantages. The price-competitiveness factor accounted for only 3.8 per cent. It indicates that non-price factors worked more significantly in the improved competitiveness, accounting for 34.6 per cent. It should be

Chart 4



Source: MITI 1967

Table 5. Factors of Increased Exports (%)

Year	Increase in world demand	Market advantages	Products advantages	Improved Int'l. Competitiveness		
				Price competitiveness	Non-price competitiveness	
60 ~ 64	57.4	Δ10.7	Δ5.2	58.5	40.4	18.1
64 ~ 68	47.6	10.8	3.2	38.4	3.8	34.6
60 ~ 68	50.4	4.5	0.8	44.3	14.5	29.8

Source: OECD statistics, IMF-IFS. (Economic white paper, 1970, MITI)

be pointed out that world market environments served very favorably to the increase of Japan's export. Among them was the rise in the world demand. The next table shows how each factor helped increase exports of TV sets, automobiles, and iron and steel products during 1961-68. The export of these items enormously rose in later years.

Table 6.

Factors 1961-68	TV	Automobiles	Iron & steel
Increase in world demand	7.3%	30.5%	18.3%
Market advantages	15.0	15.0	3.6
Improved int'l competitiveness	77.7	84.5	78.1

We can safely say that improved international competitiveness was the major factor for export increase as far as this product group was concerned. Of course, some export items such as textile products gradually lost their competitiveness since 1969 because of the active entries of Korean, Taiwanese and Hong Kong products. The international competitiveness of heavy industry products such as industrial machinery, plants, automobiles, and ships also weakened due to the Dollar Shock which occurred after 1971, price-hike of imported crude oil since 1973, as well as the wage increase since 1974 which greatly exceeded the growth rate of productivity.

#### 4. Move toward Internationalization of Corporations

Increases in export in the 1960's meant a lot to Japanese economy and corporate activities in that, they pushed up 'the balance of payments ceiling' which had been the bottleneck to Japan's economic growth, so a 'stop & go policy' was no longer required. This made it possible for business corporations to set up long-term plans for investments.

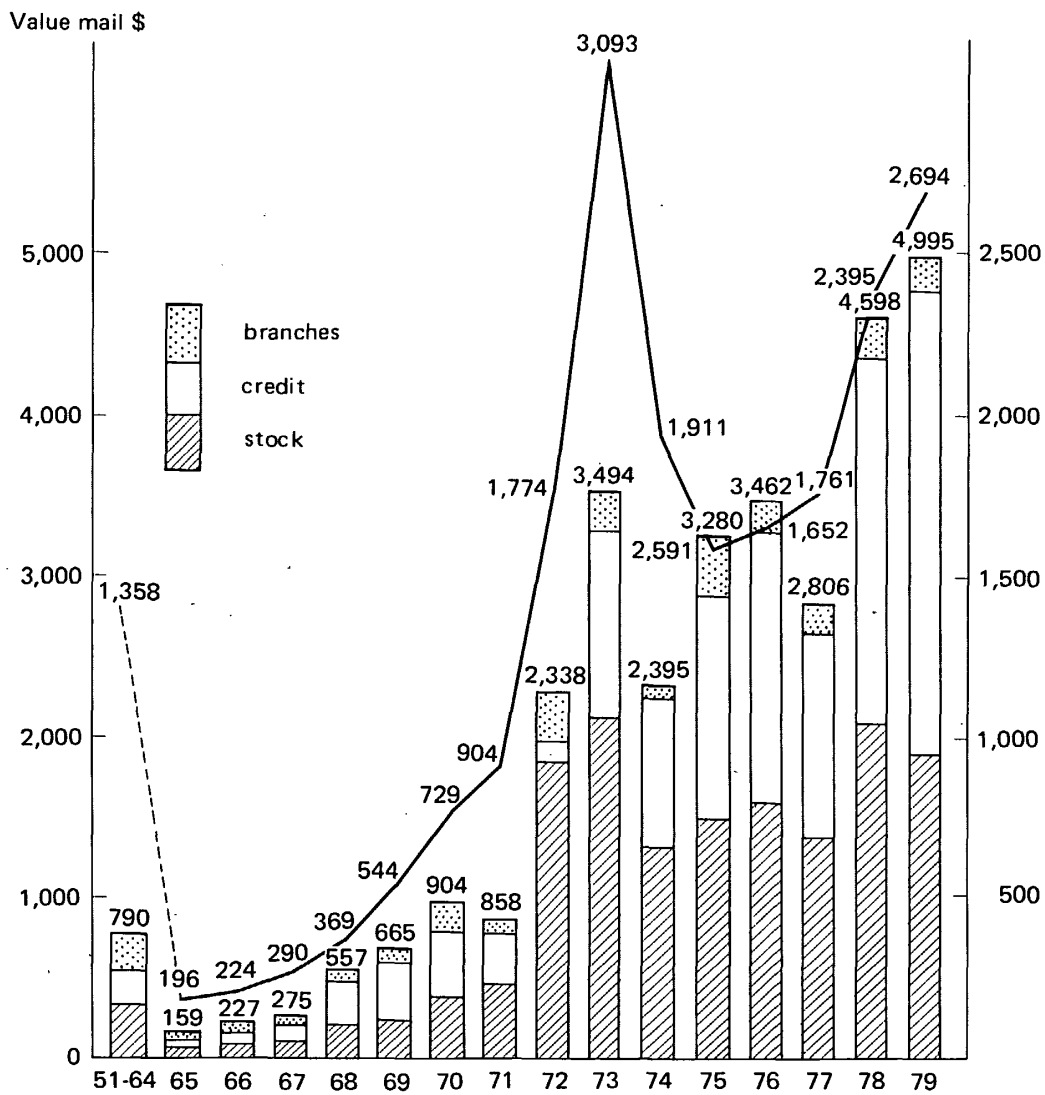
In such a development, as a corporate annual production plan was set up based on the export increase, it became more important and indispensable for business manage-

