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APPLICATION OF JAPANESE MANAGEMENT TECHNIQUES
IN JAPANESE-OWNED MANUFACTURING PLANTS

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Vladimir Pucik
The University of Michigan

Nina Hatvany
Management Analysis Center, Inc.

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The management techniques used in Japan have recently become the subject of intensive study by Western managers. Attempts to apply them are also increasing, with varying degrees of success. New techniques are often brought in hastily and in a piecemeal way, with neither an understanding of the systemic nature of Japanese management techniques nor knowledge of the pitfalls inherent in attempting to implement Japanese ways of doing things in the United States.

In this paper, we describe the successes as well as the failures that the Japanese themselves have had in using their management system in American subsidiaries. The paper is based on in-depth studies of forty-five U.S.-based Japanese subsidiaries and some of their parent companies in Japan. Among the industries represented in our sample are consumer and industrial electronics, transportation equipment, industrial machinery, textiles, and chemicals. The size of the plants ranges from 100 to 500 employees.

Management Systems in Japanese-Owned Subsidiaries

Typically, manufacturing subsidiaries of Japanese firms in the U.S. are staffed by a small group of Japanese managers with varying levels of autonomy relative to the company's parent. The rest of the employees are American.

The Japanese managers have introduced their management techniques to varying extents and with varying results.¹ Nevertheless, while it is often very difficult to measure the performance of newly established operations, it is no secret that production lines in a number of Japanese subsidiaries operate at or close to the same productivity rate as those in Japan.

¹For a detailed examination of Japanese management practices and their impact on productivity and commitment, see N. Hatvany and V. Pucik, "An Integrated Management System: Lessons from the Japanese Experience," Academy of Management Review, Vol. 6, (1981), No. 3, pp. 469-480.

The Lure of Job Security

All the companies we have visited share a commitment to offering their employees long-term and secure employment. Layoffs and terminations are extremely rare occurrences. Of course, since most of the Japanese subsidiaries are young and undergoing rapid expansion, the problem has not often arisen for them. The fact remains, however, that management believes that job security attracts good and loyal workers to the firm. Blue-collar workers that we have talked to certainly value security, as do most of their American bosses; in fact, job security is a major attraction of many Japanese-owned firms. As one local manager put it: "I have to make a mortgage payment every month and I like to know where the next one is coming from."

Management's commitment to job security has to be met by employees' willingness to be flexible in job assignments, overtime, and even wages. Some companies are very explicit about these policies. We quote from the in-house literature issued by one of the fastest-growing Japanese-owned electronics component makers in California:

When there is a need, we all rally to meet it and consider no task too menial or demeaning; all that matters is that it should be done! We are all ready to sweep floors, sort parts, take inventory, clean machines, inspect parts, load trucks, carry boxes, wash windows, file papers, run furnaces, and do just about anything that has to be done!

During a slack period at another electronic plant a number of employees were shifted from their regular work to functions such as repairs, maintenance, and service. One processed food company instituted across-the-board wage cuts in an attempt to preserve employment during the last recession, while another factory switched to a four-day work week.

Some firms adopt such a policy even when they are not facing a crisis. In one motorcycle plant, a "priority list" of tasks to be done is maintained. These tasks include caulking the roof, painting the walls, and sanding the

picnic tables. If for any reason a part or the whole line is out of action, then the group who had worked on that line will proceed with one of the priority items. Alternatively, the workers may be asked to help out in other areas of the plant, including the administration offices.

As in Japan, even workers who perform poorly are either retrained or transferred, instead of simply being dismissed. The plant manager in an electronics component factory explained how the company copes with personal failures. "We give a chance to improve even if there has been a big mistake. For example, the quality control manager didn't fit, so we transferred him to sales engineering and now he is doing fine."

Japanese managers generally believe that such flexibility is difficult to implement at the nonexempt level with a unionized workforce. They therefore, often go to great lengths to avoid unionization. As a result, although some acrimonious disputes have occurred when unions have attempted to organize, most Japanese plants in the U.S. are nonunion.

On the other hand, where unions have succeeded in establishing themselves, relations with management are usually not adversarial, and there is a great deal of informal communication between the two. In a number of cases, because of the job security enjoyed by employees, unions have agreed to flexible work rules to cope with demand cycles.

