STUDY OF JAPANESE MANAGEMENT DEVELOPMENT PRACTICES

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B. Managerial Roles at All Levels
1. Department Head
2. The Department Head as the Key Man
3. The Deputy Division Head as a Middle Middleman
4. The Division Head as the Top of Middle Management
5. Top Management as Representative of Middle Management
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C. Organizational Reform

1. *Improved Decision-Making Procedures.*

Both the domestic and international environments in which Japanese business organizations operate have changed remarkably since the 'sixties. First, a world-wide common market has been established. A striking example is the market for petroleum. The Japanese economy relies on the import of oil resources which account for ninety percent of the economy's supply of energy. Japanese firms have had to develop various contingency plans to deal with a decrease or stop in the oil supply. Second, Japan is a mountainous country and the industrial production has been concentrated in very small area. The heavy industrialization has resulted in serious pollution and environmental destruction. Japanese firms must now take responsibility for these social problems. Third, Japanese business activities abroad have spawned yet another serious problem. Thus, Japanese management has become the target of criticism among the developing countries. Japanese management has learned much from the foregoing problems, and a series of improvements can be expected.

One important area of concern is the slowness of the decision-making process. Under the *ringi* system the important topics are entrusted to a given department, and after the department head submits a *ringisho* concerning the subject to the management through the division head, top management makes the decision. It often takes two or three months to complete a *ringisho*, and the decision of the top management usually requires at least two weeks. Accordingly, some firms such as the Toshiba Electric Manufacturing Company and the Yokokawa Electric Manufacturing Company took the lead in the early 'sixties in an effort to streamline the decision-making process. *Ringisho* were allowed to pass directly to top management. The process of double-checking decisions with all concerned was dropped. The *ringisho* themselves were shortened and printed up with only the blanks to be filled in. Greater authority to decide on the merits of certain kinds of *ringisho* were placed in the division and department heads.

In the case of Yokokawa Electric a management information system was installed in 1962. Under this system, top management and division heads receive some thirty kinds of monthly business statistics worked out on the computer. All important activities of the company such as sales, the director orders, revenue and expenditures by division and so on were made available. This information system also helps to speed up the decision-making process and also lessens the need for many meetings previously devoted to the exchange of data among various divisions.

2. *The Development of Organizations Dynamics.*

In the latter half of the 'sixties Japanese firms have greatly revised their organizational

and administrative set-ups. Three of the most noticeable changes are described.

a. *The Introduction of Divisional Organization.* While the form of divisional organiaztion was developed in the U.S. in the 1920's, the first Japanese firm to utilize the divisional approach to organization was the Matsushita Electric Manufacturing Company. In 1933 Matsushita established three divisions: the radio manufacturing division, the electric lamp and dry cell manufacturing division and the electric heater and wire manufacturing division. No other examples appeared in prewar Japan. The widespread use of this approach really begins since in 1955.

An extensive survey by Nikkeiren in 1968 showed that fifty-four percent of the firms employing more than five thousand use the divisional approach.[1] However, in contrast to the situation in the U.S., the majority of them had not yet established any effective profit criteria for intrafirm evaluations. Furthermore, except for Matsushita which now has fifty-four independent divisions, no firms had transferred complete authority to the divisions.

b. *The Decrease of Superfluous Departments.* The department which was described above as the main organizational unit of the Japanese enterprise suddenly began to disappear in the middle of 'sixties when the economy experienced a bad recession. The sudden decline in the number of superfluous departments can be explained as follows. First, the number of managerial candidates increased drastically in the years after 1955. Some examples are shown in Table III. 7. The silk manufacturing firm and the large trading company show a large bunching of male employees with a university degree in their forties. Since they should by that time be promoted to middle management positions, there were

TABLE III. 7. MALE EMPLOYEES BY AGE GROUP IN LARGE FIRMS (1966)

(%)

Age Class	Silk Manufacturing		Paper Manufacturing	
	Total	University Grad.	Total	University Grad.
—21	26.2	—	4.3	—
22—29	19.2	36.3	20.5	25.4
30—39	24.5	22.4	50.9	37.2
40—49	21.4	29.4	18.3	27.4
50—	8.7	5.9	6.0	10.0
Total	100.0	100.0	100.0	100.0

(%)

Age Class	Banking		Trading	
	Total	University Grad.	Total	University Grad.
—21	12.2	—	3.2	—
22—29	38.5	42.7	43.3	43.3
30—39	35.0	38.8	24.9	24.7
40—49	9.2	10.2	17.4	20.7
50—	5.1	5.6	11.2	11.4
Total	100.0	100.0	100.0	100.0

Note: Example of an individual large-scale undertaking in selected industries.

Source: Japan Productivity Center, *Kigyō-nai no Gakureki-kōsei no Bunseki* (A survey on the Education of Employees at the Large Enterprises), *Seisansei* (No. 236: July 1966)

[1] Japan Federation of Employers' Associations (Nikkeiren), *Wagakuni Rōmu Kanri no Gensei* (The Third Survey of Japanese Personnel Management) (Tokyo: JFEA, 1971).

very few chances for the younger college graduates in their thirties. In the paper manufacturing industry the same bunching occurs among university graduates in their thirties. Few of them will become department heads. The case of the bank is even more serious, with the bunching even more pronounced and appearing in both age groups. Moreover, there are less managerial positions in banking than in manufacturing. Even fewer thus have the hope of becoming promoted. In order to keep up the overall morale of middle-aged employees, Japanese firms have rather tried to do away with position of department head.

A second reason for doing away with the department lies in the growing awareness of Japanese management of the need to be adaptable to rapidly changing situations. In redefining and limiting the role of the department, they tried to make the basic organizational unit much broader and more flexible. Therefore, the division has emerged as the basic unit. At this level more persons can be effectively mobilized. In making this changeover, a variety of new positions-such as *shusa* (chief coordinator), *shunin-buin* (chief), *fukuchō* (assistant division head) and so on have been created. Smaller work teams under a larger number of assistant division heads characterize the new order.

This new organizational approach brought about a marked increase in the work load of the division head. For this reason, several liaison assistant division heads (*sōkatsu fukuchō*) were introduced in order to better integrate the work of the numerous assistant division heads. Their authority is similar with that of the old department heads but their major function is not managing subordinates. Rather, they serve mainly to integrate information among their work group. Though the outcome may seem similar with that under the older organization, the elimination of the established position of department head has served to make the division a more dynamic unit.