ment to maintain and further increase the existing export growth rate. As a result, manufacturers began engaging in direct export, exploring potential markets and developing qualities and designs to meet the market needs. Rather than relying on trading companies for sales overseas. In this export growth period, 'Export Division' was substantially reinforced in major Japanese manufacturing companies. This may represent a move toward 'the Second Step in Internationalization of Corporations' as termed by Professor R.D. Robinson<sup>4)</sup>.

This move necessitated much more overseas activities of corporate people, and business enterprises increased the number of employees to send overseas. In addition,

Chapter 5

Changes in Japan's Direct Overseas Investment



4) R.D. Robinson, International Management, 1967 also, Beyond the Multinational Corporation, 1972.



Japan's overseas investments also rose during this period; its increase was largest during the period from late 1960's to 1972. Chart No. 5 shows the yearly changes in Japan's direct overseas investments.

The above chart indicates that Japan's overseas investments peaked in 1973, and then decreased slightly until 1977 due to the Oil Shock, but went up again thereafter.

Japan's strategies for overseas markets were directed at increasing export from Japan and making overseas physical presence of Japanese corporations. However, there were many difficulties facing Japanese companies starting business overseas, which resulted in a lot of failures. In my observation, those failures were caused by the following eight factors:

- (1) Lack of preliminary research;
- (2) People sent overseas were not experienced enough as managers to fulfill overseas assignments;
- (3) Tardiness in entering overseas markets;
- (4) Financial shortage of the parent company;
- (5) Instructions based on the unique Japanese craftsmanship did not work well in overseas locations;
- (6) Product planning did not coordinate well;
- (7) Lack of understanding of government-related information;
- (8) Aggressive entry of competitive foreign products

I had a chance to make an observation and research on local operations of Japanese companies in the United States, Latin America and Western Europe in 1970. I found they had been facing the following difficulties, especially in developing countries:

- (1) Inefficient management due to the small size of, and small capital invested in, the local operations:  
Since most of the Japanese companies doing business in developing countries were rather big, they were not able to enjoy 'the scale advantage' in their small-sized affiliates they did in Japan.
- (2) Difficulty to locally raise working capital; It was (and it is) a rule for Japanese companies, starting business abroad, to procure funds for plant expansion from Japan and to raise working capital from local financial sources. But the Japanese companies were not able to raise sufficient funds locally either because the local financial market did not work well and/or because local banks had only a small amount of working funds.
- (3) High cost and low quality of parts and semi-finished products purchased from local companies;

As you know, Japanese companies have their own subsidiaries, affiliates, and subcontracting firms. They are called 'companies working hand in hand'. The parent companies provide good financial support and technical instructions to their affiliated companies, whereas they make very severe requests concerning the quality and cost of the raw materials, parts, and semi-finished products they purchase from their affiliated companies and subcontractors. In their overseas plants, however, it was most likely that they couldn't realize the same thing

as in Japan.

