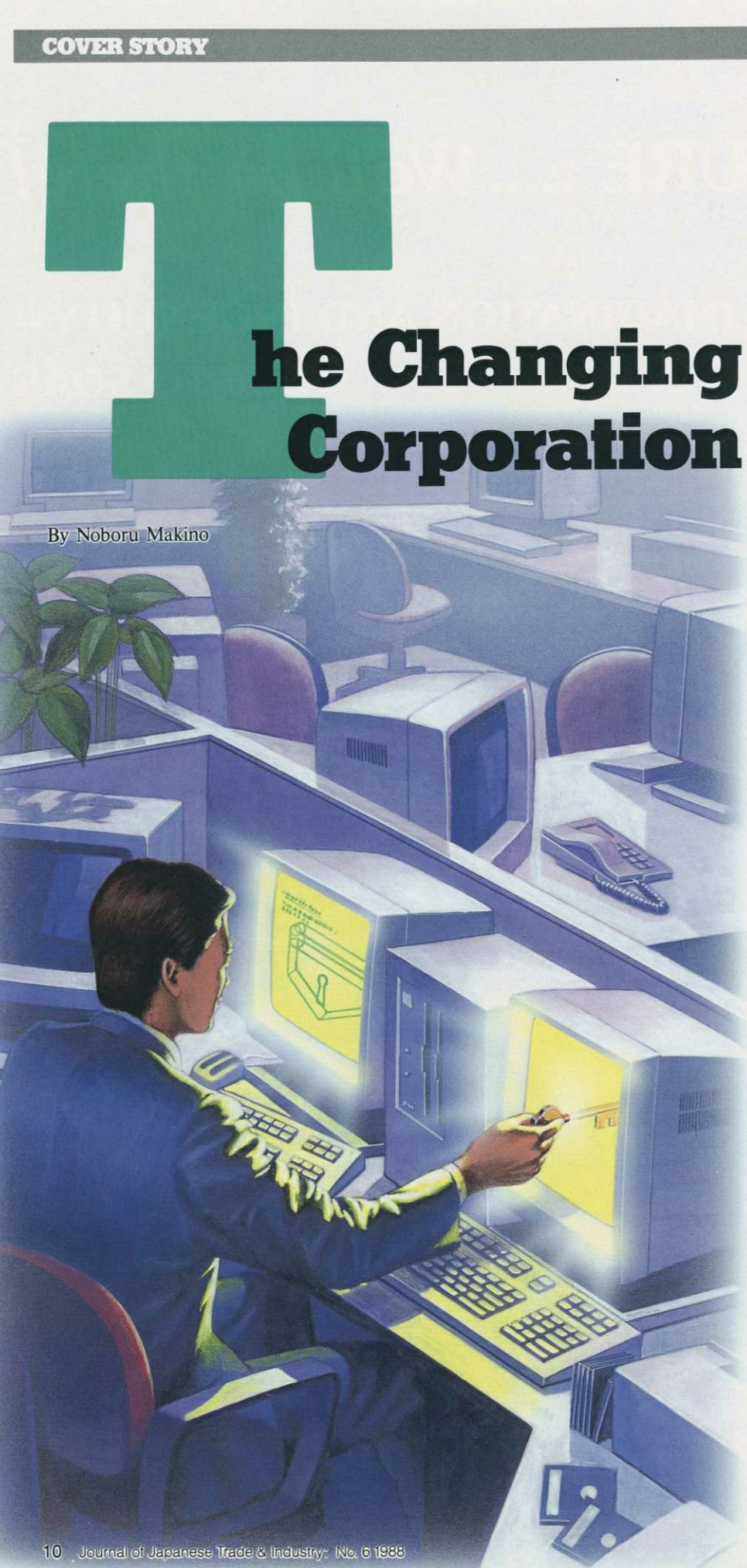
The Changing Corporation

By Noboru Makino



Since the Meiji Restoration of 1868, the Japanese economy has concentrated long and hard on industrialization. The successes achieved are obvious. But many of the industries that led the charge and were once at the forefront of Japan's economic development are now bogged down in the throes of stagnation. In fact, it is this unending cycle of the old giving way to the new and the new to the newer-still that has produced the Japanese economic miracle.

The shifting picture of restructuring reflects the constant process of corrections in response to the changes in the corporate environment. These changes have been particularly noticeable of late; and corporations, realizing that their survival hinges on how well they adapt, are engaged in a never-ending process of change themselves.

Three of the most important changes in the corporate environment have been the maturing of the domestic market for manufactures, international friction and the yen's rapid appreciation.

