Transferring Technology in India

In India there is receptivity to change and an awareness of implications of technological advances; technological awareness is urged

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The history of the economic reconstruction of Western Europe after the end of World War II, the industrial supremacy of the United Kingdom and the United States of America and the all-around economic advance of the developed countries has vividly demonstrated the inextricable link between technology and growth. It would, of course, be naive to underscore this point further.

It is now universally accepted that any meaningful negotiations concerning the restructuring of the world economy on more equitable lines as crystalized in the United Nations Resolutions on New International Economic Order[1] must emphasize the urgency of the need for transfer of technology from the developed to the developing countries. Viewed in this framework, transfer of technology is for the developing countries, of which India is one, an indispensable vehicle of growth and development—the only hope for ameliorating living standards of the masses.

The Indian policy relating to transfer of technology, therefore, is rooted in an economic and social philosophy which stresses rapid indigenization of technology with a view to achieving technological self-reliance through assimilation and adaptation of imported technology. Since technology is normally not for charity and its owners are naturally interested in recouping vast amounts of resources spent on research and development in the shortest time possible, trade in technology is an expensive and at times a financially crushing experience for most non-OPEC developing countries. Most face a chronic deficit in their balance-of-payments position.

With an acute shortage of foreign exchange resources, India has been extremely selective in the matter of import of technology either by way of purchase of machinery and goods, or in the form of technical collaboration agreements. The stress consistently has been on minimizing the payments for technology, in the form of royalties or lump-sum fees for know-how, or for the purchase of equipment and machinery. Thus, it is seen that until recently royalty payments beyond 5% of the ex-factory value of production were not permitted. The access to sophisticated and or appropriate technology depending on the intended area of its application was also a problem to be sorted out and in certain high-technology areas it continues to be so even today. The realization of the need to have continuous access to advanced technology as an essential step toward strengthening the negotiating/bargaining capabilities of the technology buyers in India led the policymakers to insist on including in technology transfer contracts an obligation on the part of technology holders, of sharing with the technology recipient under certain agreed conditions, further developments and improvements in the technology forming the subject matter of the contract.

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Looking Back

Looking back to the 1960s and following the developments to date, it would appear that India has been following both an import substitution-led strategy and an export-led growth strategy.[2] In the 1970s it was noticed that the drain on external balances could only be checked through an aggressive export promotion strategy. It came to be realized that foreign technology and capital having an impact on domestic export generating possibilities ought to be encouraged.

The policy, therefore, as it stands today, has a pronounced bias in favor of export-oriented schemes as reflected in substantial concessions to foreign collaboration in export-oriented enterprises. The Indian Policy Statement of 1977 and its subsequent clarifications and modifications indicate beyond doubt that—whether it is in matters such as permission to increase the licensed capacity, the regularization of excess capacity of industries, in the matter of payments toward royalty, or the maximum permissible foreign equity participation (which is allowed in the first place as a part of a composite technology transfer package)—the technology policy of the Government of India indicates a marked emphasis on export-generating possibilities of foreign technologies.

Most newly industrializing and the Least Developed Countries (LDCs) have opted for domestic regulatory agencies for screening and scrutinizing technology transfer transactions. This is because of the oligopolistic and imperfect market conditions characterizing international technology trade, the restrictive practices often resorted to by the owners of technology (mostly the multinational corporations of the developed countries), and the unequal bargaining capabilities of the technology recipients.

Most Latin American States, Spain, Portugal, the Philippines, and Republic of Korea, for example, have adopted *special legislation* "establishing basic criteria and conditions under which technology may be allowed into the country . . . "India, however, preferred the administrative approach and has adopted an internal government criteria for scrutinizing technology transfer contracts. Among other developing countries which have followed this approach are Cuba, Egypt, Libya, Turkey, Yugoslavia, Romania, Iraq, Pakistan, the People's Republic of Malaysia, and the Republic of Vietnam.

