

**EUROPEAN MULTINATIONALS IN INDIA: FOREIGN
DIRECT INVESTMENTS AND TECHNOLOGY TRANSFERS,
1991 - 1996**

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CERTIFICATE

Certified that the dissertation entitled **“EUROPEAN MULTINATIONALS IN INDIA: FOREIGN DIRECT INVESTMENTS AND TECHNOLOGY TRANSFERS, 1991 - 1996”**, submitted by **SANDEEP T.A.** in fulfilment of six credits out of total requirements of twenty four credits for the award of the degree of **Master of Philosophy (M.Phil.)** of this University, is his original work and may be placed before the examiners for evaluation. This dissertation has not been submitted for the award of any other degree of this University or of any other University to the best of my knowledge.

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*Dedicated to the everlasting memory
of my beloved brother*

SUDSEENDRA T.A.

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Chapter 1

INTRODUCTION

Since Independence, successive Governments have been advocating their policies and programmes for inviting foreign capital for the development of domestic liberal outlook towards foreign investments. Since 1947, six industrial policies have been pronounced by mainly two ruling parties reflecting their respective ideologies, viz. in 1948, 1956, 1973, 1977, 1980 and 1991. Except the 1977 Industrial Policy Resolution, which was presented by the Janata Party, all other policies were formulated by the Indian National Congress.

All these industrial policy resolutions, except the one in 1991, sought to create a socialistic pattern of society by assigning the role of production and distribution of wealth by the Government. Opportunities for private participation was restricted to a few industries. The colonial experience led to a widespread preference for self-reliance rather than leaning on liberal import of capital and technology. Though foreign capital and technology were allowed in very necessary industries, their management control was to be in Indian hands. The 1948 and 1956 resolutions had assigned a major role for big industries. In 1977, industrial policy took a different stand of Indian economic development through assigning a prominent role for small scale and village industries.

With changes in the international economic and political milieu in the post-Cold War era, India also had to change its policies in order to prevent being isolated from the mainstream of the world economy. The 1991 industrial resolution was a source of much relief to the keen desire of the Indian economy for both capital and technology and the Western giants desire to invest.

Since the present phase of policy reforms do not seem to the kind of consensus that seemed to have been the basis for economic policies pursued in the 1940s and the 1950s,¹ it is important to understand the evolution of Indian industrial policy over the last fifty years. Since these policies essentially determine the mobilisation of capital, both domestic and foreign, innovation or import of technology, and so on. We only intend to very briefly examine broad outlines pertaining to our topic.

Industrial Policy Resolution, 1948

The Industrial Policy Resolution of 1948 postulated a dynamic national policy directed towards a continuous increase in production along with measures to secure equitable distribution. The emphasis was on the production of capital goods satisfying the basic needs of the people and of commodities for export. It provided for a progressively active role of the state in the development of industry, but conformed to the expansion of the present activities where the state was already co-operating and to the establishment of new units of production alone in other fields. As such exclusive monopoly of the Central Government would be restricted to arms and ammunitions, atomic energy and railway transportation.

Coal, iron and steel, aircraft, ship building, telephones, telegraphy and wireless apparatus, mineral oils and electrical power were considered the responsibility of the state to develop. The rest of the field were to be left open to private enterprise, individual and co-operative. Cottage and village industries were explicitly recognised as having an important role in the national economy.

1 Rakesh Mohan, "Industrial Policy and Controls ", In Bimal Jalan, ed., Indian Economy: Problems and Prospects,(New Delhi, 1992), p.85.

Foreign Capital and Technology.

It was also recognized that foreign capital and enterprise, particularly as regards industrial technique and knowledge would be of value to the rapid industrialization of the country. However, as a rule, major interest in ownership and effective control would remain in Indian hands except in exceptional cases.

Table 1.1 showing this policy succeeded in fostering foreign investments in India.

Industrial Policy Resolution, 1956.

The Industrial Policy Resolution of 1956 continued to provide the basic framework for Government's industrial policy. It stressed the need to develop heavy industries and machine-making industries, expand the public sector, build a large and growing co-operative sector, and to encourage the widest diffusion of ownership and management in private industries including the need for the prevention of monopolies and concentration of economic power. It emphasized the role of cottage and village industries as well as small scale industries.

The adoption of a socialistic pattern of society as the national objective as well as the need for planned and rapid development, necessitated that all industries of basic and strategic importance, or public utility services, should be in the public sector. Other industries which were essential and require investment on a scale with only the state in present circumstances could provide, have also to be in public sector.² The state has therefore, to assume direct responsibility for the future development of industries throughout the country. The State was also empowered to undertake any type of industrial production.

2. Government of India, Ministry of Industry, Handbook of Industrial Policy and Statistics, 1996, (New Delhi, 1997) p.2.

Table 1.1**Number of Technical and Financial Collaborations approved with European Economic Community**

Years	Total no. of cases approved	Cases involving foreign technical participation	Cases involving foreign investment
1948-55	284	--	--
1956-60	796	--	--
1961-65	1643	1046	589
1966-70	832	625	202
1971-75	1397	1172	211
1976-80	1644	1427	207
1981-85	3431	2720	702
1986-90	4162	2842	1217
Total	14189	10552	3128

Industrial undertakings by other than the state, had necessarily to fit into the framework of the social and economic policy of the state and would be subject to control and regulation in terms of the Industries (Development and Regulation) Act and other relevant legislation. The state followed a policy of supporting cottage and village and small scale industries by restricting the volume of production in the large scale sector, by differential taxation or by direct subsidies.³

The state followed the dual policy of encouraging small scale and village industries side by side building up heavy industries base which left small room for unrestricted development in either of the sectors.

Though, this policy did not very well articulate the need for foreign capital and technology C&T in large quantity, which was a necessity for realising high targets, the 1956-57, balance of payments crisis⁴ showed that inadequate capital infusion constrained productive capacities. As a result, India had to borrow capital instead of allowing to invest.

Further, encouragement to village and cottage industries along with the need for mass production called for the up gradation of techniques of production. However, lack of technical and financial assistance and inadequate repair and maintenance facilities were among the serious handicaps of small producers. A start was made with the establishment of industrial estates and rural community workshops to make good these deficiencies.⁵

3. Ibid.

4. Government of India, Ministry of Industry, Industrial Policy Handbook, p.3.

5. Bimal Jalan, "Balance of Payments 1956-91", In Bimal Jalan, Ed., The Indian Economy Problem and Prospects, p.187.

Thus, when the Government decided to develop the technique of production indigenously, scope for import of technology was less, except in large scale industries in very rare circumstances.

Industrial Policy Resolution, 1977.

The change at the Centre from the Congress Party to the Janata Party also brought about in a change in approach towards industrial development. The new policy noted that though some elements of the Industrial policy of 1956 still remained valid, certain structural distortions had crept in the system. The new policies were hence directed towards removing them.

The Industrial Policy Resolution of 1977 for a closer interaction between the agricultural and industrial sectors, accorded the highest priority to the generation and transmission of power, and an exhaustive analysis of industrial products was made to identify products which are capable of being produced in the small sector. The list of industries exclusively reserved for the small scale sector was expanded from 180 items to more than 500 items.⁶

Scope for Foreign Investment.

The emphasis on village and cottage and small scale sector should have been a demotivating factor for foreign investment. It was also clarified that foreign companies that diluted their equity upto 40% under Foreign Exchange of Regulation Act 1973, would be treated at par with Indian companies. A list of industries was issued, where

6 Government of India, Ministry of Planning, Handbook of Industrial Statistics-1995, (New Delhi), p.15.

no foreign collaboration financial or technical, was considered necessary since indigenous technology was fully developed in the field. For all approved foreign collaboration financial or technical, was considered necessary since indigenous technology was fully developed in the field. For all approved foreign investment, complete freedom for remittance of profits, royalties, dividends and repatriation of capital (subject to rules and regulation common to all) was provided. Only in highly export oriented and or sophisticated technology areas fully owned foreign companies were to be permitted.⁷

The Industrial Policy Resolution, 1980.

The fall of the Janata Government in 1980 put an end to its Industrial policy. The newly installed Congress Government retained many provisions of the 1956 Industrial policy and new concepts were also introduced to eliminate the distinction of conflicting interest between small and large scale industry. That is the concept of economic federalism, promoted through setting up of a few nucleus plants in identified industrially backward districts.

Opportunities for Foreign Investment.

Beginning of the implementation of the policy was again not so encouraging for foreign investors since Prime Minister Indira Gandhi was in a dilemma to choose between multinational companies vis-a-vis populist programmes. Though the populist era had seen its height in the 1970s remnants of it were also seen in the early 1980s. However, the inflow of foreign capital was better than earlier days. Priority also seemed to be changed. For example, latest technology was brought in automobiles in the form of joint ventures, eg. the Merritt-Suzuki joint venture for the manufacture of cars. This policy gave a fillip to foreign investment in the middle and late 1980s after a liberal Rajiv

7 Ibid.

Gandhi assumed Prime Ministership. The industrial sector grew at a pace of 8.5 per cent.⁸

The late 1980s saw remarkable change in international politics and economy which influenced almost all domestic economies the world over. There was a remarkable change in the attitude of the developing countries towards Foreign Direct Investment. The attitude has changed from one of hostility to that of active canvassing for such investment.⁹ Such an attitude in India is reflected in the more popularly called Liberalisation, Privatisation and Globalisation policy of 1991.

Economic Reforms, 1991 and After.

The accent on opening the domestic market to increased competition and capability of industry to stand on its own in the face of international competition was set in the mid-1980s. In the post-cold war era, the reinstalled Congress Government took decisive steps to continue the opening up of the domestic economy and emphasised the need for liberalization, privatisation, globalisation. Policy planners felt that a modern, democratic, socialist, prosperous and forward-looking India could not be built unless India grew as part of the world economy and not in isolation.

The new policy attitude on foreign investment and technology is evident from the following passage:

"Government will continue to pursue a sound policy framework encompassing encouragement of entrepreneurship, development of indigenous technology through

8 Government of India, Ministry of Planning, Economic Survey 1989-90 (New Delhi, 1990) p.95.

9 Bimal Jalan, "Balance of Payments from 1947-91", In Bimal Jalan, ed., Indian Economy-Problems and Prospects (New Delhi, 1992), p.188.

investment in research and development, bringing in new technology, dismantling of regulatory system, development of capital markets and increasing competitiveness for the benefit of the common man. Foreign investment and technology collaboration will be welcomed to obtain higher technology, to increase export and to expand the production base."¹⁰

Thus, the Government has embarked on a liberalisation programme with a view to bringing about rapid and substantial economic growth and move towards globalisation of the economy. The new policies have substantially relaxed restrictions on foreign investment, industrial licensing, foreign exchanged controls, etc. The capital market has been opened to foreign investment. Banking sectoral controls have been eased and private investment encouraged. Restrictions on imports were eased coupled with large scale tariff reduction.

The industrial policy reforms have reduced the industrial licensing requirements to a select list of hazardous and environmentally sensitive industries, waived certain restrictions on investments and expansion by Monopolies and Restrictive Trade Practice houses, reduced the number of industries reserved for the public sector from 17 to 6 and facilitated easy access to foreign technology. Simultaneously, the Government revamped its foreign investment policy as part of the New Industrial Policy, recognizing the growing importance of foreign direct investment as an instrument of technology transfer, augmentation of foreign exchange reserves and globalisation of Indian economy. The liberalised foreign investment policy provides for automatic approval by RBI upto 74 per cent of equity in the specified 9 categories of industries, 51 per cent of equity in 48 categories of industries and upto 50 per cent equity in 3 categories of industries as also in other industries on a case by case basis by Foreign Investment Promotion Board.¹¹

¹⁰ Government of India, Ministry of Industry, Handbook of Industrial Policy and Statistics, (New Delhi, 1982), p.18.

¹¹ Indian Investment Centre, Foreign Investment Policy of India (New Delhi, 1997), p.4.

Further, to provide for an enabling environment for foreign investment flows, certain restrictions imposed by FERA have been diluted, like:

- * removal of constraints for firms operating with foreign equity (beyond 40 per cent FERA companies). Hence, irrespective of the level of foreign equity, all erstwhile FERA companies incorporated under Indian Law are on par with any Indian company.
- * provision relating to employment of foreign nationals, technicians and remittance facilities simplified and
- * use of foreign trade marks freely permitted.