In 1929, the textile industry accounted for 44% of the Japanese economy. Today, this figure is a mere 4.8%. In 1929, the average person in still-impoverished Japan normally owned only four sets of clothes—one for each of the seasons. Since then, the Japanese economy has grown more than 30-fold in real volume terms. Had that growth also held for the clothing industry, the average person should own about 120 outfits. But the actual figure is probably only about one-tenth of that, or about 12 per person. In domestic market volume terms, the textile industry has grown only one-tenth as much as the Japanese economy as a whole; which agrees quite nicely with its diminution from 44% to 4.8% of the economy.

As the domestic market matured, industries found they were able to continue growing by expanding exports, yet this increase in exports has in turn intensified international friction, another aspect of

the harsh environment that corporations now face.

This is where the yen's appreciation enters the picture. The appreciation of the currency makes exporting harder and importing easier, and there is no question but that this has wrought a fundamental change in the Japanese industrial climate and done much to demonstrate the impossibility of relying on exports for ever-greater prosperity.

On top of this import-promoting, export-discouraging impact, the yen's appreciation has greatly increased the relative cost to Japanese corporations of such managerial resources as labor, property and energy. Corporation tax bills are also high by international standards.

Japanese wages are now the highest in the world. Japan is well known for the extremely small disparity between white-collar and blue-collar wages, but what this means is that labor costs are now higher here than in the other industrialized countries. Japanese firms with factories overseas report that, taking Thai blue-collar wages as a base figure of 1, those in Britain are 8, the United States 17, West Germany 18 and Japanese wages pushing 20.

Ability to respond

Land prices are much the same. According to one estimate, although the United States has about 28 times the land area that Japan has, the total price of all that American land would only be one-third the price of all the land in Japan. For equipment manufacturers and other companies requiring sprawling factories, high-priced land has a very negative impact on profitability and argues against siting plants in Japan.

Turning to the cost of industrial-use energy, aluminum smelting—so energy-intensive that the metal is sometimes referred to as canned electricity—has been all but abandoned in Japan. At one time, aluminum smelting was one of Japan's showcase industries. No more.

As far as corporation tax is concerned, Japanese corporations pay a good 10% more than their counterparts in America and Europe.

Given these conditions, it is essential that manufacturing corporations come up with new strategies to survive. Making the proper choices in globalization is crucial—as is the ability to respond to the information and service revolutions—if industry is to hope to adapt to this new environment.

Regarding the first of these choices, globalization, as noted above, domestic managerial resources are prohibitively expensive for Japanese companies hoping to compete. Industry cannot afford to think only of the domestic situation but must devise an integrated management system that makes the best use of its resources on a global scale.

The corporation must look at each step of the process, including product development, the production of parts, assembly, marketing, finance and accounting, and decide where each should be based for optimal return. This is the essence of globalization—what might be called "borderless-ation."

The key to globalization is making the correct strategic decisions on where to site each operation. The head office, which functions as a management command post, should remain in Japan, where it can coordinate the company's global operations. At the same time, the organization can become stronger by delegating broad authority to the main overseas bases.

What about technological and product development? R&D should really be thought of as two separate fields: basic research and technological development. Most people would agree that the U.S. outperforms Japan in terms of basic research, one of the reasons for this being that the U.S. graduates more than eight times as many science majors per year as Japan does. Vast amounts of money are spent on basic research, much of it defense-related, and America is known for its intense private research activity.

When it comes to technological development for applying the results and turning that basic research into a wide range of industrial products, however, this can better be done in Japan with its large groups of engineers working together. Japan graduates more engineers every year than America does, and more than two-thirds of all Japanese R&D is funded by private industry. Rather than concentrating on individual research, Japan excels in group-oriented efforts. Given this, it probably makes sense for a corporation to locate its R&D efforts in Japan.

In deciding where to produce parts, it is generally better, in light of labor costs, to have parts produced overseas, especially in fairly low-technology industries turning out large quantities of standardized parts. In the automobile industry, for example, nearly 300 of the approximately 500 member-companies of the Japan Auto Parts Industries Association are already producing overseas.

A global advantage

It is, of course, an advantage if you can locate assembly near your market. For example, assembling cars meant for the American market in the U.S. or Canada avoids trade friction.

As far as finance is concerned, Japanese industry has traditionally relied on domestic sources for the bulk of all its capital resources, giving Japanese financial institutions considerable clout with their industrial clients. But now overseas capital procurement has become the norm, the yen has appreciated, and Japanese corporations have started to think in much more global terms with regard to their financing.

The same thing may be said of taxes. Many Japanese companies have already moved their operations to Panama and other tax havens. According to figures disclosed in a recent session of the Diet, 2,711 companies capitalized at ¥100 million or more have already set up in such tax-free zones.

