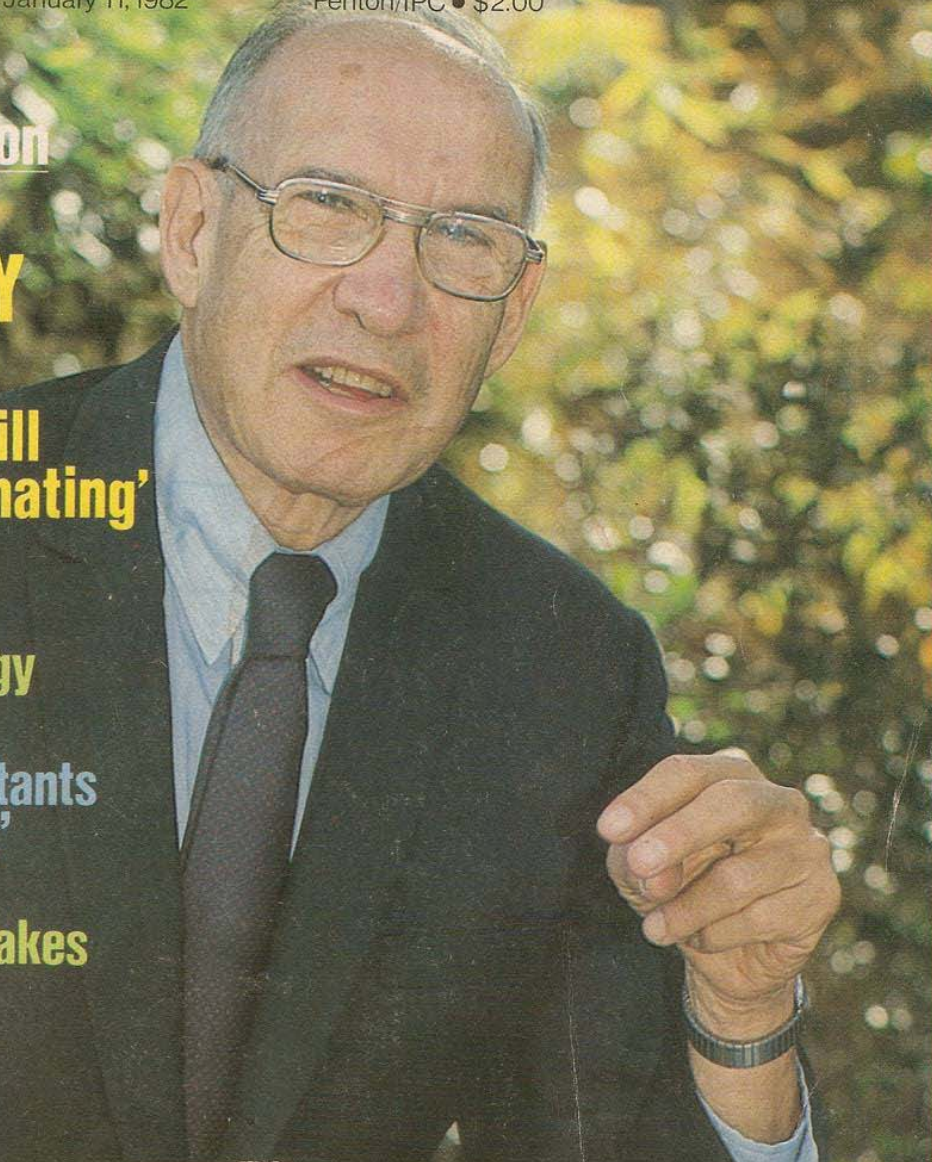


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Note from Robert Porter Lynch

I read this article in 1982 and quickly realized I was destined to design the architecture to make these collaborations (later to be termed Strategic Alliances) work effectively. Three years later the first workshop was held in Providence R.I. to begin discerning Best Practices. From that workshop evolved my first book: The Practical Guide to Joint Ventures and Corporate Alliances, published in 1987

SHAPE of INDUSTRY TO COME

By Peter F. Drucker

Nobody can accurately forecast what industries will be with us a half century from now. But there are certain forces already at work that will shape tomorrow's industry. And the corporations that adapt to these forces will not be the traditional style multinationals. Nor will they necessarily be today's giants.