A major confidence-building measure taken was by registering membership with Multilateral Investment Guarantee Agency in 1994. Bilateral Investment Promotion and Protection Agreements have been signed with U.K., Germany, Denmark, Netherlands, France, and Italy.¹² Another important component of the reforms is the reduction in tax rates on foreign companies to 48 per cent (and abolition of wealth tax on financial assets).

Policy and procedures governing foreign direct investment and technology transfers have been simplified and streamlined significantly. Today, foreign direct investment (FDI) is very much welcome in practically all sectors of the economy, except those of strategic concern such as railways, atomic energy, defense, etc.

FDI in Small Scale Sector.

Manufacturing units with an investment in plant and machinery upto Rs.6 million, ancillary units with an investment in plant and machinery upto Rs.7.5 million

12 P.L. Sanjeeva Reddy, V. Vittal Babu, Indian Trade and Investment Guide (New Delhi, 1996), Vol.I, p.46.

and units which are willing to undertake an export obligation to the extent of 30 per cent of their annual production by the third year are eligible for small scale industries. To provide access to capital market and to encourage modernisation and technological up gradation in the small scale sector, foreign equity participation to the extent of 24 per cent has been allowed.¹³

Technology Transfer.

Automatic approval to all industries are accorded for foreign technology agreement involving a lump-sum payment of upto US \$ 2 million, royalty upto 5 per cent on domestic sales and 8 per cent on exports, subject to a total payment of 8 per cent on sales over a 10 year period from date of agreement or 7 years from commencement of production.¹⁴ Extension of agreements of foreign technology is also made simpler.

Institutional Set Up

No special institutions were set up or assigned the role of promoting and regulating foreign investment in the early days. However, in 1960, the Indian Investment Centre (IIC), was set up. It is the only organisation of its kind in the country and serves as the first contact point and the single window agency for Non Resident Indians (NRIs). But the multi national companies also contact IIC for verifying the information collected by them from different sources like Confederation of Indian Industry (CII), Federation of Indian Chambers of Commerce and Industry (FICCI), etc.

Indian missions abroad are in touch with IIC to collect the latest information about the investment climate here. Stepping another foot ahead, IIC has signed

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- 13 P.L. Sanjeev Reddy and V. Vittal Babu, Indian Trade and Investment Guide (New Delhi, 1996), Vol.I., p.42.
- 14 Government of India, Ministry of Industry, SIA Newsletter (New Delhi), July-August 1996. p.21.

Memorandum of Understanding (MoU) with 11 international organisations which are actively assisting the IIC in channelising overseas investment into India.

At present, the foreign investment activities in the country are looked after by two types of organisation, viz. promotional and regulatory. Promotional organisation/bodies, obviously within the country. The organisations/bodies involved in promotional activities are listed below;

1. A Nodal Officer-in-Charge of investment promotion at each Indian mission abroad (since 1978). The mission play a multidimensional role of image-building, investment promotion, dissemination of information, investment support services, investment-related services and publicity.
2. The Foreign Investment Promotion Council (FIPC) was set up in the Ministry of Industry, to have a target-oriented approach towards FDI promotion. Its functions are to identify the sector/project within the country requiring FDI and target specific regions/countries of the world from where FDI will be brought through IIC and Indian Trade Promotion Organization (ITPO), are other 'staff' organisation engaged in helping promotion of foreign investment.

Regulatory Bodies

Any proposal involving foreign investment requires approval from three organisations, Reserve Bank of India (RBI), Secretariat of Industrial Assistance (SIA) and Foreign Investment Promotion Board (FIPB). Automatic approval is given by RBI for foreign direct investment upto 74 per cent of equity for certain categories of industries, 51 per cent of equity for certain categories, within a period of 2 weeks.

All other foreign investment proposals where the parameters of automatic approval are not met, need prior approval by either FIPB or SIA within a period of 4-6 weeks approval is accorded.

Post liberalisation set-up of bodies to promote and regulate have been playing a very important role in terms of reducing the time required to approve and business oriented approach adoption.

CONCLUSION

India has been practicing the policies of state sponsored industrialisation. The presence of state-owned enterprise was a deterrent to private and foreign investors entry into these areas where the state's natural monopoly was prevailing.

A majority of industries reserved for the public sector upto the early 1980s. In pursuit of achieving a socialistic pattern of society, the Industrial Policy of 1948 stated that effective control and majority ownership of foreign enterprises should remain in domestic hands in order to regulate entry and channel their growth in the "national interest".¹⁵

A complex network of licensing procedures was designed to control the allocation of scarce industrial inputs and the growth composition and concentration of industrial capacity. Big companies were required to obtain license to start production of a new item, expand existing capacity for production, or change the location of an existing industrial undertaking. FDI was made an integral and essential part of this system.

15 Ratnakar Gedam, Economic Reforms in India-Experience and Lessons (New Delhi, 1997), pp.83 & 84.

MRTTP Act of 1969 also discouraged expansion of any industrial operation beyond certain limit.

The Indian Government removed restrictions and has become pro-active in canvassing candidates for foreign investment and technology transfer. It cannot be decided alone emphatically that only industrial policies influenced the inflow of foreign capital. In fact, the inducement or deterrence to foreign investment is caused by numerous host of variables such as Government policies. Outlook of economy towards the foreign capital, incentives, infrastructure, locations, etc. From the domestic side. And from the international side-intensity of movement of capital across borders, willingness and perceptions of investors, surplus capital available for investing outside their (MNCs) parent economies, etc. However, in India's case, it remained closed and an inward-looking economy for a long time and failed to respond to international economic developments in time.¹⁶

Consistency in policies towards foreign investments did not exist in the 1970s. The Industrial policy, 1977 of the Janata Government was in contradiction to the Industrial policy of 1973 of somewhat liberal outlook towards foreign investments. The Industrial policy again bore a liberal outlook but populist programmes of 1980, were given preference. Though the Industrial policy of 1956 encouraged MNCs only in highly experienced units (with a majority holding), the purpose of inviting MNCs was defeated since markets were highly protected and fragmented, bias against exports, no threat from new entrants existed.

16 Bimal Jalan, India's Economic Policy - Preparing for the 21st Century, (New Delhi, 1995), p.106.

Industrial corporations, domestic and foreign will behave in a predictable fashion in search of maximum profits with minimum risk and work, tend to declare high dividends, their investments will be concentrated in certain sectors, and transfer very few technologies and so on.

However, inactive, discouraging policies and made a new beginning in economic development along with retaining the old industries. India is now competing with other developing countries to attract foreign direct investments. Apparently European MNCs seem to have shown more interest in five years than in the past forty five years.

Chapter 2

EUROPEAN MULTINATIONALS IN THE INDIAN ECONOMY

"You came to India and stayed for 200 years. Now come prepared to invest and stay for another 200 years, and there will be huge rewards"

- P. Chidambaram, former Finance Minister¹

1 Times of India (New Delhi), 2 October 1996

The terms and conditions, procedures and attitudes towards foreign investment in the Indian economy were restrictive prior to 1991. In the beginning, most industrial sectors were closed to foreign financial participation. subsequently, a few sectors were opened and each application for foreign investment was considered on it's own merit.²

Eleven members of the Parliament belonging to the ruling Congress party have expressed concern over reports that Multinational Corporations (MNCs) may be invited to India. They felt that the country would be courting disaster by inviting these corporations. A member of the parliament said "this move to invite the notorious MNCs to our country as yet another move of the backward looking status quo forces in India to turn the clock of the history."³ However, Finance Minister Y.B.Chavan allayed fears of drain of wealth and foreign exchange (FOREX) from India through MNCs. Foreign Exchange Regulation Act (FERA) will be amended to plug the leakages. Union Minister for Industrial Development C.S.Subramanian defended the policy of discouraging monopoly houses from further expanding their field of industrial operation. He asserted:

2 Former Finance Minister Y.B. Chavan, The Statesman (New Delhi), 14th September 1973. Mr.Chavan while speaking in the parliament allayed fears of some members of his own party. He said "caution will be exercised in clearing collaboration approvals by processing each application on it's merit."

3 The Statesman, 14th September 1973.

"if the investment by monopolists had tended to increase despite this policy, as alleged by the communists, it was because of the fact that the monopolists had considerable technical expertise and capital.⁴ Thus, the advantages of foreign technical and financial expertise stimulated Indian policy makers not to isolate the economy completely. Quiet contrary to the popular fears, the Government depended more on foreign technologies and finances to develop the domestic industry and economy. Though it depended on MNCs for technologies, but, credits from the World Bank and other multilateral financial institutions were preferred. In fact, one of the intentions behind joining the Commonwealth of nations despite 200 years of exploitation, was to keep close links with the technological hub, viz. Europe, through Britain.⁵

Different industrial policies had different restrictive regimes for foreign participation. Though the industrial policies since independence progressively opening India for foreign investors, 1991 policy marks watershed, since it marked a diversion through structural changes from the earlier policies.

EUROPEAN INVESTMENT IN INDIA, 1947-1990

Given this restrictive foreign investment policy regime, among all other countries, member states of the European Economic Community (EEC) put together formed a major chunk of investment approvals. Table 2.1 gives the state of European participation in the Indian economy between 1947-1990.

4 Ibid, 10th September 1973.

5 J.Thomas Jr., India in the Commonwealth, The Times (London), 5 April 1950.

Table : 2.1

**Number of Foreign Collaborations Approved for Selected European Union Countries from 1957-1996.
A Comparative Table (Both Financial and Technical Participation)**

	Years	Jan '57 to Jun '63	Jun '63 to Dec '65	Jan '66 to Dec '68	Jan '69 to Dec '71	Jan '72 to Dec '74	1981to 1990	Total 1957 to 1990	Total 1991 to 1996
Countries									
<i>U. K.</i>		465	198	113	113	108	1167	2164	1104
<i>West Germany</i>		210	138	87	103	149	1408	2095	1271
<i>Sweden</i>		22	9	NA	NA	16	185	232+	139
<i>France</i>		49	34	28	29	42	385	567	370
<i>Italy</i>		48	18	12	16	NA	437	531+	496
<i>Netherlands</i>		25	10	NA	NA	6	158	199+	520
<i>Belgium</i>		Up to 1974				49	NA	49+	92
<i>Denmark</i>		Up to 1968		31	7	7	NA	45+	108
<i>USA</i>		252	156	113	87	150	1600	2358	2121
<i>Japan</i>		120	78	51	75	NA	734	1058+	711

Sources: Compiled from Directory of Foreign Collaborations in India, vol. II and III, Indian Overseas Publications, New Delhi: 1974

The data derived from the various economic surveys conducted on foreign collaborations between 1957-1974 and the annual listing of the foreign collaborations by the Department of Scientific and Industrial Research from 1981-1996 shows the following trends.

The European countries, U.K., Germany, France, Netherlands, and others which are leading today, is a continuation of the trend set by them in the early 1950's and the 1960's. This trend can be compared with the post-liberalised period in the last column. The U.K., had the maximum number of collaborations with Indian companies in the period of the restrictive policy regime, followed by Germany, France, Italy and Sweden respectively. The U.K., and Germany made up 72 percent of the total collaborations approved with the major European countries. Other top three countries are a way behind them.

Number of collaborations with U.K. was overtaken by Germany in 1972. When compared with USA, which tops the list, European toppers like Germany and U.K. did not stay much behind. But the total collaborations of the EEC region exceed and put the USA at 40 percent of its collaborations. Other than U.K. and Germany, other members of the EEC were not that much involved, though some of the important MNCs like Pirelli of Italy, Philips of Netherlands, ABB of Sweden, Piaggio of Italy, Bell Telephones of Belgium, Renault of France etc. By 1968, Britain had 67 percent of its MNC subsidiaries in its former empire region (excluding USA), particularly in Asia and

Africa.⁶ What percent it had in India is not known. Adequate data is not available for the later years. However, the table 2.2 can give a rough picture of sectoral preferences.

It is discernible from the Table 2.2 that the most important and preferred sectors which "needed"⁷ collaborations were Machinery (other than transport and electrical) and electricals machinery. These sectors continued in the same position in both the periods, i.e., from 1957-63 and 1964-74. Collaborations in these sectors also increased between 1964-74. There is a positive growth for all the sectors, except cotton textiles which stagnated at 22. Overall, there is 51 percent growth in 1964-74 over the previous period, raising from 1,560 to 2,358 collaborations.

