

# Technology transfer to developing countries business essay



## **Introduction**

A Multinational corporation (MNC) is an enterprise or corporation which controls production or distributes services in minimum two countries. Multinational corporations generally have commanding control over local economies and international relations. Multinational corporations are playing very important part in globalization. Technology and inventive potentials are main causes of aggressive strength for firms. Today, the developing countries are building their potentials through foreign direct investment (FDI) of multinational corporations. But the question is do multinational corporations really transfer technology? (Zhao Z. et al. n. d.).

The significance of International Technology Transfer for financial growth can barely be overstated. Both the attainment of technology and its dispersion promote productivity growth. Since innovation and creation processes stay awesomely, most developing countries should rely heavily on imported technologies for innovative productive knowledge. Though, significant amount of modernization and alteration happen in these countries, they practice successfully driven technological transformation in developing nations. (Evenson et al. 1995)

## **Importance of Technology Transfer**

In today's international economic growth, the link is connected between foreign direct investment (FDI) and technology transfers, by multinational corporations and it seems to be very high-flying. There is a one view which tells that technology can be transferred for hosting developing economies during,

- MNC's back and advance linkages with indigenous customers and firms
- Simulation of local firms by in the existence of MNCs
- Stimulation of managers and trained workers by MNCs
- Transfer of R&D activities of MNCs' to host economies. (Zhao Z. et al. n. d.).

On the second thought, sometimes it's recommended that MNCs should,

- Continue their technological improvement by enforcing host economies to pursue strict rules of rational property rights.
- Control technology dispersion to their overseas subsidiaries
- Favor key component imports to local suppliers from parent factories to reduce linkage effects
- Relocate technologies which are unsuitable for host country (Zhao Z. et al. n. d.).

Some economists argue that the technology transfer from MNCs is not helpful for developing countries because MNCs apply capital intensive technique but developing countries have limited capital and they are rich in labor so the technology transfer is of very modest use. The MNCs also increase competition which can be terrible for domestic industries as there may be only few tough domestic players who can make a manse with the global giants. If you take the skilled person's prospective, MNCs give higher salaries to them. No doubt MNCs fetch foreign capital to the developing countries but this capital becomes the source of repayment as a profit to MNC's parent countries and ultimately, the capital of developing country goes to MNC's parent country. (Zhao Z. et al. n. d.).

## **The Factors That Will Be Beneficial For the Host Developing Country**

### **Problem of Asymmetric Information**

Technology transfer occupies information exchange between those who had it and those who hadn't. The earlier can't disclose the knowledge totally without razing the source for trade which resulted in to a well known problem called problem of asymmetric information. Buyers can't decide the information value totally without buying it which can be resulted into huge transaction costs. In international perspective, information crisis are more brutal with contract enforcements, more complex to get. The multinational firms set up foreign subsidiaries as it's difficult to use markets for profits from proprietary technologies. (Hoekman B. et al 2004)

### **Market Power**

New technologies owners have significant market power because of lead time, patents and IPRs. This essentially means that the technology price will go beyond socially optimal level. This deviation between cost and price gives chance to make profit to the innovators. It means a decrease in national benefit of importing technologies. (Hoekman B. et al 2004)

### **Externalities**

If technology benefits and costs of exchange are not totally internalized by those who concerned, main benefits to host countries from International Technology Transfer are expected to happen from uncompensated spillovers. Positive spillovers survive when technological information is subtle into wider economy. The technology provider can't take out the economic value from this dispersion. Spillovers can occur from FDI, licensing, movement of people, simulation and trade. These market failures involve

policies to amplify welfare through encouraging International Technology Transfer. To be effective, the policy must adjust the private agents' incentives that hold inventive technologies in right way. (Hoekman B. et al 2004)

### **Foreign Direct Investment**

FDI may offer more capable foreign technologies to the developing countries which may result in greater competition and technological spillovers. In accumulation to exhibition effects, spillovers may happen because of vertical linkages and labor turnover as MNEs transmit technology to neighboring firms which are intermediates suppliers of their output. Case studies have shown that considerable technology dispersion happens due to FDI (Blomstrom and Kokko, 1997). Econometric studies are used to be more diverse so some finding of firms with a fairly high MNE existence likely to be more fruitful (Kokko 9 et al, 1997), whereas others find that internally-held firms may do inferior because of the foreign industry presence (e. g., Aitken and Harrison, 1997). Harmful spillover effects can happen in short run if MNEs draw off local demand. Straight up technology shift from MNEs to home suppliers is documented to arise in the course of firms of industrialized countries who buy the Asian firms output to sell beneath their own brands. This type of relations may outcome as technical information transfers from foreign buyers. (Blomstrom and Kokko, 1997)

### **Licensing**

Licensing is very important resource for developing countries of International Technology Transfer (Correa 2003). They usually occupy production purchase or distribution rights with underlying technical know-how. The

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decisions on how to get license are like to those concerning FDI. The factors which affect the licensing flows are ability to send back licensing rents, anticipated growth, human capital stock, investment climate, market size and proximity. Host economy is another factor which is buoyant of licensor firms which proprietary technologies won't escape into. To some extent the transferred technologies can be easily copied because industrial intelligence is very common. When it's not possible, the firms choose not to enter in licensing race or to transfer lagging technologies (Maskus, 2000, Saggi, 1996). Successful transfer usually needs ability to learn and invest to carry out technologies to production processes. That's the reason why countries who had significant engineering skills with R&D programs, receipts greater licensing flows. (Yang and Maskus, 2001).

### **Movement of People**

Very modest consideration is given to labor turnover in International Technology Transfer channel. Though some studies are there of intra-national labor but turnover of MNEs to home firms is limited whereas others find the contrary (Rhee, 1990). Mexico's maquiladorasector is good example for vertical International Technology Transfer. Most maquiladoras start as secondary firms of US firms which are shifted to Mexico for labor-intensive. After some time, maquiladoras taken up more complicated production techniques, many of them were brought in from US (Saggi, 2002). Similar results pertain to transition economies, see e. g., Smarzynska (2002). In case of intra-firm International Technology Transfer, MNE keeps proprietary control of know-how. In countries wherever local firms more capable and near to MNEs in terms of technical and labor terms, turnover is more

probable. So, the capability of home firms to take up new technologies is a deciding factor of labor turnover. The profitability of making new companies is an additional factor (Saggi, 2002). International movement from people related with nationals working or studying overseas for narrow period or the inner progress of foreign nationals in country is one more potential reason for International Technology Transfer. The main test for developing countries is to assist momentary movement overseas and to support returnees to take on local business and research development. (Saggi, 2002)

International Technology Transfer flows rely on many aspects like competition conditions, governance, growth, human capital basis, infrastructure, proximity to markets and size. Most of these aspects are influenced by policy. It's very difficult to decide the best policy for maximizing International Technology Transfer. Although an abundance of research on International Technology Transfer, there is much hesitation about the degree of market failures. The ongoing analysis has identified some thumb rules for policy involvement with a view to improving growth outcomes and number of precise proposals. (Saggi, 2002)

**Conclusion:**

After discussing diverse features of MNCs for developing countries, the big question is what role these MNCs play in developing countries, positive or negative? Usually what happens is that the developing countries governments don't maintain any control on these MNCs, which is the major blunder actually. It's true that MNCs can be very useful for developing countries but only when, there is sufficient amount of control over them by the governments. The governments shouldn't give inducements to MNCs just

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because they come from developed countries. MNCs should also have same rules and conditions as domestic industries have in the developing countries.

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