Although we don't have accurate information on the number of firms switching over to this new form of organization, it is estimated that a fairly good number of large firms have moved at least partially in this direction. Some of the firms which once did away with departments are now reinstalling after several years' experience. They found it difficult to give up what had hitherto been the basic unit of the Japanese business organization. They simply could not disregard the expectations of the managerial candidates.[2]

c. *The Organization of Project Teams.* Although the project team has been outside of Japan for some time, it was not workable in Japan because of the strong division-department orientation. It was only in the latter part of the 'sixties that the project team began to appear in Japan's large firms as they began to do away with departmental organizations. To mobilize a division-wide unit after the departments had been disbanded, project teams seem to provide the answer. A survey in 1968 by Nikkeiren shows that over fifty percent of the firms employing more than three thousand employees were using project teams. It should be noted that most of the project teams are usually organized within a given division.

The life of a project team varies with the project itself. Ten years of experiences with the project team suggests several conclusions. First, it is hard to integrate a project team into the traditional system of organization. In smaller firms, all division staff members

[2] For example, in Mitsubishi Bank, while there were 287 division heads and 358 department heads in 1970, the numbers had increased to 400 and 511 in 1975. Between 1970 and 1975 total employees increased from 13,862 to 16,811. In Mitsui Bussan Company, while there were 91 division heads, 588 deputy division heads and 619 department heads in 1970, the numbers increased to 149,696 and 714 respectively in 1975. There were 11,299 employees in 1970 and 10,489 in 1975.

gradually become involved in one or two projects, and the traditional system tends to recede into the past. This problem is found in many firms which have begun to use project teams. Second, the project team is dynamic, and can be readily adapted to situational change. This form of organization is especially congenial to younger staff members who are dissatisfied with the seniority-based, traditional work-organization. However, given the practice of career employment, the desire for promotion to higher positions in the firm as one gets older creates a number of difficult problems. While the technological competence of those in the project teams is satisfactory, their managerial competence is below parr, thereby making it difficult for them to fit into the traditional managerial system. Third, project teams may be organized to fill in the vacuum which often appears when departments are dismantled. It is often noted that the project team has not worked well due to sectionalism of departments. In other words, while a project team may be temporarily organized at the division level, it is hard to establish at all levels in the firm. Being aware of this difficulty, the Japanese firm has managed to implement, using project teams only where urgently needed. Where the project team does not have a great impact on the traditional system, it has served as a good stimulus to "liven-up" or "loosen-up" the system.

D. The Promotion of Functional Criteria

1. *The Move to Disregard Years of Employment and Educational Career.*

The traditional managerial system poses various problems for the Japanese which seeks to adapt to the changing environment. Several steps to further rationalize Japanese business organization have been introduced since 1965. Some of these are described below.

a. *De-emphasizing the Seniority System.* The traditional approach to personnel management in Japan has emphasized the length of service and education of the employees. However, while the traditional managerial system was being established in the latter part of the fifties, another practice was started which served to undermine it. The first case appeared in the steel industry when the large firms introduced the newest imported equipment, including new strip-mills and rolling plants. To speed up repayment of the high cost bank loans which were necessary to purchase the equipment, the firms sought to increase productivity. They trained young middle-school graduates and even a few high-school graduates. They assigned them to the key work positions. Other employees were transferred in from the old rolling plants. However, the foremen and leadmen at the old plants were also transferred but were not given their old positions in the new plants. They were assigned to the lowest jobs, such as carrying coiled steel sheets or sweeping the plants. Although they reatined their previous positions for six months after the transfer, they were then demoted to ordinary employees. For enforcing this drastic change, the firms devised wage payment systems which linked productivity and group incentives. While the basic wage system still depended upon the length of employment, the incentive system allowed for criteria. Therefore, young employees at the key positions were highly paid under the group incentive plan. Because of this change, severe conflicts arose in the production area, bringing about viloent struggles with the trade unions. Tension in industrial relations continued for three years, after which the newly elected leaders of the trade unions supported management policy.[3]

[3] See Masumi Tsuda, *Rōdōmondai to Rōmu Kanri* (Labour Problems and Personnel Management) (Kyoto: Minerva, 1959) and *Nenkō-teki Roshi Kankei* (The Seniority-based Industrial Relations) (Kyoto: Minerva, 1968).

While the lead of the steel industry was followed by a few other industries such as ship-building and chemicals, another aspect of social change was involved. Most important is the radical change in the employment situation for middle and high school graduates. New school graduates had annually accounted for more than sixty percent of all additions to the workforce before 1965. However, the number of middle school graduates entering the workforce dropped from 4.4 million in 1957 to 4.1 million in 1958, whereas the number of high school graduates entering the labour force had begun to increase. Long term trends, however, show a decreasing number of graduates entering the labour force from middle schools after 1964 and from high schools after 1968. However, the number of job offers to these graduates has rapidly increased. Therefore, fewer firms have been able to hire as many graduates as they would have liked.

Although this trend had first begun to appear in the latter half of the 'fifties, it happen to coincide with a marked change in employment policy among the firms. This period was characterized by the introduction of new technology and equipment from the developed countries. In the process of implementing the new methods and practices, management felt that the out-dated knowledge and skills of the older employees were superfluous or even detrimental to the acquisition of new technologies. Therefore, they adopted the policy of giving preference to young employees.

However, this meant a basic change in the ideology of Japanese management which had traditionally depended upon seniority-based skills. This basic change in ideology was high-lighted when Nikkeiren started a new campaign during the recession in 1964 and 1965. In 1965 Nikkeiren proposed that the practice of career employment be discontinued, with firms laying off the older employees first. Since the idea was too radical, no firms actually implemented the suggestion. However, Nikkeiren proposed an even more radical policy which will be described below. In the middle of the 1960's, the large firms again changed their hiring policy for manual workers, shifting their preference from middle school graduates to high school graduates. Accompanying these changes, a marked change in the managerial policy appeared. New high school graduates began to be placed in both manual trades at the factory and white collar occupations at the office. Since under the traditional system white collar occupations were deemed better than the manual trades, serious tensions arose among the new high school graduates concerning their assignment to one group or the other. Management thus had to do cope with this new problem.