GUIDELINES FOR ENTREPRENEURS

Following are guidelines which entrepreneurs in India are required to take note of in negotiating proposals for foreign collaborations. They ensure that such proposals conform to the government policies:

1. They should, to the fullest extent possible, explore alternative sources of technology, evaluate them from a technoeconomic point of view, and furnish the reasons for preferring the particular technology and the source of imports.

2. The Indian party should be free to sub-license the technical know-how/product/design/engineering design under the agreement to another Indian party on terms to be mutually agreed to by all the parties concerned including the foreign collaborator and subject to the approval of the government.

3. Royalty will be calculated on the basis of the net ex-factory sale price on the product exclusive of excise duties, minus the cost of standard bought-out components and the landed cost of the imported components, irrespective of the source of procurement, including ocean freight, insurance, custom duties, etc. The payment of royalty at the rate mentioned above will be restricted to annual licensed/registered capacity plus 25% in excess thereof. In case of production in excess of this quantum, prior approval of the government would have to be obtained regarding the terms of payment of royalty in respect of such excess production.

4. There should be no requirement for the payment of a minimum guaranteed royalty regardless of the quantum and value of production.

5. Arrangement or clauses which in any manner bind the Indian party with regard to procurement of capital goods, components, spares, raw materials, pricing policy, selling arrangements, etc. should be avoided.

6. To the fullest extent possible, there should be no restrictions on free export to all countries.

7. The use of foreign brand names will not be permitted for internal sales.

8. The government does not favor requests for extension of the duration of collaboration agreements. All efforts should, therefore, be made by the Indian party to assimilate the technology within the initial duration of the agreement.

9. Suitable provision should be made for the training of Indians in the fields of production and management. There should also be adequate arrangements for research and development, engineering design, training of technological personnel and other measures for the absorption, adaptation and development of the imported technology. Such measures can be undertaken through in-house facilities of the entrepreneur or in collaboration with recognized engineering design, consultancy, R&D organization in the public or private sectors, and organized scientific and educational institutions, where the necessary facilities exist.

10. Consultancy services required to execute the project should be obtained from Indian consultancy firms. If foreign consultancy is also considered necessary, an Indian consultancy firm should be the prime consultant.

11. If the proposed item of manufacture is covered by a patent in India, it should be ensured that the payment of royalty/lump-sum payment for the duration of the agreement would also constitute compensation for the use of patent rights till the expiry of the life of the patent and that the Indian party would have the freedom to produce the item, even after the expiry of the collaboration agreement; without any additional payments.

12. Collaboration agreement will be subject to Indian laws.

The above are the administrative guidelines. However, various other legal instrumentalities, e.g. the Foreign Exchange Regulation Act (FERA) 1973, the Monopolies & Restrictive Trade Practices Act (MRTP) 1969, and the Industries Development and Regulation Act have a direct application to technology acquisitions by and foreign investments in India.

The MRTP Act, 1969 has as its main purpose the prevention of concentration of economic power and promotion of healthy competition. This legislation also confers protection of patent rights in licensing agreements and otherwise. The FERA has proved as an effective instrument for monitoring and controlling the outflow of scarce foreign exchange resources of the country.

The necessary licenses for setting of collaborations are granted under the Industrial Development and Regulation Act.

COMPETENT AUTHORITIES

The Indian system of evaluation and registration of contracts involves several competent bodies. Though the final decision is made by the Foreign Investment Board, the proposals for foreign collaboration agreements are first submitted to the Secretariat for Industrial Approval in the Ministry of Industry. The latter seeks recommendations from various technical authorities through the Technical Evaluation Committee and the views of the administrative Ministry concerned with the product. These opinions having been given, the proposal is considered by the Foreign Investment Board. Only when the technology is suitable and the proposal is in accordance with the government's overall policy does the board examine the terms and conditions of the contract and suggest acceptance, modification, or rejection. When the contract is approved and signed, the Central Bank (the Reserve Bank of India) gets a copy for releasing the foreign exchange, and copies are also sent to several bodies in charge of the monitoring.[3]

