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Indian Direct Investment in Developing Countries: Emerging Trends and Development Impacts

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Institute for Studies in Industrial Development

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Jaya Prakash Pradhan

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INDIAN DIRECT INVESTMENT IN DEVELOPING COUNTRIES
Emerging Trends and Development Impacts

A study prepared under the
UNCTAD's Programme on
South-South FDI and Developing Country TNCs

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INDIAN DIRECT INVESTMENT IN DEVELOPING COUNTRIES
Emerging Trends and Development Impacts

Jaya Prakash Pradhan[*]

[**Abstract:** *This study has analyzed the overall and regional trends in Indian direct investment flows into developing region since 1960s and explored various development impacts they have on host developing countries. Evidence tends to indicate that developing region was the initial destination for Indian outward investing firms and continued to receive their attention over time. Developing region bound Indian FDI, which was led by a small group of Indian firms in a few selected developing countries in 1960s–80s, is now giving way to a more extensive pattern with large quantum of outward investment. A large number of Indian firms are undertaking increasing investment activities across different sub-regional developing groups and for a variety of firm-specific motivations. The fact that developing region oriented Indian firms are operating in knowledge-based industries and are undertaking local production activities than simply performing sales promotional functions, their presence could be critical for host developing countries aspiring to build their domestic capability in such technology-intensive industries.*]

Keywords: *FDI; India; Developing Countries*

JEL: *F23; O18, R10*

1. Introduction

A broad-based political and economic consensus—South-South Cooperation—emerged among many southern/developing countries during the period 1970s–1980s. These developing countries wanted to benefit from reciprocal sharing of development experience with each other in the fields of finance, technology, skills, industry, services and trade. This cooperation also underlined the efforts of the South (i.e. developing countries) to minimize its excessive dependence on North (i.e. developed countries) for financial and technological efforts. In this context, south-south investment has been seen as a very useful instrument for fostering development in the developing region by

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ensuring provision of finance, relevant technologies, skills and marketing practices. However, in spite of the contemporary political and policy focus on south-south investment during that period, the subject of intra-regional foreign direct investment (FDI) by developing country enterprises remained an inadequately researched area of knowledge, particularly with respect to the estimation of magnitude of such FDI flows and evaluating their specific role in the development of southern region.

With the rise of outward FDI from developing countries since 1990s, there has been a renewed research interest in the phenomenon of south-south investment. An emergent literature (Aykut and Rath, 2004; Bhattat and Aykut, 2005; Aykut and Goldstein, 2007; Goldstein, 2007) has came to recognize the growing incidents of developing country firms undertaking FDI activities in fellow developing countries. This has led to a much faster growth rate of south-south FDI flows as compared to the rate at which FDI has flown from developed countries to developing countries in the 1990s. Aykut and Rath (2004) estimated that the share of south-south FDI in total FDI inflows into developing region increased from about 6 per cent in 1994 to reach 36.4 per cent in 2000. Although available estimates on intra-developing region FDI flows is patchy due to the problem of under-reporting of outward FDI (OFDI) data by many home developing countries, existence of the phenomenon of round-tripping and offshore financial centres, recent studies do indicate that a larger part of this recent growth of developing region OFDI is driven by intra-regional activities.

This paper is motivated to contribute to the current literature on south-south FDI from an analysis of India as a FDI source for other developing countries. The Indian experience can give valuable insight into the dynamics of south-south FDI for a number of reasons. First, Indian multinationals are pioneers among developing country enterprises to lead the emergence of the south-south investment flows and played an important role in sustaining that flow over time. The successful establishments of a textile factory by the Birla group at Addis Ababa, Ethiopia, in 1960 and an assembly plant for sewing machines by the Shriram group at Ratmalana, Sri Lanka, in 1962 were perhaps two known cases of earliest south-south investment projects. Since then Indian multinationals along with firms from a few other developing countries until the 1980s and from a large number of developing countries since 1990s are providing much impetus to the growth process of south-south investment flows[1]. Second, India has

[1] A couple of developing countries such as India, Argentina, Brazil, South Korea, Singapore, Indonesia, Thailand, Malaysia, Hong Kong, Taiwan, South Africa were active in developing country outward FDI during 1970s–1980s and they were joined by an increasing number of emerging countries such as Chile, China, Egypt, Mexico, Malaysia, Russia, Turkey, etc., since 1990s.

explicitly incorporated the philosophy of South-South Cooperation in her OFDI policy regime during 1960s–1980s and had encouraged specific type of OFDI projects (e.g., joint ventures as opposed to wholly-owned subsidiaries and required imparting of training to host country partners by Indian investors) which are thought to be more development generating in fellow developing countries. Third, India has been making considerable technological progress in many knowledge-based sectors like pharmaceuticals, automobiles, information technologies, etc., and it would be interesting to examine the hypothesis of intermediate technologies that developing country OFDI is often ascribed to possess.

This study addresses the following specific questions regarding Indian FDI in developing countries: What are the trends in Indian investment in developing region? Where do Indian companies operate and in which sectors of host developing economies? Which ownership strategies do these firms pursue and why? What are the forms of Indian investment in developing countries? Is the hypothesis of intermediate technologies still valid for Indian investment? What are the drivers and determinants of Indian FDI flows into developing countries? How are host developing countries affected by Indian investment?

The next section examines the trends and patterns of Indian investments in developing regions since 1960s. Section 3 discusses the main drivers and firm-specific determinants of Indian FDI. Section 4 explores the role of Indian FDI in the development of host developing countries. Finally, section 5 summarizes the study.

2. Trends and Patterns of Indian FDI in Developing Region

2.1. Trends in Indian OFDI

The internationalization process of Indian enterprises through OFDI has in fact begun with their involvement in developing countries of the world economy. Direct investment projects of India's early multinationals went mostly into the developing region that emerged as the leading host region to Indian OFDI, accounting for 68.6 per cent of OFDI flows during 1961–69 (Table-1). The share of developing region further increased in 1970s to attain its highest shares ever: 96 per cent. The attraction of developing region to Indian OFDI continued to be very high in the 1980s. While developed region started enhancing its position since 1990s and has overtaken developing region in 2000–07 as the most attractive host region, developing countries continued to be important locations for outward investing Indian companies. Over 1961–2007, a total of 1674 Indian parent companies invested more than US $10.9 billion in as many as 92 developing countries. This widespread cross-country distribution of Indian OFDI in the developing region

further confirmed the prominent roles that Indian multinationals are playing in other developing countries.

Table-1
Regional Trends of Indian OFDI Flows, 1961–2007

Period	*OFDI Value (US$ Million)*			*No. of Outward Investing Firms*			*No. of Host Countries*		
	Developing	*Developed*	*Total*	*Developing*	*Developed*	*Total*	*Developing*	*Developed*	*Total*
1961–69	22 (68.6)	10 (31.4)	32 (100)	6	6	11	6	2	8
1970–79	84 (96.2)	3 (3.8)	87 (100)	52	9	60	15	2	17
1980–89	116 (76.3)	36 (23.7)	152 (100)	106	55	146	29	9	38
1990–99	1890 (56.4)	1460 (43.6)	3351 (100)	692	687	1,257	61	27	88
2000–07**	8788 (36.0)	15652 (64.0)	24440 (100)	1,012	1,327	2,104	78	28	106
All Years	10900 (38.8)	17162 (61.2)	28061 (100)	1,674	1,866	3149	92	30	122

Note: * Data for 2001 is only from January to March, 2002 is from October to December and 2007 data is from January to March; Percentage share in parenthesis; Developing region includes developing countries and transition economies of South-East Europe & CIS as classified by the UNCTAD in World Investment Report 2006.
Source: Calculation based on database constructed from a variety of sources as discussed in Appendix A1.

The fact that developing countries were the leading recipients of Indian OFDI during 1960s–80s largely reflects the intermediate nature of ownership advantages possessed by Indian companies during that period (Pradhan, 2007a, 2008). The main technological advantage that these Indian firms achieved through absorbing, assimilating, adapting and reverse engineering of foreign technologies offered limited scope for exploitation in developed region. The modified foreign technologies to suit local demand and factor conditions rather provided Indian innovating firms certain competitive advantages in other developing countries having similar socio-economic conditions like India. Besides the proximity of space, culture and ethnicity, the cordial policy attitude that existed among developing countries for FDI projects originating in fellow developing countries all have attracted early Indian multinationals into developing countries.