b. *The Proposal of the Japan Federation of Employers' Associations (Nikkeiren).* In 1966, Akio Morita (then the Vice-President of Sony Corporation) published a book entitled *Gakureki Muyō Ron* (The Disregard of School Educational Career of Employees). He emphasized in his book that a school education was not necessary. Rather, he stressed the development of competence *per se.* This publication ushered in a review of the education system, and also gave impetus to a new management philosophy which resulted in the proposal of Nikkeiren entitled *Nōryoku Shugi* (Competent Management). In 1966 Nikkeiren organized a standing committee of ten distinguished personnel managers from various large firms. The committee explored Japan's new management ideology and practices, and issued a report in early 1967. Based on the recommendations of the committee, Nikkeiren began an energetic campaign to promote a competence-oriented managerial system. First, it proposed that the new managerial system stress productivity and human respect. It called for the centralized organization to be maintained and offered very little autonomy

to lower level organizations. Second, Nikkeiren emphasized that rapid increases in productivity were the only way to raise the sense of human respect among employees. Following this logic, Nikkeiren proposed that the traditional function classifications be replaced by the job classification system so that each individual can be scientificaly assigned to the job for which he is best suited in terms of aptitude and ability. The assignment of an employee to the proper job was a source of human respect. Third, Nikkeiren called for firms to evaluate highly ability which is actually displayed, with less weight being given to potential ability. In this context, Nikkeiren tried to play down the employee's formal educational career and length of employment. Fourth, Nikkeiren proposed a change in personnel management practices from groupism to individualism. It emphasized that the traditional groupism had become impractical in meeting the needs of young people. Rather, it underlined the need for a carefully designed personnel programme which could be adapted to the diversed array of desires and interests characterizing the modern employee. For this purpose, however, Nikkeiren emphasized the need to maintain a centralized managerial system, and warned that the firm should not risk decentralizing its authority to the shop level. Fifth, Nikkeiren noted that the traditional practice of career employment should be revised because it failed to attract young people. Nikkeiren proposed that the practice be applied only to key employees whose services the firm must really retain. This idea had already been partially implemented in the past when Nikkeiren proposed that the practice of career employment be disbanded. A respect for young people and contempt for the skills of the older worker had come to form the core of Nikkeiren's new creed for management.

In 1974, Nikkeiren launched another campaign to destroy career employment. At that time Japan's economy had again experienced a severe recession. Before the 1975 Spring Offensive, Nikkeiren organized a standing committee of eighteen presidents at large firms for exploring a new management counterpolicy against the union's offensive. The committee issued its report in late 1974, recommending that the traditional practices of Japanese management, including career employemnt, be disbanded. It also recommended that the American lay-off system should be immediately introduced if the trade unions win large wage increases.[4]

c. *The Development of a New Approach.* Beginning in 1968, Nikkeiren launched a big publicity campaign to promote its new system. Staff members were sent around Japan conducting publicity seminars. While most managers were not attracted, a few were impressed by the idea and tried to implement the new system. It soon become clear, however, that the new system would not be workable. First, the majority of the managers realized that Nikkeiren's idea was too old, being based upon a mere modification of the original classical theories found in Western management theory. The few who tried to implement it found that the human respect of the employees was not raised at all, and concluded that the system represented only a new means of wringing out further increases in productivity.

During Nikkeiren's campaign, the idea of an ability-oriented managerial system appeared in both academic and more practical publications. This new literature became known as the "system of developing managerial competence." However, much of this literature severely criticized Nikkeiren's approach. First, it contended that productivity increases

[4] Nikkeiren (Japan Federation of Employer's Associations) *Ōhaba-Chinage-Yukue Kenkyū Iinkai Hōkoku* (A Report of the Committee on Wage Increases) (Tokyo: JFEA, 1974)

in the new era should be adjusted to meet the needs of individual employees, with management working to better integrate the goal of increased productivity with the needs of the employees themselves. Second, while the necessity of establishing job classifications for rational management is recognized, it was insisted that this classification not be applied as in the West. The maintenance of groupism was emphazised as the best management creed for the Japanese, and a number of practical steps for promoting job classification while maintaining groupism were proposad. Third their more emphasis was placed on the development of ability than on the evaluation of results. Nikkeiren's lack of emphasis on development was criticized, and a new effort was made to relate competence with formal educational background and experience. Skill development became the key concept in a new management creed. The ability development scheme has attracted many managers in Japanese firms of all sizes. This scheme was actually introduced in the late 'sixties at the plant level. For example, as part of the quality control movement organized around the group, all members of individual work team participated in the movement to improve quality. These influences are also seen in the zero-defect movement. Those developments clearly demonstrated that the latent ability of manual workers was considerable, and that the satisfaction of workers had remarkably increased due to these participatory practices.

2. *Managerial System to Develop Competence.*

a. *The Reorganization of Managerial Practices.* In order to set up a managerial system which emphasizes the development of competence, it was felt that the traditional classification of functions should be reorganized. As previously noted, the introduction of functional classifications was necessitated by the postwar situation and the influence of the American occupation. It was, in a sense, a passive response. In the mid-'sixties, management again reacted passively in adjusting to the decrease in the supply of middle-school graduates and the diminished reliance on the experience of the older employees. Major changes in the functional classification system and the actual reorganization of personnel practices did not begin until the latter half of the 'sixties. The influence of those advocating managerial system which developed competence was clear.

The treatment of specialists has presented very difficult problems for the Japanese managerial system. In principle a specialist or professional is an independent employee who can fulfil his duty without any help in the organization. If any miss is forecast he has the authority to stop the whole production process. However, in traditional Japanese practice the focus on groupism did not recognize the independence of the individual employee or independent authority. Moreover, since the talented employee, especially the university graduate, worked for promotion to managerial positions such as department heads as soon as possible, they do not want to become a specialist in a particular field. Indeed, they try to avoid it because they fear losing the opportunity to be promoted to a managerial position. As technological levels have risen and business activities have become more complicated and diversified, specialists and professionals have come to be keenly appreciated. Thus, a better way of treating specialists was needed.

One answer worked out by Mitsubishi Electric in the early 'sixties called for professional division heads and professional department heads. The first task in ability development was the equalization of work classifications for all new employees. Specialists were to be chosen only from among employees who had been with the firm. Second, the supervisors,

specialists and the managers regarded having job categories as opposed to functionally defined positions.

b. *Principles and Practices in Developing Competence.* When Nikkeiren began publicizing its new approach to managerial systems in 1968, it emphasized that the concept of competence should be defined as the factual ability to meet job requirements. This narrow definition resulted in a heated argument and currently the competence of the employee is defined as follows. The employee's competence is a mix of three components: achievement, ability to work with the group, and creativity. Achievement is measured in terms of knowledge, skills and working attitude. The ability to work with others is measured in terms of communications skills, participation and cooperarion. Creativity is defined in terms of problem-forming and problem-solving capabilities. Ideally the three components are to be developed throughout the employee's life.

As mentioned in the praceding chapter, minute personnel rating schemes were developed by Japanese management after the war. Management tried to find the most scientific way to eliminating personnel bias in making such appraisals. Practices such as recording the day-by-day achievements of the individual employees or choosing one or two sentence which represent his work performance instead of giving abstract points were used. However, it was soon found that there were no objective methods by which personnel could be rated.

The ability development scheme proposed that personnel be rated on two scales: work results and ability development. One scheme adopted by Morinaga Confectionary Company in 1973 calls for the evaluation of work to influence bouns payments and the annual rate of increase in wages. The evaluation of competence development is to influence promotion and transfers. In this way, managers have been much relieved from the traditional practice of making ambiguous personnel ratings. In 1967 Nihon International Business Machine Corporation (Japan IBM) and Nippon Electric Company introduced computerized information systems giving data to each employee. Introduced by Japan IBM, the personnel data system (PDS) allows for inputs of an individual's work location, name, ID number, attendance (including holidays, Sundays, and Saturdays) and over one hundred other items related to work performance and pay. Similar systems are currently used by most large firms.