In addition to routine checks, a more sophisticated analysis of each agreement is made at the time of renewal. One year before the expiration of each contract a careful study called "technological exercise" is prepared to assess the absorption, adaptation and improvements made by the recipient firm.[4] For this purpose, the firm asking for a renewal of the foreign collaboration agreement has to submit detailed information to the DGTD[5] regarding the technological and economic implementation of the agreement. After studying such preliminary information, the government representatives, if required, make an inspection of the manufacturing unit. They check the validity of the information and prepare a report which will be the basis for extending the agreement or refusing to do so. Since the system was established in 1974, about 300 technology exercises have been carried out.[6]

According to one estimate, 15% of the agreements approved in recent years have been extended. The test for granting extensions is whether the applicant has had sufficient time to absorb the technology. Generally, lower royalty rates are prescribed for extensions; sometimes royalties are allowed only for exports.

The legal examination generally involves the analysis of:

1. The conformity of the agreement with basic principals of law of the country and the concerned applicable laws.

2. The agreement is closely examined to ensure *inter alia* the existence of the essential elements of a contract, the identification of restrictive practices, the stipulation of adequate guarantees, and the question of the settlement of disputes, the forum for dispute settlement and the applicable laws.

STATISTICAL TRENDS REGARDING TECHNOLOGY TRANSFER AGREEMENTS

Table 1 shows the number of collaboration agreements approved from 1969 to September 1981 and the investment involved.

Year	Technical	Technical & Financial	Total
1976	238	39	277
1977	240	27	267
1978	263	44	307
1979	235	32	267
1980	452	74	526
1981 (Jan-Sept)	241	46	287

See Economic Times - New Delhi dated 23-12-81 p.2.

TABLE 1

Since 1975 an average of 277 contracts per year were approved in contrast with an average of 225 for the period 1968-1974. Even leaving aside 1974, in which year an exceptionally high number of contracts were approved, the growing trend is more pronounced than before.

The inflow of technology to India, despite its regulatory framework, has not been hindered or prevented by existing regimes. The number of agreements finally approved show generally a rising trend. Direct foreign investment flows—another measure of technology inflow into the country in question—have generally grown more since the regulations on technology transfer were implemented.

Most technology agreements are related to the manufacture of industrial machinery and equipment, including electrical equipment, machine tools, transport equipment, chemical and petrochemicals and products of metallurgical industries. Recently, such sectors as oil, steel, and pharmaceuticals also have been thrown open to foreign technology, provided the terms of collaboration meet the policy requirements as laid down by the government and in high-technology sectors, particularly, in core sectors a considerable degree of relaxation in policy relating to royalty payments and equity participation etc. has been announced in the form of various schemes.

The U.K., U.S.A., and the Federal Republic of Germany have been the leading suppliers of technology, accounting for approximately 31%, 20% and 12%, respectively, of the approvals granted since 1978.

PAYMENTS FOR TRANSFER OF TECHNOLOGY

After several years of stable payments by the private sector, there was a discernible jump in 1976 and 1977 in the growth rate of technology transfer payments. Between 1970-77 the annual average growth rate for technology transfer payments was 12.7%.

Measured in terms of a percentage of exports in 1976, India paid 0.7 percentage of its exports toward payments for transfer of technology, whereas in 1970 it paid 1.2% of its exports.

Royalties are in some cases accompanied by fairly high initial lump-sum fees. Lump-sum payments are generally allowed where specific services are to be performed at the beginning of the contract. Payments for royalty are generally required to range between 3% to 5%. However, payment of royalty in excess of 5% is now negotiable under the recent clarifications/modifications issued by the Ministry of Industry for wholly export-oriented industries/schemes and in high-technology sectors.

Royalty is normally permitted for five years after the commencement of production or eight years from the date of agreement. A longer period is considered in the case of proposals involving substantial exports.

Income by way of lump-sum or royalties received by foreign companies from Indian concerns under approved agreements made on or after April 1976 is charged to tax at 40% on a gross basis. An exception is that so much of the income which represents a lump-sum consideration for the transfer outside India or the imparting of information outside India in respect of any data, documentation drawing or specification relating to any patent, invention, model, design, secret formula or process or trademark or similar property is chargeable to tax at the rate of 20% of the gross amount of such lump-sum consideration. Any income which is received by way of fees for technical services is also charged to tax at the rate of 40% of the gross amount of such fees.