The process development oriented innovative activities of many Indian firms and from a wide range of industrial activities have moved towards product development in the 1990s. For example, in the case of Indian pharmaceutical sector a number of Indian companies started out-licensing their molecules to global multinationals based in developed countries (Pradhan, 2008). This maturing technological strength of large-sized Indian firms is now allowing them to exploit their competitive advantages even in developed countries and hence 1990s onwards developed region began to emerge as an

attractive destination for Indian OFDI. Consequently, the share of developed region in Indian OFDI has grown steadily from 23.7 per cent in 1980s to 44 per cent in 1990s and further to 64 per cent in 2000–07. The rising role of developed countries is also due to the adoption of overseas acquisitions by a large number of Indian firms to access foreign technologies and knowledge mostly concentrated in innovation driven developed region (Pradhan and Abraham, 2005; Pradhan, 2007c). Another factor that explains the improved attractiveness of developed countries to Indian OFDI is the rise of service firms like software, communication, etc., as global players mostly focused on service-dominated developed countries (Pradhan, 2003).

Notwithstanding this growing attractiveness of developed countries as a host to Indian OFDI since 1990s, Indian investment in developing region has also been growing rapidly. Between 1990–99 and 2000–07, Indian firms' investment in developing countries increased by more than five-times from US $1.9 billion to reach US $8.8 billion. This trend suggests that Indian firm's OFDI expansion into developed countries is not at the cost of developing countries.

2.2. Regional Geography

The OFDI flows from India have evolved differently over time in different sub-regional groupings within the developing region. During 1960s, a number of Indian companies got interested in tapping business opportunities thrown open since the starting of industrialization programme in many African countries that have just achieved their independence. Indian firms also got attracted to Africa because of the historical business link established since British colonial era and presence of significant size of Indian origin population. Africa emerged as the largest host of developing region Indian OFDI flows in 1961–69 with 60 per cent share and hosting 3 Indian multinationals (Table-2). The other region that attracted Indian OFDI is the Asia & Oceania that hosted about 4 Indian overseas investors and accounted for 40 per cent of total Indian FDI flows into the developing region. The geographical proximity of Asian countries, cultural linkages and similarity of institutions inherited from colonial rule appear to be important locational factors of neighbouring Asian countries (IIFT, 1977). Developing countries in Latin America & Caribbean and Southeast Europe & CIS, largely due to geographical distance, language barriers, and weak trade links, failed to attract any Indian investment during this period (Agrawal, 1984).

During 1970s–80s, Indian OFDI flows into Africa declined mainly because of growing policy restrictions on foreign investment, political violence and internal strife. The absolute amount of Indian investment received by Africa has gone down from $35 million in 1970s to reach $25 million in 1980s. Although the number of Indian companies

Table-2
Regional Distribution of Indian FDI flows into Developing Region, 1961–2007

Period	*FDI flows in $ million*				
	Africa	*Latin America & Caribbean*	*Asia & Oceania*	*Southeast Europe & CIS*	*Total Developing Region*
1961–69	13 (60.0)		9 (40.0)		22 (100)
1970–79	35 (42.0)		46 (55.1)	2 (2.9)	84 (100)
1980–89	25 (21.9)	0.2 (0.2)	61 (52.5)	29 (25.4)	116 (100)
1990–99	317 (16.8)	47 (2.5)	1445 (76.4)	81 (4.3)	1890 (100)
2000–2007	2968 (33.8)	1132 (12.9)	3407 (38.8)	1281 (14.6)	8788 (100)
All Years	3358 (30.8)	1179 (10.8)	4968 (45.6)	1394 (12.8)	10900 (100)
Number of Outward Investing Firms					
1961–69	3		4		6
1970–79	11		43	1	52
1980–89	24	2	86	3	106
1990–99	152	19	493	83	692
2000–2007	245	43	794	32	1,012
All Years	398	61	1,298	112	1674
Number of host countries					
1961–2007	28	15	35	14	92

Note & Source: Same as Table-1.

hosted by Africa has increased from 11 to 24 between 1970s and 1980s, its share in southern Indian investment decreased from 42 per cent to 21.9 per cent in 1980–89. The relative attractiveness of Asian countries to Indian OFDI has gone up since 1970s. Factors such as stable political conditions, healthy market trends and foreign investment friendly regimes of many Asian countries pulled an increasing number of outward investing Indian firms. During 1980–89 more than half of developing region Indian OFDI has been directed at Asian region with the participation of as many as 86 Indian companies. Latin America & Caribbean and South-East Europe & CIS developing countries witnessed initial interest of Indian entrepreneurs.

With the liberalization of policy regime including OFDI of the home country in the 1990s, Indian multinationals intensified their investment activities in developing regions across different sub-regional groups. Almost all developing sub-regions experienced rapid growth in Indian investment led by a growing number of Indian parent companies. Between 1980s and 1990s, the number of Indian investing companies increased from 24

to 152, 86 to 493, 2 to 19 and 3 to 83 respectively in Africa, Asia & Oceania, Latin America & Caribbean and Southeast Europe & CIS. Similar to the past trends, Asia & Oceania followed by Africa were the two most attractive developing regions in this period as well.

The geographical pattern of Indian OFDI in developing countries has shown trends of spatial diversification during 2000–07. The developing region picture of Indian OFDI which used to be dominated by a single host developing region, either by African developing countries in 1961–69 or by Asian developing countries in 1970–99, is now well spread across developing regions. In 2000–07, the host Asia & Oceania region received about 39 per cent of Indian OFDI flows, followed by Africa with 34 per cent, South-East Europe & CIS with 15 per cent and Latin America & Caribbean with 13 per cent.

2.2.1. Africa

Indian OFDI flows into Africa grew rapidly during the period 2000–07 as compared to the past. FDI flows in 2000–07 were 836 per cent higher than in 1990–99 (Table-3). This substantial growth in Indian investment in Africa was accompanied by a marked geographical spread. Although Indian companies' entry into Africa was limited to Nigeria, Kenya and Uganda in the 1970s, the number of African countries hosting Indian FDI has gone up significantly to 28 by 2000–07.

Among African sub-regions, East Africa largely led by Mauritius emerged as the largest host region accounting for about 73 per cent of total Indian OFDI flows into Africa during 1961–2007. Mauritius alone attracted about 70 per cent of Indian OFDI flows into Africa. Routing overseas investment through Mauritius directed at other host countries and even bringing back the investment into the home country is very attractive for Indian companies as they can avail benefits of low rates of dividend and income taxes in Mauritius and as well benefits from double tax avoidance treaties that other countries have signed with Mauritius. Being an offshore financial centre, it also attracted large number of Indian software companies catering to the financial service providers.

Kenya is another important East African host country for Indian investment since 1970s. Indian OFDI in Kenya has been into a wide range of sectors from low technology industries to knowledge-based industries. The maximum cases of Indian OFDI were in pharmaceuticals followed by machinery & equipment, chemicals, textiles & wearing apparel and paper & paper products. Other sectors in which Indian OFDI has been undertaken include financial & insurance services, rubber & plastic products, software, printing & publication. In January 2008, Essar Oil Limited, an Indian company has made

Table-3
Indian FDI Flows into Africa, by Destination, 1961–2007

Region/Country	*FDI flows in $ million*							*Number of Investing Firms*
	1961–69	*1970–79*	*1980–89*	*1990–99*	*2000–07*	*All Years*		
						Value	*Per cent*	
Africa	13	35	25	317	2968	3358	100	398
North Africa			1	41	508	550	16.37	23
Algeria					1	1	0.04	3
Egypt			1	8	7	16	0.47	14
Libya					100	100	2.99	3
Morocco				32		32	0.97	1
Sudan					395	395	11.75	3
Tunisia					5	5	0.16	
West Africa	3	4	19	29	203	258	7.69	49
Burkina Faso					0.05	0.05	0.00	1
Cote-d'Ivoire				0.01	14	14	0.43	4
Ghana				0.05	2	2	0.07	6
Liberia				0.3	155	155	4.62	2
Niger					0.01	0.01	0.00	1
Nigeria	3	4	4	7	30	47	1.41	34
Senegal			16	22	1	39	1.16	2
Sierra Leone					0.02	0.02	0.00	2
Central Africa					63	63	1.88	2
Congo					0.2	0.2	0.01	1
Gabon					63	63	1.88	1
East Africa	10	31	5	226	2170	2442	72.70	295
Ethiopia			0.03		5	5	0.16	12
Kenya	9	27	0.7	13	3	53	1.56	26
Mauritius			0.4	201	2149	2351	70.00	233
Mozambique				0.3	10	10	0.31	2
Seychelles		4	2			5	0.16	2
Tanzania				4	1	5	0.14	10
Uganda	0.9			4	0.2	5	0.15	11
Zambia			2	2	0.2	5	0.14	6
Zimbabwe			0.1	1	1	3	0.08	4
Southern Africa				22	24	45	1.35	50
Botswana				0.2	1	1	0.04	7
Namibia				0.3	0.1	0.38	0.01	3
South Africa				21	22	44	1.30	41

Note & Source: Same as Table-1.

a brownfield entry into Kenyan petroleum refinery segment by acquiring 50 per cent stake in Kenya Petroleum Refineries. The long standing cultural, trade and ethnic links that Kenya has with India seems to be the important locational factors attracting Indian investment into it. However, the most recent political violence that started in January 2008 could create enormous amount of insecurity inimical to the investment climate in Kenya. In this violence, Kenyans of Indian origin whose presence acted as a pull factor for Indian investment in the past, have suffered from ethnic violence and immense economic losses. This factor may play a negative role in near term prospect of Indian OFDI into Kenya.