In the past, globalization was by and large taken to mean exporting to markets worldwide. But it has now come to mean locating operations overseas in a global siting mix designed to maximize the efficiency of each operation and hence to position the company most advantageously on world markets.

The second big choice facing a company attempting to adapt to the new corpo-

Going global: company executives hold a strategy meeting.

rate environment is that of how to handle the information and service sides of the business–the non-manual parts.

It is widely said that the industrialized countries have left the industrial society behind and are now entering the post-industrial information age. What this means is that, of the three pillars on which our society is based–"things," energy and information–the tangible aspects of things and energy are becoming less important and the intangible aspect of information is becoming more and more important. Be that as it may, no industrial society–not even an information society–can long survive unless it also manufactures things. Until recently, manufacturing corporations had concentrated simply on producing goods, but they now have to combine goods and services if they want to survive.

In 1970, the manufacturing sector accounted for over 35% of Japanese GDP. This is forecast to shrink to around 20% by the year 2000. In contrast, medical care, R&D, consulting, computer software and the rest of the service and information sector (excluding finance, transportation, communications and distribution) accounted for slightly over 17% of GDP in the 1970s but is expected to grow to over 30% by 2000. That seems to be a remarkable turnabout, though if we think of manufacturing and information services together as one sector, the total percentage of GDP will be about the same (50%) in 2000 as it was in 1970. This is no change at all. In other words, if manufacturing puts more emphasis on the creative and information side of its operations, the future does not look so grim for manufacturing after all. This is, in fact, the only way manufacturing can survive.

There has been considerable talk recently about companies diversifying out of their original industries. Seeing that its industry is on the decline, the company often moves into a new line of business completely different from its original work. Diversification is not the answer, however, and the company is unlikely to succeed in its new line. How can a rank amateur–which is what these companies are in their new fields–expect to compete against seasoned professionals? For example, Nippon Steel began a mail-order business based on catalog sales, but it was so deep in the hole after the first year that it cut its losses and got out.

Art of innovation

A company should never stray too far from what it knows best. Yet at the same time, clinging blindly to yesterday's strategies is a well-worn route to oblivion. So what is a company to do? The answer lies in changing the thrust of its main line of work–in innovating. Economist Joseph A. Schumpeter defined innovation as the introduction of new technological, marketing, organizational, resource or other devices to enable the company to grow. There are many different ways to approach innovation–including adding intangible value to the manufacturing business.

Tadahiro Sekimoto, president of NEC and chairman of the New Business Conference, once said, "In the beginning, NEC built communications equipment for the Nippon Telegraph and Telephone Public Corporation (now NTT) based on blueprints provided by them. At the time, we were secondary-sector manufacturers in the strict sense of the word. Nowadays, only 300 out of every 1,000 people we hire are assigned to manufacturing, and the remaining 700 are assigned to the software or design divisions. These are creative- and information-oriented fields. NEC is now fully involved in both the secondary (manufacturing) and tertiary (service) sectors of the economy. We are what you might call a 'secotertiary-sector' company."

The textile industry is much the same. As fabric per se has become less important, the industry has put increasing emphasis on fashion appeal–the intangible value-added component. The textile industry is relying more and more on the services offered by fashion designers as it continues to churn out new products. This is a perfect example of a secotertiary-sector industry–the combination of tangible goods (clothing) and intangible services (fashion).

Many industries are making a major R&D effort to come up with high value-added products. Examples here are contact lenses from the synthetic fiber and plastics industries and electronic components from the ceramics industry. These products can be sold for tens of thousands of yen per gram. The material that actually goes into contact lenses, for example, is probably not worth any more than ¥30 or so, yet they sell for a thousand times that retail–the price difference being the service value added.

In the steel industry, the trend is away from raw materials and toward more value-added products. No longer able to compete with Korean manufacturers in cost terms in such basic products as steel slabs, Japanese steelmakers are instead concentrating on high-technology sheets and have developed chrome-plating technologies that no other country can match. In textiles, too, Japan is the world-leader in the production of superfine cotton and synthetic yarns that are only microns in diameter.

Rather than hastily jumping into an unfamiliar field, corporations have to look for ways to innovate and add value to

what they already know and do well, moving from brute manufacturing into the secotertiary sector.

If a company is going to adapt to the changing environment and survive as a viable entity, it must internationalize its operations and innovate drawing on its experience. At the same time, it must never forget its roots—which for the Japanese company means not abandoning the Japanese way of doing things. One excellent example here is the group-oriented R&D that has served Japanese companies so well. The same is true in production. While the shop floor workers are left to their own devices in the United States, Japanese companies have achieved good results by having members of the management walking around and visibly involved. Each culture has its own way of doing things, and consequently its own strengths and weaknesses.