A Philosophy Americans Can Live With

In a number of cases, a particular management philosophy that originated within the parent company in Japan is also being actively practical in its U.S. subsidiaries. Similar explicit management philosophies can be found in successful U.S. corporations; examples include Hewlett Packard, Intel, Eli Lilly, and others. However, some Japanese company philosophies sound peculiar

to American ears. Consider, for example, the following quotes, which reflect the philosophy of a Japanese-owned electronic components maker:

Management Philosophy

Our goal is to strive toward both the material and the spiritual fulfillment of all employees in the Company, and through this successful fulfillment, serve mankind in its progress and prosperity.

Management Policy

(. . .) Our purpose is to fully satisfy the needs of our customers and in return gain a just profit for ourselves. We are a family united in common bonds and singular goals. One of these bonds is the respect and support we feel for our fellow family co-workers.

At this company, morning meetings are held in the courtyard. All 700 workers stand in lines (indicated by metal dots in the asphalt). Each day a different member of management speaks for about five minutes. Once a month, announcements about the company's accomplishments and plans are made. Next, a personnel coordinator delivers news about sports events, etc., and perhaps a motivational message, and then leads the group in exercises for a minute. These are voluntary, but most of the employees participate. Subsequently, the large group breaks up, and brief department meetings are held.

Such an expression of company philosophy is still rare, and even this was not implemented overnight. It took over a year for employees to begin participating wholeheartedly in the meetings and exercises, with workers in non-technical areas leading the way. Engineers and other technical personnel are less enthusiastic. Strange as some of these practices may seem, this company is one of the most successful Japanese subsidiaries in this country.

In another case, the managers of a company making cassette tapes have hung banners depicting the company motto, "Vision, Courage, and Confidence," in the executive offices and plants. However, the Japanese plant manager confided that "we need one or two years to get acquainted with one another. We try to explain the company motto to our employees, but most don't understand."

The difficulties inherent in trying to implement such a philosophy are recognized by many Japanese subsidiaries. For example, in one of the largest Japanese plants now under construction in the U.S., managers are patiently waiting to see if the expression of the home-company philosophy will be appropriate for the particular employees that they find themselves hiring, before they start to "sell" it. As one manager said, "You can't adapt the employee to the company; you have to adapt the company to the employee."

Some companies would not dream of trying to articulate a philosophy to their local employees. Says a plant manager: "You can't push a philosophy down the throat of an American!" Nevertheless, advertisements for this company on the local radio network do not sell the company's product; rather, they highlight the performance and productivity of a particular department. The implicit philosophy is there: we are a team, we respect one another, we pull together. The response of employees is one of pride--pride in the company, in their product, and in their own performance.

Sameness Has Its Drawbacks

The fit of the company and the employee is a primary concern of U.S.-based Japanese firms. A prime consideration in their choice of location is often the type of workforce available, even though labor costs may represent as little as 4 percent of total expenses. As in Japan, the Japanese are most interested in a "virgin" workforce and one that approximates the level of homogeneity and "work ethic" to which management is accustomed.

A number of locations are rural, and there are often several thousand applicants for only a few hundred jobs. A typical selection process for blue-collar workers involves prescreening and referrals from the state employment agency or from employees. Extensive sifting of applications is followed by several interviews.

As in Japan, an important criterion for hiring is the prospective employee's fit with the values of the current workforce and those expressed in the company philosophy. In most Japanese subsidiaries, the entering employee has to undergo a training program introducing the company philosophy and a 90-day probation period, during which a large turnover is not exceptional.

For management hiring, the goals are the same--fit. Potential American executives, often identified by headhunters, are interviewed by five to ten people at once. The key selection criterion is the candidate's way of thinking rather than his ability. The willingness to work long hours and show devotion and dedication to the company are prerequisites.

The main difference here seems to be that, as one American executive said, "We in America select on strengths. The Japanese select on fewest weaknesses." As a result, the ability of management to be aggressive and innovative may sometimes be questionable.