North Africa is the second most attractive sub-region in Africa for Indian OFDI. It has an accumulated stock of over US $550 million at the end March 2007, which is about 16.4 per cent of total Indian investment in Africa over 1961–2007. Sudan among North African countries has emerged as the top destination and in fact is the second important African host to Indian investment after Mauritius. About 12 per cent of total Indian FDI in African region was located in Sudan. Although India share strong bonds of common heritage and culture with Sudan since ancient time, the phenomena of Indian investment in Sudan is of recent origin—beginning since 2003. It is also largely confined to the natural resource seeking investment made by a public sector Indian company, ONGC Videsh Limited (OVL), in the oil and gas sector. OVL has acquired 25 per cent in Greater Nile Oil Project in March 2003, 26.1 per cent and 24.5 per cent stake respectively in exploration Blocks 5A and 5B in November 2007. Apart from Indian OFDI in Sudanese oil sector, small quantum of Indian investment can be noticed in the case of automobile components and light engineering goods. Clearly the main motivation of Indian investment in Sudan is until now accessing her large oil reserves. Recently Sudan has been making conscious efforts in encouraging Indian investment in other sectors of her economy. The Sudanese government has been offering various incentive packages to Indian investing companies including bank guarantee by the government, 5 to 10 years of tax holidays and speedy clearance of investment proposals. Apart from this favourable policy approach of the host country, Sudan also offers Indian companies preferential access to Arab countries being a signatory of Arab free trade zone agreement. All these factors are likely to encourage more Indian investment into Sudan in coming years.

Like Sudan, Indian investment in Libya—the second most important North African host country is of recent origin. In spite of the formation of Indo-Libyan Joint Commission way back in 1978 to promote co-operation between the two countries in economic and industrial fields, Indian companies' participation in Libya remained confined to project execution in the areas of construction, transmission and other development activities. Since 2002 Indian public sector companies such as OVL and Oil India-Indian Oil

Corporation (OIL-IOC) consortium started undertaking direct investment in the Libyan hydrocarbons sector. After acquiring 49 per cent participating interest in two onshore exploration blocks, namely NC-188 and NC-189 in August 2002, OVL has secured the award for exploration Block 81-1 and has entered into Exploration and Production Sharing Agreement (EPSA) with National Oil Corporation of Libya for Contract Area 43 in March 2007. The OIL-IOC combine had acquired two oil blocks, namely Block 86 and Block 102/4 in 2005 and have won another three onshore oil blocks (i.e. blocks 1, 2 and 3 in contract area 95/96 in the Ghadames Basin) in December 2007. Hydrocarbon Resources Development Co (HRD) is another Indian oil and gas company that has recently undertaken investment in Libya. Libya's friendly relationship with India, adoption of a flexible visa regime, and possession of the biggest oil reserve in Africa is likely to see more investment by Indian companies aspiring to control oil resources abroad.

West Africa is the third attractive region in Africa for Indian investment after East and North African regions with about 8 per cent share of total Indian OFDI received by Africa during 1961–2007. The low share of West Africa in Indian OFDI is not surprising given the prolong history of wars and conflicts in prominent West African countries. The major West African host country Liberia saw investment by two Indian shipping companies, Seaking Empress and West Asia Maritime Limited. Liberia in spite of possessing large reserves of natural resources covering iron ore, precious stone, timber and rubber has not been successful in attracting FDI into these sectors on account of civil wars. With the political system of Liberia improving since 2005, a number of Indian companies are now showing interest in investing in this country for accessing natural resources. In December 2007, Tata steel submitted a bid for opening mines in Western Cluster Iron Ore deposits in Liberia for about US $1.5 billion[2]. Other two Indian steel companies, Ispat and Essar, in collaboration with Mittal Steel have been participating in the biding process to reopen Nimba iron ore mines of northern Liberia.

Nigeria and Senegal are other two important West African host countries for Indian investment in Africa. The involvement of Indian companies through direct investment in Nigeria can be traced back to 1964 when the Birla group undertook a joint venture for producing light engineering products like air conditioners, fans, etc. As a result of civil war from 1966 to 1970, not only was the first Indian FDI project got affected, but led to complete halt of Indian OFDI flows. After the civil war, Indian OFDI activities resumed in 1970s with as may as six Indian companies undertaking FDI projects in diverse areas like pharmaceuticals (Ranbaxy Laboratories Limited), machine tools (HMT Limited), asbestos cement products (Hyderabad Industries Limited), blankets (Karam Chand

[2] Business Standard (2007) 'Tatas bid for Liberian mines, to put in $1.5 bn', December 25.

Thapar), consultancy services (Birla Bombay Pvt. Limited) and contracts for transmission lines (Best & Crompton Engineering Limited). Indian OFDI flows into Nigeria continued in 1980s–1990s but became more rapid in 2000–07. About 63 per cent of Indian OFDI stock in Nigeria at the end March 2007 is in fact accounted by the flows of Indian investment during 2000–07. A large proportion of Indian OFDI flows into Nigeria during 1961–2007 have been directed at the basic metals and fabricated metal products (40 per cent), rubber and plastic products (13 per cent), and machinery and equipment (9 per cent). The fact that Nigeria is the largest trading partner of India in Africa and is actively seeking Indian participation in its hydrocarbons sector is witnessing participation of Indian companies in natural resource seeking investment since 2005. Nigeria has agreed to India's offer of a US $6 billion oil-for-infrastructure deal where India will assist in the establishment of a 2000 MW thermal power plant, a refinery and up-gradation of railway infrastructure in Nigeria in exchange for oil and gas equity[3]. As a part of the deal, the Nigerian government has already allotted two oil blocks to the ONGC-Mittal Energy Limited. Other private Indian companies like Essar have also started investing in the oil sector of Nigeria since May 2007.

Indian investment in Senegal, which dates back to 1981, is entirely directed into the chemicals segment. Two Indian fertilizer companies such as Indian Farmers Fertilizer Cooperative Limited (IFFCO) and Southern Petrochemicals Industries Corporation (SPIC) have invested in Senegal for sourcing phosphate products. In fact, IFFCO and the Government of India respectively hold 19.06 per cent and 6.97 per cent equity stake in the largest phosphate-based fertilizer producer, the Industries Chimiques du Senegal (ICS), along with 47 per cent of the Government of Senegal. With India and Senegal agreeing to enter into double tax avoidance treaty in December 2007, a lot more Indian companies such as Tata Motors, Thapar Group, etc., have been reportedly exploring investment opportunities in Senegal.

Other African sub-regions like Central Africa and Southern Africa have attracted minimal proportion of Indian direct investment destined to Africa during 1961–2007. Their shares are 1.9 per cent and 1.4 per cent respectively.

Sectoral Trends

Indian investments in Africa have emerged as fairly well diversified sectorally to cover a wide range of economic activities. Initially, Indian OFDI in Africa during 1960s–1980s has been largely into the manufacturing sector but its rapid surge since 1990s is

[3] International Business Times (2006) 'ONGC-Mittal to invest $6 billion in Nigeria, work together in 21 countries', July 15.

increasingly led by primary and service sectors. In terms of the cumulative Indian OFDI flows into Africa during 1961–2007, manufacturing is still the largest single sector attracting about $1877 million, nearly 56 per cent of the total (Table-4). A total of 229 Indian manufacturing companies have undertaken direct investment across 15 individual industries and directed at a total of 23 African host countries. Within the manufacturing sector, the main industrial areas are chemicals (32 per cent), rubber & plastics (8 per cent), transport equipment (3.7 per cent), basic metal & products (2.2 per cent), and machinery & equipment (1.7 per cent). This broad industrial pattern of Indian manufacturing investment in Africa tends to go with the postulations of several recent studies on Indian OFDI that Indian outward investing firms are no longer confined to the traditional labour-intensive and low technology based industries (Pradhan, 2007a, 2008). By the 1990s, Indian firms from a number of knowledge-based sectors like chemicals, pharmaceuticals, transport equipments, etc., have achieved significant technological strengths through in-house R&D efforts and acquisition of foreign technologies via several modes like licensing, merger and acquisitions (M&As), reverse engineering, etc. This growing technological sophistication of Indian firms from technology-intensive industries is now increasingly driving their outward FDI activities in general and similar is the case within Africa.