To stimulate employees to display their abilities, a variety of practices have been developed. For instance, management by objective has become a well-known practice since the mid-'sixties and it is now being woven into the scheme. While this approach emphasizes the self-control of the manager in the U.S., Japanese firms have stressed the importance of employees achieving both their personal objective and the objectives of the group. Japanese practices aim at not only stimulating individual morale but also stimulating groupism. The shop development plan is another example. Now being used to form dynamic shop organizations based upon the self-development plan, it has helped to reduce the notoriously long working hours. The more free hours increase, the more Japanese workers will spend time for study. Seeking to stimulate education and promote personal development, management has recently formulated a self-development plan for employees. Employees who take correspondence courses outside the firm are repaid for their expenses after having finished the course. Many firms have recently sponsored various educational and training courses within the firm and have recommended that employees take these courses without

any compulsion. There is a growing awareness among management that self-development will be necessary if employees are to realize their own potential.

Career development programmes and planned rotation schemes have also attracted the attention of management. As early as 1963, the Showa Denko Company introduced its Career Development Programme. Concerning the reasons for introducing the system, the firm tried to establish a three-year planned rotation programme for new employees. During that period the employee would be given a chance to find his professional aptitude. Employees are then invited to state the area in which they desire to work. When he finds that his present job is unsuitable, he can ask a transfer.

The personnel inventory plan and the career development programme has become widely used in Japanese firms. These are particulary important for Japanese firms wishing to maintain the practice of career employment.

The extent to which the foregoing practices have been diffused is suggested in Table III. 8. Taken from a suvey by Nikkeiren in 1968, one can reason that a further development has occurred since then.

TABLE III. 8. THE USE OF COMPETENCE DEVELOPMENT SCHEMES (1968)

Practice	Percentage of Firms Using Various Systems			
	All Firms	Firms with more than 5000 Employees	Firms with 3000-4999 Employees	Firms with 1000-2999 Employees
Ability-oriented Function Classification	45.1%	63.0%	49.4%	53.2%
Eetablishment of Job Categories for Specialists and Professionals	16.8	29.9	33.8	14.5
Personnel Rating System for Ability Development	24.1	32.3	19.5	33.1
Management by Objective	36.8	51.2	53.2	27.4
Computerized Personnel Inventory Programme	7.9	81.1	13.0	7.3
The Career Development Plan	25.1	42.5	32.8	27.4

Note: Total number of firm surveyed was 875.
Source: Japan Federation of Employers' Associations (Nikkeiren), *Wagakuni no Rōmu Kanri no Gensei* (The Third Survey of Japanese Personnel Management) (Tokyo: JFEA, 1971).

E. Changing Approaches to Management Development.

1. *The Need for Management Education.*

None of the foregoing practices were thought up by top management. Rather, they have been drawn up by middle management through the *ringi* system. However, when the *ringi* system is used, the responsibility for implementation lies with the division which originally produced the *ringisho*. Since the forementioned programmes concerned personnel matters, and the personnel division has most often taken resposibility for carrying out the programmes, the personnel division had to let managers in the other divisions know about the programmes, before implementation of the programmes. Since the programmes were

new to most managers, education and training were necessary to implant an understanding of the importance of the programmes. The education of management thus became indispensable.

The Japanese economy grew at a remarkable pace in the early 'sixties, and many firms expanded during that period. As also previously described, the management core in the Japanese firm is middle management. Accordingly, during those years, the number of managers also grew rapidly. Table III. 9 shows data for just one firm, Hitachi. Management expanded much more rapidly than did the total number of employees. In other words,

TABLE III. 9. INCREASE IN THE NUMBER OF MANAGERS AT HITACHI, LTD.

Year	Total Employees (A)	Number of Managers (B)	A/B
1957	35,000	400	88
1960	57,000	850	67
1962	80,000	1,300	62
1964	80,000	1,500	53

Note: Information was taken from the Company.

high economic growth was achieved partially by increasing the number of middle managers. This was the period denoted by the expression "mōretsu shain" (the "all-out" company man). This word applied particularly to those who formed the core of middle management.

However, the situation has changed since 1965. The "work-or-die" type managers have come under fire. Inside the firm, top management has become irritated by their failure to adapt to the changing times because they depended wholly on experience (they spend all their time working) and little on study. Their subordinates soon became fed-up with their constant driving. The attention given to this behavior overseas has also been played up by the Japanese media. Accordingly, re-education has become necessary from this point of view as well.

2. *The Emergence of New Managerial Elite.*

The introduction of personal development schemes has led to the emergence a new type of manager. With the down-playing of the department as the basic unit of organization and the introduction of the project team approach, the remaining department heads soon came to realize that their own position might be lost unless they developed enough competence to keep up. Changes in the old system of general function classifications were also seen as a great menace because middle management positions had become rather open to all employees including manual workers. With these insecurities in the background, the various personal development schemes were introduced to Japanese firms. Accordingly, many of the managers rushed forward to get ahead through these programmes. The effect on middle management may be summarized as follows. First, middle management began to redesign the working system in their departments so as to promote the personal development scheme. Shortening conveyer belts on assembly and processing lines was one step. The insertion of short pauses every hour served to lessen alienation among workers. Increasing multiple-job arrangements and promoting circulation plans also stimulated the worker's interest. Some firms redesigned the whole work system. Workers were invited to do various jobs.

Regardless of the programmes involved, it has become abundantly clear that the manager's leadership is the key to their success. Thus, a variety of leadership training programmes have been given careful attention. The details of these programmes will be described in the following chapter.

As previously noted, development of management in the traiditional system had been a side product resulting from the day-to-day practices of management. Even then carefully thought-out on-the-job programme had been designed. Off-the-job training had also been infrequent. However, since 1970, an awareness of the need for planned management development schemes has grown rapidly. The wide-spread use of various personal development schemes in recent years reflects this concern.

IV. *The Development of Education for Management*

A. Development of Educational Programmes Within the Firm.

1. *Education: Ideals and Practice.*

The concept of employee education and training at most Japanese firms includes not only the development of knowledge and skills on the part of the employee but also a thorough understanding of the ideology of groupism. This latter emphasis is found in efforts to create the "Toyota Man" or the "Matsushita Man".