(4) Inefficient sales in a small-spot, detached market;

In Japan there are wide-spread 'Mass Markets' in its small, highly populated land. If you have come to Japan and taken a trip by train, you must have seen so many houses all along the railways. The population in Tokyo is well over 10 million. Sales place and people's life are located very close to each other. I would call a market like Japan 'wide-area market', while the one in a foreign country with wide land, scarce population and remote detached towns could be called 'small-spot market'. Therefore, Japanese companies found it very inefficient to make sales activities in such a 'small-spot market' in a developing country.

(5) High labor mobility

In Japan, 'the life-time employment system' is adopted in most major corporations. I will explain the Japanese employment practice later. Because of this system, it was very difficult to accommodate the two-to-three year labor turnover which is common in foreign countries.

(6) Difficulty in obtaining information, and lack of scientific research on business:

In view of the growing dependency of Japanese business management on the data analysis of business environments and markets, Japanese companies would naturally suffer in overseas area, from the lack and low credibility of the local data. Japanese managers of foreign affiliates thus spend a hard time in obtaining workable data often requested by their parent companies to be used as a base for policy and strategy making.

Japanese companies had to develop workable overseas strategy facing such difficulties, and there arose an increasing need to train people to be sent overseas.

The Japanese business activity entered its new phase during 1972-73, with the move toward internationalization of Japanese corporations.

It was then actively argued in Japan how we could promote the corporate internationalization, with the notion that it was imperative that it would go toward 'multinationalization' as seen with U.S. companies. A lot of books on multinational enterprise written by American scholars were translated into Japanese. Groups of scholars on international management were invited as lecturers for the international education (OR training) program conducted in each company. But in reality, most Japanese companies had little idea about what internationalization was and what they should aim at to be really internationalized, although their export ratio to total sales was increasing and they had manufacturing and sales operations in their overseas locations. Despite such a fact, almost all major Japanese companies provided educational programs for internationalization. This kind of education has become more active since 1973.

In those days, I held a seminar on 'Company's In-house Education for Internationalization' at a place called Management School where people in the education and training department in the business world gathered for study. It was amazing to know that people from 79 leading Japanese companies attended the seminar. This fact indicates how strongly interested they were in the subject. I noticed in the seminar that some of the participating companies made an early start on this kind of education themselves, having

well-organized educational programs, and others were 'late comers' which were about to start a similar education. I also learned that the purpose for the education was not identical among those companies, and their management backgrounds were also varied. There were so many kinds of subject matters and issues presented in the seminar that it took us two years to prepare a report covering all of them.

I personally do not identify internationalization of Japanese companies with multinationalization as many international management experts and journalists do. In 1975, I wrote an article in the Mainichi Daily News, entitled "Will Japanese Go Multinational?". I expressed my view in it against the idea that Japanese companies would immediately follow the same growth pattern as U.S. corporations just because they grew by introducing American corporate strategies. I admit that we brought in such decentralized authority system as 'Division System' from American way of management. However, decision-making authority is still in the hands of top management of centralized organization in most Japanese companies. Although the profit of each division is closely supervised and controlled by the top management, the Japanese top management would not fire a division head even if the profit of the division goes down. The employees are paid the same bonus among different divisions, with an exception of trading companies. In addition, Japanese top management would seldom decide to sell off a division just because an opportunity loss is expected according to an outlook for the division's profitability by DCF method. It should be therefore noted that although Japanese division system looks like American one, the ideas and management method are completely different from each other. In the United States, the move toward multinationalization is theoretically explained mainly based on "The History of Development of the Division System" by Professor Chandler. This kind of evolutionary theory approach might not be applicable to explain the Japanese case.