Table-4
Sectoral Composition of Indian FDI Flows into Africa, 1961–2007

Industry	*FDI flows in $ million*							*No. of Firms*	*No. of Countries*
	1961–69	*1970–79*	*1980–89*	*1990–99*	*2000–07*	*All Years*			
						Value	*Per cent*		
Primary				23	594	617	18.38	24	13
Agriculture & allied products				7	18	25	0.74	10	5
Ores & Minerals				0.3	0.1	0.4	0.01	6	6
Gas, Petroleum and related products				16	576	592	17.63	8	6
Manufacturing	13	27	21	259	1556	1877	55.88	225	23
Food, beverages and tobacco			1	18	23	42	1.25	21	9
Textiles and wearing apparel	10	0.29	0.05	16	34	60	1.80	25	10
Paper and paper products		23		0.3	2	25	0.75	4	3
Printing and Publication					1	1	0.03	5	4
Gems and Jewellery				2	17	19	0.57	12	5
Leather and related products				19	0.2	20	0.58	6	2
Rubber and plastic products				3	263	266	7.91	19	7
Non-metallic mineral products		2		4	0.1	6	0.18	7	5
Basic metals and fabricated metal product				14	60	74	2.20	23	9
Machinery and equipment		2	0.3	2	54	58	1.74	20	9
Electrical Machinery and equipment	3	0.03	0.2	7	4	15	0.43	21	6
Transport equipment		0.2		6	119	125	3.71	9	6

Industry	FDI flows in $ million							No. of Firms	No. of Countries
	1961–69	1970–79	1980–89	1990–99	2000–07	All Years			
						Value	Per cent		
Computer, electronic, medical, precision				3	41	44	1.31	15	4
Chemicals			16	137	930	1083	32.25	24	9
Pharmaceuticals		0.3	1	9	8	18	0.52	35	11
Other manufacturing			2	19	1	22	0.66	7	3
Services		8	3	32	817	860	25.59	163	17
Construction and engineering services		0.3		1	28	29	0.87	15	5
Trading			2	6		8	0.24	9	7
Advertising and market research				0.00	4	4	0.12	6	1
Consultancy and business advisory service		0.1	0.1	0.01	3	3	0.10	15	5
Event Management					0.3	0.3	0.01	2	1
Film, entertainment and broadcasting				1	60	61	1.82	14	1
Hospitality and Tourism		4	0.2	1	0.2	5	0.16	6	5
Hospital and health services					2	2	0.04	1	2
Financial and Insurance Services		4	0.1	19	229	251	7.48	43	8
Telecommunication Services				0.01	5	5	0.14	3	1
Transportation services			1	4	162	167	4.97	14	4
Software Development, Packages and ITES				0.07	323	323	9.63	44	4
Other services					0.4	0.4	0.01	6	4
Others			2	3	0.3	5	0.14	12	5
Total	13	35	25	317	2968	3358	100	398	28

Note & Source: Same as Table-1.

Africa's service sector accounts for about 26 per cent of total Indian investments during 1961–2007 to emerge as the second important host sector after manufacturing. Within services, the largest share of Indian investment occurs in software & ITES (9.6 per cent), followed by financial & insurance services (7.5 per cent), transportation services (5 per cent), and film & entertainment (1.8 per cent). There are about 163 Indian parent service companies investing in 17 African countries across different sub-regions. In the case of software & ITES, Mauritius is the largest host African country. The well developed landline and mobile telephonic infrastructure, high information and communication technology (ICT) penetration, and bilingual manpower of Mauritius have attracted more investment by Indian information and technology (IT) companies. South Africa with its large skilled multi-lingual workforce, low wage, and proximity to the Middle East and Europe has emerged as second attractive location for Indian IT investment. Kenya and Uganda are other African countries that have attracted Indian software companies.

Indian investment in Africa's financial services covers a range of activities such as stock broking & mutual fund, investment management and advisory services, asset and portfolio management, leasing, insurance and setting up of investment holding companies. Mauritius being a financial centre is the largest host country for Indian financial services investment in Africa. For Indian companies establishing offshore investment holding companies in Mauritius provides significant tax advantage as mentioned earlier. Apart from Mauritius, African countries that have attracted Indian investment in financial sector include Egypt, Ethiopia, Kenya, Nigeria, South Africa, Zambia, and Zimbabwe. Almost all Indian investment in Africa's transportation services are directed at the single African country, Mauritius. These include activities like aviation, shipping and courier businesses.

2.2.2. Latin America & Caribbean

As compared to other developing sub-regions, Indian firms' entry into Latin America & the Caribbean has been of recent origin and involved relatively small amount of direct investment. The period over 1980s–1990s, the cumulative value of Indian investment in Latin America & the Caribbean stand at just US $47 million (Table-5). However, a rapid expansion in Indian investment has been registered of late during 2000–07. The value of Indian OFDI stock in Latin America now stood at US $1179 million at end March 2007 and involved a total of 61 Indian parent companies. The sub-region of Caribbean & Other America led by Bermuda has been the top Latin American host to Indian investment. About 45 per cent of total Indian FDI in Latin America (US $531 million) is destined to Bermuda. Except one Indian OFDI project in the telecommunication services led by Reliance Infocomm Limited, all other Indian OFDI projects in Bermuda—an offshore financial centre—has been in the software and information technology (IT) sector. A total of 8 Indian software companies have invested in Bermuda to serve the demand for software services emanating from a cluster of international financial services companies operating in the areas of insurance, investment funds and special purpose vehicles[4]. Cuba, Trinidad & Tobago, St Vincent, and Bahamas are other destinations in the Caribbean & Other America that have attracted a small amount of Indian investment involving a few Indian companies.

[4] Investing Indian companies are HCL Infosystem Limited, HCL Perot Systems, HCL Technologies Limited., HT Interactive Media properties Limited, Slocum Investment Pvt. Limited, SSI Limited, Trigyn Technologies Limited and Wipro Limited.

Table-5
Indian FDI Flows into Latin America & Caribbean, by Destination, 1980–2007

Region/ Country	*FDI flows in $ million*					*Number of Investing Firms*
	1980–89	*1990–99*	*2000–07*	*All Years*		
				Value	*Per cent*	
Latin America & Caribbean	0.2	47	1132	1179	100	61
South America		19	514	533	45.19	27
Argentina		0.3		0	0.03	1
Brazil		3	479	481	40.81	23
Colombia		16		16	1.38	1
Guyana		0.2		0.2	0.01	1
Peru			0.1	0.1	0.01	2
Uruguay			35	35	2.96	1
Central America	0.2	9	86	95	8.04	22
Belize		0.4		0.4	0.03	1
Honduras			0.3	0.3	0.03	1
Mexico		5	62	68	5.75	10
Panama	0.2	3	23	26	2.23	10
Caribbean & other America		19	533	551	46.77	18
Bahamas		1	0.1	1	0.09	5
Bermuda		16	515	531	45.01	9
Cuba			17	17	1.44	1
St Vincent			0.1	0.1	0.00	1
Trinidad & Tobago		2	1	3	0.23	2

Note & Source: Same as Table-1.

South America is the second important sub-regional host to Indian OFDI directed at the Latin America. It has attracted a cumulative Indian investment of US $533 million in 1980–2007, nearly 45 per cent of total Indian investment hosted by Latin America. However, Indian OFDI in South America is mostly concentrated in a single country, namely Brazil. A total of 23 Indian parent companies are operating in Brazil with an aggregate investment of US $481 million—largely undertaken during 2000–07. In broad sectoral terms, gas and petroleum products have dominated Indian OFDI projects in Brazil with US $410 million nearly 85 per cent of the total. This is in fact due to the natural resource seeking investments made by a single state-owned company, namely

ONGC Videsh Limited (OVL). In April 2006, OVL entered into Brazilian hydrocarbon sector by acquiring 15 per cent stake in the offshore oilfield BC-10 block[5]. Another two Brazilian oil blocks, namely Block ES 470 and Block SM 1413 have been acquired by OVL recently in November 2007[6]. Pharmaceuticals with US $60.4 million (12.5 per cent share) and computer & electronic products with $8.24 million (1.7 per cent share) are two other important host sectors to Indian FDI in Brazil. It is obvious that Brazil's proven oil reserves of 12.6 billion barrels and 365 billion cubic meters of natural gas reserves at the end of 2007 shall continue to attract investment from Indian state-owned companies[7]. Apart from being India's largest trading partner in Latin America, Brazil possesses a large and growing market in the Latin American region to be attractive for Indian multinationals from pharmaceuticals and other sectors. The added advantage of locating subsidiaries in Brazil is that Indian company gets easy access to the common market of Mercosur representing other countries such as Argentina, Paraguay and Venezuela (as members) and Chile and Bolivia (as associating countries). With Mercosur entering into a Preferential Trade Agreement (PTA) with India in March 2005 is likely to offer a great variety of investment opportunities for Indian companies.