Before the war Kōnosuke Matsushita, the founder of Matsushita Electric Industrial Company, had established certain essential principles for defining industrial man, and set forth his ideas on the "Matsushita Man". These principles were modified slightly immediately after the war, but still continue to define the Matsushita Man as an industrial man. The essense is expressed in just one sentence saying that employees should live up to their responsibility as industrial men, strive for the improvement and betterment of society, and contribute to the development of a world culture. To realize this goal, industrial man will seek to abide by the following seven principles: partriotism through industrial activity, fairness, team work, thoroughfulness, courtesy and modesty, adaptation, and thankfulness for the kindness of other. Each principle is explaned by a short sentence.

Matsushita has tried use every occasion to imprint these values on the minds of his employees. Some of the follwing techniques are used. First, Matsushita has developed the employee meetings shown in Table IV. 1. The above examples focus on oral communications. As shown in Table IV. 2, there are also written communications. In addition to the periodicals listed in Table IV. 2, there are several other important forms of written communication. First, Matsushita has always placed short message from the president into the pay envelope of the employees. The intention is to have Matsushitaism reach the employee's family. Second, each employee annually receives a birthday card from the president. Third, when one becomes a department head he is given two handbooks at a ceremony announcing the appointment. One is the Policy Handbook in which the principle and minds of industrial man are commented upon by the president. The other gives a historical sketch of the company, showing how Matsushitaism has worked in the past. These are beautifully covered, but clearly numbered and only lent to the managers during their tenure in office.

TABLE IV. 1. MEETINGS FOR EMPLOYEES AT MATSUSHITA ELECTRIC INDUSTRIAL COMPANY

Japanese Name	English Version	Frequency	Participants	Purpose
Chōkai	Morning Meeting	Every morning before the beginning of work for 15 minutes	All employees at their own shops	The employees together read aloud the seven principles, the manager relays any managerial communications, an individual employee speaks about what he thinks of his work, and finally they sing the company song together
Yū kai	Evening Meeting	Every evening after for a short period	All employees at their own shop	The employees sing the Matsushita March
Gōdō Chō Kai	Joint Morning Meeting	Every morning	All managers except the managers who attend the meeting at the plant shop	Necessary communications are delivered from top management, the seven principles are read aloud and the company song is sung
Shokuba Shūkai	Shop Meeting	Monthly since the foundation of the company in 1918	All employees gather by department or section during hours.	To talk freely about their experiences concerning work. Top management or managers often participate in the meeting. Management seeks to bring up their employees in the ways of Matsushitaism
Keiei Seisaku Happyo Kai	Meeting to Announce Management Policy	Annually on the tenth of January	All ten thousand managers of the company	The president reviews the overall activities of the past year with reference to the principles of industrial man, and announces his annual policy to the Matsushita employees

TABLE IV. 2. PERIODICALS OF MATSUSHITA ELECTRIC COMPANY

Japanese Title	English Translation	Interval	Readership	Purpose
Matsushita Review	Matsushita Review	bimonthly	All 60,000 employees	Information on electric industry, the Matsushita markets, personnel changes and management policy
Matsukaze	Wind of Matsushita	monthly	All employees	Emphasis on the effort and activities of employees who are implementing the programmes of the firm, seeks to make employers aware of what other employees are doing, and fostering company loyalty
Matsukaze Josei	Wind of Matsushita for Ladies	monthly	All female employees	
Kantokusha Kenshū	Supervisor's Magazine	monthly	All supervisors and foremen	Promoting self-development

Management Kenkyū	Management Study	quarterly	3200 employee subscribers	Providing forum for subscribers to write about their daily work or subjects of a broader interest to management in general
Bungei Salon	Literature and Art Salon	monthly	3000 employee subscribers	Publishing the writings and art of the employees
Photo News	Photograph News	weekly	All 60,000 employees	Posted on bulletin boards of the company for informing important activities of the company
News Eiga	News Movies	monthly	Employees	Information about important activities of the company

The most remarkable of the Matsushita publications is *PHP*. A monthly periodical with a readership of some 1,5 million in 1970, the Mtsushita ideal is developed as a social ideal. The title "PHP" stands for peace and happiness through prosperity. It is put out by the PHP Institute which was founded by the president of Matsushita in 1946. This publication has thus helped to propagate the ideas of Matsushita beyond the confines of the enterprise itself.

While the system at Matsushita is the most developed and sophisticated in Japan in terms of both its coverage and its readership, other Japanese firms have attempted to set

TABLE IV. 3. INFORMAL ORGANIZATIONS OF TOYOTA

Sex	Name of Associations	Membership Criteria	Membership	Activities in 1973
	Hoshin-Kai	University graduates	1,100	General Assembly, Tennis Tournament, Swimming Meet, Concert, Fishing Contest, Soccer Tournament, Christmas Party, Softball Tournament
Males	Hoki-Kai	Junior College Graduates	220	General Assembly, Baseball Tournament, Auto Race, Christmas Party, Valentine Day Concert
	Hosen-Kai	Technical College Graduates	220	General Assembly, Freshmen Welcome Party, Audio Concert, Swimming Contest, Christmas Party
	Hosei-Kai	High School Graduates	11,700	General Assembly, Officers Education, Association Festival
	Hoyo-Kai	Toyota High School Graduates	2,800	General Assembly, Officers Education, Jumbo Association Festival, Bowling Contst
	Hoei-Kai	Former Self-Defense Force Members	2,400	General Assembly, Softball Tournament, Athletic Meeting
	Horyu-Kai	Those Promoted from Temporary Employees to be Regular Employees	14,000	General Assembly, Softball Tournament, Sketching Contest, Officers Education, Jumbo Association Festival

up similar programmes. For example, Toyota has developed an eleborate network of "informal" employee group organizations within the company, some of which are shown in Table IV. 3. Participation in some organizations is based upon employment status. Toyota has maintained the ideology of the traditional family system and has tried to extend this ideology at every opportunity. The associations are fully financed by monthly dues. The firm helps by lending its facilities. Other types of organizations exist respectively, for division heads, department heads, section chiefs, supervisors, foremen, group leaders and so forth. The Association of Section Chiefs, for example, publishes a monthly bulletin, holds a general assembly (400 persons attending), sponsors theatre gatherings (1000 persons attending with families), and tours (1500 persons). The associations also often invite top management to discuss business activities and managerial policies with them. Groups are also organized for persons from the same prefecture or graduates of the same schools. Toyota has also encouraged leisure time activities among employees. In 1959, financed by the company, the Toyota Club was organized to coordinate all the activities of twenty-five athletic clubs with eight hundred employees. Toyota set up a huge sports center in 1973, covering 610 thousand square meters and including various facilities. The center is also for the general use of the citizens of Toyota city. In addition to athletic activity, the Toyota Club also sponsors forty-one cultural societies with fifteen hundred employees. Since 1965 there has also been activities for women with the idea of bringing up good Japanese ladies. Nineteen hundred female employees are organized by their shop with each shop electing a secretary. The committee of secretaries plans various gatherings. In 1973 a training course in how to wear the Japanese *kimono*, a Girls' Day Festival, a safety driving campaign, a training course in cloisonnè ceramics, a training course in flower designing, a recreational gathering of secretaries and a general gathering were sponsored. A monthly bulletin has been distributed since 1971. Finally, all Toyota employees have been organized into Shop Recreation Teams since 1965. Each shop elects one secretary and the 1011 secretaries are organized by plant or office. All elected secretaries must complete course in recreation training. Skiing, camping, boat-racing and long-distance relays are the main events sponsored by these teams. There are many other activities for employees. In addition to a system of self government in 142 company dormitories for 17,000 single boarders, Toyota has its own Toyotanization movement, which is known as the "PT (Personal Touch) Movement". Organized in 1965, this movement embraces all the employees. While Toyota had 16,000 employees in 1963, the number rapidly increased to 25,000 in 1966, and then 43,000 in recent years. Since employees came from various scattered area of Japan to the small industrial area in Aichi Prefecture where the head office and all seven plants of Toyota are located, a number of conflicts broke out among employees whose customs differ. Toyota management thus came to feel that communications between the management and employees had weakened despite a complex network of communications.

