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Questions about management practices associated with Japanese multinational corporations stem from the success of these firms in the international marketplace. How effectively can these methods spread to other firms and other countries? Are they a holistic system of work organization or simply a catalogue of techniques from which managers can pick and choose? This article investigates these questions at Japanese firms in Mexico, some which are producing for the Mexican market, others for export.

TRANSFERABILITY OF JAPANESE MANAGEMENT TECHNIQUES

Although many globally successful Japanese corporations make use of management practices that have been identified with superior quality and productivity, Japanese manufacturers in Mexico tend not to use these techniques. Interviews with thirty-five managers at thirteen Mexican factories owned in whole or in part by Japanese firms indicate they have little knowledge of Japanese methods. Instead, they retain the classical Fordist system typical of U.S. and Mexican factories that employs minutely subdivided tasks under centralized control. Yet, most of these plants achieved or surpassed their quality and productivity goals indicating that Japanese methods are less integral to Japanese success than many observers have thought.

On the other hand, the transfer of Japanese approaches to several factories in the U.S. confirms that Japanese workers are not necessary to make these techniques work. In fact, they are not as deeply rooted in Japanese culture as some have assumed since they only appeared after World War II and not widely implemented until the 1960s and 1970s. Whether or not it is in a firm’s interest to use these techniques depends on its strategic vision. A management-centered strategy is most likely to employ Japanese practices to lower costs or improve quality, while a process-centered strategy will focus on technological improvements using these practices selectively, and a product-centered strategy will use them very little. Although it goes against popular wisdom, one observer notes that these practices “are separable and need not be transferred en masse.”[28]

Also contrary to conventional wisdom, in Mexico the higher quality and more advanced technology found in the export-production sector, compared to the domestic-production sector, do not lead to differences in the adoption of Japanese management practices. In factories producing for both markets, managers claimed similar hindrances: Mexican workers were poorly educated and had an incompatible work ethic and culture, and the facilities were too new. Even so, in a few cases some Japanese management techniques were in evidence belying the

perception that they cannot be introduced into Mexican factories. In fact, one U.S. auto maker uses very similar techniques in an assembly plant in the Mexican interior.

JAPANESE MANAGEMENT TECHNIQUES

Analysts do not completely agree on what makes up the Japanese management style or whether it is significantly better than others, but certain “highly visible techniques” can be identified and the reasons for their deployment or lack of it explored. The facilities studied had between 100 to 4000 union and non-union workers in electronics, automobile, or small consumer durables production. The research focused on techniques used in U.S. as well as Japanese factories as a check against claims that they were only compatible with a Japanese workforce.

Job Security, one of the most heralded Japanese practices, it is actually guaranteed for only about a third of the workforce in Japan, namely those in the largest companies. Many firms do, however, make efforts to avoid layoffs, at least of full-time employees. In U.S. transplants, the record is also mixed, although at a California factory jointly operated by General Motors and Toyota, a no-layoff policy is considered critical to union-management cooperation. In Mexico, none of the plants guaranteed job security, although one used reduced work weeks to avoid a layoff. Managers claimed such promises are impractical since turnover is high and workers are always looking for better jobs. In the export sector, firms have generally been expanding; some use high turnover to adjust to cyclical fluctuations through attrition.

Quality Circles (QC) involve up to seventeen percent of the workforce in Japan and consist of small groups that meet frequently to conduct quality control and improvement activities. Workers learn engineering and statistical skills to analyze and improve the design of their own jobs bringing the practice of scientific management introduced by Frederick Taylor to a more advanced level. In Mexico there was little evidence of quality circles with only 400 out of 12,760 employees involved in any similar activities. Managers cited lack of interest or education on the part of workers, high turnover, and the newness of their plants as obstacles. In spite of high turnover in the export sector, all three plants with some QC-like groups are *maquiladoras*. In one, managers noted more worker interest than they can provide projects for; while in another, participants received a wage raise because other *maquiladoras* were recruiting employees with QC experience.

Work Teams composed of eight to ten workers in one production area have a wide range of autonomy, in some cases choosing their own team leaders and making decisions about job assignments, discipline, training, quality, and productivity. Workers learn all jobs in their area so that assignments can be rotated, which increases the firm’s ability to adjust to new processes or changes in product mix. Teams do not require high levels of education or motivation, yet few were in evidence in Mexican plants and those few had little autonomy, merely imparting a sense of group identity. Little formal cross-training was found and it did not lead to autonomy for workers.

Kaizen means continuous improvement, both as a philosophical umbrella for all the “uniquely Japanese” practices for improving the production process, and as a term for “specific training and methods for hourly workers to participate in improving productivity and quality.”[40] At

one U.S.-owned export plant in Mexico workers take a forty hour *kaizen* course taught by hourly workers covering ergonomics, cost reduction, teamwork, safety, and company philosophy. None of the plants in this study had formal *kaizen* training, but one export-sector auto plant used *kaizen* concepts in a campaign to define precise work standards for all operations. This plant sets, and often exceeds, high goals for productivity improvement. Only one Mexican manager outside this plant had heard of *kaizen*, while Japanese managers recited their usual litany of impediments, introducing *kaizen* principles only among supervisors and engineers, if at all.

Andon lights allow operators to signal emergencies (red) or problems (yellow). “Surprisingly, some plants welcome yellow lights as an indicator that the line is working at absolute peak efficiency; any further load or speed would bring red lights on and halt the line.”[41] Only two assembly lines at one plant in this study fully used the *andon* system.

Just-In-Time Inventory (JIT) in its ideal form uses nearby suppliers to deliver small batches of parts only when needed. Inside the plant work passes from one station to another with few buffers of spare parts. JIT requires efficient infrastructure, complex supply systems, and well coordinated production. Although distance, customs, and poor infrastructure can make JIT difficult to implement in Mexico, one U.S. manufacturer there successfully manages close time tolerances even with international supply lines. Some plants studied hoped to reduce inventory, and one did a substantial amount of planning, otherwise there was little evidence of JIT.

Peripheral techniques such as *chorei* (short daily meetings), supervisors walking the factory floor, and reduction of visible signs of status improve communications and group identification and keep both workers and managers informed about production plans and issues. Several supervisors in Mexico mentioned regular meetings or insistence from Japanese management that they stay in close touch with operators on the floor (even though none of the Japanese managers were fluent in Spanish). Although Japanese firms are noted for consensus management, Japanese managers in overseas plants tend to be isolated from the process. Many Mexican managers noted a difference from American management styles. Some appreciated it, but some experienced it as interference since “everyone gets his hands in others’ business.”[45] Other Mexican managers felt excluded and looked down upon by Japanese managers.

RELATED ISSUES

Low labor costs and access to the U.S. market were commonly cited reasons for Japanese manufacturers to locate in Mexico. Although turnover is high, especially in the *maquila* plants, only one firm expressed dissatisfaction with its labor force. Of seven unionized plants, only one had turbulent labor relations, though some managers commented on the ineffectiveness of the unions. Compared to each firm’s most advanced plants, productivity in Mexican facilities was generally lower due to less automation and smaller scale since investments were explicitly made to exploit low labor costs. Quality, on the other hand, was usually nearly as good, as good, or better.