Central American countries are the least attractive host for Indian OFDI with just about 8 per cent share of total Indian investment in Latin America. Mexico with US $68 million and Panama with US $26 million are the important Central American host countries. Indian investment in Mexico that began in 1993 has really picked up during 2000–2007. Most aggressive Indian investors in Mexico are from pharmaceutical sectors who have invested about US $53 million (78.6 per cent of the total). Presently a total of six Indian pharmaceutical companies are operating in Mexico[8]. Gems and jewellery emerged as the next important host sector with US $9 million solely led by Vaibhav Gems Limited. Metal sector is the third important sector of investment led by Ispat Alloys Limited ($5.3 million, 7.9 per cent). The main locational factors that are attracting Indian investment into Mexico is access to the largest market of the world represented by trading block of the North American Free Trade Agreement (NAFTA) consisting of Mexico, Canada and the US and that also at the advantage of low wage cost. The Indian FDI into Mexico is expected to grow faster in the backdrop of India and Mexico signing a ten-year bilateral investment promotion and protection agreement in May 2007[9]. Indian investment in

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[5] Hindu (2006), 'OVL to pick-up stake in Brazilian oil field', April 28.

[6] Hindu Business Line (2007), 'ONGC Videsh bags two blocks in Brazil', November 29.

[7] Global Insight (2008), 'ANP Releases Brazilian Reserves Data as Police Continue to Investigate Data Theft', February 21.

[8] They are: Dr. Reddy's Laboratories, Sun Pharmaceutcals, Torrent Pharmaceuticals, Intas Pharmaceuticals, Strides Arcolab and Torrent Exports Limited.

[9] Hindu (2007), 'India, Mexico sign investment protection agreement', May 22.

Panama dates back to 1988 and covers a range of industrial operation. Tea, shipping, and medical transcription services have been the main sectors of Indian investment although small amount of Indian FDI can be seen in software services, textiles and construction & engineering services.

Sectoral Trends

Nearly all economic sectors of Latin America have witnessed significant growth in Indian FDI inflows between 1990s and early 2000s. Sectoral breakups suggest that more than half of the Indian OFDI stock in Latin America is in services sector, followed by primary sector (36 per cent) and manufacturing sector (14 per cent) (Table-6). A total of 26 Indian service companies are operating in 10 Latin American host countries. Software and telecommunication services are two most important services sector respectively accounting for 30 per cent and 18 per cent of the total Indian investment in Latin America. Within the primary sector, it is the oil and gas segment that is the important host for Indian investment. Oil and gas-seeking Indian investment is wholly undertaken by one state-owned company, OVL Limited, and was directed at two Latin American countries, namely Brazil and Cuba. The pattern of manufacturing investment in Latin America is broad-based but mostly dominated by pharmaceuticals and food and beverages segments.

2.2.3. Asia & Oceania

Indian multinationals have a long history of activity in Asian region since 1961. As mentioned earlier, the pull forces of geographical and cultural proximity have been the traditional determining factors of Indian investment in this sub-region. The amount of Indian FDI into Asia has consistently grown from a meager US $9 million in 1960s to US $61 million in 1980s and quite substantially since 1990s to reach US $3.4 billion in 2000–07 (Table-7). As many as 1298 Indian parent companies have invested in this region. Clearly, Indian firms are relatively more active intra-regionally in terms of number of outward investing firms and the amount invested. This intra-regional character of Indian OFDI can be partly explained by the neighborhood effects involving similarity in culture, business environment, and institutions and partly by the superior growth that the Asia & Oceania region has exhibited (due to economies like China, Singapore, Hong Kong, South Korea, and Taiwan) as compared to other developing regions.

South-East Asia has been the largest sub-regional host to Indian investing companies accounting about 48 per cent of the total Indian FDI in Asia & Oceania region. Singapore with 35 per cent turns out to be the single largest South-East Asian host country and also the top attractive destination for Indian FDI into Asia & Oceania. Indian firms' involvement in Singapore started in 1977 but got intensified mostly from early-1990s.

Table-6
Sectoral Composition of Indian FDI Flows into Latin America, 1980–2007

Industry	*FDI flows in $ million*					*Number of Firms*	*Number of Countries*
	1980–89	*1990–99*	*2000–07*	*All Years*			
				Value	*per cent*		
Primary		0.3	427	427	36.24	2	3
Agriculture & allied products		0.3		0.3	0.03	1	1
Gas, Petroleum and related products			427	427	36.22	1	2
Manufacturing	0.1	9	151	160	13.57	34	7
Food, beverages and tobacco			20	20	1.71	2	2
Textiles and wearing apparel		0.02	0.3	0.3	0.03	2	2
Gems and Jewellery			9	9	0.76	1	1
Rubber and plastic products			0.3	0.3	0.03	3	2
Non-metallic mineral products		0.4		0.4	0.03	1	1
Basic metals and fabricated metal product		5	0.4	6	0.49	3	2
Machinery and equipment			1	1	0.06	2	1
Electrical Machinery and equipment		1	0.1	1	0.09	3	2
Transport equipment	0.1			0.1	0.01	1	1
Computer, electronic, medical, precision			8	8	0.71	3	2
Chemicals		0.1		0.1	0.01	2	2
Pharmaceuticals		3	111	114	9.65	15	3
Other manufacturing			0.1	0.1	0.00	1	1
Services	0.1	37	554	592	50.19	26	10
Construction and engineering services		17		17	1.45	2	2
Consultancy and business advisory service		0.01	1	1	0.05	2	2
Hospital and health services			1	1	0.10	1	1
Financial and Insurance Services	0.1	2		2	0.20	3	3
Telecommunication Services			215	215	18.24	2	2
Transportation services		2	3	5	0.40	4	2
Software Development, Packages and ITES		16	335	351	29.75	12	5
Others			0.003	0.003	0.00	1	1
Total	0.2	47	1132	1179	100	61	15

Note & Source: Same as Table-1.

About 20 per cent of Indian FDI stock in Singapore is in transport equipment (US $340 million), followed by telecommunication services (US $280 million, 16.5 per cent), software (US $265 million, 15 per cent), film & entertainment (US $259 million, 15 per cent), basic metal (US $223 million, 13 per cent), and computer & electronics (US $85 million, 5 per cent). Other important sectors where Indian OFDI projects can be seen are food & beverages, financial & insurance services, transportation services, chemicals,

Table-7
Indian OFDI Flows into Asia & Oceania, by Destination, 1961–2007

Region/Country	*FDI flows in $ million*							*Number of Investing Firms*
	1961–69	*1970–79*	*1980–89*	*1990–99*	*2000–07*	*All Years*		
						Value	*Per cent*	
Asia & Oceania	9	46	61	1445	3407	4968	100	1,298
West Asia		1	8	520	703	1232	24.79	413
Bahrain			5	10	3	17	0.35	25
Iran			0.1	60	45	105	2.12	11
Jordan			0.2	15		15	0.30	4
Kuwait				12	2	14	0.28	7
Oman			0.3	141	102	243	4.89	31
Qatar					16	16	0.32	3
Saudi Arabia		1	1	42	24	67	1.35	20
Syrian Arab Republic					9	9	0.19	1
Turkey				0.1	0.4	0.5	0.01	3
UAE		1	2	240	502	744	14.98	335
East Asia		0.1	0.02	470	548	1018	20.50	181
China				27	188	214	4.32	60
Hong Kong		0.07	0.02	443	307	749	15.08	120
Mongolia				0.1		0.1	0.00	1
North Korea					52	52	1.04	1
South Korea				1	2	3	0.06	6
Taiwan					0.3	0.3	0.01	2
South Asia	0.05	5	15	170	151	341	6.87	297
Afghanistan					0.1	0.1	0.00	1
Bangladesh			2	18	25	45	0.91	66
Bhutan					1	1	0.02	1
Maldives				7	1	8	0.17	5
Nepal		4	5	55	25	89	1.79	91
Pakistan					3	3	0.05	1
Sri Lanka	0.05	1	8	91	96	195	3.93	153
South-East Asia	9	40	38	285	2002	2374	47.79	563
Cambodia					15	15	0.29	**
Indonesia		13	2	26	138	179	3.60	52
Malaysia	8	9	7	60	32	116	2.34	102
Myanmar				3	63	66	1.34	3
Philippines		2	0.2		10	12	0.23	11
Singapore		3	24	158	1557	1741	35.05	377
Thailand	0.3	14	6	35	111	166	3.35	59
Vietnam				2	76	79	1.58	11

Region/Country	FDI flows in $ million							Number of Investing Firms
	1961–69	1970–79	1980–89	1990–99	2000–07	All Years		
						Value	Per cent	
Oceania		0.2	0.1	0.1	2	3	0.06	2
Fiji		0.2				0.2	0.00	1
Solomon Islands			0.05			0.05	0.00	1
Tonga			0.02			0.02	0.00	1
Vanuatu				0.1	2	3	0.05	2

Note & Source: Same as Table-1.