The PT movement encourages man-to-man talks between the managers and those under their leadership. The personnel department takes the responsibility for this movement and trains the groupleaders and senior supervisors in off-the-job PT leadership training courses. In 1967, Toyota introduced the big-brother plan in which employees aged between twenty and twenty-five who have been employed for more than year with a good record are appointed as big brothers by the personnel department. They take the responsibility of helping along new employees for six months or so. Shop seniors take the Workmanship

Training Course conducted by the personnel department.

In 1972 Toyota began its on-ship leadership seminar. All leaders of associations, dormitory councils and PT groups were to participate in the seminar. However, since the number of such leaders is around five thousand whereas the annual seminar can train only four hundred participants, more than ten years will be required for all leaders to have the course. All the department heads in the personnel division have to join the seminar. The president and his wife and the senior managing directors in charge of personnel management and finance go on board to participate in a number of discussion meetings with the trainees.

All the foregoing practices and educational activities in the Japanese firm are deeply rooted in the practice of career employment. Though there has been much criticism about these traditional practices, it should be noted that management education programmes in large Japanese firms can understood only within this enviroment. The development of Japanese managers cannot be fully grasped if one does not take into consideration this cultural environment.

2. *The Systematic Planning of Company Education.*

Most large firms have very extensive and intensive programmes to promote informal management training activities, formal educational and training programmes have also been set up for many employees as possible. The Japanese economy has almost no resources for industrialization except the human element. To increase productivity, Japanese firms must rely almost wholly on improved human resources. While employee education and training was resumed in the early 1950's, it has been accelerated since 1955. Moreover, given the practice of career employment, Japanese management has attached considerable importance to the carefully designed education and training for new employees.

The education and training programmes at most large firms are designed as part of a long-range, systematic plan. Education and training will differ according to the function and position of the employee. During the 'sixties various companies worked to pull together all their diverse training and educational programmes into a single bundle. As Table IV. 4, and Figure IV. 1, show, these systems have been well-thought-out and carefully designed to meet the needs of the enterprise as an integrated whole. While the case of Toyota is again used, it is rather representative of the systematic approach taken by other Japanese firms.

TABLE IV. 4. CONTENT OF EDUCATION AND TRAINING COURSE AT THE TOYOTA AUTOMOBILE MANUFACTURING COMPANY, 1974

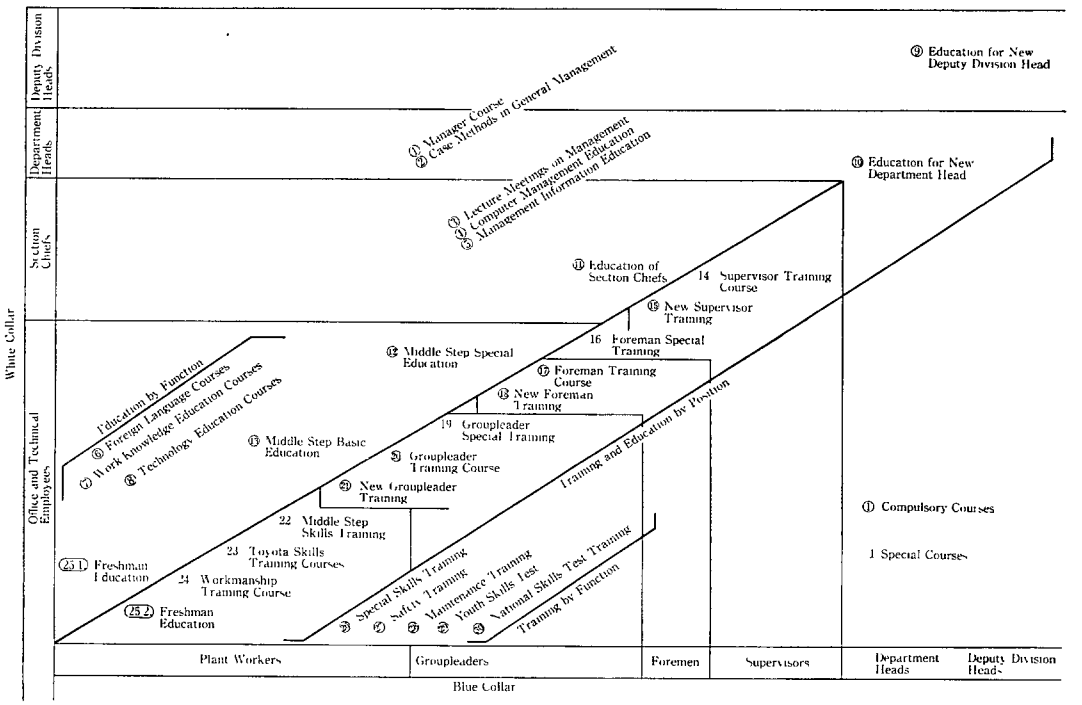
	Course Name	Content	Teaching Methods	Duration	Trainees
1	Manager Course	Principles & Practice of Management	Lecture and Discussion	Ten months	D.D.H. & D.H. (Selected)
2	General Management Case Method	Overseas Management Case Studies	Lodge, 3 nights	Twice	D.H. and Senior (by Application)
3	Lecture Meeting on Management	Lectures by Outside Authorities	Lecture, 90 minutes	Monthly	S.C. and Senior (by Application)
4	Computer Management Education	Computerization, General and Toyota	Lodge, 3 nights	Three times	S.C. and Senior (Selected)
5	Management Knowledge Education	Current Topics of Importance for Management	Lecture, 4 hours	Seven months	S.C. and Senior (by application)
6	Foreign Language Education Courses	English, Chinese and Overseas Manners	Language Laboratory and Lecture	Six months	Office & Technical (selected)
7	Work Knowledge Education Courses	16 Separate Courses	Lecture Practice	Mostly one months	Office (by Application)
8	Technology Education Courses	4 Separate Courses	Lecture	Six months	Technical (by Application)
9	New D.D.H. Education	Case Method Approach and Group Study	Lodged, 3 nights, and Theme Study	Five months	D.D.H. (Compulsory)
10	New D.H. Education	Case Method Approach and Group Study	Lodged, 3 nights and Theme Study	Six months	D.H. (Compulsory)
11	Section Chief Education	Case Studies on Leadership	Lodged, 3 nights	Six times	S.C. Promoted Previous Year (Compulsory)
12	Middle Step Special Education	Discussion & Reporting	Lodged and Group Study	Seven months	Newly Promoted Leader Rank (Compulsory)
13	Middle Step Basic Education	Methods in Problem Solving and Work Designing	Lodged and Group Study	Five months	Junior Leader Rank (Compulsory)
14	Supervisor Training Courses	2 Separate Courses	Lodged and Discussion	Twice	Supervisor (Selected)
15	New Supervisor Training	Case Studies and Group Discussion	Lodged, 3 nights	Twice	New Supervisor (Compulsory)

