Increasing productivity through technology

by Jay S, Mendell and
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What plans have you made to boost your profit margin by increasing your productivity?

What plans have you made to gain a competitive edge by using such new technologies as computers, telecommunications and robotics?

There is a good chance that many businesses will be handed improved productivity as a gift, as a result of favorable tax treatment of capital investment and an older, more experienced, more stable workforce. But companies will have to make the conscious decision to grow by managing smarter and adopting the new technologies.

Some companies will seize every opportunity to upgrade productivity; having made that decision they will thrive. Others may chase growth merely by adding workers; their competitive position will slowly decline, and eventually they may disappear.

That U.S. GNP per worker has remained level during these last five years, the early years of the robotics-telecommunications-computer era, demonstrate how un-adaptive our managers are.

There are four sources of increased productivity. First, the baby boom generation has acquired work experience. Second, we have more facts and fewer illusions about what motivates workers than we did 10 years ago. Third, the Congress has created a tax advantage for purchase of new equipment. And fourth, the new equipment provides better ways of working.

The results of new technologies are often astonishing. How astonishing? Well, according to a recent issue of *Fortune,* in the steel business, non-unionized, technologically advanced minimills, recycling scrap steel, produce their product at $29 labor costs per ton, which compares very favorably with the Japan's $75 per ton and the typical U.S. labor costs of $152 per ton. And Goodyear has two of the most advanced tire plants in the world, which employ half the number of workers of older plants. (But don't expect a tour: visitors are not allowed.)

Surviving in a high tech economy

Office automation is receiving extensive attention, and no wonder. Join us in scratching out some figures on the back of an envelope.

You pay a clerk *$10,000* a year, let's say. To pay this salary for 10 years (and allow a modest increase each year), you would have to invest about $150,000. You can pick out the time-value-of-money on your M.B.A. calculator and discover that at a 14 percent discount rate, this $150,000 is equivalent to a present value cost of $55,000. Now, if a computerized, telecommunicating workplace can install an additional *$10,000* computer system instead of hiring that "$55,000" clerk, you can save $45,000.

And never mind clerks: think about how much time executives waste. Think about time wasted in traveling and you may understand *why* teleconferencing resulted in 90,000 meetings and *$100* million in sales in 1982 and may hit 1,500,000 meetings and $580 million in sales by 1986.

Whether increased productivity will cost jobs is not clear. Possibly a coming high productivity boom economy will create new jobs in new occupations. But this much seems clear: jobs are more likely to be lost in the non-productive companies that disappear than in those that automate and prosper. ■

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