European Experience

A Report Prepared for the Commission of the European Communities on Problems and Perspectives of Transfer of Technology between EEC and India by R.M. Bell and D. Scott Kemnis of the University of Sussex provides interesting information on the kind of participation of EEC firms in India. They wrote in 1985, that "over the last three decades there appears to have been considerable change in many aspects of Indo-British technical collaboration. There is now great diversity in the types of firm involved, in their objectives and in their immediate outcomes of the projects. Where there are common features in most agreements, these are often quite different

6 "Needed" because most of them were need based. The profit motive of the firms was of course, existed. But, to the extent of the calculated minimum percentage. As, in most of the collaboration, Indian firms have taken the initiative. Europeans did not volunteer as the Indian Economy was not friendly for foreign investors.

7 R.M. Bell and D. Scott Kemnis, "Problems and Perspectives of Transfer of Technology between EEC and India" (A report prepared for the commission of the European Communities, New Delhi, 1995), p.141.

TABLE : 2.2**Sector wise Break-up of Collaborations approved with European Countries
Between 1957-63 and 1964-1974**

S. No.	Sector	1957-1963	1964-1974
1.	Machinery (other than transport and electrical)	410	653
2.	Electrical Machinery	248	353
3.	Other Chemical	103	135
4.	Transport Equipment	57	81
5.	Medicine and Pharmaceuticals	42	52
6.	Paper and Paper Production	31	38
7.	Cotton Textiles	22	22
8.	Industrial Chemicals	19	43
9.	Rubber and Its Production	16	22
10.	Cement	15	22
11.	Others	537	937
	TOTAL	1560	2358

Source: Compiled form Indian Overseas Publications, New Delhi, 1974, Directory of Foreign Collaborations, Vol. II, and III, 1978.

from what they have been earlier. For example:

- * the British suppliers were not all large firms. only about half the agreements involved major multinationals and about a third involved with no transnational investments interests at all,
- * only about a third of the firms entered collaboration with the primary purpose of protecting existing export markets in India,
- * many of the Indian firms had considerable experience in importing technology and exercised considerable negotiating and bargaining skill,
- * the joint supply of capital and technology was rare and associated sales of machinery were involved in only 10 percent of the cases,
- * very few of the Indian firms had any previous relationship with the suppliers
- * British supplier firms varied in size,
- * about a third of firms were mainly interested in opening up new markets,
- * about a fifth were primarily concerned with profits from selling their technology, not their goods and another fifth were not primarily interested in profits from the sale of the either."

The experience of the MNCs and firms of Benelux countries was different. The collaborations were rather a small proportion of total collaborations entered into by Indian companies. Just 2.49 percent were with Belgian and Dutch firms. Only one firm from Luxembourg is cited as having had a collaboration agreement with Indian

enterprises since 1962 and another firm before that.⁸

Dutch firms invested more in the electrical engineering sector (38.5 percent) followed by chemical and the mechanical engineering. While Belgian collaborators were concentrated mostly in mechanical engineering (49 percent) followed by the chemicals sector. Collaboration approvals from Benelux countries aggregated 37 percent of the total foreign collaboration approvals during 1961-65. It dropped to 13.5 percent in 1966-70 and smartly recovered to 27.7 percent by 1976-80. The tightening of the Indian technology policy in the periods between 1961-70 has been attributed as the reason for the fall in Benelux contracts in this period.⁹ Another reason seems to be the limited involvement of Belgian and Dutch enterprises is that they had loose trading relations with India.¹⁰

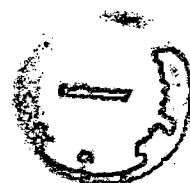
Benelux collaborations, in fact, do not constitute an adequate sample from generalising about EEC participation experience. While today, Netherlands occupies third position in the no. of collaborations. The percentage of collaborations with Belgian MNCs and firms has no great variation since then.

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- 8 Charles Cooper, Technical collaboration between Firms in the BENELUX and Firms in India, Report prepared for the EEC for discussion in Indo-EEC meeting (New Delhi), 1985, p.18
- 9 Ibid, p.22
- 10 Amitav Banerjee, A Study on the Transfer of Technology in the Developing Countries with Reference to Chemical Industry Sector, (Oxford Queen Elizabeth House), 1981-82, p.48.



49 21



Collaboration Motives

The reports available from the interviews conducted by Lutz Hoffman¹¹ indicate that,

- * different firms within multinational group pursue very different motives and strategies according to that. Some make heavy use of collaboration agreements, essentially because they perceive them as necessary to protect the "high technology" they transfer. Others barely use agreements at all. Because, their ownership rights in the technology are not really protected by collaboration agreements,
- * most MNCs consider that the restriction of equity participation not only increases the risk of loss of control over technological knowledge involved in collaboration, but also, perhaps from the firms' point of view, provides insufficient profit return to compensate the risks adequately,
- * the MNC groups enter collaborations mainly because the Indian market (for the products in question) might be lost, if they did not,
- * the annual frequency of collaboration agreements between Benelux, Continental European MNCs and Indian firms is related to the general expansion of demand for industrial output in the Indian market. The frequency of collaboration is also influenced by supply side factor, particularly when MNCs are invited.

This indicates that the policy measure by the Indian Government influences the flow of collaborations only after the MNCs and other European firms take into

11 Lutz Hoffman, A Report Prepared for the Commission of the European Communities on Problems and Perspectives of Transfer of Technology Between EEC and India (New Delhi, 1985), p.96.

consideration the market forces. Hence, if the expanding and huge market is existing, firms would bear the risk of loss of technology control or many restrictions of the Government. What mattered then was the percentage of equity participation.¹²

Several other findings motivating European MNCs for investing in India are cited by Lutz Hoffman:

- * European MNCs objectives were "sales oriented". The trend of capturing the huge markets instead of having financial motives was stated by them. It could be true as the huge market was existing in India then also. However, the companies obviously expect the transfer to India also to be a profitable business. This was revealed by the fact that expected financial gains were mentioned more frequently as the sales oriented objective,
- * technology transfer for the protection of existing markets,
- * some companies in Germany and Italy disclosed that they transferred technology to India only in order to please a home country business partner who had asked the technology owner to transfer it to an Indian company. Such cases happened for example, if the business partner has made a transfer agreement for the manufacturing of a product which required complementary inputs.

The general conclusion derived from the investigation was that the financial gains important only after sales-oriented objectives. Competition-oriented motives are

12 Directory of Foreign Collaborations (New Delhi, Indian Overseas Publications, 1978), vol.II, p.355.

the last consideration. The dependence of Indian firms on European firms was so much that whenever Indian firms wanted new technologies, they approached Europeans, particularly U.K. and German firms. This is revealed by the fact that in 90 percent of the collaborations Indian are said to have taken the initiative. Even after the development of railways, telegraphy, electricity radio, iron and steel, mining, ship building industries in India, Indian dependence on European firms for technology was considerable. That, even to manufacture "sluice gates" for the dams and reservoirs, European technology was imported in the post-independence period.¹³

The study of National Council of Applied Economic Research (NCAER), found that technological considerations are most influential in the Indian firms' decision to choose a collaborator. In the sample, superior technology of the European supplier was ranked highest as the reason for collaboration. Indian firms preferred European technology.

Even more interesting fact that was found that, the relatively low importance of financial consideration. In otherwords, no financial collaboration.

A synthesised report of FRG, France, Italy and Denmark components by L.Hoffman, H.Reile, H.Saders, and F.Vordog confirms that the majority of collaborations are initiated by Indian enterprises. There was some indication that European firms were unaware of opportunities for collaborations in India and in some

13 H.S.Chopra, Swapan K. Bhattacharya, India-EU Interface: Changing Perspectives on Cooperation for Economic Development, Seminar paper, India - EU Interface: Trade, Technology and Investments (New Delhi), March 1997, p.22.

cases discouraged by their perceptions regarding administrative procedures and the difficulties of finding a truly appropriate business partner.

The importance and profitability of doing business either in products or technologies in India realised by European firms and MNCs when EEC set up a delegation in India in the early 1980s and initiated an Indo-EEC meeting in 1985, where collaborations between European and Indian firms were discussed in detail to lay a strong foundation for the future. The liberalisation and de-bureaucratisation of foreign investment policies by the Government of India in 1991 came as a boon for both the European investors and Indian companies seeking technology and finance.

EUROPEAN RESPONSE TO INDIAN LIBERALISATION

The initiation of liberalisation measures saw the opening of numerous opportunities and a large market for western MNCs. Opening up of the economy substituted with lower tariff rates, and trade reforms were likely to stimulate their pockets to divert their FDI towards India in a large scale.

First, let us focus on the form and extent of liberalisation to make the economic environment investment-friendly. Trade reforms and tariff reforms go along with investment reforms since the major motive of investment is not just profits from domestic trade but, also international. Prior to the New Economic Policy which was initiated in 1991, India was one of the countries having the highest tariff rates. But, this scenario changed very positively in recent times. India's peak tariff was 400 percent in 1990, which was reduced to 150 percent in July 1991, 110 percent in February 1992, 85

percent in February 1993, 65 percent in 1994, 50 percent in 1995 and finally to 40 percent in February 1996.¹⁴

The effective rate of protection fell from 83.5 percent in 1991 to 31.2 percent in 1996. Tariff rates in the capital and intermediate goods are much less. The reduction in tariff is all pervasive cutting across sectors. In December 1996, India signed two textile agreements with the USA and the European Union, opening up its market for some sensitive textile goods to their companies. Not only on the external front, it has also taken several new measures with a view to making Indian companies more competitive at the global level.

Apart from this, the main decks of industrial arena were cleared to encourage influx of foreign investments. Former Prime Minister P.V. Narasimha Rao, visited Bonn before announcing the New Economic Policy to assess the gravity of the situation and subsequently visited Paris in 1992, to shift from the earlier approach of self reliance and import substitution and move on to a free and open market economy. The reciprocal response came from the European side too. Diplomats, Heads of Governments and officials of almost all major European countries visited India.

Despite the all pervasive liberalisation, European MNCs' response has been rather "lukewarm".¹⁵ It is evident from the table 2.3 that there is gradual decline in the share of EU's FDI flow to India after the New Economic Policy. That EU contributed 67.47

14 Ibid, p.21.

15 ibid,p.23.

Table: 2.3

**Percentage Share of European Foreign Direct Investment ⁱⁿ India
Between 1981-1996 in Comparison with USA and JAPAN**

Country	1981-82	1990-91	1991-92	1992-93	1993-94	1994-95	1996
EU	67.5	37.2	13	18	18.5	18.4	—
USA	20.60	33.9	29.9	34.2	24.6	22.1	26.8
JAPAN	5.93	3.8	11.6	11.6	3.5	2.4	4.1

Source: Compiled from SIA News Letters, 1991 – 1996; A Compilation of Foreign Collaboration Approvals, 1982.

percent of India's total FDI flow in 1981.¹⁶ It declined to 37.25 percent in 1991 and to 17.82 percent in 1996. While in comparison with other major investors, viz USA, Japan, Mauritius, the rate of growth of FDI is declining as also its share in total investments. Another interesting fact is that the response of EU firms is greater than that of any other country, although total investment is less. 534 collaborations in 1991 increased to 960 in 1995 and marginally declined to 915 in 1996. Whereas, in the case of the US, which is in the next position, it increased from 174 in 1991 to 434 in 1996. In 1995 it had reached its peak with 491 collaboration approvals.

Conclusion

Why have European MNCs been showing a "lukewarm" response to investments in India ? It seems that Indian political instability and its indecisiveness to join World Trade organisation (WTO) made the investors to invest with caution. On the global scene, good opportunities elsewhere were available at the same time like, East Europe and South east Asia. East Europe was preferred, because of geographical continuity and proximity and South east Asia was looked upon with greater interest, because of higher growth rates. Other specific reasons and realities are discussed in detail in the next chapter along with the country-wise analysis of direct investments.

16 Luiz R. De Mello Jr., "FDI in Developing Countries and Growth : A Selective Survey", *The Journal of Development Studies*, (London), vol.34 no.1, p.417,

Chapter 3

EUROPEAN MNCs AND FOREIGN DIRECT INVESTMENTS 1991-1996

Financially, British multinationals have always been dominant in Indian foreign investment sector. Their investment approvals in the period is Rs 4,4211.8 millions, highest among European Union countries. Their investment increased from Rs. 279.2 millions in 1991 to Rs.13,937 millions in 1996, registering a whopping 49 percent increase. It's increase is also gradual except in 1995 when it slipped down to 1994 figures. Obviously, Britain is in first position. Followed by Germany with a total investment approval of Rs. 29,347.6 millions Here also we can see the gradual increase from Rs. 255.1 millions in 1991 to Rs. 10,162.7 millions in 1996, with the peak reached in 1995 with Rs. 12,445.6 millions. (See Table 3.1)

Though the number of technical collaborations are more than any other country (see next chapter), financial investment is lower than Britain. Thus average investment per collaboration approval is low for Germany, where as it is high for Britain.