16	Foreman Special Training	Discussion on Problem Solving & Leadership	Discussion Meeting	Nine months	Senior Foreman (Selected)
17	Foreman Training Course	Cost Improvement Practices	Discussion Meeting	Five times	New Foreman (Compulsory)
18	New Foreman Training	Principle Role of Foremen and Toyota's Practices	Discussion Meeting	Three times	New Foreman (Compulsory)
19	Groupleader Special Training	Group Discussion on Toyota's Practices	Discussion Meeting	Six months	Senior Groupleader (Selected)
20	Groupleader Training	4 Separate Courses Based on TWI	Lecture and Practice	Sixteen times	Groupleader (Compulsory)
21	New Groupleader Training	Role of the Groupleader, Communications and Others	Discussion Meeting	Three times	New Groupleader (Compulsory)
22	Middle Step Skills Training	Basic Knowledge on Quality Control and Job Instruction	Lecture and Practice	Six months	Skilled Workers (Selected)
23	Toyota Skills Training Course	Leadership Training in Skills, Knowledge and Personality	Lecture, Practice and Discussion	Four months	Plant Workers (Selected)
24	Workmanship Training Course	Toyota Workmanship Training	Discussion Meeting	Five times	Plant Workers (Recommended)
25	Freshman Education	Seven Separate Courses by School Graduation	Lecture, Practice and Discussion	From one week to eleven months	Freshmen (Compulsory)
26	Special Skills Training	18 Separate Courses	Lecture and Practice	From 5 to 10 times	Plant Workers (by Application)
27	Safety Training	6 Separate Courses	Lecture and Practice	From once to two months	Plant Workers (recommended)
28	Maintenance Training	3 Separate Courses	Lecture and Practice	3 or 4 months	Maintenance Workers (Compulsory)
29	National Skills Test Training	11 Separate Trades	Lecture and Practice	Ten times	Plant Workers (Selected)
30	Youth Skills Test Training	11 Separate Trades	Lecture and Practice	Seventeen times	Plant Workers (Selected)

Note: D.D.H., Deputy Division Head; D.H., Department Head; S.C., Section Chiefs. In addition to the 30 courses, seven separate courses in Quality Control are given at all levels. The duration by these courses are from six to thirty times (2 hours per session).

Source: Education Division, Toyota Automobile Manufacturing Company, *Nōryoku Kaihatsu no tameno Kyōiku Annai* (Guidance Handbook of Education for Competence Development), 1974 edition.

FIGURE IV. 1. THE EDUCATION AND TRAINING SYSTEM AT TOYOTA, 1974



3. *The Responsible Organization of Education and Training.*

a. *The Locus of Responsibility for Education and Training.* The organization of education and training programmes at Japanese firms vary with industry and company size. An overall picture will be given below. As shown in Table IV. 5, thirty-nine percent of the firms surveyed have no special organization for education. The larger the firm, the more likely it is that there will be a division or at least a department which is fully in charge of educational activities. There are many small-scale companies without any specified educational organization. Thus, in making generalizations about the situation in Japan, it is important to qualify all comments in terms of the industry and the size of the firm.

b. *The Coverage of Educational and Training Programmes.* Table IV. 6. shows how many firms practiced off-the-job education and training in 1973. Again, the smaller the company, the less education is offered.

Nevertheless, more than half of the firms with between 30 and 49 employees had some type of education and or training programme in 1973. This is particularly true in firms with foreign participation. Table IV. 7 suggests that the smaller firms tended to economize by not offering management training or orientation sessions for new employees. On the other hand, these are the areas which are stressed by the large firms.

As shown by a 1973 survey of the Labour-Management Productivity Conference, the amount of funds spent on education has been increasing in the majority of Japanese firms regardless of size. Indeed, rapid increases are particularly pronounced in the smaller scale

TABLE IV. 5. LOCUS OF RESPONSIBILITY FOR COMPANY EDUCATION BY FIRM SIZE, 1970

(in percentages)

Locus of Resposibility within the Firm	Firm Size (Number of Employees)					
Education	Total	5000–	3000–4999	1000–2999	500–999	0–499
Division	7.1%	25.2%	14.5%	4.8%	3.2%	1.4%
Department	20.4%	45.4%	35.5%	29.1%	9.7%	4.0%
Project Group equal to the Department	11.5%	8.4%	13.2%	16.5%	7.8%	10.1%
Section	11.2%	8.4%	13.2%	11.3%	18.8%	7.6%
Project Group equal to the Section	11.0%	9.2%	10.5%	10.9%	14.3%	10.1%
No Specified Section	38.7%	3.4%	13.2%	27.4%	46.1%	66.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Number of Firms	855	119	76	230	154	276

Source: Japan Industrial Training Association, *Sangyō Kunren Hakusho* (White Paper on Industrial Training), (Tokyo: JITA, 1971).