**- There are two OFDI approvals but names of investing Indian companies are not available.

construction & engineering services and tourism. This implies that Singapore has been attracting well-diversified Indian FDI across different sectors. With its highly developed financial, telecommunication and other trade-supporting infrastructure, Singapore has been the most favourite place for Indian companies due to its liberal foreign investment policies and its advantage in offering preferential access to the ten-member ASEAN (Association of South East Asian Nations) market and a host of 13 other countries including Japan, USA, and Australia with whom Singapore has free trade agreements. Recently there has been a tendency of Indian companies to get their subsidiaries listed in Singapore stock exchange to tap Singapore bond market and this financial motivation is also adding another dimension to Indian OFDI into Singapore. The signing of the Comprehensive Economic Cooperation Agreement (CECA) between India and Singapore in June 2005 and their rising bilateral trade volume is likely to encourage more Indian companies to invest in Singapore in the coming years.

Indonesia, Thailand and Malaysia are other attractive destinations for Indian investment in South-East Asian region. Indonesia had attracted OFDI by Indian firms, way back in 1973 and has continued to receive Indian investment since then. A total of 52 Indian companies have already invested in Indonesia but the amount of investment is not very large. About half of the Indian investment in Indonesia amounting to US $88 million is in the construction and engineering services undertaken by a single Indian company, namely Punj Lloyd Limited. Basic metals & fabricated metal products with US $38 million (21.5 per cent), transport equipment with US $19 million (11 per cent) and textiles with US $12.3 million (7 per cent) are other important Indonesian sectors for Indian investment. Following the entry of privately-owned Indian companies such as Anil Steel and Industries, Ispat Alloys and Jindal Stainless into Indonesian metal sector, the state-owned National Aluminum Company (Nalco) has been planning for a major investment of above US $7.6 billion over a five year period[10]. The existence of bilateral investment

[10] Hindu Business Line (2007), 'Nalco plans US$ 7.61 billion investment in Indonesia', December 12.

protection agreement singed since 1999 and recent interest of Indonesia to attract Indian investment is expected to provide positive signals to Indian investors.

West Asia with US $1.2 billion of Indian investment is the second largest host in the Asian region after South-East Asia. A total of 413 Indian parent companies have been operating in this sub-region with UAE as the principal destination. UAE after receiving the first Indian joint venture project for production of gas cylinders and tanks in 1974 has emerged as a favourable destination for Indian companies in the 1990s. A total of 335 Indian parent companies are operating here. The industrial pattern of Indian OFDI in UAE covers a total of 31 individual sectors with chemicals (US $216 million, 29 per cent), petroleum products (US $122 million, 16 per cent) and software (US $92 million, 12 per cent) as dominating sectors. Construction & engineering services (7 per cent), textiles & wearing apparel (5 per cent), pharmaceuticals (4 per cent) and transportation services (3.7 per cent) are other important sectors attracting Indian investment in UAE. The starting of free zones scheme at Jebel Ali and the Sharjah with approvals for full foreign ownership and tax-free regime seems to be a major factor attracting Indian companies into UAE[11]. The past cultural and business links, cordial political relations, existence of a strong Indian expatriate community and well-developed ports and airport facilities all are positively motivating Indian investment into UAE.

Oman hosted a total of 31 Indian parent companies and accounted for 5 per cent of the total Indian FDI in Asia to emerge as the next attractive West Asian country after UAE. Starting since mid-1980s, Indian companies have invested a total of US $243 million. Above 83 per cent of Indian investment in Oman is confined to just one sector, namely chemicals (US $203 million), and have been undertaken by two Indian companies—Asian Paints and Krishak Bharati Cooperative Limited. The next important sector receiving Indian OFDI is oil and gas (US $17 million, 7 per cent), followed by software (US $13 million, 5 per cent), and computer & electronics (US $7 million, 3 per cent). There are other eight individual sectors attracting Indian investment but in smaller quantity. The investment protection and avoidance of double taxation agreement that Oman has with India and proactive encouragement to Indian companies for investment, Oman is likely to see more improvement in investment flows from India.

East Asia is the third largest host to Indian FDI in Asia & Oceania region. A total of 181 Indian parent companies have invested an aggregate amount of US $1.02 billion in East Asia. Hong Kong (a Special Administrative Region of China) with 15 per cent and China with 4 per cent of the total Indian FDI in Asia are two important host countries. About

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[11] Hindu Business Line (2000), 'Indian companies warm up to UAE free zones', July 25.

half of the Indian investment in Hong Kong has gone into computer and electronics (US $352 million). Hospitality and tourism with US $141 million accounting for 19 per cent of the total Indian FDI in Hong Kong came out as second most attractive sector. Electrical machinery and equipment with US $110 million (15 per cent), gems and jewellery with US $44.5 million (6 per cent), pharmaceuticals with US $36 million (5 per cent) and software with US $30 million (4 per cent) are other important attractive sectors for Indian investing companies. Indian companies appear to be leveraging familiar laws, institutions and culture of Hong Kong to access the mainland Chinese and global markets.

South Asia is the fourth important Asian sub-region to host Indian FDI. It has attracted about US $341 million undertaken by a total of 297 Indian parent companies. Predominantly Indian investment in South Asia has been concentrated in two countries, namely Sri Lanka and Nepal. There are 153 Indian companies which have invested a sum of US $195 million in Sri Lanka. Indian firms started investing in Sri Lanka since 1961 but the real dynamism in Indian FDI came since 1992 onwards. The sectoral distribution of Indian FDI directed at Sri Lanka shows that about 28 per cent of investments went to the non-metallic mineral products (mainly cement), 20 per cent to gas & petroleum products, 10 per cent to textiles & wearing apparel, and 9 per cent to food & beverages. Hospitality & tourism (3 per cent), health services (3 per cent), rubber & plastic products (2.7 per cent) and construction & engineering services (2.5 per cent) are other important Sri Lankan sectors that attracted Indian investment projects. Beside the pull factors like geographical and cultural proximities, the recent spurt in Indian investment into Sri Lanka is caused by the operation of India-Sri Lanka Free Trade Agreement in 2000. Following this FTA, many Indian companies have gone into Sri Lanka for a variety of purposes to serve domestic market, to produce for export markets and to access natural resources like oil. Very recently a number of Indian infrastructure companies like Bharti Airtel (with a proposed investment of $150 million in telecommunication services) are expanding into Sri Lanka[12].

Nepal is also an early South-Asian destination for Indian companies with attracting a number of Indian FDI projects in the 1970s. As on March 2007, the stock of Indian FDI in Nepal stands at US $82 million attributed to some 91 Indian parent companies. Among the leading Nepalese sectors receiving Indian FDI stock, pharmaceuticals turn out to be the top sector accounting for a quarter of Indian investment. Another 11 per cent of Indian FDI went to basic metal & fabricated metal products, 9.5 per cent to chemicals, 6

[12] Financial Express (2008), 'Airtel signs $100-mn investment agreement to start Lankan ops', March 12.

per cent to rubber & plastic products and 5 per cent each to paper & paper products, telecommunication services and hospitality & tourism. In addition to the geographical, cultural and historical ties with India, Nepal has a double tax avoidance treaty and a very liberal policy approach to Indian companies. In fact for many Indian small- and medium-sized enterprises that are first-time trans-nationalizers, Nepal is a natural choice with lower risks. Many large Indian firms like Dabur, Colgate, etc., are using Nepal as an export base to serve Indian market. Nepal would have received much more Indian investment but for the prolong political uncertainty and violence that marked it since 1995. As political stability is slowly returning in Nepal in early 2008, a favourable factor is emerging with a positive prospect for Indian FDI in Nepal.

Indian investment in the Oceania has been quite limited and just amounts to US $3 million. Only two Indian parent companies namely Forbes Gokak Limited and Asian Paints (India) Limited are operating in this developing sub-region of Asia.

Sectoral Trends

Indian firms that started investing intra-regionally during 1961–69 all were from manufacturing sector. In 1970s, Indian services firms also joined the OFDI process in investing in the Asian region. However, the rate of OFDI investment undertaken by service firms outpaced that undertaken by manufacturing firms in early 2000s. Between 1990–99 and 2000–07, OFDI investment by Indian service firms grew by 312 per cent as compared to 96 per cent of manufacturing firms and 68 per cent of firms from primary sector (Table-8).

For the overall period from 1961–2007, the sectoral distribution of Indian investment in Asia shows that nearly 57.5 per cent of it went to the manufacturing sector, 32 per cent to the service sector and the remaining 10 per cent to the primary sector. The growth of Indian manufacturing OFDI in Asia is accompanied by a growth of 749 investing Indian companies from as many as 16 individual industries and directed at a total of 33 Asian host countries. Of these individual industries, chemicals received the largest amount of manufacturing investment (US $547 million) and has greater geographical spread of 23 host countries. Transport equipment, computer & electronics, basic metals & fabricated metal products, pharmaceuticals, electrical machinery & equipment, food & beverages and gems & jewellery are other important sectors.