For example, Japan is very good at production technology for tangible products, whereas America does better at intangible products. In the information industry, Japan has a huge export surplus in hardware and equipment, but America has a clear lead in computer software and other intangible information-related products. And Europe is unsurpassed in the quality of its individually crafted products, as demonstrated in the German Mercedes and the Italian Ferrari.

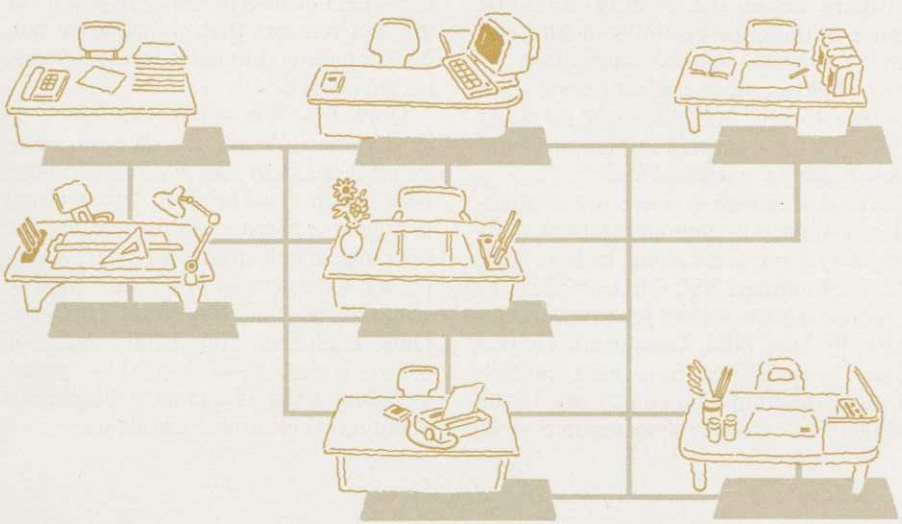
Japanese industry has tended to try to do everything by itself, but the need now is to concentrate on doing what it does best and to find its own niche in the world market, thus avoiding friction with other countries and reaching its full potential as a country.

Along with this industrial restructuring, changes are also taking place in the way Japanese corporations are organized. First is the networking of industrial organizations. The classic Japanese industrial structure was in the shape of a pyramid, with the larger corporation at the top the subcontractors below it, the sub-subcontractors below them, and so on until you had the very small suppliers at the bottom. This organizational structure proved very effective with large-volume production items, lending itself to a variety of innovative techniques such as the just-in-time *kanban* system mandating close cooperation among the different stages of the production process and giving subcontractors a secure stream of orders and access to superior technology and management resources.

Birth of networking

Changes in the international economic environment have started to make this pyramid structure disadvantageous, however. For example, if the company at the top of the pyramid moves operations overseas, it is very difficult to continue such close-mesh purchasing from subcontractors in Japan. The very fact that suppliers were dependent on a single client has made their existence very tenuous. It was to alleviate this drawback that industry networking was born.

The networking format is a horizontal structure with parallel and equal relationships among corporations entering into flexible contracts adaptable to changing market conditions. Under the networking system, a company developing a new product is not bound to traditional suppliers but is free to order parts from whatever company is best with regard to the necessary technology; just as it is free to terminate contracts without worrying too much about what subcontractors are going to do when the product stops selling well. Likewise, the subcontracting company is free to exploit its new technology by selling it to other companies as well.



As companies become more global, networking will also enable them to supply each other despite the absence of any formal ties in Japan. And in-house networking, of course, encourages the formation of venture-project teams to innovate within the corporation.

The second major change taking place in the corporate organization is the shift to more direct distribution. Japan has an extremely complicated, multilayered network of wholesalers between the producers and consumers. This system, for all its advantages, also has several drawbacks, among them the propensity to excess inventory and the filter that it imposes on market feedback to manufacturers.

As a result, in adapting to their new business environment, manufacturers have recently begun bypassing their traditional distributors and supplying customers directly. Eliminating the middle men and selling more directly means being able to respond to market needs more easily—delivering exactly what is wanted when and where it is wanted. If this trend continues, the producers and consumers may ultimately be melded into the single entity that writer Alvin Toffler has termed the "produmer."

This corporate organizational restructuring—from vertical to horizontal organizations and from long to short distribution chains—is further proof of Japanese industry's resolve to survive in a changing world.

Noboru Makino is chairman of the Mitsubishi Research Institute and also serves as a senior member of a number of government advisory councils and economic organizations.