Last year's most significant event in international business went virtually unnoticed by the world press and by the world's business community. It was the purchase by General Motors Corp. last August of a 5.3% stake in Suzuki Motor Co. Ltd., the smallest of the Japanese automobile makers.

With this purchase, GM abandoned the two principles on which it had based its strategy at home and overseas ever since its founder, William Durant, made his first acquisition some 70 years ago. GM had always sought 100% ownership—or, if prevented by law from doing so, at least enough shares to have control. And GM traditionally bought companies in other countries in order to get access to those companies' national markets.

But buying 5.3% of Suzuki obviously gives GM no ownership control. And GM did not buy Suzuki to *sell* cars. It bought it to *buy* cars. By the end of the 1980s, GM expects to buy up to 800,000 "mini-cars"—designed jointly by GM and Suzuki and built largely either in automated Suzuki plants in Japan or in Suzuki-managed plants in the labor-surplus countries of Southeast Asia. GM intends to distribute these cars through GM's own dealers in the U. S., Canada, Western Europe, and Australia. At the same time, the 5.3% stake in Suzuki gives GM access to Suzuki's parts suppliers—increasingly located

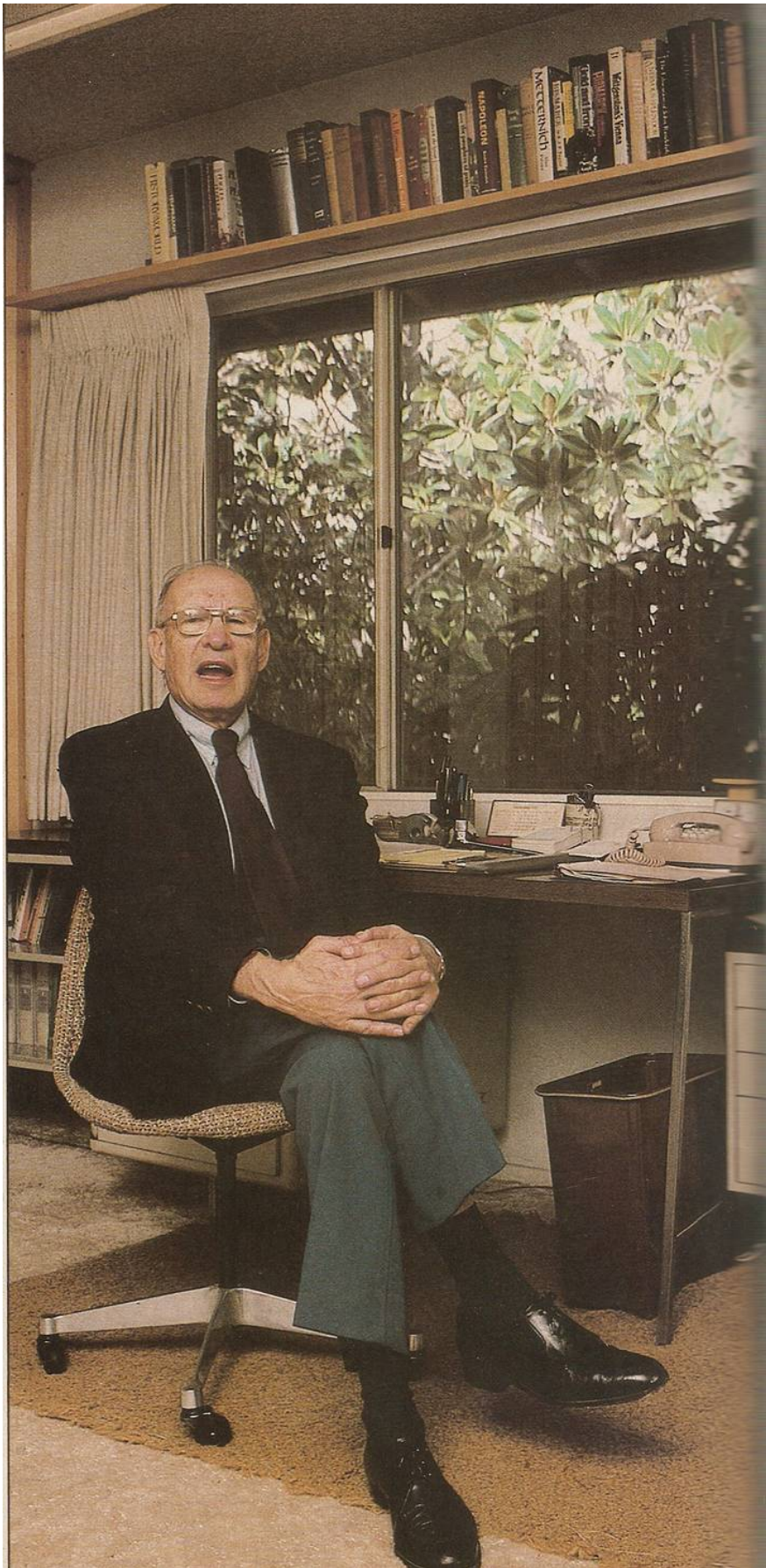
outside Japan and in labor-surplus countries—and thereby to Third World sourcing for what is probably GM's most profitable business, the parts-replacement market.