France comes third with a close Rs. 27,772.5 millions. The increase is sudden in this case. In 1995 investment approved was Rs. 4,109.7 millions. In 1996 it was Rs. 20,978.4 millions. Thus 75 percent of it's investments was approved in just one year. Netherlands and Sweden follows with Rs. 21,608.7 millions and a distant Rs.11,004.6 millions in the fourth and fifth positions. These five countries' firms make up 83 percent of the total investments of 15 countries. Among other countries, only notable contribution comes from Italy with Rs. 9,428.1 millions.

Greece has an investment approval of 60 less than the number of collaboration proposals of most countries. Overall, the growth rate is decelerating, though the total

Table : 3.1

Foreign Direct Investment by European countries approved by the Government of India between 1991-1996

Figures in Rs. Lakhs

Years Countries	1991	1992	1993	1994	1995	1996	TOTAL
AUSTRIA	154	398	585	2,348	1,251	40,730	45,466
BELGIUM	91	382	600	367	16,276	18,875	36,591
DENMARK	1,147	3,250	3,252	3,215	11,246	7,265	29,375
FINLAND	52	2,620	317	1,035	1,816	8,993	14,833
FRANCE	1,812	3,075	13,135	8,822	41,097	2,09,784	2,77,725
GERMANY	2,551	10,989	16,834	37,019	1,24,456	1,01,627	2,93,476
GREECE	-	-	-	-	60	-	60
IRELAND	-	-	16,489	711	1,185	632	19,017
ITALY	1,406	6,985	11,117	37,499	24,873	12,401	94,281
LUXEMBOURG	-	850	-	-	5,224	933	7,007
NETHERLANDS	2,290	9,300	31,254	19,370	67,181	86,692	2,16,087
SWEDEN	399	5,087	529	977	49,752	53,302	11,00,46
SPAIN	33	160	964	188	1,604	917	3,866
PORTUGAL	16	120	1,400	-	23,236	-	24,772
U.K.	2,792	10,287	51,458	1,27,010	1,11,201	1,39,370	4,42,118

Source: Compiled from A Compilation of Foreign Collaboration Approvals, Department of Industrial and Scientific Research, New Delhi, 1991, 1992, 1993, 1994, 1995, 1996.

investment approval is increasing. If the same trend continues, European multinationals and firms can not have a meaningful role in the Indian Economy. For that, it has to maintain its position or move up on the ladder by investing more.

When looked from the European angle, just above 2 percent of their total FDI outflow to the developing countries is coming to India. India's growth rate for the 6 year period aggregated around 6 percent with just 24-25 percent of domestic savings.¹ For the growth of 9 to 10 percent, however outside investment is a necessity.² With the market of 150 - 250 million growing middle class consumers, India has a reason and potential to attract European Investments.

Are the European investors satisfied with the reforms ?

This question stems from three basic doubts. One, if they are satisfied, why then, their investment in India is reducing ? two, if they are satisfied, then why the actual inflow is just about 16 percent of the approvals ? Three, amidst bureaucratic and rigid legal procedures, didn't they face any problems ?

1. Low Investments

Since late eighties West European economy is stagnated at a growth rate of 2-3 percent, when compared to the South East Asian markets, which are growing at a rate of 7-8 percent p.a.³ Between 1985 and 1994, a ten year span of time, intra-Asian trade increased from 25.6 percent to 40 percent of total Asian trade.⁴ Thus Asian nations

1 Narayana Vaghul, "Indian Specificities", In Charles P. Oman, Douglas H. Brooks and Colm Foy, ed., *Investing in Asia* (OECD,1997), p.66.

2 Government of India (1994-1995), *Economic Survey*, p.96.

3 *Economic Times* (New Delhi), 1 July 1995.

4 *ibid.*

were trading much more with one another and of course, investment goes with the trade. During the same span of time, Asian trade with OECD countries show a considerable drop from 53.5 percent to 44.3 percent.⁵

So, while trading among Asian countries has been increasing, trade between Asia and the OECD countries is declining. Hence MNCs and other financial institutions of Europe found no better place than East and South East Asian "tigers" along with the traditional Latin American countries to invest in manufacturing sector and financial service sector. Along with this FDI speculative capital flowed in too for the quick gains.

Among these nations, China emerged successful in attracting huge FDI from the west. China's average GDP growth rate between 1991- 1995 was 10.72 percent. While India show a dismal picture with just 5.3 percent, less than the half of China's growth rate. During the same period, industrial growth was even better for China with 15.9 percent. While India registered 3.46 percent. In 1991 Indian industrial growth was nil.⁶

The ASEAN countries on the other hand, owing to their large growth potential, have attracted large volume of FDI. Private investment including the foreign investment now account for two thirds of total investment in Indonesia, compared with 50 percent in the early eighties and is estimated to account for about three quarters for Indonesia's overall economic growth since 1983.⁷ In short, basically the Europeans have better opportunities elsewhere which has diverted their funds away from India.

5 Ibid.

6 Burra Sreenivas, *FDI and Foreign Debt: Experience of India and China* (Hyderabad, 1996), p.131.

7 Supachai Panichpakdi, "Perspectives for European Investment in Asia", In Charles P. Oman, Douglas H. Brooks and Colm Foy, ed., *Investing in Asia* (OECD,1997), p.25.

It is not just the potentialities of ASEAN and East Asian countries that is attracting the direct investment from the west. Mere potentiality can't attract unless the domestic economies are opened for FDI. Their policies in the contemporary period encouraged, in fact, gave the investors a stimulation, the kind of which was absent in Indian foreign investment policy.

2. FDI Policies in Competing Countries

Competing countries are the ASEAN group, South Korea and China. Among the countries in Asia, in fact in the world, China has emerged as the winner in attracting FDI. Between 1991-94 China has attracted US \$ 76,824 million, while India has attracted just US \$ 1185 million, 1.5 percent of China's inflow.⁸

The share of India in all developing countries accounted for just 0.43 percent. Though recent studies, which critically analysed the FDI flows to China discount the absolute figures by about a quarter due to the so called "round-tripping"⁹ the flows are still substantial, partly due to the large contribution of Overseas Chinese. At the systemic level, it is found that China's success in attracting large volumes of FDI has been largely on account of a highly decentralised system of administration which gives most of the decision making powers to local authorities.

At the policy level, there is a striking difference between the policies followed by China and India. Differences also exist with respect to the policies of South and South east Asian countries. The first difference is the minimum level of FDI. Thailand, for example, does not permit FDI below 5 million baht and has no ceiling on foreign

8 Economic Intelligence Unit, Country Report - India, (London; First Quarter 1997), p.37.

9 Swapan K. Bhattacharya and Satinder Palaha, Foreign Direct Investment in India: Facts and Issues (New Delhi, 1996), p.22.

ownership equity. China, too, insists that the foreign participant holds at least 25 percent of the equity capital. Singapore encourages FDI exceeding one billion dollars.¹⁰ The Indian policy, on the other hand, is restrictive, it limits the maximum foreign equity participation generally to 51 percent, though Foreign Investment Promotion Board (FIPB) has been given discretionary power to permit 100 percent equity ownership in some cases. Another fairly common feature in the FDI policies of other countries is to give liberal tax concessions to foreign enterprises. In some countries, the waiver of equity restrictions or tax concessions are linked to export performance and other important domestic policy parameters such as employment, local content and location. Tax policies in ASEAN countries can be summarized in the following manner.

1. All countries provide exemption of import duties and taxes on capital equipment imported by promoted enterprises;
2. Malaysia and Singapore provide additional deduction for certain types of capital expenditure;
3. Accelerated depreciation is provided in Malaysia and Singapore to promoted firms;
4. All countries, except Indonesia grant income-tax holidays linked to the time period of foreign investment.

China also grants preferential tax treatment to enterprises set up in special economic zones and specified coastal cities. Enterprises that qualify as export-oriented or technologically advanced also avail of a 50 percent reduction in income-tax rate. A crucial characteristic missing in the Indian policy is the absence of tax exemption on imported materials and equipment. Some tax reduction, though, is possible in the case of power projects, coal mining and petroleum refining projects.

10 Ibid, p.22.

The Indian FDI policy, nevertheless, scores over the policies of other competing countries in the matter of employment of foreign personnel. While restrictions on their employment do not exist in India, they are prevalent in most countries in the ASEAN countries as well as China. In Malaysia and Indonesia, expatriate employment even for technical and managerial positions requires justification in terms of non-availability of local skills. Singapore relaxes restrictions on employment of foreign personnel only under condition of foreign investors providing manpower training at all levels in the enterprise to supplement and complement government efforts.¹¹

3. Low Actual Inflows

In a world of intense competition among countries for FDI, liberalisation policies and incentives are important but, not sufficient for attracting FDI. Active promotion is required on a continuous basis.¹²

As long a Congress Government steered the economy for five years, though it promoted on a continuous basis in India and Europe as well, the actual inflows have been around 16 percent.¹³ The reasons attributed are :

- * Systemic inadequacies in following up on approvals, ¹³
- * Infrastructural hurdles, ¹³
- * Distortion in public sector enterprises, ¹³
- * High tariff rates, ¹⁴
- * Perception of MNCs on macro economic system as highly

11 Ibid, p.23.

12 Ibid, p.15.

13 Economic Intelligence Unit, no.8 p.35.

14 Bhattacharya and Palaha, no.9 pp. 10-15.

regulative and restrictive,¹⁴

* Unfriendly economic environment.¹⁴

Dr.Schlogl, Additional Director General, Federal Ministry of Economics of Germany talked about Germany's foreign investment in the global context in a seminar organised in Delhi jointly by the Indo-German Chambers of Commerce and Ministry of Industry, Government of India in January 1998. He said,

"with an outflow of 30-50 billion DM annually, Germany was one of the largest investors world wide, while the Indian economy was counted amount the "big five" outside OECD. Consequently, there was considerable scope for future investment. Good governance and effective economic policies were the most important overall considerations guiding the flow of foreign investment ".

Thus, the Government has left with no option but, to build up infrastructure, improve and implement the economic policies effectively to increase the flow of approvals.

4. Bureaucratic and Legal Hurdles

Many international surveys and opinion polls have shown that Indian bureaucracy is corrupt and delaying. While it is most important to create a friendly atmosphere for foreign investors. In 1997, the Indian Institute of Foreign Trade published a survey report conducted by an international agency which put India's bureaucracy at 4.6 on a 10 point scale. More the value, greater the misery or hurdles to invest. Some of the new members of ASEAN fared worse than India in the rating but, most other developing countries and newly industrialised countries were graded better than India.

ENRON is a classical example. From the date of approval to commencement of the project, it took four years. Not just the delay by the Central Government but, also by the state Government in which the project was to be set up. It had to face 26

litigations and wait for change of Government at the state. Procedure to be followed for the approval is also confusing. Reserve Bank of India (RBI) route, FIPB route, individual administrative ministries route etc. are confusing to foreign investors who will not be having any acquaintance with the local systems. The Government accepts that the procedure is long and unfriendly.¹⁵

Legal proceedings are initiated and disposed very late. Different regulations are there to be adhered to. Even a minor mistake could take them to the courts of law. And the speed of disposal once initiated is very slow. Taking the same example of ENRON, it had to face 26 litigations in four years. Lack of exit policy for labour, no guarantee of protection of Intellectual property rights also mattered in deciding the flow and amount of investment.

EUROPEAN FDI IN INDIA: AN ASSESSMENT

There has been undoubtedly a positive correlation between India's liberalisation process and European investment in India. Though India had failed to respond to the changing world economic orders earlier, which would have been more beneficial by now, at least present liberalisation, privatisation and globalisation programme came in time and has been successful in attracting Investment from Europe to accord it the second position next only to the US. (see table 3.2)

Europe might have taken the second place in terms of total investments. But in terms of total number of collaborations European MNCs and firms lead all other countries. Five countries, viz. Britain, Germany, Netherlands, France and Sweden account for 83 percent of the European investments. The other European countries have not invested considerable figures except Italy. Their world investment is also low.