Table-8
Sectoral Composition of Indian FDI Flows into Asia & Oceania, 1961–2007

Industry	*FDI flows in $ million*							*No. of Firms*	*No. of Countries*
	1961–69	*1970–79*	*1980–89*	*1990–99*	*2000–07*	*All Years*			
						Value	*per cent*		
Primary		4	1	190	319	513	10.32	71	18
Agriculture & allied products			1	9	4	13	0.26	34	9
Ores & Minerals		4		2	2	8	0.15	12	5
Gas, Petroleum and related products				180	313	492	9.91	25	17
Manufacturing	9	37	20	944	1848	2857	57.51	749	33
Food, beverages and tobacco		3	3	71	38	116	2.33	80	13
Textiles and wearing apparel	0.3	14	1	24	52	91	1.84	83	15
Wood & wood products				0.1	1	1	0.02	3	4
Paper and paper products		8		23	7	39	0.78	13	8
Printing and Publication				0.4	8	9	0.18	10	5
Gems and Jewellery			0.004	2	92	94	1.89	45	8
Leather and related products				11	16	27	0.54	20	8
Rubber and plastic products		0.3	1	20	38	59	1.19	61	12
Non-metallic mineral products	6			67	26	98	1.98	44	11
Basic metals and fabricated metal product		4	5	55	338	402	8.09	79	16
Machinery and equipment	0.05	0.2	2	17	51	70	1.42	68	17
Electrical Machinery and equipment			1	28	159	188	3.78	74	16
Transport equipment		4	0.3	3	439	447	8.99	34	11
Computer, electronic, medical, precision		0.3		280	174	455	9.15	54	15
Chemicals		2	3	290	251	547	11.01	112	23
Pharmaceuticals			3	43	150	196	3.95	58	16
Other manufacturing	3	1	1	9	6	19	0.39	22	12
Services		5	40	301	1239	1586	31.92	520	24
Construction and engineering services		2	1	40	164	207	4.16	66	19
Trading			5	14	3	21	0.43	29	9
Advertising and market research				2	8	10	0.21	20	8
Consultancy and business advisory service		0.002		2	7	8	0.16	44	12
Event Management					1	1	0.02	4	3

Industry	FDI flows in $ million							No. of Firms	No. of Countries
	1961–69	1970–79	1980–89	1990–99	2000–07	All Years			
						Value	per cent		
Film, entertainment and broadcasting				1	263	263	5.30	15	5
Hospitality and Tourism		1	8	158	19	185	3.73	35	12
Hospital and health services				6	5	11	0.21	6	4
Financial and Insurance Services		2	26	11	26	65	1.31	46	13
Telecommunication Services				10	285	296	5.95	8	7
Transportation services			1	16	45	63	1.26	52	12
Software Development, Packages and ITES			0.01	39	411	451	9.07	216	16
Other services			0.1	3	2	5	0.10	18	9
Others			0.2	10	2	12	0.24	25	11
Total	9	46	61	1445	3407	4968	100	1298	35

Note & Source: Same as Table-1.

A total of 520 Indian service firms invested about US $1586 million in as many as 24 Asian host countries. The activities of Indian software firms in Asia represent the largest category with US $451 million accounting for about 9 per cent of total Indian FDI in the sub-region. Singapore hosted 59 per cent of Indian software FDI in Asia (US $265 million), followed by UAE with 20.5 per cent (US $92 million), Honk Kong with 7 per cent (US $30 million) and China with 3.6 per cent (US $16 million).

Telecommunication services, film & entertainment, construction & engineering services are other important host sectors for Indian services FDI projects. A total of 8 Indian firms from the telecommunication service sector undertook US $296 million investments in 7 host Asian countries. About 95 per cent of this Indian telecommunication service FDI is directed at single host country, namely Singapore. Malaysia and Nepal respectively accounting for 3.4 per cent and 1.4 per cent are other attractive destinations for Indian telecommunication service FDI. Indian firms invested about US $263 million in the film, entertainment & broadcasting sector of five Asian countries such as Hong Kong, Nepal, Singapore, Sri Lanka and UAE. Among these countries, Singapore alone accounted for about 98 per cent of Indian FDI in the media & broadcasting segment. In the case of construction & engineering service sector, 66 Indian parent companies invested US $207 million in 19 host Asian countries. Indonesia is the single largest host to such investment accounting for 43 per cent (US $88 million). The second and third largest host Asian countries are UAE with 24 per cent (US $50 million) and Malaysia with 9 per cent (US $19 million).

The primary sector Indian investment in Asia is largely into the oil & gas sector. Of the US $492 million of Indian FDI in the petroleum sector, US $122 million went to UAE (25 per cent), US $103 million went to Iran (21 per cent), US $75 million went to Vietnam (15 per cent), and US $63 million went to Myanmar (13 per cent). Although public owned oil and gas companies such as ONGC Videsh Limited, Indian Oil Corporation Limited, Hindustan Petroleum Corporation Limited and Gail (India) Limited are leading outward investing companies, recently a number of privately owned Indian companies such as Gulf Oil Corporation, Shivvani Oil and Gas Exploration, Shakun Gases, Great Eastern Shipping Co, Aban Offshore and Haresh Petrochem Limited are also undertaking such natural asset-seeking investments.

2.2.4. South-East Europe & CIS

The expansion of outward investing Indian firms into South-East Europe & CIS sub-region started in 1979. Usha Martin Limited—an Indian company—established a joint venture company in Bosnia & Herzegovina (formerly a part of Yugoslavia) for manufacturing steel rope with an investment of US $2.4 million for 17.5 per cent of equity interest. In the 1980s, there are just about three cases of OFDI by Indian companies in this developing sub-region. The trend in Indian OFDI picked up during 1990–1998 significantly and reached a brief lull during 1999–2001 before accelerating from 2002 onward with a large number of OFDI projects. At the end March 2007, a total of 112 Indian parent companies are operating in 14 Southeast Europe & CIS countries with an aggregate investment of US $1394 million (Table-9).

The CIS sub-region largely led by Russia came out as the most attractive destination for Indian FDI in Southeast Europe & CIS region with as high as 99 per cent share. Russia alone accounted for 81 per cent of Indian investment destined to South-East Europe & CIS region. A total of 60 Indian parent companies are operating in Russia. Of the US $1128 million investment that Russia has received from India, 95 per cent (US $1070 million) of it is in gas and petroleum segment. This investment is accounted for by a single state-owned Indian company, ONGC Videsh Limited and in the single project of Sakhalin- offshore oilfield in Russia where it is holding a 20 per cent interest. The other two important host industries are pharmaceuticals (US $20 million) and food & beverages (US $13 million). Kazakhstan with US $174 million of Indian investment and 11 parent Indian companies is the second largest host in the South-East Europe & CIS sub-region. Indian investment in Kazakhstan remains principally concentrated in a few sectors—construction & engineering services (US $126 million, 73 per cent), chemicals (US $29 million, 16 per cent) and pharmaceuticals (US $13 million, 8 per cent).

Although the sub-region of South-East Europe was the initial destination for Indian FDI in the Southeast Europe & CIS region, however, it has received about 1 per cent of Indian FDI stock. South-East European countries such as Bosnia & Herzegovina, Bulgaria and Romania had attracted some Indian FDI projects but were not very substantial in value terms.

Table-9
Indian FDI Flows into South-East Europe & CIS, by Destination, 1970–2007

Region/Country	FDI flows in $ million						**Number of Investing Firms**
	1970–79	**1980–89**	**1990–99**	**2000–07**	**All Years**		
					Value	Per cent	
South-East Europe & the CIS	2	29	81	1281	1394	100	112
South-East Europe	2		0.2	11	14	0.99	8
Bosnia & Herzegovina	2				2	0.17	1
Bulgaria			0.2	0.3	1	0.04	3
Romania				11	11	0.78	4
CIS		29	81	1270	1380	99.01	105
Azerbaijan			1	2	3	0.20	4
Belarus			0.2		0.2	0.01	1
Georgia			1	8	9	0.63	4
Kazakhstan		29	10	135	174	12.47	11
Kyrgyzstan			8	5	13	0.92	7
Maldova				7	7	0.47	1
Russia		1	34	1093	1128	80.89	60
Tajikistan			1	4	5	0.37	4
Turkmenistan			2		2	0.13	3
Ukraine			1	4	5	0.37	8
Uzbekistan			24	12	35	2.53	18

Note & Source: Same as Table-1.

Sectoral Trends

The primary sector principally led by gas and oil segment has been the largest host sector of Indian FDI in Southeast Europe & CIS sub-region. A total amount of US $1073 million has been invested by two Indian companies in accessing gas and oil resources of two host countries namely Russia and Kyrgyzstan (Table-10). This amounted to 77 per cent of total investment undertaken by Indian companies in this region. Other two economic sectors, manufacturing and service sector, each accounted about 12 per cent share. Within the manufacturing sector, pharmaceuticals, chemicals and food & beverages are three important host sectors for Indian parent companies. Construction & engineering services is the most attractive service sectors for Indian FDI in the Southeast Europe & CIS region.