In several Japanese subsidiaries, the outcome of this selection process is a remarkably homogeneous workforce, not only in terms of attitudes and values, but also in terms of sexual, racial, and age characteristics. These may vary radically across companies, but within any one plant they are often very similar. One plant, for example, is composed almost entirely of young Asian Americans; another employs primarily older women whose families have grown up and whose husbands work in a nearby city; yet another plant located in the South, has mostly unskilled black workers.

The emphasis on homogeneity poses problems for the personnel doing the hiring, however. As one American personnel manager complained, "The Japanese want me to determine a lot of things when I'm hiring, like age and marital status. They ask insistent questions about these things. I tell them that you're not supposed to ask. They come back and tell me that I could have figured it out!"

Communication, the Linking Pin

The layout of executive offices conforms to the Japanese design. In one TV plant on the West Coast, the top manager's office is next to the receptionist's--open and visible to everybody who walks into the building, whether employee, supplier, or customer. Also, as in Japan, plant managers typically spend at least two hours a day on the shop floor and are readily available for the rest of the day. Foremen and supervisors often do not have offices of their own, so they are with their subordinates on the floor throughout the whole day, instructing and helping whenever necessary.

The policy of ready accessibility also applies to personnel specialists. The American personnel manager of a motorcycle plant, for example, spends between two and four hours a day on the shop floor discussing issues that concern employees. The large number of employees he is able to greet by their first name testifies to the amount of time he spends on the floor. "We have an open-door policy--but it's their door, not management's," was his explanation of the company's emphasis on face-to-face vertical communication.

Shop-floor workers also participate in meetings, which vary in terms of frequency and formality. In some companies, every work group has a brief meeting every morning; in others, they are held when needed. Meetings vary in scope, from team meetings to department meetings.

In one capacitor company, a communications panel meets every month. The general manager, the plant manager, and the industrial relations manager attend. No middle managers or production supervisors attend, as it is felt their presence would inhibit lower-level employees. Each department in the plant is represented by at least one blue-collar employee, selected alphabetically, so that every worker attends once a year. Whatever the employees wish to talk about forms the basis for discussion. Minutes of the meeting are posted, although the identities of participants remain anonymous, and every suggestion must be responded to, whether or not it is eventually adopted.

Communications with the Japanese are often a source of severe problems, however, in the regular, typically weekly, manager's meetings that are held in most of the Japanese subsidiaries, the Japanese will try to be polite and converse in English. If the discussion becomes at all lively or technical, however, they are likely to revert to Japanese and either the Americans will feel excluded or an interpreter will be brought in, which introduces an undesirable degree of formality.

Sometimes the command of English of the Japanese when they first come to America is so poor that they are unable to communicate with subordinates. They try to be more approachable by using American nicknames and indicating their willingness to learn, but the informality of their American counterparts is impossible to achieve. Hurt feelings are not unusual, especially in male-female relations. Some Japanese are amazed at the presence of female managers and supervisors, and their treatment of female workers in the plant may sometimes seem rude. Poor labor-management relations are often the result.

Job Rotation System Still Not in Place

Job rotation and internal training in the U.S.-based Japanese firms seem less planned or structured than in Japan, and tend to be an ad-hoc reaction to

organizational needs. This is especially true at the managerial level. Many Japanese executives claim that they prefer to train managers in-house, saying: "We want someone who understands the management system of the company;" nevertheless, a large number of managerial positions are still filled from the outside, or staffed by rotating managers from Japan.

Many Japanese firms are reluctant to commit resources to train American managers, pointing out high turnover rates for managerial personnel. While turnover rates are generally lower than in a typical U.S. firm, they still appear shockingly high to Japanese executives used to minimal turnover in the parent company in Japan. Perhaps the turnover occurs because many Americans--who are initially intrigued by the challenge of working with the Japanese, and producing and selling exciting, new, high-quality products--sooner or later become frustrated by their inability to be genuinely accepted by the inner core of the organization so far dominated by the Japanese.

On the blue-collar level, comprehensive job rotation and training programs are more common. One reason for this is that management is less fearful that the workers might leave, given that the salary levels are competitive with other nearby firms, and that many of the skills that workers learn are unique to the firm and thus not transferable to other employers.