15 Government of India (1994-1995), Annual Survey of Industries, p.81.

Table : 3.2

A Comparative Table Showing the European Union, USA, Japan And Mauritius' Direct Investment Approvals by Government of India During the Period 1991-1996

Region/ Country	No.	Rs. Millions	No.	Rs. Millions	No.	Rs. Millions	No.	Rs. Millions	No.	Rs. Millions	No.	Rs. Millions
	1991		1992		1993		1994		1995		1996	
USA	174	1380.8	344	11,250.2	318	33,194.3	360	32,526.3	491	78,463.2	434	97,082.5
EU	534	1,274.3	671	5,350.3	611	14,793.4	779	23,856.1	960	48,045.8	915	68,152.1
Japan	74	765.2	101	6,164.4	95	2,708.4	134	3,814.2	147	1,522.8	160	2,154.19
Mauritius	-	-	-	-	NA	3,69.9	NA	5,321.5	NA	17,554.7	NA	21,541.9
Total(4)	782	3,420.3	1116	22,764.9	1024	51,066.0	-	65,518.1	-	1,35,586.5	-	2,08,318.4

Source: Compiled from A Compilation of Foreign Collaboration Approvals, Department of Scientific and Industrial Research Government of India, New Delhi, 1991, 1992, 1993, 1994, 1995, 1996.

Because the MNCs of these countries not as diversifying as their counterparts in the top countries.

Though the actual inflow has been at around 16 percent, their investment are for the long term. Successive Governments in India have stated that the economic liberalisation and globalisation policies are irreversible and they will continue with the same spirit. So, there could be good amount of new investments and full flow of already approved investments.

Annual "troika" meetings were held since 1984. They are now held under the 1994 "Joint Statement on Political Dialogue" to reinforce and intensify their mutual relations on political, economic, technological and cultural fields. In its recent discussion paper on India (June 1996), the European Union took a long-term perspective of India as increasingly key element of EU's Asia strategy. It called for a stronger, deeper and dynamic partnership and establishing contacts at all levels.¹⁶ Europe feels that it is lagging behind in exploiting Asia's potential and hence expresses a sense of urgency to promote an enhanced political dialogue in its New Asia Strategy which focus on booming economies, like China and India to strengthen its economic presence.

Although the current realities in the domestic economic scene put China in the Centre and India in the periphery in the European Union's New Asia Strategy, India is considered one among the top five, outside OECD and it will be continued to give top priority if India enhances the reforms process a bit, to enable the MNCs to compete in a relatively free market. Again, responding to the new international developments should not be delayed and adjustments in the domestic economy should be made.

16 European News, "EU - India Enhanced Partnership", vol.7, no.4, Autumn 1996, pp.1-4; R.K.Jain, "India and the European Union - Challenges and Opportunities" Seminar paper, Seminar on India - EU Interface: Trade, Technology and Investments, (New Delhi, March 1997), p.2.

Chapter 4

EUROPEAN MNCs AND TECHNOLOGY TRANSFER TO INDIAN INDUSTRY

What is technology ?

"Information; the specifications for a product or a process." It must be more than just an idea. It must be something which if built or produced according to specification, will work. Technology at any time is the "book" of specifications or blue prints. If an invention has not reached the blueprint stage, it is excluded from the ambit of technology. It is the task of Research and Development to bring such ideas to blueprint stage. A change in the "book" of blueprint is a technological change. "¹

Oxford Dictionary defines technology as "a discourse or treatise on an art or arts; the scientific study of practical or industrial arts." Chambers dictionary defines it as "the practice, description and terminology of any or all of the applied sciences which have commercial value."

Technology Transfer

The acquisition of the scientific language, the abstract technique before taking possession of the product." To put it simply, it is the transfer of technical knowhow

1 Donald A. Hay and Derek J. Morris, "Industrial Economics: Theory and Evidence" (Oxford: Oxford University Press, 1979), p. 442.

from innovator to user or from licensor to the licensee.² Whatever the broadness or narrowness of the definitions given, transfer of technology includes the following:

- * passing on the data relating to some area of scientific knowledge,
- * transfer of tangible property, such as plants, equipments etc.,
- * transfer of industrial/plant drawings or blueprint and
- * exploitation of rights relating to use of such data.

MODES OF TECHNOLOGY TRANSFER³

Foreign Investment:

Along with the foreign investment in the host country, Multinational Corporations(MNCs) bring in technology also. Hence FDI is regarded as conduit of technology transfer. Technical knowhow as well as the financial resources comes from the MNCs. Local resources like labour, infrastructure, etc. are put together.

Technical Collaboration:

The firm in the host country purchases the technological know-how from a party in another country on purely payment basis. This mode of technology transfer is being evolved out from the theoretical proposition treating patented knowledge as property. Ideas can certainly be captive either legally, i.e. patent privileges or technically, i.e. in a case where they are kept secret or when a potential user does not have the knowledge to absorb and use certain information.

2 Rahman A., Science and Technology in India (New Delhi : Natinal Institute of Science, Technology and Development Studies, NISTADS, 1984), p.59.

3 Surendra Kumar, "Problems of Technology Transfer with special Reference to MNCs: Indian Experience" (M.Phil Dissertation, Delhi University, Department of Commerce, Delhi, 1987), pp. 48-51.

Equipment Supplies:

Technology is in a large measure embodied in the equipments employed. Equipment suppliers have served as an important source of technology in many developing countries.

Turnkey Jobs:

Here a foreign organisation is given the job of setting up and starting the plant and handing it over to local firms. The services required under this include detailed planning and engineering, choice and procurement of equipment, construction, initial training of local personnel and ultimate commissioning.

Arrangements on Government to Government Basis:

The Government of a country makes the technology and the facilities are available to another. Such an arrangement generally applies to state financed projects like building steel mills, heavy engineering, power stations, dams, public health services etc. This may also be incorporated in a bilateral plan of economic, trade and technical cooperation without any separate payment being involved in a transference of a specific knowhow.

Centralised Purchase:

An organisation in a host country, preferably state controlled purchases technology on outright basis and after adapting it suitably passes on to one or more firms in the country. The payment by the individual firms in such a case is nominal and a number of firms get simultaneous benefits. Such a method has the advantage of the central organisation in consultation with the collaborating local firms can associate R&D institutions in the country at the outset to achieve an increased degree of self-reliance over a period of time.

Consultants:

Here the technology transfer takes place through the association of consultants of two firms on a commercial basis. One consultant supplements the other to the extent of the capability available with him having due regards to the requirements of the job undertaken.

International/Regional Seminars and Conferences:

These ensure exchange of information which are useful in promoting local R&D activity, These helps a country in keeping abreast of latest trends in development giving it an opportunity to evaluate them in their own context for making continuous improvements.

Training and Education:

This is accomplished by sending personnel from one country to another for advanced training or aquisition of additional qualifications.

STRATEGIES ADOPTED FOR TECHNOLOGY TRANSFER

Technology plays a central role in most current thinking about MNCs. For MNCs, technological asset is the key determinant of it's competitive advantage in the parent country and the host country as well. An R&D intensive MNC is not only interested in production and sales of goods and services but also sale of its technological innovation.⁴ "Sale of technology" need not exactly mean selling for a price in the

4 Sanjaya Lall, Science and Technology in the New Global Environment: Implications for Developing Countries (Geneva, in collaboration with UNCTAD Secretariat, UN, 1995), p. 11.

market as its products are sold. Though this happens in very few cases,⁵ most of the technology transfers or sale takes place two forms. Internalising it's (seller) firm specific advantage and through licencing agreements.

In the technology trade three parties are involved, viz. the seller, the buyer, and the Government. The Government in the sense, its policies and the economic environment created by its policies do influence the buyers and sellers. The policies spelt out by host country Governments act as clear guidelines to both the parties but, the economic environment created by the policies comes in between understanding of the buyers and sellers, seller, an MNC, is at a disadvantageous position in perceiving the risk. While at the same time his drawback is in judging appropriateness of the technology transfer, where seller holds the pawn. However, both the parties (buyer and the seller) settle down on the negotiating table for a particular type of agreement. This section highlights the behaviour of the direct parties to the agreements in the context of an **imperfect international market**⁶ for technology.

The Seller's Choice: Internalising or Licencing ?

Bernard Bonin is of the opinion that "if a firm (selling) is free to choose between internalising it's firm specific advantage and transferring it through licencing agreements, the latter will seldom be chosen"⁷

5 J.N. Behrman and W.A. Fischer, "The coordination of R and D Activities by Transitional Corporations", Journal of International Business Studies, vol. 10, winter 1979, p. 46.

6 A.E. Safarian and Gilles Y. Bertin, e.d., Multinationals, Governments and International Technology Transfer (London, n.d.), p. 73.

7 Bernard Bonin, "Contractual Agreements and International Technology Transfers : The empirical studies", In A.E. Safarian and Gilles Y. Bertin, e.d., Multinationals, Government and International Technology Transfer (London, n.d.) p. 78.

Why does a firm try to internalise as much as possible its technological advantage ?⁸

MNCs emerge because arm's-length markets for intangible assets are failure-prone, and the empirical evidence shows a strong presence of such firms in research-intensive industries. Foreign direct investment (FDI) is normally preferred since the owner of the technology is thus in a position to capture all the rents attached to his technological advantage, while licencing is more risky in this regard. Contractual agreements will be entered into only when the potential benefit from intangible assets cannot be otherwise be exploited.

In what conditions will owners of technology benefit from internalising transactions that involve a transfer of technology ? Using data on 1,376 internal and external transactions to which 32 American MNCs were parties between 1945 and 1975,⁹ Davidson and McFtridge have attempted to identify these conditions. An external transaction is one in which equity participation between the firms involved is not higher than 5 percent and internal transaction one in which such participation is over 95 percent. Their results indicated that internalisation will be preferred, for a particular host country, when a large fraction of preceding transfers were internal ones. Hence the type of transfer selected stems from characteristics of the host country. The probability of an intenal transfer is stronger if there is already an affiliate in the host country a proxy for experience of operations abroad; a lack of experience of such operations will favour licensing between independent firms,¹⁰ which seems broadly consistent with the results obtained by them. If the technology transferred is not only new but radical, Davidson and McFtridge show that internalisation will probably be

8 Ibid, p. 79 ; John H. dunning, Multinationals Technology and Competitiveness (Boston, 1988) p. 189.

9 Bonin, n. 7 p. 81.

10 Davidson and McFtridge, Transnationals and Technology (New York, n.d.), p. 144.

chosen, although the age of technology does not seem to be as significant as the type of the preceding transfers. A firm in an R&D intensive industry transferring its core technology or a major product will be likely to opt for an internal transfer. The higher the number of previous transfers done by a licensor through licencing agreements, the weaker is the probability that the next transfer will be an internal one. The writers on this issue are understood to have found that contractual agreements or licensing agreements do exist nowadays though it is failure-prone. What rationale makes the sellers to opt contractual agreements ?

In certain conditions, specific to systems, to the firm, the industry, the host country or the country of origin, licencing will be advantageous to the owners of technology.

The advantages of licensing would depend on:¹¹

- * The characteristics of the technology involved (licenses will rarely be used if the transfer involves a core technology of the licensor rather than a peripheral one; they will be more frequent for old technologies than for newer ones, except if the pace of technological change is sufficiently fast so that the leader can stay ahead even if he cannot stop competitors from entering it).
- * The size of the firm (small firms will tend to use licensing more than larger ones, since they lack the necessary resources for foreign direct investments),
- * The maturity of the product (licenses will be more willingly granted for relatively old products, except if technological feedback or reciprocity looks good even for newer products).

11 Bonin, n. 7 p. 85.

- * The firm's degree of experience in international operation (risk considerations; comparative pace of response for licensing and foreign direct investment; transaction costs relative to licensing).
- * Constraints related to the host countries and to the countries of origin (barriers to entry of foreign direct investors; an opportunity cost of capital which is higher in the host country than in the country of the potential licensor will be detrimental to licensing since the licensee would thus put a lower value on the flow of rents expected from the technology than would the owner of the technology himself).

Given these advantages, one would expect licensing and more generally new forms of international investment, to become increasingly important. Besides licensing, the latter would include franchising, management contracts, turn-key operations, co-production agreements, international contracting-out and joint equity ventures in which equity participation would be 50 percent or less.¹²

Characteristics of Transfers through Different Channels.

Does the seller transfers the same kind of technology through both the channels to different buyers ? Or they shift strategies for different buyers ?