But, in general, internationalization of Japanese companies was in the direction toward multinationalization, and most lecturers stressed the hurdles Japanese companies would have to overcome in order to become multinational. Especially, top Japanese managers working for foreign affiliates contended that Japanese companies were extremely ethnocentric as Professor Perlmutter put it, and stressed the need to change their mind to turn geocentric. They also pointed out that some functions of Japanese companies were quite geocentric while others remained ethnocentric<sup>5)</sup>. Of course, some companies had already gone multinational or had a multinational nature within themselves; they were very proud of themselves and were confident of doing business in the United States and Europe. But, most others were doubtful of introducing multinational elements into their business principles; some companies which had gone abroad as 'forerunners' were withdrawing from their overseas locations. It was not clear to most Japanese companies what internationalization was all about.<sup>6)</sup>

Under such a situation, we had to deal with the following aspects in any event in company education:

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5) H.V. Perlmutter, *Tortuous Evolution of Multinational corporation*, 1969. *The Multinational Firm and the future*, 1972.

6) Takashi Shiraishi, *Direct Investment and International Economic Order*, Keio Business Review, No. 16, 1979.

The first one was cultural gap between Japan and other countries. We had been aware of this problem since long before, but it became an immediate major problem as more people were sent abroad and as more companies set up manufacturing and sales operations in other countries. It gave rise to various conflicts between the Japanese and local people, and caused some information gap between the Japanese local operations and their head offices back in Japan. Such troubles urged us to seriously cope with the cultural gap issue. Obviously, this problem could not be easily solved only through a company's educational program. And in fact, the Japanese people improved their understanding of cultural gap as they broadened experience in other countries through increased international personnel exchanges. As a result, we learned that Japan should understand the cultural differences first. And it was emphasized that we should know Japan is a country with highly unique culture. This gave the Japanese an opportunity to review their own culture in an open mind. People sent overseas and those once in charge of plant operations in other countries also point to that advantage.

The second is a language problem. Japanese companies have been making a great effort to provide an effective language training in their education programs. The actual problem concerns the people to be sent abroad who begin to undergo language training in a very short period of time from the announcement of the assignment to the departure. This means they can not improve their foreign language ability required to serve as overseas managers. It is therefore necessary for business corporations to provide language training on a regular basis. Most people in charge of company education agree that they should have separate language trainings: one for the employees being sent overseas in the near future, and the other for those having a longer period to prepare before announce-

Table 7. Elements Required for Foreign Assignments

Knowledge, abilities, & skills	Personality
Knowledge about management; Knowledge about entry of other competitive companies; Knowledge about products & goods; Knowledge about int'l business; Knowledge about development of international politics;	Aggressiveness; Cooperativeness; Sensitivity; Flexibility; Creativity; Emotional Stability;  Leadership; persuasiveness; Organization ability; Patience; Adaptability; Ethics; Sense of duty
Knowledge about local culture; Foreign language ability; Decision-making ability; Management ability & Job ability; Other educated elements & common sense	

Source: "Internationalization and Company Education" Japan Management School, P. 40

ment of foreign assignments.

The third is the adaptability of the employees in local operations. Table 7 shows elements which appear to be required for foreign assignments. The elements are classified into two categories; one relates knowledge and skills which can be improved, and the other concerns personalities which are hard to change. Only the former are to be taken up in company education, and the latter should be taken into consideration in choosing people to work abroad.

Education for internationalization should be closely linked with the management of the personnel sent abroad. Rotation or change in assignment at a certain interval is especially important. An empirical view with regards to working efficiency is "people will learn to get used to the overseas assignment in the initial three years, after that the learning curve will level off with a peak in the fifth year, and then it will go down." Rotating people at an interval of three to five years is necessary so that they can narrow the gap between them and their colleagues in Japan, and easily adjust themselves to the Japanese climate after returning home.

This personnel management practice seems to have invited a foreign criticism that Japanese people go back to Japan soon after they get used to the local climate. Nevertheless, rotation of foreign assignments at a certain interval means a lot to Japanese companies adopting "life-time employment" and seniority systems. Under these systems, for instance, if people stay with foreign assignment for a long time, it is possible that they would lose a chance for promotion. But with Japan's growing overseas activities in recent years, additional people have been needed at each overseas location. It is therefore possible that the "out-in" rotation will no longer work well and the need will arise for more "out-out" rotation. In addition, education of children is posing a serious problem among the employees working overseas; they have to leave their children as well as their wives in Japan when their children are preparing for college entrance examinations. In fact, many are obliged to live in foreign countries alone. The result is that once they experience such hard lives, they will not prefer foreign assignments so better than they did before. It can be said Japanese characteristics are indicated also in these aspects. Some Japanese Universities have recently begun accepting those young people who have long been to foreign countries, under the admission criteria different from those for general other applicants. Among them is Keio University.