Other reasons behind the increase in training are the Japanese preference for hiring a relatively unskilled labor force and the fact that they are introducing a technology unfamiliar to U.S. workers. In fact, many Japanese firms, mostly located in the South, have found that they were not able to recruit a sufficiently qualified or even trainable labor force. As a result, they were forced to downgrade their production technology, or even to bring over "guest workers" from Japan. In some firms, technical training in Japan, ranging from several weeks to several months, is provided to selected workers. They are

expected not only to learn the operation and maintenance of the parent company technology, but also to master the fundamentals of quality and inventory control.

As in Japan, job rotation is used not only as a training device, but also as an important part of the promotion structure. After they have mastered all the skills of their work group, promising employees are shifted from job to job within their team or workshop in order to qualify for an assignment as a "lead." The successful lead may then become a supervisor. Most supervisors are promoted from among the team leaders and thus have direct working experience in all areas of their responsibility.

Only about half the Japanese subsidiaries that we have visited promote on the basis of seniority. At one of them, a medium-size motorcycle plant, a seniority-based promotion system has been reinstated after an experiment with a merit-based system proved highly unpopular with workers, who complained about biased supervisors. Occasionally, as in the case of the capacitor company, a combination of skill and merit is used. Employees are transferred to higher job grades on the basis of seniority, but can be demoted after three months of unsatisfactory performance, after which the position may be offered to another employee on the basis of merit.

A Variety of Appraisal Systems

Among the management techniques characteristic of large Japanese enterprises, the introduction of a complex appraisal system is probably the least visible in their U.S. subsidiaries. Most of their U.S.-based affiliates are relatively young; thus, long-term evaluation of employees, the key element in personnel appraisal as practised in Japan, is not yet practicable. Furthermore, the different expectations of American workers and managers about what

constitutes a fair and equitable appraisal system might hinder acceptance of the parent company's evaluation system.

At one large electronics firm that already uses a Japanese-style appraisal system, employees are ranked on ten key criteria. Among them are "loyalty/dedication" (being faithful to the company cause, ideals, philosophy; a devoting or setting aside for company purposes); "spirit/zeal" (amount of interest and enthusiasm shown in work; energy and courage; eagerness and ardent interest in the pursuit of company goals); and "philosophy" (the willingness to learn and practice company philosophy; the ability to train others regarding company philosophy). Only the last criterion on the list focuses on "results."

The use of these dimensions is rare, however. In general, the nonexempt workers in Japanese subsidiaries are evaluated on skill level and attendance, as well as on the performance of the group within which they work. A group is evaluated on such areas as productivity, scrap, and quality. Housekeeping, or cleanliness, since it translates fairly directly into quality, is also an important focus of evaluation.

In a number of companies, all blue-collar employees, regardless of performance, receive a share of the annual company bonus if the company is profitable. Its size, while much smaller than is customary in Japan, might well equal a month's wages. In areas where the Japanese have experienced problems, such as timely attendance, various incentives may be introduced. Several companies give a bonus to those who are on time regularly; others allow these workers to stop clocking in or to use reserved parking slots.

For exempt workers, assessment is usually based on performance relative to various quantifiable goals. At one transportation company, the goals are weighted in order of importance, and each goal is given a score. The overall scores are used to determine the worker's share in the company bonus. However,

the Japanese in this company have declined to participate in this system. Not only is their pay based on Japanese scales, but their feeling is that such a system disrupts their team spirit.

The differences in evaluation criteria for Japanese and American executives do present a continual problem. A number of American managers are very frustrated that they have no power to evaluate and then reward or withhold rewards from their Japanese subordinates, who are evaluated back in Japan.

No Rush with QC Circles

In the U.S.-based Japanese firms that we have visited, the basic work unit, for all practical purposes, is the group rather than the individual. Quality of work and speed of job execution are key concerns in group production meetings that are held at least monthly and even daily in some companies.

Intergroup competition is encouraged. In one Southern electronic components company, a group on a shift that consistently performs well is regularly rewarded. Sometimes news of a highly productive group from another shift or even from the Japanese parent is passed around the shop floor to stimulate the "contest." At a TV plant, each supervisor's group is a team. Points are awarded for productivity, housekeeping, and smallest number of defective items. The winning team is awarded a TV set, which is given to one member by a draw.

