

Itoki: Easing Office Strains

By Kei Uchimura

Visiting foreign businessmen have long been struck by the spartan offices of Japanese companies. Now, however, change is in the wind. Japanese corporate managements are revamping their conventional concept of the office with an eye to worker comfort. Japan today is witnessing the birth of what might best be called the "New Office" market. And as with so many trends in Japan, it has a distinctively Japanese twist. For instance. . .

At 9 a.m., the scent of lavender drifts through the office to brace workers for a day of labor. Just before lunch, the aroma of lemon fills the office to whet their appetites, and at 3 p.m., the fragrance of jasmín relaxes tired nerves. A blast nozzle installed in the ventilation system jets out selected scents in an exercise in environment control technology developed to ease mental strain and raise worker efficiency.

Sitting comfortably

Or take the disorderly web of wiring and cords leading into and out of computers, telephones, lighting fixtures and other machines as Japanese offices finally leap full-blown into the age of business machines and office automation. This not only makes it difficult to change the office layout but also poses serious safety hazards. Now Japanese office designers are coming up with free-access floors (double-layer floors containing wiring) and tile carpets and system furniture with built-in wiring circuits. Moreover, ways to kill the glare of fluorescent lamps on the display screen are being devised because of the increase in work involving the video display terminal.

These and other ideas reflect today's new concern with ways to improve functionality and increase the comfort of the workplace. The growing information-orientation of Japanese society and the structural change from labor-intensive to knowledge-intensive industries are be-

lieved to have contributed to this change in corporate attitude.

Yet it takes more than a change of heart to change decades of traditional office design. The emergence of the New Office market has spotlighted the need for up-to-the-minute office furniture designed from the standpoint of human engineering. And that has meant accolades for Itoki Co., an office furniture maker that has soared to prominence in the New Office market largely on the basis of a product it calls the "Vertebra Chair."

"The chair is the only piece of furniture in the office that is in constant close touch with the human body," explains Ichiro Murata, manager of Itoki's PR and Planning Department. "The key to designing a new chair is to find ways to reduce the fatigue of an office worker who must sit on it for hours. The Vertebra Chair became a hit because it can be set in any of four basic sitting postures without using the hands. The four basic postures are those a person assumes when talking with someone, when working at a desk, when taking a short breather, and when resting. In the past, even the most advanced chair had to be adjusted by hand, but both the back rest and the seat of the Vertebra Chair move automatically in conformity with the body."

There are a lot of misconceptions about chairs. Most people think it is more comfortable to sit than to stand. But in fact, this is true only of the lower limbs. When one is seated on a chair, the intervertebral disks of the upper body are pressed down harder than when standing. The most important point in design-

ing the ideal chair is to eliminate pressure on the disks.

More and more office workers are complaining of backache, and the most likely culprits are chairs that do not match their working posture. The spread of automated office machinery has increased the length of time an office worker remains sitting at his desk. The Vertebra Chair succeeded by exploiting this "mismatch" between man and the chair.

Fighting fatigue

The Vertebra Chair, which Itoki markets through a technical tieup with Open Ark Co. of the Netherlands, has a back rest designed from the standpoint of human engineering. When a person is sitting straight up to talk with someone, the back rest gently supports the backbone. When one is working, the back rest and seat tilt forward as much as six degrees. This function prevents interruption of the blood circulation in the thighs, thereby making it possible to work at the desk for a long time without fatigue. When one wishes to take a breather, the back rest tilts back while the seat moves forward. As a result, the weight of the body is evenly distributed, reducing pressure on the intervertebral disks and easing muscle tension. And when one wants a real rest, the seat inclines backward by as much as 12 degrees. The Vertebra Chair is not cheap. But it is exceptionally popular.

"Japanese companies used to spend money on their factories, but today they spend it on the office," says Itoki's



Japanese companies are putting fresh emphasis on creating comfortable furniture and a pleasant environment for office workers.

Murata. "This is because investment in the office is essential to raising intellectual productivity. The challenge in the New Office market is to make products which increase working comfort by placing primary importance on worker. The question is how best to meet the needs of worker's five senses, I believe."

In 1987, Itoki Co. established New Office Research to shape its future as an integral planner of office space. Staffed with office layout planners and designers, the institute has surveyed the opinions of its client companies. One client, YKK, was named the recipient of the Nikkei Office Grand Prix in a contest sponsored by the *Nihon Keizai Shimbun*. Itoki's New Office Research planned YKK's office space.