In any event, education programs for employees to be sent abroad should not be limited to mere training or skill-development ones. Rather, I would like to point out, that they should be linked with company-wide personnel policies, and the Japanese management method has an important implication in itself which relates to the social system.

### *5. Outlook for Future Japanese Economy and Management*

1980 was the year of adjustment against the second oil crisis. The economic growth rate in real terms was 3.8 percent, most of which was realised by increase in export. Individual consumption expenditure and investments in housing decreased, while export and investments in plants by major Japanese companies remained active. In 1981,

domestic demand gradually improved, and business enterprises started to take aggressive steps for a further technical innovation. But as you know, international economic friction became very large due to the rapid increase in Japan's export. Currently, Japan's business conditions have been forced to remain very stagnant because of the high interest rate policy of the United States.

It is certainly our immediate goal to keep business as active as possible by continuing price stabilization under the present conditions. However, many businessmen are aware of various problems which should be solved by much longer-term measures.

The first problem is how to take new technology or how to establish such a system as can well accept new technology while closely watching future technological advancement. Each company has reinforced its information systems department as a step toward this move. It is a generally held idea among Japanese companies not to be late in developing foremost technology. The Japanese government is of opinion, after learning a hard lesson from the problem of economic friction between Japan and other countries, that Japan should make a technology-oriented approach in the future, unlike the trade-oriented one in the past. In this connection, a group of key technology development goals has been set up to be achieved by the year 2000. They are classified into the following four categories: (1) Electronics, (2) Energy, (3) Biotechnology, and (4) Systematization and Software. The point at issue is how the technological development will change the industrial society in the future. Various related studies are being conducted. And for this purpose, at least business enterprises are required to develop needed technologies and markets, and secure new labor markets. The employment problem often becomes an issue because technological advancement tends to direct toward labor-saving fields. But in general, employment is likely to increase not only in the data processing and information service industries but in the health service, electronic newspaper, electronic postal service and education industries. It is therefore highly possible for the work force to be accommodated if a structural change takes place successfully. I think the solution of a problem of unemployment arising from technical advancement depends highly on the society's ability for structural change; this problem could be solved unless new technology is adopted by industry too rapidly. And if people in general are very conscious of this move, they will seriously consider their own education and acquisition of skills, and even challenge new jobs with pioneer spirit. A smooth shift to a new industrial society could be made without creating serious frictional unemployment. What I am curious to learn is how the traditional Japanese culture and sense of values would change in the so-called information society (INS).

Second, Japan is rapidly heading toward an aging society. The mandatory retirement age is being raised under the 'life-time employment' system. As for the employees' productivity, various education programs are being reviewed in each company. But, as I mentioned before, middle and old age workers need to be considered in relation with the future technical developments. The senior people can deal with new changes by using their past experience and knowledge for the time being. For, it is these people who have grown their companies by aggressively accepting new technology developed after World War II and using them in the Japanese climate successfully. In this light they are expected

to play in the future. It will also help secure an effective demand in the society if aged people remain employed and get their income. Japanese companies, however, have to think about two problems in their business strategy. One is positions for aged people within an organization to be created as a result of raising of retirement age. It would be a very serious problem under the Japanese personnel management system which puts much stock on seniority. A position in a company serves to be a status symbol in Japan, which is an incentive, more important than salary. The point is how to cope with the difficult condition in which companies should secure worthwhile positions for increasing aged workforce. The other problem is how the market would change with the increase in aged people in the entire society. In general, the conventional market place has been for consumers consisted mainly of young people and young married women. If market has to serve more for middle-age or old-age customers, it will be an important marketing strategy to correctly grasp the changes in the consumers market.

Japanese business management is now on a turning point for a move toward a new industrial society. Therefore it is expected to face many important problems in creating a new industrial society during the next 10 to 15 years.