In contrast to the many American companies who are rushing to try quality control (QC) circles, few of the companies we have visited have installed them. One problem is trust. Many Japanese managers feel that if workers do not trust management, they may well be suspicious and begrudging of their ideas. Therefore, as one manager commented, "First, we'll try to build up quality and also cleanliness. Cleanliness leads to quality. Then we'll think about forming groups." In another plant, "We don't have small group meetings

yet. It's only six or seven months since we started up. First, we need good two-way communication and mutual understanding. Mutual credit is needed; otherwise, it's almost impossible for us to introduce such things." In a third plant, the plant manager commented: "Well, our employees have heard about these circles and seem to expect it. So maybe we should start them."

A firm making TV sets and microwave ovens started QC circles this year, after waiting several years for skill levels to rise. They have divided the workers into modules of about 10 people each (these are not necessarily work groups). At first, many general questions came up. After four months or so, the circles started to engage in project work. They meet on company time, about 30 minutes every other week. Management selected the circle leaders, who were trained by an outside consultant. The 20-hour training focused on leadership skills, specifically those applicable to this kind of participative, creative group activity. One key difference between the QC circles in American and Japanese plants is that there are no social activities associated with them in America. This point was reiterated in several other companies. "In Japan, supervisors and workers sit around for several hours at someone's home, drinking. Here, we would have to pay overtime."

While regular gatherings off premises are rare, informal problem-solving activity is encouraged and expenses are paid by some companies. This kind of informal meeting, called the "kompa," is typically an occasional gathering of 8 to 18 people after work. Although food and drink are provided, the objective of the gathering is rarely merely social--rather, it is to defuse conflicts or to increase cohesiveness.

Consultative Decision Making

Most Americans in Japanese companies are frustrated by Japanese decision-making practices. At a managerial level, one executive at a ceramic capacitor

company complained: "The Japanese are polite to the point of pain. You often feel that you have agreement, but really, they're just being polite. For example, we sent a description of a new product that we've developed and want to patent to Japan. We heard nothing. Finally, the American general manager here okayed spending \$50,000 for the patent. Still no news. Now, months later, we're getting telexes from Japan asking for progress, but the crazy thing is that they haven't yet approved the product."

Another American complained, "I'm so sick of these endless meetings. All day and into the night we're having meetings. Half the time, they lapse into Japanese. It's very difficult. Their decision making is not so much slow as excruciating. They have negotiations prior to making a decision and they only have agreement months later. They just don't like to be wrong."

Conversely, Japanese managers we have interviewed have often expressed the opinion that it is their American partners who insist on examining every aspect and contingency of proposed alternatives, while they themselves prefer a relatively general agreement on the direction to follow, leaving the details to be solved on the run. Accordingly, the refinement of a proposal occurs during the early implementation stage.

The Japanese have other complaints about their American colleagues. "We try to discuss issues and involve all the managers so every manager knows what the company is doing even if it's not his own area. But we find that if we don't allocate definite decisions to each manager, they can't develop their ideas. They have to be given formal responsibility. The quick American decision-making system works fine until something goes wrong. The other way takes time to get all the ideas, but once we've decided, it just goes very quickly."

In addition, the Japanese are often shocked at the bullish way that Americans push forward into unexplored arenas. Likewise, they are shocked at how little time some American managers devote to getting to know their subordinates; how little they understand the job of the line workers, since they did not experience this in a company training program; and how little they care about cooperation. "American managers are narrow-minded. They should understand each other's problems, talk to one another in different departments. But, no, engineer likes to talk to engineer."

At the blue-collar level, workers enjoy frequent meetings at which they are informed of what the company's goals and performance are. However, consultation with lower-ranking employees does not automatically imply that the decision process is "bottom up." Although the level of face-to-face communication in Japanese organizations is relatively high, it should not be confused with participation in decision making, and most communication concerns routine tasks.

