

# Generating technology

Technology



Arguments for and against foreign direct investment are endless. Costs and benefits must be weighed. Only the multinational corporation itself can assess expected gains against perceived risks in its overseas commitments. At the same time, only the host and home countries can assess benefits realized against costs in terms of their national priorities. • If these entities cannot agree on objectives because their most basic interests are in conflict, they cannot agree on the means either.

- In most cases, the relationship between the parties is not necessarily based on logic, fairness, or equity, but on the relative bargaining power of each. • Political changes may cause rapid changes in host government-MNC relations. The bargaining positions of the multinational corporation and the host country change over time. The multinational enjoys greater power in the beginning but eventually loses most of the power to the host country government.

- The multinational can maintain its bargaining strength by developing a local support system through local financing, procurement, and business contacts as well as by maintaining control over access to technology and markets. • Host countries, on the other hand, try to enhance their role by instituting control policies and performance requirements. Governments attempt to prevent the integration of activities among affiliates and control by the parent firm. • In this effort, they exclude or limit foreign participation in certain sectors of the economy and require local participation in the ownership and management of the entities established.

- Performance requirements may include such discriminatory policies as local content requirements, export requirements, limits on foreign payments

(especially profit repatriation), and demands concerning the type of technology transferred or the sophistication and level of operation engaged in. • In some cases, demands of this type have led to multinational firms packing their bags. For example, Cadbury Schweppes sold its plant in Kenya because price controls made its operation unprofitable.

- Governments can, as a last resort, expropriate the affiliate, especially if they see that the benefits are greater than the cost. The approaches and procedures discussed above appear negative. Relations between the multinational and its host or home country need not be adversarial. The multinational can satisfy its own objectives and find local acceptability by implementing activities that contribute to the following six goals: ? Efficiency - by applying appropriate technologies to different markets. ? Equity - by reinvesting earnings. ? Participation - by establishing local training programmes.

- ? Creativity - by introducing indigenous R & D capabilities in local affiliates. ? Stability - by consistently and openly explaining behavior. ? Diversity - by developing product lines specifically for local demand. Communication of the goals to various constituents can take place through advertising. • Environmental concerns are emerging as an important part of a multinational's normal business operations. This is because they have extensive involvement in many pollution-intensive industries and are expected to seek appropriate locations for production sites.

- Multinationals often are expected to assume leadership roles in environmental protection due to their financial, managerial, and technological strength. • A number of efforts have been made to establish

guidelines for the conduct of multinational corporations. The major ones are those drafted by the Organization of Economic Cooperation and by the United Nations. In addition, most multinationals have drafted their own versions of codes of conduct as well as value systems. DEALING WITH OTHER CONSTITUENTS • Multinational corporations also have to manage their relations with various other constituencies.

This is crucial because even small, organized groups of stockholders may influence control of the firm. • Multinationals must, therefore, adopt policies that will allow them to effectively respond to pressure and criticism. It has been suggested that their policies should have the following characteristics: a) Openness about corporate activities with a focus on how the activities enhance social and economic performance. b) Preparedness to utilize the tremendous power of the multinational corporation in a responsible manner and, in the case of pressure, to counter criticisms swiftly.

c) Integrity, which very often means that the corporation must avoid not only actual wrongdoing but also the mere appearance of it. d) Clarity, because it will help ameliorate hostility if a common language is used with those pressuring the corporation. • It has been proposed, therefore, that the multinational's role should be one of enlightened self-interest. • A complication usually arises when groups in one market criticize what the marketer is doing in another market. TRANSFER OF TECHNOLOGY • To a great extent, the role of foreign direct investment is that of technology transfer.

• Technology transfer is the transfer of systematic knowledge for the manufacture of a product, for the application of a process, or for the

rendering of a service and does not extend to the mere sale or lease of goods. • Multinational corporations are one of the major vehicles for channeling technology to other countries. The following are the essential requirements for the transfer of technology: a) The availability of suitable technology. b) Social and economic conditions favoring transfer e. g. some technology may be inappropriate for countries with unemployment problems.

c) The willingness and ability of the receiving party to use and adapt the technology. In developing countries with little industrial experience, production facilities must be scaled down for small series; machinery and procedures must be simplified to cope with the lack of skill and training. These may not be easy to do, because in most cases the quality has yet to meet worldwide standards. • Through people and capital, the necessary personnel, software, and hardware are combined for the transfer of appropriate manufacturing technology.

• The transfer cannot be accomplished by sending machinery and manuals; it is achieved as technicians show the recipients what should be done and how. • Technology transfer can occur both formally and informally. Formal channels include licensing, foreign direct investment, and joint ventures. Informal channels include reverse engineering, diversions, and industrial espionage. • The informal channel is of concern to both the governments and the entities generating technology. • Technology transfer increases considerably as more and more countries industrialize.

Industrialization generates new technological needs and more sophisticated processes and technologies in existing sectors. • Many countries are no

longer satisfied to receive as much know-how as quickly as possible, but want to possess technology themselves and to generate technology indigenously. • Technology should be adapted to local conditions. This often involves adaptation to factors that are often contradictory. In some cases, performance requirements at the transfer location may even be more challenging.

- If the multinational has multiple production bases, technology may have to be adjusted at each one and still meet worldwide quality standards. • Often the quantities to be produced are a factor in technology transfer. • Of critical concern in preparing the transfer are the strengths and weaknesses of the people who will be involved in production, including their practical knowledge, experience, abilities, and attitudes. • Often machinery may need to be simplified and on-site maintenance may need to be provided.

- Technology transfer also involves providing management and staff with advance information about conditions they will find in the transfer location. This is because costs of the various input elements for the production process such as labor, energy, materials, and components may vary from one market to another. • The quality of the infrastructure should also be taken into account in technology transfer. For example, frequent power failures would indicate the need for features in the technology to avoid variations in output and quality.