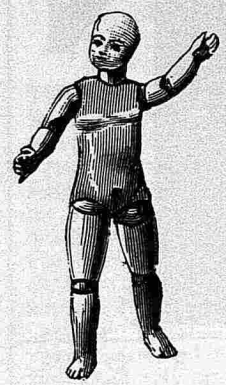


Robotization Improves Worker Attitudes

Spokespersons for the Japan Management Association recently announced the release of a new report, titled *Robotization: Its Implications for Management.* According to this 300-page document, numerous Japanese companies currently employing industrial robots in their operations have achieved encouraging results. Perhaps most significantly, the attitude of many workers toward their job has improved considerably as a direct result of the introduction of robots into work processes. These workers have shown an increased interest in their job, resulting in increased suggestions regarding how to further improve work processes using the installed robots.

The study required seven months of in-depth research and analysis of data gleaned through investigations into 16 case histories of actual robot use. JMA designed the study to present a clear-cut picture of current and future trends and innovations in the use of industrial robots in Japan, and how Japanese management handles the ongoing robotization wave. Published by the Fuji Corporation, it is the first study of its kind undertaken from the managerial point of view.

In addition to detailing expected results such as enhanced productivity, improved quality and lowered costs, the study also cited four other results regarding worker attitudes:

•Improvements in those work processes before and after making use of industrial robots—improved peripheral equipment and overall production technology to keep pace with the robots.

•The realization of total production systems—the installation of robots makes it possible to encode the job knowhow of skilled laborers, thus approaching a total production system for the entire assembly line.

•The stabilization of production output—output can be stabilized regardless of the number of workers or their degree of skill.

•More reliable technological capabilities have led to increased product orders.

The study summarizes the strategic implications of robot use as follows:

•By enhancing productivity and improving product quality, companies can increase their share of the market and thus improve their market position.

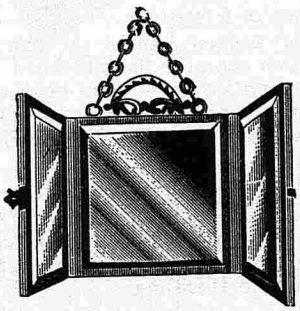
•Companies using industrial robots can open new lines of business (including the development of new products) and enter into new markets.

•Industrial robots assure companies of stable labor power and provide labor with improved benefits.

The report concludes that robot use not only provides the user company with a competitive edge on the market, but also plays a major role in stabilizing its labor situation.

To realize this kind of performance, user companies strongly advise that proper consideration be given to: the re-education and retraining of employees in line with the introduction of robots, the carrying out of robot engineering for the purpose of installing and effectively operating industrial robots and the implementation of measures aimed at improving the work site and ensuring worker safety.

The report is available for $280 from the Fuji Corporation, Busicen Bldg., 5-29-7, Jingumae, Shibuya-ku, Tokyo, Japan.



Multiple Scenarios Help Prepare Executives

According to Temple University's Robert E. Linneman and Harold E. Klein, who teach strategic planning at the university's School of Business Administration, one good way to be prepared is to make use of multiple scenarios.

Although not totally foolproof, multiple-scenarios planning is one of the most effective ways business executives can maintain flexibility and preparedness in coping with unpleasant surprises. According to Linneman, its use in business and industry is growing.

"Suppose you are a military commander," he suggests. "Your forces are dug in, and you're preparing for an enemy attack. You don't know when the attack will come, where it will hit or what form it will take. All you know is, it's coming. What do you do? You prepare a series of counter-actions, each tailored to a specifically anticipated enemy action. Then, no matter what the enemy does, you're ready for it. You have a counter-plan."

The use of multiple scenarios works similarly. A careful, systematic evaluation of a range of possibilities, based on historical data, current conditions and trends, it involves examining several possible patterns of future developments, ranging from the most probable to the least probable, from the most optimistic to the most pessimistic, and when possible, preparing a plan for coping with each possibility.

"The essential ingredients in the use of multiple scenarios are objectivity, logic, self-discipline and just plain guts," said Linneman. "Scenarios help management systematically examine such possibilities as material shortages, government restrictions, changes in government policy, technological imbalance, labor problems, pressures from civic groups and international disturbances."

Linneman and Klein recently completed a five-year study to determine the extent of multiple scenario use among top-ranking industries.

Questionnaires were mailed to the top Fortune 1000 industrial organizations. This information, plus selected personal interviews, revealed that the use of multiple scenarios among these corporations has more than doubled since 1977.

"Even those respondents who told us they were not yet using multiple scenarios indicated a lively interest," said Linneman. "We expect multiple scenarios to become an integral element of the planning process of the majority of American business executive boards by 1990," he concluded.