Organized Concern for Employees

In only a few of the U.S.-based Japanese subsidiaries that we are familiar with are wages higher than the local industry average. In fact, most companies periodically investigate what the average is and place themselves exactly at the level, or just above it. The same pattern holds for fringe benefits. Some Japanese-owned firms provide generous benefit packages, including noncontributory, no-deductible family medical plans. In most cases, however, health care benefits, number of vacations days, and retirement plans are comparable to those in local medium-size American firms.

In aggregate, however, company benefits are not as extensive as in Japan. For example, we have seen no case of company-subsidized housing, although several Japanese executives said that they are considering the idea in view of

high interest rates and their need to attract skilled personnel. Furthermore, many Japanese managers believe that their American employees prefer rewards in the form of salary rather than the "golden handcuffs" of benefits.

Nevertheless, managers, in U.S.-based Japanese firms generally voiced a desire to make like in the company a pleasant experience for their subordinates. As in Japan, managers at all levels show concern for employees by sponsoring various recreational and social activities that facilitate relaxed communication. As in Japan, some managers even customarily take their subordinates out to dinner if they have problems they wish to talk over.

The focus of this organized concern is on individual attention to all employees, as well as on recognition of merit and loyalty. One consumer electronics company has birthday parties on the last Thursday of every month. These take place in the conference room. Music is provided, and a cake decorated with the company logo is served. The subsidiary president gives a speech and presents gifts. Last year, for example, the gifts were a Cross pen and pencil sets and this year pocket calculators. Pictures of the party are taken and displayed on the bulletin board.

This same company has had two champagne parties this year for all the employees, one when maximum production was reached in a 20-day month and one when the Japanese president visited the plant. The motorcycle company has a summer holiday party, days where employees can try out the product, and children's parties. Banquets with entertainment are held for "old timers," employees who have been with the company five years.

This emphasis on the quality of worklife extends to concern for the quality of the work environment. Japanese managers do not hesitate to invest in upgrading the facilities--building locker rooms and cafeterias, installing new lighting, heating, and air conditioning, etc. The Japanese believe that

by maintaining superior working conditions in addition to improving the quality of output, smooth labor-management relations are more easily preserved.

Transferability to the United States

In the United States, as in Japan, the Japanese management strategies and techniques form a systematic whole. Most personnel policies we've observed are similar to those in Japan, although evaluation systems and job-rotation planning are still somewhat different, probably because of the youth of the subsidiary companies. Less institutionalized concern for employee welfare was also pointed out.

The transfer of management technology from parent firms in Japan to their U.S. affiliates is not without difficulties. These problems are mostly due to differences in language and culture, however, and are not inherent in the management system. On the contrary, the experience of Japanese subsidiaries suggests that U.S. workers are receptive to many management practices introduced by the Japanese.

After an initial settling-down period, turnover rates in these firms are generally lower than comparable local industry rates and absenteeism rates are between 2 and 5 percent. This seems to suggest employees' satisfaction with their workplace. As we pointed out earlier, the productivity level in a number of Japanese-owned U.S. plants is comparable to that of the parent companies in Japan. Quality is also improving, as workers learn new production technologies.

The "lost" American work ethic seems to be flourishing once again under Japanese management. This is not happening as the result of a miracle, but rather because the various management strategies and techniques that we have observed being implemented in varying degrees all facilitate the emphasis on

quality and productivity. We believe, further, that the greater the use of these techniques, the higher are the levels of quality, productivity and employee satisfaction. This is a function of the interrelationships among the techniques: One supports the other, and all support greater efficiency and effectiveness.

A prerequisite for success in adopting Japanese-style management techniques is to proceed according to a detailed plan, patiently and systematically. First, assess the nature of your workforce and the constraints within which you are operating. Map out a plan of organized and integrated change; piecemeal adoption of only one or two techniques is unlikely to be successful. Ensure that top management will visibly stand behind the changes. Finally, and only then, begin to embark on change.

The words of one Japanese manager provide a fitting conclusion: "The success of Japan versus the United States is not because of different ideas, but because of their application. Most of the management theories used in Japan have come from the United States, while the Japanese concentrate not on creating new theories, but on applying them more carefully. The American emphasis is on creating something new and then moving on, creating something new and moving on. The Japanese meticulously examine an idea from all angles and then see how to implement it best."