It can be expected that the technology transferred through internalisation will be to some extent different from that more willingly transferred by contractual¹³ agreements. First, with regards to the type of technology transferred, a subsidiary is more extensively used to transfer a new technology (i.e. for the first five years following its

12 Ibid, p. 90 ; Kumar n. 3 p. 52.

13 Bonin, n. 7 p. 86.

introduction). A new product will be more often transferred to a subsidiary than a new process which is more frequently transferred through simple export of machines embodying the process. Innovations with rather low profitability will be transferred through contractual agreements, and those offering a higher profitability through internalisation. Licences become more frequent after five years. The age of technology transferred to subsidiaries in developed countries is six years on the average, while it is ten years for that which is being transferred to less developed countries. The transfer effected through licensing or joint ventures involves a technology that is older still, averaging 13 years. Subsidiaries in developed countries have recently been getting newer technologies; this trend is not apparent for technologies transferred to subsidiaries in LDCs or for transfers through licensing agreements.¹⁴ Crookell maintains that licences will be a rate for a core technology, except in the case of an old technology widely available amongst competitors and also in the presence of a cross-licensing agreement with another R&D intensive firm. A peripheral technology will be more frequently transferred through licensing if it has an uncertain commercial value or if the owner has opted to withdraw from that particular activity.¹⁵

Davies shows that the quality and extent of assistance included in a technology transfer project is related to its expected profitability and to the owner's ability to capture such profits. The quality of assistance and the availability of transferred resources tend to be better in joint ventures than in licensing, based on his study of the experience of U.K. firms in India¹⁶ Telesio shows it is difficult to get a licence from a large firm whose operations are little diversified; his evidence also shows that it is difficult to get

14 Ibid, p. 88.

15 H. Crookell, The Transmission of Technology Across National Boundaries (Ottawa, 1973), p. 211.

16 H. Davies, "Technology Transfer through Commercial Transactions", Journal of Industrial Economics, December, 1977, p. 564.

licences in the pharmaceutical, chemical, electrical and electronic industries if no technology is offered in return.¹⁷

Licensing: Buyer's Choice?

From the above arguments, the most simple fact that can be inferred is that the seller opts for internalisation in most cases than licensing. But, it is also found that licensing is not out dated or totally rejected idea for want of unexploiting opportunities. If we see from the buyer's point of view, contractual agreements or licensing could be the choice of such firms who want to overcome their weak R&D efforts and stay and grow in the business.

Killing in 1975 and 1980 has studied and analysed the conditions in which licensing can be a viable strategy. Analysis is based on transactions between independent firms and a model of conditions in which licenses are treated.

- * R&D expertise of the buyer,
- * single transfer vs. a durable and updated relation,
- * presence or not of restrictive clauses.

Buyers of technology, strongly involved in R&D face no particular constraint, no obstacle to their growth. However, they learn very little from the licensor and do not get access to new areas of growth, if the agreement is for a single transfer. Moreover, such agreements for the transfer of knowhow, and patents frequently include restrictive clauses, although the buyer might be getting access to new information and new sectors to develop; but because of his own expertise in R&D, growth remains possible.

17 Telesio P., Technology Licensing in Multinational Enterprises, (New York, 1979), p. 172.

On the other hand, licensing, even for a continuous transfer, is not a viable strategy for firms with no particular expertise in R&D, except may be for products which come late in the product cycle. Not only will they face important restrictions, but, if they opt for a very specialised market niche, they will operate on very limited markets, and if they try to compete with subsidiaries of MNCs, their task will be made difficult because of their weak R&D effort. Unless such transfer agreement are seen as a way to build their own R&D expertise, as is sometimes the case, a licensing strategy is not a viable one.

Killing uses data on 74 licensing agreements and 28 joint ventures to study the determinants of the type of transfer. Licence; licence with a continuous updating of technology transferred; joint venture in which the buyer is the majority share holder (70 percent or more of the equity); and joint venture in which the buyer does not have control (less than 50 percent of the equity). He hypothesises that the more a buyer is in need of knowledge to use a specific technology, the tighter will be the relationship between the seller and the buyer. The degree of diversification that the buyer hopes to achieve will determine the extent of the necessary learning and, hence the length of the relationship for which the buyer will aim. The type of transfer will stem from the objectives of the buyer, for the length and intensity of the relationship tend to increase from the simple license agreement to a joint venture with no control by the buyer. If firms do not systematically go for the closest possible relationship, it is because the cost of such a relationship (royalties plus restrictive export clauses, for instance, increases with the closeness of the relationship).¹⁸

18 J.P. Killing, Manufacturing Under Licence in Canada (Ontario, 1975), p. 80; J.P. Killing, Technology Acquisition Licence Agreement or Joint Venture, Ontario, The Columbian Journal of World Business, 1980, Fall, p. 199.

If a subsidiary is seen by a host country as a form of dependent, it is very unlikely that contractual agreements will be better in this respect. When a buyer tries to get a valuable technology through licensing, there will probably be constraints imposed on his decision-making autonomy, unless he is able not only to absorb the technology acquired but to improve it. Restrictive clauses are a reflection of market imperfections confronting the buyer. Since the licensor is unable to keep all the rents for himself, he fears that the licensee might eventually become a competitor; consequently, he imposes various restrictions to limit the competition.¹⁹

Conclusions

From the above discussion these conclusions are drawn.

1. The market for technology is admittedly imperfect, but it exists nonetheless. At the outset, the position of the buyer would appear to be weak; however, over the years, it tends to get stronger.
2. From the seller's point of view, licensing is clearly seen as a second best solution. Generally, he will prefer to internalise his technological advantage, should the host country leave such an option open to him. For the buyer as well as for the host country, a transfer through a contractual agreement will often seem preferable to the presence of subsidiaries, since they are hoping to separate the package offered by the MNC.
3. There seems to be a relation between the mode of transfer and the characteristics of the technology transferred, but the picture becomes blurred when one tries to identify precisely the type of the relationship involved.

Few questions remain unanswered in this debate. When it was observed that

¹⁹ Johh, H. Dunning, Explaining International Production, (London 1988), p. 155.

there are substantial cost differences between internal and other types, the question comes to mind "is an internal transfer really less costly?" Or "is it rather because the affiliates will not necessarily be billed for all the elements of the cost by the parent company?"

The Department of Scientific and Industrial Research in the Ministry of Science and Technology maintains the record of royalty payments for the technologies transferred and other details related to it. When contacted, the officials informed me the maintenance of two types of records. First type in the information data revealed only to the secretaries to the Government of India and higher authorities than them. Second type of data which is available to general public. All analysis made here in the dissertation suffers from this drawback in understanding joint ventures, a popular type in India, and their agreements with technology suppliers.

EUROPEAN TECHNOLOGY TRANSFER OF INDIA A SECTORAL COUNTRYWISE ANALYSIS

Until the new economic policy was announced in 1991, the Government of India showed a clear preference for importing technologies via licensing agreements rather than through FDI.²⁰ Though there were more than 6,000 foreign collaborations with European firms between 1957-90, most collaborations were short duration natured, Technical participation in these collaborations lasted 8-10 years in the initial agreement. It was to be renewed at that interval every time. Very few collaborations lasted long.

Even the licensing agreements were subjected to stringent controls. Each agreement was closely scrutinized to ensure that indigenous technologies were not being excluded and "excessive" prices were not being charged. Only in the post-liberalisation

20 Ashok V. Desai, Origin and Direction of Industrial Research and Development in India (New Delhi, n.d.), p. 88.

period the FDI route for technology transfer received preference over licensing agreements.

The Indian Government policy towards import of technology has been highly selective though out the post-independence period. In general, the Government has been more favourably disposed towards agreements in high technology areas, in export-oriented or import-substitution manufacturing or arrangements which enabled indigenous industry to upgrade its existing technology. An extension of this policy has been the emphasis placed by the Government on the efficient absorption and adaptation of imported of imported technology through adequate investment in research, engineering and development.²¹

The objective outlined by the recent Technology Policy of 1983 intended to absorb technology in strategic and critical areas by making maximum use of local resources, providing satisfactory employment to all strata of the society, develop indigenous technologies, protect environment, reduce demands in energy.²² The policy announcement in 1990 maintained the above objectives and a step forward was moved by laying more powers in administrative ministries to handle approval of licensing and technical assistance arrangements. It permits the entrepreneur to conclude an agreement without obtaining any clearance from the Government provided the royalty payment does not exceed 5 percent on domestic sales and 8 percent on exports. If, however, lumpsum payments are involved, the proposal will require Government clearance, but the decision will be communicated within a month. Further, others norms were liberalised now and

21 J.D. Sethi, "Industry, Technology and MNCs", Man and Development, 15(1), March 1993, p. 30.

22 Government of India (1983-84), Annual Report of the Dept. of Science and Technology, p. 5.

then to make it transparent and attach few restrictions.²³ As a result 2,253 collaborations (See Table 4.1) with only technical participation have been approved by the Govt. of India for European firms. There are many other collaborations with both technical and financial participation and consultancy participation. The data for latter is not available.

Investment in the infrastructure sectors like fertilizers, cement transportation, power generation have been the priority sectors for India to build its economy fast. Many concessions were announced for FDI in these sectors which ultimately would lead to application for foreign technology in speeding up the process. For instance, the alternative/renewable energy sector European technical participation constitutes only 20 percent (12) of the total collaboration approved (60). This is a dismal picture for 15 countries. Only Belgium, Denmark the Netherlands, Germany and U.K. opening their accounts. This is the least preferred sector.

The favourite sectors for European MNCs seems to be chemicals, which includes pharmaceuticals, industrial chemicals and fertilizers. As many as 426 collaboration were approved in this sector which is the highest in any one sector in the true sense. Because, miscellaneous industries sector, even though registered 510 approvals, it contains many industries including consumer goods, which are not in priority list also.

Electrical and Electronics, Industrial machinery and mechanical engineering sectors have attracted more or less equally with 282, 263 and 263 collaborations respectively, gaining second and third positions. General trend of foreign collaboration approvals with world at large shows MNCs prefer electrical and electronics. While Europeans give second preference to this sector.

23 "Technology policy statement", Commerce, 15 January 1991.

Table: 4.1**Number of Technical Collaborations approved with EC countries between 1991 - 1996**

Countries	SECTORS											Total
	1	2	3	4	5	6	7	8	9	10	11	
Austria	-	15	11	13	9	-----	13	2	15	7	12	97
Belgium	2	7	5	1	6	-----	7	3	1	-----	7	39
Denmark	2	20	1	7	6	-----	1	-----	-----	1	11	50
Finland	----	6	14	4	6	-----	-----	2	1	1	9	43
France	----	48	26	15	14	1	13	-----	13	16	42	188
Germany	4	90	73	108	99	15	49	27	45	27	45	27
Ireland	----	4	3	-----	-----	-----	-----	1	-----	-----	3	11
Italy	----	88	37	28	24	2	7	7	26	8	53	281
Luxembourg	----	1	-----	----	----	-----	-----	-----	-----	-----	-----	1
Netherlands	1	25	25	8	13	-----	14	2	6	20	117	224
Portugal	---	4	---	1	1	---	---	---	---	---	1	7
Spain	---	6	6	1	5	---	---	1	4	1	5	29
Sweden	---	19	14	20	7	---	6	---	1	3	15	85
U.K.	3	93	67	57	73	9	28	11	46	34	112	543
Total	12	426	282	263	263	27	138	56	158	118	510	2253

Index : Sectors - 1 Alternate / Renewable energy sources; 2 Chemical; 3 Electrical and Electronic

4. Industrial machinery; 5 Mechanical Engineering 6 Machine Tools; 7 Metallurgical

8. Textile; 9 Transport; 10 Consultancy 11 Miscellaneous.

Source: Compiled from A Compilation of Foreign Collaborations , Dept. of Scientific and Industrial Research, Government of India, (New Delhi, 1991, 1992, 1993, 1994, 1995, 1996).

Transport, metallurgical and consultancy services sector follow the ladder with 158, 138 and 118 technical approvals. Though transport sector is under priority list collaborations are not many. But, there are enough approvals to obtain the technology needed and as desired to build up this sector. Moreover, product range in this sector is relatively limited and scale of production is relatively larger than other sectors like consumer goods, electronics and chemicals.

Leading brands like Mercedes-Benz, Piaggio, Fiat, Volkswagen, Rover, Volvo, have entered the Indian market.²⁴ But, only Volvo is engaged in production of commercial vehicles and components. There are many other auto components and accessories.

If the textile industry is the oldest in India and not many technologies are not needed develop this sector further. Hence there are very few approvals in this sectors. European collaborations constitute 23 percent of the total approvals during this period. It is being monitored to see that only latest, state of the art technology is being transferred in this sector. Collaboration in machine tools sector supplement the local industry in supplying adequate tools at adequate quantity the general trend is also low in this sector. Germany leads with 655 technical collaboration approvals. Germany has always lead the European contingent in technical collaborations. It's most preferred sector is Industrial machinery followed by Mechanical Engineering and Chemicals. And the German MNCs and dominant, among Europeans, in Industrial Machinery, Mechanical Engineering, Machine tools, Metallurgical, Textiles, alternative energy sources and miscellany sectors. Germany is followed by Britain with 543 technical collaboration approvals and dominant among Europeans in consultancy services, Transport and Chemical sectors. Britain has receded to the second positioning the post liberalisation period.