TABLE IV. 6. OFF-THE-JOB EDUCATION AND TRAINING PROGRAMMES BY FIRM SIZE

(percentage)

Firm Size (Number of Employees)	Japanese Firms		Firms with Foreign Capital	
	Total	Manufacturing Industries	Total	Manufacturing Industries
More than 5,000 Persons	99.6%	100.0%	100.0%	100.0%
Between 1,000 and 4,999	99.0%	98.8%	100.0%	100.0%
Between 500 and 999	82.5%	73.3%	98.0%	97.8%
Between 330 and 499	95.5%	100.0%	100.0%	100.0%
Between 100 and 299	81.7%	77.4%	91.8%	93.4%
Between 50 and 99	70.5%	66.6%	87.5%	89.4%
Between 30 and 49	56.9%	54.4%	75.6%	80.0%
Total	69.9%	66.4%	91.5%	93.7%

Note: The Surveyed included 6600 Japanese firms and 363 firms with foreign capital operating in Japan.
Source: Ministry of Labour, *Koyō Kanri no Jittai* (Survey of Current Employment Practices) (Tokyo: Rōdō Hōrei Kyōkai, 1974)

TABLE IV. 7. TYPES OF EMPLOYEES; RECEIVING EDUCATION DURING 1973

(%)

Size of Undertaking Employing	Freshmen	Operative Workers	Technical Employees	Office Employees	Managers
More than 5,000 persons	99.6%	83.8%	79.1%	91.7%	89.6%
Between 1,000 and 4,999	97.6%	82.2%	74.1%	81.4%	88.3%
Between 300 and 999	82.2%	65.4%	60.7%	58.7%	65.4%
Between 100 and 299	58.6%	56.8%	50.7%	48.9%	52.4%
Between 30 and 99	24.9%	41.0%	35.0%	32.2%	31.4%
Total	37.8%	47.0%	41.1%	37.7%	39.6%

Source: The same as for Table IV. 6.

undertakings.[5]

c. *A Review of Current Practices.* While employee education has developed considerably in recent years, and has come increasingly to emphasize career development, it is still doubtful whether systematic on-the-job training has been implemented in the majority of Japanese firms. However, given the importance attached by employees themselves to skills learned on the job, on-the-job training should be emphasized more in the future.

Looking across occupations, we can say that the value of education is quite naturally most strongly emphasized by managerial and professional types. Foremen and supervisors also agree, but few workers feel education and training are necessary (see Table IV. 8). Although the need for more education and training is generally felt by most employees as well as management, some of the difficulties preventing firms from further expanding such programmes are given in Table IV. 9. Most important is the shortage of educational facil-

TABLE IV. 8. EMPLOYEE ATTITUDE TOWARD EDUCATION AND TRAINING BY OCCUPATION: 1972

(%)

Occupation	Always Feel the Need for Education and Training	Occasionally Feel the Need for Education and Training	Do not Feel the Need for Education and Training	Total
Managers and Professionals	70.9%	27.0%	1.9%	100.0%
Office Employees	47.3%	43.5%	7.6%	100.0%
Foremen and Supervisors	57.6%	37.8%	3.0%	100.0%
Skilled Factory Workers	43.8%	43.1%	10.8%	100.0%
Other Factory Workers	35.7%	50.6%	12.7%	100.0%
Total	48.5%	41.6%	8.7%	100.0%

Note: Answers are in response to the following question: Do you feel education and training are necessary for your job?

Source: Ministry of Labour, *Rōdōsha no Kyōiku Kunren ni Taisuru Ishiki Chōsa* (Attitude Survey of Employees toward Education and Training) (Tokyo: Ministry of Labour, 1973)

TABLE IV. 9. CURRENT PROBLEMS WITH EDUCATION AND TRAINING

Size of the Firm in Terms of the Number of Employees	Shortage of Education	Failure of Middle Managers to Cooperate	Shortage of Funds	Lack of Interest among Participants	Lack of Interest among Top Management	Difficulty of Systematic Programming	Total
More than 3,000 Persons	25.6%	31.0%	17.6%	6.2%	15.0%	9.7%	100.0%
between 1,000 and 2,999	47.0%	31.0%	25.5%	22.6%	14.2%	2.3%	100.0%
between 500 and 999	31.2%	18.8%	23.4%	28.1%	18.8%	9.4%	100.0%
Less than 500	22.8%	40.0%	22.8%	25.7%	14.2%	—	100.0%
Total	35.8%	29.7%	22.6%	18.9%	15.2%	5.5%	100.0%

Note: Other four problems are excluded because of small proportions.

Source: The same as for Table IV. 8.

[5] Seisansei Rōshi Kaigi (Labour-Management Productivity Conference), *Kigyō-nai Kyōiku no Jittai to Bunseki* (A Survey of Education within Firm), *Rōshi no Shōten* (Tokyo: Seisansei Rōshi Kaigi; March 1973).

ities. A second problem is the lack of cooperation among managers and supervisors. This reflects primarily the unwillingness of managers to allow those under their jurisdiction to receive education and training during regular work hours.

The education and training given at Japanese firms have recently become subject to considerable criticism. Many critics have pointed out that the educational programmes at most firms have been too much oriented toward the building company loyalty at all costs without any concern about social responsibilities of the business enterprise. However, since 1970 a gradual change can be observed. This change is also reflected in the design of the educational programmes. According to a survey of the Labour-Management Productivity Conference in 1973, sixty-seven percent of the firms surveyed agreed that education and training should relate in some broader sense to societal goals or standards. Only four percent of the sample disagreed.

4. *Educational Facilities and Their Utilization.*

As noted above, the shortage of educational facilities is currently the most serious bottleneck preventing the expansion of educational and training activity on the part of Japanese firms. The high cost of land in urban areas like Tokyo makes it impossible for smaller firms to build their own educational facilities. Also, the necessity for education and training continues to grow. However, as shown in Table IV. 10, only thirty percent of Japanese firms have their own educational facilities. Hotels and outside meeting rooms are frequently rented for such purpose. Large firms naturally tend to have good educational facilities. Their facilities are often luxuriously equipped so as to be suitable for the top managerial candidates. There is thus a big gap between the elitest firms at the top and the average small firms in this regard.

TABLL IV. 10. EDUCATIONAL FACILITIES BY FIRM SIZE: 1970 (MULTIPLE CHOICE)

Using Facilities	Firm Size in terms of the Number of Employees					
	Total	More than 5,000 Persons	3,000–4,999	1,000–2,999	500–999	Less than 500
A. Has its Own Education Building	28.5%	71.4%	42.1%	33.5%	16.9%	8.7%
B. Uses Other Facilities in the Firm	72.2	63.9	60.5	67.4	79.9	78.6
C. Uses Facilities of Financially Related Firms	3.6	0.8	2.6	3.0	3.2	5.8
D. Uses Education Building of Other Firms than C.	9.5	6.7	14.5	11.7	11.0	6.5
E. Rent Hotels	14.0	21.8	15.8	14.3	11.0	11.6
F. Rent Meeting Rooms	24.8	20.2	23.7	27.8	29.2	22.1
G. Hire Facilities of Religeous Organizations	8.2	6.7	13.2	8.7	12.3	4.7
H. Hire Public Halls	22.1	22.7	34.2	31.7	20.1	11.6
I. Number of Firms Surveyed	855	119	76	230	154	276

Source: The same as for Table IV. 5.