The traditional GM policies were the policies on which practically all traditional multinational companies had structured themselves ever since American and German manufacturers first went "multinational" in the 1860s. A parent company with "subsidiaries" in other countries which are wholly owned or financially controlled, and which produce—for sale in their own domestic markets—substantially the same products as the parent company, remained the standard model for economic integration of the world economy before World War I. And, contrary to what "almost everybody knows," a larger share of the world's manufacturing production was then in the hands of multinationals than it is today.

After the long hiatus between World War I and World War II, the world economy gathered speed again, and the same model served the expansion of the multinational. It is still the model that almost everybody, especially in the developing Third World countries, has in mind when talking of "multinationals." But it is *not* the shape of world industry in the making.

Tomorrow's multinational. A trend toward a very different multinational is the first trend in the world economy today.

The multinational of tomorrow will be comprised of autonomous partners, linked in a confederation rather than through common ownership. It will be shaped very much like the GM-Suzuki structure. It



will integrate the labor resources of the Third World, where a tremendous number of workers are desperately in need of jobs, with the purchasing power of the developed countries.

In the industrialized nations, as a result of low birth rates and the "educational explosion," young unskilled workers available for traditional manual jobs will be increasingly scarce and, by the year 2000, virtually nonexistent. The new multinational will be held together by management and marketing. No one unit will be the "parent company." No one will control. The relationship is one of mutual dependence rather than domination and subordination. Suzuki's top management does not "report" to GM, even though Suzuki is a dwarf next to GM. And if its plans work GM by 1990 will have become as dependent on Suzuki as a supplier as Suzuki will be dependent on GM as a customer.

Above all, the new multinational—in thorough contrast to the old one—integrates the economies of the developing Third World countries and those of the developed industrialized countries. It is popular myth—and a shibboleth of "anti-colonial" rhetoric—that the traditional multinational "exploits" the developing countries.

In fact, less than one-eighth of the entire overseas investment of U. S. manufacturing multinationals since World War II went into developing countries—and then mostly into "almost-developed countries" such as Mexico and central and southern Brazil. The traditional multinational has invested to gain access to markets and poor developing countries had no markets. The legitimate complaint of the Third World countries against the multinational is not that they are being "exploited." It is that they are being neglected.

The new multinational will change this situation—and drastically. Developing countries, which will attract those stages of production that cannot be fully automated, will thereby become of increasing importance to the developed world. In turn, the markets of the industrialized world will become increasingly important for the developing countries, where jobs for young people with minimal skills will be the central social concern of the next 25 years. Most developing countries cannot possibly hope to find jobs for their accelerating populations except 'in producing manufactured supplies for the markets of the developed world.

New management skill. Clearly this will totally change what is demanded of management. The critical skill in the new multinational — for most businessmen a brand new one—will be that of coordinating units that cannot be commanded but which have to work together. These units will have different cultures, different traditions, and different roles. Indeed, a good many of them may be • government-owned.

The critical decision for every manufacturing company in the developing world will be to determine what portions of its output can be automated—and should, therefore, be done in a developed country—and what parts cannot be automated and should be designated for "production-sharing" with a developing nation.

But what can be automated? When? How soon? What cannot be automated, at least not for the time being? These will become central management questions, questions which almost no management is as yet fully prepared to answer.

More important and more difficult than the business decisions which the new multinational faces are its political problems, both in the developed and the developing world. In the developed world, of course, we can expect continued union resistance and continued government resistance, to both automation and production-sharing.