24 Government of India, Annual Survey of Industries 1995-1996, (New Delhi, 1996), p.49

Italy with 281 and the Netherlands, with 224 attain the following positions. France comes fifth with 188 approvals. The interesting fact is that these five countries constitute 83.5 percent of total European Union (EU) MNC collaborations. Greece has not a single technical collaborations. Greece has not a single technical collaboration and Luxembourg has just one since 1991. Technically poor countries, Portugal and Ireland, with 7 and 11 respectively, leave no great mark on the economy. Again Germany and U.K. possess the most varied technologies of all other European Countries as they are the only two countries to invest in all the specified sectors.

Europe is considered the "cradle of science and technology"²⁵ in the forms in which they are existing today. And India has already benefited from them in the past in assisting in building up a couple of basic industries-Iron and steel, Railway transport etc. Even before liberalisation European MNC participation in upgrading technology in Indian industry is a valuable contribution.

PAST EXPERIENCES AND CONCLUSION

It's a purely business decision. Licensor will take utmost care before transferring his firm specific technology to the licensee. He will see that, by the act of transfer, his market (for the goods produced using his technology) is not cut, the royalty is sufficiently high, even the lumpsum payments and that the standard of the technology is just better than the existing one with transferee.

If he has subsidiary, most likely chances are that, he takes the route of internalisation of his technical advantage. So that the technology remains within the MNC but in a different country. With this arrangement he can capture the domestic

25 Daniel Archibugi and Jonathan Michie, eds., Technology Globalisation and Economics performance (New York, 1997), p. 20.

market and foreign market through exports, as well. Another advantage of internalisation is less cost incurred on it and the host country can be used as manufacturing base, if the production cost works out to be cheaper.

While the buyer looks out for licensing through contractual agreement, since the hope to separate the package offered by the MNC. Both, the buyer and the seller of technology wants to adopt/follow his own way in the technology transfer deal. How then, the technology is transferred? Where is the meeting point for both of them?

It all depends on the particular transfer deal. What factors are considered? Characteristics of the technology, past experiences, vastness of the market, period of transfer-major among others.

Empirical studies show that, in most cases, a developing country, like India stand to loose overall, in the long run for the want of knowledge about the appropriateness of the technology, information about the alternative technologies, loss of bargaining power and lack of bargaining tactics.

Off late, interviews and field surveys conducted by Lutz Hoffman and others reveal that India are good at bargaining tactics and in most cases Indians take the initiative in transfer agreement.

What has been real intention of European MNCs in transferring the technology or investing directly in India? Whether there are any fowl play 7 Exploitative intentions?

Many MNCs of Europe Indian market long before and are still doing business in India. Parke-Davis, Reckitt and Colmona ICI, Unlever, BASF, SKF, German Remedies, General Motors (U.K.) Nestle, Bosch, Ranbaxy, Britannia, Brooke Bond, Lipton, Ciba-Giegy, Sandoz, Bayer, Hoechst, Berger, Cadburrys, Dunlop, Eureka-Forbes, Gabriel, Godfrey Phillips, Goetze, N.V. Philips, Murphy, JK, Vespa (Pioggio), Zociac

etc., to name a important few in the big list. And many more have come after the liberalisation.

The role of the MNCs has always been controversial in the country. Some called the MNCs as "notorious", some prefer to "organised and intellectual exploiters", "agents of economic imperialism". The fading away of small and cottage industries is attributed to the large scale production, R & D intensive MNCs. There is an element of truth in their argument also.

The European MNCs have entered Indian market after intense lobbying for concessions and incentives. New investments were often linked to changes in Indian's stand of Intellectual Property Rights and other issues under discussion at General Agreement on Tariffs and Trade (GATT) Intellectual Property Right (IPR) Act. While amendments in (IPR) Act has wide implications on the domestic market. These amendments in favour of MNCs may spell a dark fortune on domestic market. These amendments in favour of MNCs may spell a dark fortune on domestic companies and entrepreneurs. It is alleged that German MNCs are waiting for 2005 A.D. to take over Indian drug market. When Trade Related Intellectual Property Rights (TRIPS) comes into effect, to rig the drug prices will after dominating the market.²⁶ The possibility of dominating the market is not rare to say. Two factors contribute to hold this view. More than 90 percent of the patents in drug industry are held by MNCs and the R and D expenses of some MNCs cross the R and D expenses of some MNCs cross the annual budget of some countries.²⁷ Indian industrial R and D is very poor for that matter. I will cite some of the instances of indifferent behaviour of the European MNCs.

26 Kavaljit Singh, The Reality of Foreign Investments-German Investments in India 1991-96 (New Delhi, 1997), p.27.

27 Outlook (New Delhi), 6 April, 1998.

Maharashtra Government filed First Investigation Report (FIR) in 1993 against German Remedies for violations of Drugs and Cosmetics Rules. Apart from its own drugs, the company used to manufacture drugs of other MNCs like Schering, Beecham, Wulfinf, Knoll Boehringer Mannheim. Interesting fact is that first mentioned four MNCs are not in India at all. It extended the shelf life of ingredients going into manufacture of drugs, and also the life of the finished products beyond the original limit. Discrepancies were also found in the records about rejected and destroyed drugs DENPHYLLIN and COMPLAMINA injections, recorded as having been sent to company's Patalganga factory, were found instead near the scrap yard of Andheri factory.²⁸

India is a signatory to BASEL Convention on Control of Transboundary Movement of Hazardous Waste Movement from Organisation for Economic cooperation and Development (OECD) to non OECD countries. Despite India's opposition, hazardous waste is being dumped into the country under the guises of recycling. The waste coming from Germany and Netherlands to Bharath Zinc Limited (BZL, Bhopal) contained not just the materials that are supposed to be exported but, large amounts of other hazardous materials that would have cost a fortune to dispose off in their countries. Shipping documents from Germany where the BZL waste originated show that lead percentage in it are atleast 3 percent, as opposed to 0.03 percent as claimed by BZL. Analysts of samples of mixed imported waste collected around the factory showed upto 4 percent lead, 8 percent aluminium and 3 percent copper. Investigations carried out by Green peace revealed that workers in this factory are not provided gloves or masks as they process zinc and later throw residual waste in the back yard of the factory. The workers are not kept informed about the risks involved.²⁹ Lead is hazardous as pervasive toxic

28 Singh, n.26 p.27.

29 Ibid, p.60.

contaminant. It is known to cause metabolic, neurological and neurophysical disorders among human beings.

In 1996, Boeriner Mannhein India Ltd. was involved in a major controversy as its drug, COMSAT FORTE was found to be contaminated which led to death of two persons seriously affected several others.³⁰

Siemens is dumping banned machines in India. The machines which have been banned for being unfit by the American Federal Drug Administration are being offered to unsuspecting Indian consumers. It is a cancer cure medicine.³¹ What is worse is that the company was offering these machines at dump prices, perhaps not by design to capture the Indian market but, in order to get rid of the large stocks of substandard equipment which it could not market in the west.

Sandoz India's controversial drug, LEPONEX, used essentially to treat chronic schizophrenia has entered the domestic market in June 1995. The product which was initially banned in countries like Finland due to its potential fatal side effects, has been introduced in India. Apart from, using its 17 existing outlets, Sandoz was setting up new distribution outlets to market this product which is it's second largest selling drug in the global market.³²

There are many instances of violations of domestic laws and regulations. As a result of which local consumer is the sufferer. By the virtue of their size and extent, these MNCs amass power and grow influential in the bureaucratic circles. Activists and Indian corporates raise one question, Why such MNCs, should not be kicked out of the country?

30 Ibid, p.66.

31 Ibid, p.71.

32 Swiss TNCs, in India (New Delhi, 1996), p.23.

As far as the intensions of human concerns behind the demand, their demand qualifies to be accepted. But the big unanswered question is, What is the alternative for such life saving drugs? An Indian corporate has to ask himself, how prompt is he in protecting his own country's environment and caring for his own country men?

To answer this question a detailed and indepth depth research is needed. But again whether the Government is thinking in these lines? Does it has funds to spare for such researches? To answer all these questions, one has to leave his domain and enter the discipline of Economics.

In fact, even in the developed world there are conflicts between nations MNCs. EEC had complained bitterly about the behaviour of International Business Machines 7(IBM) in Europe ; Counter complaints have come from the United States about the level of steel exports to the US from both Japan and Europe ; official US policy towards the Soviet Union has been undermined by the insistence of MNCs in Europe and Japan on their own freedom to work on the oil pipeline linking Siberia to Europe : and many European countries as well as United States have protested vigorously over the degree to which Japanese industry has swamped their market, particularly in the fields such as cars and electronics.³³

If MNCs are in a position to create this amount of difficulty in the industrialised world, it is hardly surprising that their role in developing countries is far more controversial. Because, "the third world is locked into a system in which it imports technology with inbuilt structures that encourage environmental degradation, it is also increasingly becoming the dumping ground for dirty production processes that the rich no

33 Robin Clarke, Science & Technology in World Development (Oxford, 1985), p.177.

longer want. These are the trends that do not augur well for the future of physical environment in the third world".³⁴

Despite all these controversies and inbuilt structures which encourage environmental degradation, technology can't be stopped from developing and adapting for the economic development of a nation. In the emerging scenario of liberalised economic regimes and globalisation, it is the technology which distinguishes between developed and developing nations.

This does not mean that all those technologies in need should be imported. India should step up its effort to develop indigeneous technologies as we have seen the controversies that arise, for the dependence on foreign technologies. This can be done by financing the R and D activities for promotion of basic scientific research to technology development and commercialisation. Legal measures, tax incentives plus provision of venture/risk capital funds for adaptation, in violation and upgrading of technology and production. This builds up and strengthens indigenous technological capabilities to sustain industrial growth as well as developing innovativeness and competitiveness. Thus, helping to mitigate the impact of globalisation on the emergence of frontier areas in science and technology in India.³⁵

34 A.J. Dolman, In Robin Clarke, Science & Technology in World Development (Oxford, 1985), p.178.

35 Pawan Sikka, "Technology Support and Financing System for Development & Commercialisation-Perspectives in India", Technovation, New Delhi, Vol.17, no.11/12, December 1997, p.713.

Chapter 5

CONCLUSION

European capital, especially British capital dominated the industrial and financial fields in India till the mid-1940s. The foreign trade network, as also part of internal trade that fed into exports,¹ was controlled by foreign capital. British companies dominated coal mining, jute industry, shipping, insurance, banking and plantations like tea and coffee. Moreover, through their managing agencies, British corporations controlled many of the Indian owned companies. After 1920, the British giant companies, viz Unilever, ICI-² were joined by several other MNCs.

The large presence of foreign companies before independence, however, did not contribute to the growth of income in the country. In fact, it may have been the reason for India's under development as foreign investment was concentrated in production and export of raw materials and food stuffs. There was practically no transfer of capital to India and India was a net exporter of capital to U.K. There was no scope for transfer of technology as most of the investment was concentrated in "low technology extractive industries."³

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- 1 Bimal Jalan, Indian Economic Policy-Preparing for 21st Century (New Delhi, 1996), p.92.
 - 2 John H. Stopford and John H. Dunning, Multinationals - Company Performance and Global Trends (London, 1983), p.48.
 - 3 Directory of Foreign Collaborations (New Delhi, 1978), Vol. III, p.112.

It is against this background, no wonder that after independence in 1947, an important plank of India's development policy was to discourage inflows of foreign capital. During the four decades after India gained independence, the Indian Government displayed a "stop and go"⁴ attitude towards foreign capital and its institutional form, MNC. On the one hand, the Government sought to establish limits on the areas of industrial activities in which foreign investment could operate and also to restrict the degree of foreign ownership of these operations. On the other, the Government wanted to invite foreign investment in the hope that it would provide technology for development of industrial base and capital for boosting foreign exchange reserves. In practice, the latter considerations prevailed.

There existed a general xenophobia against foreign capital, especially European capital investment proposals were looked with suspicion of having ulterior motives to exploit the domestic economy from outside the country.⁵ But, there was and is, no question or second opinion about the existence of our need for high quality technology from Europe, the "technological hub," for upgrading local technical capabilities and speeding up the production process.

