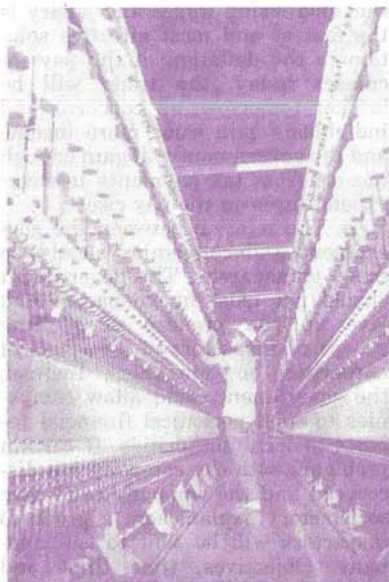


Like most developing countries, Vietnam, in welcoming the foreign direct investment (FDI), wants to attract not only foreign sources of finance but also new technology.

Technology transfer is an urgent need for such developing countries as Vietnam because it is the best way to make its independent development possible. Foreign experience shows that the technology transfer through FDI programs is more effective than other forms, such as importing machinery or buying industrial property, especially when high technologies and exclusive know-how are involved.

To evaluate the technologies transferred is more difficult than to evaluate the capital inflow. According to Singer et al (1), the technology transfer is successful when (a) it is employed effectively in new environment, even if the whole factory is op-



According to a report by the Office of Technology and Environment Evaluation under the Ministry of Science- Technology and Environment, some 70% of 2,137 FDI projects licensed in the years 1988- 1997 engaged in technology transfer and production of new products. The report also showed that besides some initial results, many problems had arisen from the technology transfer through FDI projects.

Generally, investment from developed countries (the U.S., Japan, the U.K., France, Germany, Canada and Italy) represented some 22.44% of the total FDI in Vietnam. The better part of this source of investment was used for introducing modern equipment and production lines to such industries as oil, post and telecommunications, electronics, electricity, car and motorbike assembling and cement. American companies took the lead in the tech-

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by MEcon. NGUYỄN NHƯ Ý

erated by foreign experts; (b) workers in the host country obtain enough skills to operate the transferred machinery and managers can work out plans for operation and marketing (this is usually the case of joint ventures); (c) it produces good effects on other economic concerns;

and (d) techniques originated from the transferred technologies could be developed and improved in order to suit the local economic activities.

Thus, benefits of the technology transfer to the recipient country depend on its suitability and effects on the local economy.

nology transfer, especially in transport, telecommunications, computer and electronics. Their investment, however, is still small, equaling US\$1,127.34 million up to December 1998, ranking tenth in the leading ten investing nations in Vietnam.



Another feature of the FDI from developed countries is the use of capital-intensive technologies. This feature made the production cost rise because their projects failed to make use of local cheap labor and the domestic market, with its poor spending power, couldn't consume their expensive products. Thus, their products couldn't compete successfully in the world market and their marketability in Vietnam is due to restrictions on import. This protection, of course, will lead to ineffective use of local resources.

Investment from Asian countries accounted for a high percentage of the total FDI in Vietnam. Their technologies transferred by these countries (except for Japan and Singapore) aren't the most modern ones because they have just finished the first stage of industrialization. In fact, they are trying to attract modern technologies through FDI projects in their home countries. That is why most equipment and machinery imported in recent years by these FDI projects from their home countries was two or three generations old and these projects are usually in businesses that don't need high tech, such as hotels, tourism, assembling or processing. These countries can hardly invest in such technology-intensive as electronics, chemicals and engineering. Even investors from Singapore, a developed country, also put the better part of their investment in hotels and tourism business.

However, technologies transferred from developing countries are appropriate to conditions in Vietnam because they mainly are labor-intensive and allow low production cost. Another reason for their suitability is the fact that the installed capacity of projects run by Asian investors is lower than that of projects by investors from developed countries.

Comparing FDI projects run by investors from developing and developed countries, we see that the average capital of the latter is about two times bigger than that of the former. In most industries, except the food processing one, the capital-labor ratio in joint ventures with companies from developing countries is also low in comparison with those with companies from developed ones.

Data gathered from joint ventures with foreign partners in Thailand also support this remark; the capital-labor ratio of joint ventures with Indian, South Korean, Singaporean and Malaysian partners is usu-

ally smaller than that in their parent companies that operate in highly-industrialized countries.

In addition, some transferred technologies, although not modern, are much better than what have been in use in local factories, so they have helped making products of better quality.

Thus, modern technologies, to a certain extent aren't the only solution to all problems. In many cases, technologies, not the most modern ones, from South Korea or Hong Kong, prove new and appropriate to the cheap labor force in Vietnam.

Moreover, technologies through FDI projects are usually transferred

amortization; 50% are revamped before export to Vietnam; only 10% are new (less than five years old). Many machines could only work at half capacity.

In short, it doesn't matter whether these machines are new or old. The problem is whether they suit conditions in Vietnam or not. In the long run, however, the transfer of old technologies couldn't help us catch up with neighboring countries and the danger of lagging behind them is inevitable.

The suitability of transferred technologies depends on the development strategy adopted by recipient country and what stage of develop-



ment according to a package deal: they go with training courses and cooperation between foreign and local technicians. Vietnamese managers and laborers working for foreign-invested companies receive necessary training and gain knowledge of modern managerial skills.

However, we couldn't bear the transfer of obsolete technologies and machinery that could damage the environment. This situation, unfortunately, is very common in engineering, metallurgy, chemicals and food processing industries.

A survey of 727 machines in 42 foreign-invested companies conducted by the Office of Technique under the Ministry of Light Industry has shown that machinery brought by foreign parties into Vietnam didn't come up to expectations: 76% of machines brought in by foreign partners are produced before the 1960s (some of them are even made in 1929); 30% of them have finished

ment it is in.

Generally, the transfer of managerial skills and high technologies is desirable but full attention should be paid to the return on invested capital (or technology in this case). It is transferred in a market of imperfect competition in which the local party lacks the ability to evaluate the technology transferred. In this case, the profit reflects part of monopoly profit generated by transfer pricing. According to experts from the Ministries of Planning and Investment and of Trade, most machines transferred to Vietnam are marked up by 10-15%. According to the Sweden SGS, after investigating six FDI projects in Vietnam, this mark up was of some 40%.■

(1) Singer, H.W.; Hatti, Neelambar and Tandon, Rameshwar, *Foreign Direct Investment*, 1991.

Thời báo Kinh tế Saigon, 1995-99 (CD Rom).