For the developing countries, production-sharing offers both a tremendous opportunity and a tremendous problem. It offers them the chance to develop their manufacturing skills and their management people. It promises the jobs without which almost no developing country can hope to survive the next 25 years socially or politically. But production-sharing also creates a new kind of dependence which can easily degenerate into a new "colonialism."

This need not happen—as the example of Taiwan clearly shows. The Chinese in Taiwan have used production-sharing, first to create semiskilled jobs, then to develop managers and professionals, and finally to move from traditional low-skill industries such as textiles to high-technology industries.

Medium-size is best. The second - strongest trend in world business is the emergence of medium-size—and usually highly specialized—companies as best-suited for the opportunities of the world economy and

It is commonly believed that there has been rapid, and rapidly increasing, concentration in world industry. Indeed, the belief has now been around for almost a century, and for all that time it has proved to be a delusion.

Market structures do indeed change. And in mature industries in which there is no great technological change—as was true, for instance, of the automobile industry for at least 30 years—there is a trend toward concentration in the very large companies which allows room for some fairly small companies to fill a specialty niche. But the moment technology changes drastically, the structure becomes fluid again. Today's "giants" then become tomorrow's "also-rans." They become tomorrow's Chrysler or International Harvester.

In the last 20 years, medium-size companies have, by and large, grown faster than the very large ones and

The critical skill . . . will be that of coordinating units that cannot be commanded but which have to work together

have grown faster particularly in the world economy.

The medium-size company fits the new multinational structure far better than the traditional giant. It also finds it easier to work out confederations and partnerships not based on control and ownership. It finds it easier to work with people who belong to different cultures—simply because it deals person-to-person rather than level-to-level. And its specialization in a fairly narrow range of products ensures that the people with whom it deals talk the same language, even though their cultural backgrounds may be totally different. It is also better-suited to today's political environment, both in the developed countries and in the developing ones its low visibility keeps it out of the headlines.

The medium-size manufacturing company in the U. S. — a company with 1,000 to 5,000 people (which any earlier period would have considered an unmanageable giant — has discovered the export market in the last ten years. It is this kind of company which, also in the last ten years, has typically begun to sell in Japan out of its sales office in Osaka, with some of

the parts assembled in Japan. And it is this kind of company that has a small affiliate in Germany—with a German assembly operation—and a somewhat larger operation, perhaps, in Great Britain or in France.

It is the medium-size company which, somewhat faster than the giants, has been building a truly "multinational" management team. It has become fairly standard practice in a lot of medium-size companies to have a quarterly management meeting, at company headquarters in, say, Texas or Oregon, with the heads of the British, German, Brazilian, Japanese, or Australian affiliates participating—not as heads of subsidiaries but as partners in the company's top management team.

In the new industries especially—industries based on information or on new biological disciplines—medium-size companies are likely to grow much faster than the big ones. They do not have to "unlearn." And the model of the new multinational is more compatible with their operating practices, the way they think, and the way they see themselves than it is with the culture, the vision, and the tradition of large companies.

Competitive coexistence. There is a third trend, and it may be the strongest of the three. It is the trend toward a world economy which political scientists would describe as "polycentric"—that is, a world economy in which there is no one clear leader but a number of major centers living together in "competitive coexistence." In particular, it is virtually certain that both Western Europe and Japan will greatly increase their position in the multinational economy, for they are still grossly underrepresented in it.

It has almost been a law of international economics that the position of a country in the multinational economy roughly approximates its position in manufacturing production and international trade. Some 20 years ago, when U. S.-based companies represented almost two-thirds of the leading multinationals, this proportion roughly corresponded to the position the U. S. then held in both production and in world trade. That 1960 position still reflected the ravages of World War II and was clearly incompatible with a healthy and stable world economy. Since then other nations have grown much faster. The present situation, with the U. S. no more than first among equals and under great competitive pressure from its peers, is far more

"normal"—indeed, far more tenable. And it represents far less a "decline" of the U. S. than it represents an advance of the others, an advance that was overdue and could indeed have been predicted in 1960 (and was, by myself, among others).

In today's multinational economy the U. S. still holds a commanding lead, with almost half of the world's major multinationals based here. This cannot continue. We must expect multinationals based in Western Europe and in Japan, and increasingly multinationals based in the "almost-developed countries" such as Brazil and Mexico, to advance rapidly.