However, the Indian Government realised in the early 1970s that the MNCs' profits and dividend repatriation as well as remittances of fees, royalties and interest created a severe drain on India's foreign exchange resources. As a result, it came out with Foreign Exchange Regulation Act (FERA) in 1973. In the wake of the balance of payments crisis in 1990, the Indian Government was forced to take loans with harsh

4 Swiss TNCs in India (New Delhi, 1996), p.10.

5 Directory of Foreign Collaborations, n.3 p.489. During a debate in the parliament in 1973, a Congress MP called it a "notorious" foreign company. While his own party had taken the decision to liberalise the FDI policy and strengthen FERA to check loss of foreign exchange.

conditionalities from the World Bank and International Monetary Fund (IMF). These loans were not just aimed at rescuing India from the balance of payments crisis. Instead, they served the wider agenda of these institutions to implement the structural adjustment programme in India. As a major component of the SAP is the promotion of private foreign capital, the Indian Government announced many policy measures to attract foreign investments.

As a consequence of policy measures, foreign investments in India has increased manifold since 1991. From Rs.1492.2 million in 1990 to RS.36112.19 million in 1996. It is worth mentioning here that the nature and form of foreign investments has changed significantly in the post-1991 era. Prior to 1991, virtually all investments or technology transfer collaborations by MNCs came through FDI. After 1991, Foreign Institutional Investors were allowed to operate in Indian capital markets. Today, FII investment is more than FDI. However, FDI has also increased phenomenally and it's importance is more than that of FII, the speculative capital.

EUROPEAN FDI

The impact of liberalisation on European MNCs and other investors has been positive. There is a considerable increase in the inflow of FDI stocks from this region. Though the inflow increased from Rs.12,743 lakhs in 1991 to Rs.6,81,521 lakhs in 1996, this increase could not sustain the region's first position which prevailed before liberalisation.

It can be said that the region need not invest to compete with other countries or regions or invest in India to retain it's first position in the FDI inflow chart of India. To some extent it is true but, the fact remains in a little deep in the roots. European investment patterns are disturbing. It makes us to think, if suitable and timely measures

are not taken, Europe remains, no longer in the priority list of India. Or it is to say, Europe is losing its prominence in India after a long period, four decades, of leadership, both in investment and trade.

The trend shows that European FDI formed 67.5 percent in 1981, 37.25 percent in 1991 and declined sharply to 18.5 percent in 1996. (see table 5.1)

The said table shows that a drop of 4.8 percent on an average per year. But the sharpest fall was experienced in 1991 and 1992, immediate next years after announcing the liberalisation programme. In these years it fell sharply but, recovered to 18 percent in the following years. On the other hand, the global outflows of European FDI in 1973 was just \$70.2 billion, forming 33 percent of total FDI outflow of developed countries. But USA alone had 48 percent with \$ 101.3 billion. But then, in 1993 the equation had reversed. European FDI global outflow was \$849 billion, 40.6 percent of developed nations. USA had increased to just \$559.7 billion and its share was just 26.8 percent.⁶ That means in the last decade European global FDI outflow has increased and they were leading all others.

When the Europeans are investing more than anybody else in the foreign markets in the last millennium of this century which coincides with the liberalisation, privatisation and globalisation of the Indian economy, why they have taken a step back in India? Or, Why there is no positive correlation between European global FDI outflow and European FDI inflow in India? Why the Europeans are relegated to the second position in the investment scene in India.

6 John H. Dunning and Khalil A. Hamdani eds., The New Globalism and Developing Countries (Tokyo, 1997), p.18.

The reasons are not very easy to find out. If we plainly look at the investment inflow figures for the past six years (1991-1996), and by examining the statistics of European MNC investments in other parts/countries of the globe and a look at their native economy, some clues are visible.

European share of investments could have receded in the years 1991 and 1992 but, it is not a coincidence with the liberalisation of Indian economy. In other words, deceleration of European FDI approvals and Indian liberalisation is not a coincidence but a deliberate, cautious, resource saving action by Europe based MNCs and firms. Because in these two years, 1991 and 1992 Europe (as also USA) was undergoing an economic recession. Growth rate of their domestic economies came down to 2 percent and in some countries less than that. Some scholars attribute this to the adjustments to the post Cold War world and the influence of break-up of Soviet Union, the unification of Germany, employment problems, and finally one phase in the economic cycle.⁷ Hence, much of their foreign investment activity was reduced in the developing world.

India is not the only country to experience deceleration. Taiwan, Singapore and Korea experienced it in 1991-92.⁸ And there was a global slowdown in FDI growth during this time. Actually, what is a coincidence is India's liberalisation and European domestic economy in recession. The evidence can be seen from the investment figures for immediate next two years. There is a considerable increase not only in India, in South east Asia as well. And there is no deceleration in technical collaborations. Only financial contributions in the financial collaborations got reduced. But then, after the recession period also Europe did not occupy the top position, why ?

7 "Multinational Enterprise: Recent Developments", Review of Economics and Statistics (May, 1996), 78(2), p.189.

8 Economic Intelligence Unit, Country Report-India (London, 1st Quarter 1996), p.37.

There is actually a phenomenal increase in the approvals during 1993-1996. At the same time, there is a phenomenal increase in approvals of American and Mauritius collaborations. The latter two have offset the former.

The phenomenal increase in FDI inflows from Europe should not be a matter of satisfaction if India seriously wants to increase the capital formation for investment in key sectors to build the economy and increase the GDP at an average growth rate of 7-8 percent for the next decade. In 1993-94, total foreign capital in India formed not even 0.5 percent of gross capital formation in the country.⁹ Europe's share is 18 percent of 0.5 percent ! At the same time, domestic savings is hovering around 25 percent only.¹⁰ As the economists suggest a capital formation of at least Rs. 2,00,000 crore a year in real terms (not at market price), and 30-32 percent savings every year can help India achieve 7-8 percent growth on an average. While in 1993-94, gross capital formation was just Rs.1,60,000 crore. Hence there exists a gap both in gross capital formation and domestic savings. While on the other hand, the resource base in Europe, which is tremendous not being attracted at all, which is evident from the share of European capital in the gross capital formation in the country.

Though Indian foreign investment policy has moved from "cautious promotion" in the 1940s to "increased liberalisation" in the 1980s to "active promotion" in the 1990s, foreign investment is yet to make a mark in India. India's share in the outflow of FDI from Europe was less than 1 percent in 1996.¹¹ And the share of India in the global FDI outflow to developing nations was just 1.76 percent.

9 Bimal Jalan, n.1 p.11.

10 Economic Survey 1995-1996 (New Delhi, 1996), p.36.

11 Economic Intelligence Unit, n.8 p.37.

Hence, there is lot of potential both for the Indian economy and European MNCs to tap and channel the resources towards fast economic growth. International capital or MNC capital is not easily available. The liberalisation process should be continued and Europe should come to know that there is a new destination for their capital.

There are certain other problems in attracting huge inflows from Europe e.g. for instance information-off-the shelf¹² is not available, trade reforms and tariff reductions should be made further, India's image should be improved, business practices should be slightly modified¹³ etc. More importantly, political stability should be achieved for at least another decade, in the beginning stages of implementation of liberalisation policy. Europeans (and others too) feel that the confidence in them is improving in Indian policy since 90's. Greater confidence can be created by demonstrating the same political stability for another five years. Change of Governments has cost India very much.

TECHNOLOGY TRANSFER

As for as role of European MNCs in technology transfer and business practices, which we have seen in the chapter 4, it is evident that it's a "world wide menace". Now India is actively promoting FDI and technology transfer in the country to foster speedier development. Thus, a solution for that would be to learn to "live with MNCs" until indigenous effort are put and succeeded in developing the newer, local technologies. For

12 R.K. Jain, "India and the European Union - Challenges and Opportunities", Seminar Paper, Seminar on India - EU Interface: Trade, Technology and Investments (New Delhi, March 1997), p.

13 Klaus Benz, "Indo-German Co-operation for Economic Development: Focus on Germany's Investments, Experiences of Indo-German Joint Ventures", Seminar Paper, Seminar on India - EU Interface: Trade, Technology and Investments (New Delhi, March 1997).

that certain negative trends which have appeared in the period 1991-1992, should be considered.

In the post-liberalisation period in India, there has been a phenomenal increase in the European foreign direct investments promising transfer of many technologies, yet official data reveals that the incidence of poverty and the percentage of population below poverty line have not decreased. On the contrary, these figures have risen sharply within a short period. By January 1993, the percentage of people below the poverty line in rural areas increased to 41.72 percent, from 33.7 percent in 1989-90. In the country as a whole, the percentage increased from 34.3 percent to 40.69 percent,¹⁴ meaning an increase of 6.4 percent or nearly 60 million people below poverty line. However, a national sample survey was conducted in 1996 which put the poverty figures in the country at 29.5 percent. But the reliability of the sample survey is suspected. A comparison of growth rates in the six years before and since reform is given in the table 5.2

The average growth of GDP for the six years preceding is better than that of GDP growth of six years after implementing New Economic Policy. That means the huge inflow of European capital has no positive effect on the growth of GDP. Rather, there is negative growth. Only ray of hope is that the Indian market is expanding to attract any number of MNCs and the foreign capital in the gross capital formation in the economy is not even 1 percent.¹⁵

14 World Development Report (New York, 1994), p.312.

15 Spotlight, All India Radio (New Delhi, 8th July 1998).

Table: 5.1
Percentage Share of European Foreign Direct Investmentⁱⁿ India
Between 1981-1996 in Comparison with USA and JAPAN

Country	1981-82	1990-91	1991-92	1992-93	1993-94	1994-95	1996
EU	67.5	37.2	13	18	18.5	18.4	
USA	20.60	33.9	29.9	34.2	24.6	22.1	26.8
JAPAN	5.93	3.8	11.6	11.6	3.5	2.4	4.1

Source: Compiled from SIA News Letters, 1991 – 1996; A Compilation of Foreign Collaboration Approvals, 1982.

Table – 5. 2
GDP Growth of India: Before and After Reform

Pre 1990-1991	Growth	Post 1990-1991	Growth
1985-86	4.1%	1991-92	0.8 %
1986-87	4.3%	1992-93	5.3%
1987-88	4.3%	1993-94	6.0%
1988-89	10.6%	1994-95	7.2%
1989-90	6.9%	1995-96	7.2%
1990-91	5.4%	1996-97	7.5%
Average	5.93%	Average	5.66%

Source: Compiled from Economic Survey, Government of India, 1985-86 to 1996-97.

FUTURE PROSPECTS

In the wake of Bharatiya Janata Party (BJP) and its allies coming to power and India going nuclear the review of prospects assumes importance. The international response to both these events were mixed. International media preferred to call installation of "Hindu nationalist forces" in the country and the "reopening of nuclear arms race" in the post cold war world. The immediate response from the USA, Japan, the Netherlands and Germany were imposing economic sanctions. However, with the strong posture posed by India on the nuclear front for the reasons of "national security" and adopting "voluntary moratorium" on further tests, as well as "no first use" principle, the stand taken by these countries were softened. Moreover, the economic sanctions imposed by the United States started to boomerang its own contracting firms. In the international scene, contracts dropped by US firms were picked up by firms of other countries.¹⁶ Germany and the Netherlands softened their stands. The European Commission granted new funds to the country after a month of the nuclear tests. Japan said only future grants are reconsidered. Britain and France did not oppose. Russia supported the Indian stand. Again, Mr. Sikandar Bakht, Minister of Industry, informed the Lok Sabha on 10 July 1998 that G-8 countries has ^{not} imposed curbs on FDI inflows into India. The nuclear tests in the country has not evoked negative response from European countries except by Germany and the Netherlands.

Apart from these two developments, what could really matter for Europe is down grading India's rating by Moody's and slow down in the economic growth. If India succeeds in "becoming an important component of EU's Asia strategy," "overcome information deficit", and showing that India, though being far from Europe, could be a

16 R.K. Jain, n.12.

better investing place than newly opened, prospectful East Europe, European MNCs investment would be the major component in India.

On the other hand, few opportunities are to be effectively utilised. They are ;

- * opportunity for coalition building with Asian nations on issues of common interest,
- * opportunity of learning from EU's experiences and adapting them to South Asia to form an economic region with neighbouring countries, and
- * opportunity to broaden interest in other member states of the European Union apart from five major investing states.¹⁷

India can make the entry to the 21st century with a "bang" if these challenges are met and opportunities are utilized.

17 Ibid.

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