The government of India allows remittances of profits, dividends and interest to foreign investors, including capital appreciation subject to payment of Indian taxes.

RECENT DEVELOPMENTS

India's graduation to the status of a newly industrializing developing country, a recognition *inter* *alia* of its sophisticated economic infrastructure and technological maturity, confirmed and endorsed by the decision of IMF to grant to India the largest loan given to a developing country in recent years are some pertinent achievements which are expected to have a direct impact on the country's technology policies. A large domestic market with a potential of effective and profitable market presence are additional inducements for foreign investment and technical collaboration.

While it may not be accurate to suggest that India is on the threshold of following an "open door" policy with regard to foreign investment and technology, it still can be predicted with some certainty that India will be more liberal in scrutinizing and clearing proposals for foreign investment and technology. This is particularly true in sophisticated technology sectors. Power generation, oil exploration, space technology, renewable sources of energy, and microelectronics are some of the spheres which provide a vast potential for technological and financial collaboration. There is a general emphasis on promoting production in core sectors reflected in such measures as regularization of excess capacity, etc.

With the passage of time, India has acquired a degree of confidence and understanding in dealing with multinational corporations. They own and manage a huge percentage (95%, according to one estimate) of the proprietory and transferable technology. This factor has contributed significantly in the development of a commercial approach to negotiations relating to technology transfer.

However, certain restrictive practices, such as transfer pricing, tying arrangements, field of use, and territorial restrictions,[7] and limitations on exports will continue to be resisted.

Political stability, an elaborately codifed legal regime based essentially on common law principles, an independent judiciary, and an equal treatment given to even wholly-owned foreign companies after they are duly incorporated and established in India are some of the key features having a bearing on a favorable investment and technology transfer climate in India. The problem of red tape and delays is an inhibitive factor, but recent policy guidelines and circulars issued to the departments concerned indicate the government's firm resolve to deal with the problem effectively and urgently.

Private profit and a reasonable return on investment for technology supplies are regarded as legitimate expectations by the Indian Government. The price of technology, however, once its suitability has been established, is a matter for negotiations. As indicated in the chart above, these negotiations have been successfully concluded, and have led to the clearance of ever-increasing numbers of foreign financial and technical collaboration agreements.

Where foreign companies are asked to dilute their equity to 40%[8] according to law and policy the same need not have the effect of forcing the foreign partners to part with the managerial control of the enterprise in a real sense. In fact, this has seldom been the result where equity has been thus diluted in response to Government policy.

Conclusion: To a keen observer it should be clear that there is in India, a definite receptivity to change and an awareness of the implications of the technological advances. It is hoped that the proposed cell on transfer of technology will further emphasize the importance of resilience in policy, and would stress the urgency of achieving "technological readiness to absorb new technologies".

NOTES

1. Resolution 3201 (S-vi) and 3202 (S-vi) of 1 May, 1974.
2. See K.B. Subrahmanian and P. Mohan Pillai; Multinationals and Indian Export - New Delhi (1979) pp. 2-6.
3. The Foreign Investment Board can delegate its powers to a subcommittee and where payments are below Rs.0.5 million (about $66,000) per annum, to the production ministries themselves. Cases are sponsored by the production ministries concerned after consultation with the authorities mentioned and with the Development Commissioner for Small-Scale Industries.
4. This seems to resemble the Japanese approach to technology imports in the 1950s and thereafter.
5. Directorate General for Trade Development.
6. See *Undocument* "Legislation and Regulations on Technology Transfer: Empirical Analysis of Their Effects in Selected Countries", TD/B/C.6/55.
7. See S.3(1) of the MRTP Act of 1969.
8. See S.29 of the FERA. However, in high-technology and wholly export-oriented industries 74% and even 100% foreign equity can be permitted.