The Japanese, in particular, are grossly underrepresented in the multinational economy. They will not be able to maintain their export position unless they establish strong manufacturing presences in their major markets, above all in the developed countries such as the U. S. and those of Western Europe. Traditionally no exporter has maintained a strong market position in a developed market without also building a strong manufacturing presence there.

The Japanese are, however, caught in a dilemma and so far they have not been able to resolve it successfully. At home they are experts in what I have called the new structure of the multinational. Indeed, most major Japanese companies in Japan are built as confederations of autonomous businesses linked together by marketing arrangements rather than by money. But outside Japan the Japanese find it exceedingly difficult to build such structures—primarily because they find it almost impossible to work with people with whom they have not grown up and spent all their working lives.

Shaping forces. These three trends are trends in society and economics, not "laws of nature." They may well yet be aborted, especially by political action. Clearly, this is the worst possible time for any economy to adopt centralized planning or to nationalize key industries; they would inevitably be the key industries of yesterday and the ones which most need the kind of fundamental changes that governments are politically compelled to resist. But this, of course, offers no guarantee against its happening.

What industry, in this country and in the world economy, will look like 10, 20, 30—let alone 50—years hence, nobody can predict. But the forces that will shape it—forces which even governments cannot control—we already know.

The greatest force is going to be demographics. Population changes and population dynamics, by themselves, will practically ensure that in the developed countries blue-collar employment in manufacturing industries—now 25% to 35% of their working populations—will account for no more than 3% to 6%.

Demographics also ensure that managerial and professional work in industry will account for some 15% to 20% of the labor force (it's around 10% today). Indeed, demographics promise that the greatest employment problem in the years to come will be to find challenging, satisfying, properly paid, and productive employment for highly educated people. Demographics, in other words, will make sure that manufacturing will be transformed radically, from labor-intensive to knowledge-intensive.

Demographics will also make cer-

In today's multinational economy the U. S. still holds a commanding lead. . . . This cannot continue

tain that those stages of production that cannot be automated—and this includes probably one-quarter to one-third of all manual work in manufacturing—will not be performed in the developed countries, simply because the labor will not be there to do it. It will have to be "farmed out" to where the labor is.

Demographics will thereby make sure that the world will become even more integrated economically than it is now. Where today it is closely tied together in terms of raw materials, it will increasingly be tied together in terms of labor as well.

The second major force that governments can resist, but cannot prevent, is major technological change. The emergence of information as a major form of energy is a far greater change than most of us yet realize. It is the first energy form which, so to speak, stands outside the second law of thermodynamics. It does not degenerate into heat and friction or at least only with a very slow rate of decay, and it can be stored with minimal losses almost indefinitely.

We will, therefore, see a major shift from processes built around high temperatures, high pressures, and high power to processes built around

what the physicist calls "low entropy." (One illustration is the shift within 30 years from the first computer—three stories high, containing thousands of vacuum tubes, and using up more electricity than a fair-size city—to today's micro-chip. It uses at most 5 volts, generates no heat, and is the size of a fingernail.)

Who will survive? To the extent that old industries can latch on to both the demographic and the technological revolutions, they will still be with us 20 or 30 years hence, and probably 50 years hence. They will have become "new industries."

A good example are today's American railroads. Everyone thinks that they are in desperate crisis—but that was yesterday. In the meantime, technology has changed drastically, not only through automated yards, but also through the perceptions of a new generation of railroad executives. They realize that trucks, far from being competitors, are complementary to the railroads: that the way to build a transportation system is to use railroad tracks for long-distance traffic and trucks for short hauls. Of the seven major railroad systems in the country today, only one, Conrail, is still ailing.

This example also shows that major technological change leads to a major change in industry structure—in this case from a railroad system splintered into a great many small and mostly unproductive roads to a fairly small number of very strong and very big systems.

We can anticipate a period of rapid technological change in almost all industries—if only because automation organized around information, that is around the microprocessor, is a genuine technological upheaval. Therefore, we can confidently expect old industry structures to crumble and old concentrations of industry and traditional market domination to dissolve almost overnight.

For this reason alone, it is reasonably safe to predict that the future does not belong to the conglomerates. It is more likely to belong to businesses that look like IBM, Xerox, or Hofman-LaRoche—businesses that develop leadership in one major technological area and in one major market segment.

Similar changes will follow from the world's dramatic demographic shifts—whether governments like them or not.

But is your company and your industry ready to convert these trends into opportunities? ■