First requirement

The New Office Promotion Council is a private-sector organization established in June 1987 with the backing of the Consumer Goods Industries Bureau, the Industrial Policy Bureau and the Machinery and Information Industries Bureau of the Ministry of International Trade and Industry (MITI). In February the council produced an interim report on Japan's office environment which found the average Japanese company envisaged an office with 8.6 square meters of effective floor space per worker and one office machine per eight workers. As many as 78% of the respondents preferred to use floor ducts for wiring, but only 12% provided a

rest and recreation room for their workers. A survey of "worker complaints" about their office found that an overwhelming 74% cited the lack of a place to "refresh" themselves. The first requirement of the New Office, it would seem, would be that it have a place where workers can relax and refresh themselves.

A survey of management perceptions, on the other hand, disclosed a different set of priorities. The areas management wanted improved were: (1) filing (63%), (2) installation of office machines (57%), and (3) office layout (47%). The matter of primary concern was clearly still function and not worker comfort.

Nonetheless, the New Office movement is expected to gain momentum in the years ahead. This is because managerial efficiency simply cannot be raised in an information-oriented, knowledge-intensive society without improving the office environment to raise worker morale. The increased use of automated office machinery has been accompanied by increased complaints about eye fatigue, backaches, and even insomnia and infertility. The New Office Promotion Association is studying ways to reduce machine noise, and is working on standards for comfortable offices as well as reviewing office space design, color planning, lighting and air conditioning.

Murata stresses, "The New Office concept is still in the introductory stage. Compared with other parts of Japan, Tokyo is actually lagging behind. New

buildings with New Offices are already sprouting up in regional areas. The coming office building rush in Tokyo, however, will change all that, and create a large New Office market. The sharp increase in working women will also help, since firms with new office buildings have found that women job applicants increase markedly. Women care very much about corporate image, and New Offices are effective in attracting women workers."

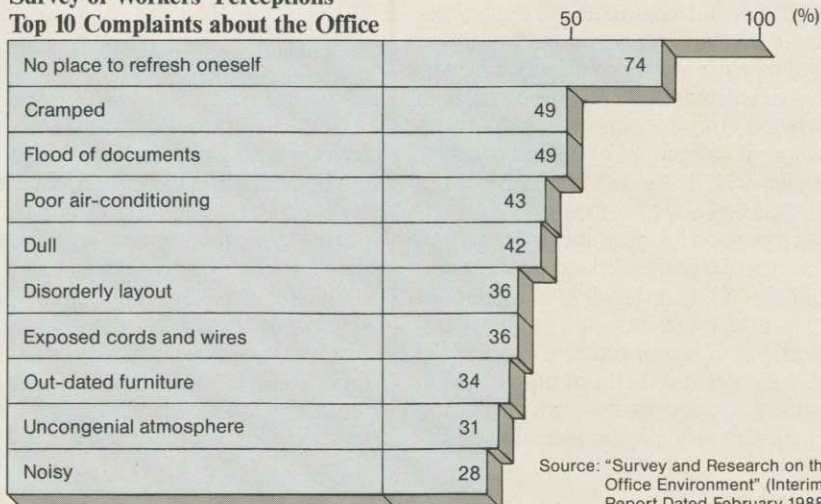
Planning layouts

Itoki Shoten, the predecessor of Itoki Co., was established in Osaka in 1890. At the time, it dealt mainly in inkwells and fountain pens. In the century since, it has grown into a solid company with 1,087 employees and annual sales of ¥88.4 billion in fiscal 1987. Today, Itoki manufactures and markets not only office furniture, but also fully automated rental safes and built-in closets and wardrobes for athletics clubs. It also plans office layouts for introducing office machinery. Itoki's originality and creativity in both hardware and software is the driving force behind its corporate activities.

In May this year, Itoki started marketing its new "Thighlax Chair." The chair differs from the Vertebra Chair in that its fulcrum is in the front part of the seat and it has a synchronizing mechanism so that, when the seat is tilted back 10 degrees, the back rest inclines backward for up to 20 degrees. It is also fitted with a mechanism which allows the rear portion of the seat to tilt independently from the front edge. This prevents knee fatigue and reduces pressure on the thighs.

Behind Itoki's ability to market product after product that ensure the "comfort" of working people is its unique corporate constitution. About 10 years ago, the company stopped requiring employees to clock in. Today, its innovative office even boasts a billiards corner and a bar. If one of the major elements of comfort is a spirit of play, then Itoki is a suitable standard-bearer for the changes occurring in Japanese offices.

**Survey of Workers' Perceptions
Top 10 Complaints about the Office**



Source: "Survey and Research on the Office Environment" (Interim Report Dated February 1988), New Office Promotion Council

Kei Uchimura is a free-lance writer specializing in business and education problems. He is a regular contributor to economic magazines and newspapers.