Table-10
Sectoral Composition of Indian FDI Flows into South-East Europe & CIS, 1970–2007

Industry	*FDI flows in $ million*						*No. of Firms*	*No. of Countries*
	1970–79	*1980–89*	*1990–99*	*2000–07*	*All Years*			
					Value	*Per cent*		
Primary			3	1071	1074	77.01	5	4
Agriculture & allied products			0.4	0.3	1	0.05	2	3
Gas, Petroleum and related products			3	1070	1073	76.96	3	2
Manufacturing	2	29	62	72	164	11.80	72	13
Food, beverages and tobacco			10	5	14	1.03	12	5
Textiles and wearing apparel			8	0.1	9	0.61	6	3
Paper and paper products			0.1		0.1	0.01	1	1
Printing and Publication			0.4		0.4	0.03	1	1
Gems and Jewellery				0.0001	0.0001	0.00		
Leather and related products			7	0.3	7	0.50	8	4
Rubber and plastic products			2	0.1	2	0.15	5	5
Non-metallic mineral products				0.01	0.01	0.00	1	1
Basic metals and fabricated metal product	2		2	0.001	5	0.34	3	3
Machinery and equipment			3	1	4	0.29	6	2
Electrical Machinery and equipment				7	7	0.52	1	1
Computer, electronic, medical, precision			1		1	0.08	4	2
Chemicals		29	1	1	30	2.16	4	4
Pharmaceuticals			22	58	80	5.77	21	9
Other manufacturing			4		4	0.30	2	2
Services		1	16	138	155	11.13	37	10
Construction and engineering services			0.2	137	137	9.86	7	4
Trading		1	6	0.1	7	0.48	11	2
Consultancy and business advisory service			0.2		0.2	0.02	1	1
Film, entertainment and broadcasting				0.1	0.1	0.00	1	1
Hospitality and Tourism		0.2	9	1	10	0.73	13	8
Financial and Insurance Services			0.1		0.1	0.01	2	2
Software Development, Packages and ITES			0.2	0.4	1	0.04	3	2
Others			1	0.03	1	0.06	5	2
Total	2	29	81	1281	1394	100	112	25

Note & Source: Same as Table-1.

2.3. Ownership Structure

The growth of Indian FDI in developing region has been accompanied by a marked structural change in the ownership choice of Indian parent companies over time, with a decline in the preference for joint ownership and a rise in that for full-ownership in OFDI projects. Table-11 shows the breakdown of Indian OFDI approvals between joint venture (JV) and wholly-owned subsidiary (WOS) during 1961–2007. In terms of ownership structure, Indian parent companies entering into developing region invariably opted for an ownership sharing with local companies in the 1960s and their strong preference for joint ownership continued in 1970s and 1980s. Indian firms during these periods had less experience in trans-border investment activities and possessed modest technological advantages derived from reverse engineering of foreign technologies. With these characteristics it is natural for Indian firms to find joint venture as an attractive OFDI strategy to minimize the potential risks and liabilities that characterize global production. The JV partner provides additional finance, marketing intelligence, and information on local laws and institutions which are crucial inputs for a successful FDI projects by Indian companies. The contemporary home country OFDI policy regime also required the Indian parent companies to go for JVs in host countries. All these factors had contributed for Indian firms' overwhelming choice for joint ownership mode in their OFDI operation until 1980s.

In spite of the prevailing choice for JV over 1960s–1980s, the importance of WOS was growing over time. The share of WOS in total number of overseas approvals granted to Indian parent companies which was zero per cent in 1961–69 became 12 per cent in 1980–89. By 1990–99, the share of WOS went up to 41 per cent and then outpaced that of JV in 2000–07 to reach 72.3 per cent. Clearly, WOS become the most preferred form of OFDI strategy by Indian parent companies in early 2000s. The relaxation of policy restriction on the extent of ownership interest that Indian companies can hold in their overseas entities in 1990s has played a role. The growing firm-specific ownership advantages of Indian parent firms stemming from expanded technological and skill assets—created in-house and/or acquired abroad—have been the major driving factor behind the increased preference of Indian parent firms to have full-ownership in their OFDI projects. The risks of losing control over their technological assets are quite low in WOS strategy than in JV strategy. Moreover, the WOS strategy ensures that Indian service parent companies including software sector are able to provide the required high quality service delivery through a secure mode to global buyers (Pradhan, 2007b). It also appears that with Indian parent firms gaining initial experience in OFDI in pre-1990s periods are now more confident in their OFDI strategy to go alone and operate in host developing countries.

There are regional variations in the ownership structure of Indian OFDI in different developing sub-regions. For the overall period 1961–2007, the WOS projects accounted for 75 per cent of total number of FDI projects approved in the case of Latin America & Caribbean, followed by 69 per cent in Africa, 61 per cent in Asia & Oceania, and 43 per cent in Southeast Europe & CIS.

Table-11
Ownership Choice of Indian Firms Investing in Developing Region, 1961–2007

Ownership Mode	*Number of OFDI Approvals*					
	Africa	*Latin America & Caribbean*	*Asia & Oceania*	*Southeast Europe & CIS*	*Total Developing Region*	
					Number	*Percentage share*
1961–69						
JV	3		4		7	100
WOS						0
Total	3		4		7	100
1970–79						
JV	12		45	1	58	95.1
WOS			3		3	4.9
Total	12		48	1	61	100
1980–89						
JV	14	2	60	3	79	87.8
WOS	2		9		11	12.2
Total	16	2	69	3	90	100
1990–99						
JV	73	13	409	86	581	58.9
WOS	122	13	243	27	405	41.1
Total	195	26	652	113	986	100
2000–07						
JV	153	37	580	39	809	27.7
WOS	441	145	1,455	69	2110	72.3
Total	594	182	2035	108	2919	100
All Years						
JV	255	52	1098	129	1534	37.8
WOS	565	158	1710	96	2529	62.2
Total	820	210	2808	225	4063	100
Percentage share of WOS	69	75	61	43	62	62

Note & Source: Same as Table-1.

2.4. Overseas Acquisitions

The flow of Indian FDI into developing region until recently was through establishment of new production entities owned jointly or wholly by Indian investing firms. The process of Indian FDI in developing region has, however, acquired a new dimension of late with a number of Indian firms adopting acquisition as alternative strategy of market entry. During 2000–2008, a total of 110 Indian firms undertook 166 acquisitions in

developing region related to buying of stake in foreign companies, their assets and product portfolio (Table-12). This aggregated to be as high as US$12.4 billion worth of brownfield investment—an underestimated figure since many acquisition deals go without disclosing their financial consideration. The value of acquisitions made in developing region account for about 21 per cent of the total value of global acquisitions done by Indian firms in this period.

Table-12
Developing Region Acquisitions by Indian Firms, 2000–2008

Year	Developing Region Acquisition		In Number		
	Value *(US$ million)*	As a per cent of total Indian acquisition	Acquisition deals	Acquiring Indian Firms	Host developing countries
2000	21	2.3	4	2	4
2001	22	11.4	2	2	2
2002	2483	95.4	8	3	7
2003	21	3.4	7	6	5
2004	2228	73.9	19	15	14
2005	1558	38.2	37	28	26
2006	1727	22.4	38	36	15
2007	3271	8.8	44	37	19
2008	1019	28.1	7	7	6
All Years	12350	20.7	166	110	46

Note: Data for 2008 is from January to March.
Source: Dataset constructed from different reports from newspapers, magazines and financial consulting firms like Hindu Business Line, Economic Times, Financial Express, Business World, Grant Thorton India, etc.

Developing region acquisitions by Indian firms are concentrated mainly in Asia (48 per cent of total value and 58 per cent of total number) and African region (28 per cent of total value and 22 per cent of total number) (Table-13). While neighbouring Asian countries offer enormous growth opportunities, African countries possess critical natural resources related to oil and gas. In terms of value of acquisition, South-East Europe & CIS with 20 per cent share is the next important host to Indian brownfield investment followed by Latin America & the Caribbean with just 4 per cent share.

Among individual host countries, Russia with US $1741 million accounting for 14 per cent of total developing region overseas acquisitions by Indian firms has emerged as the top destination mainly led by the ONGC's involvement in Sakhalin oilfield. Singapore with US $1432 million worth of acquisition investment is the next important host developing country for Indian brownfield investment. Important Indian acquisitions in Singapore include NatSteel by Tata Steel, Aman Resorts by DLF, Unza Holdings by Wipro, Royal Sporting House by Golden Ace, eSys Technologies by Teledata Informatics and Bergen Offshore Logistics by Sical Logistics. Indonesia with US $1407, Kenya with

Table-13
Regional and Sectoral Pattern of Indian Firms' Acquisition in Developing Region, 2000–2008

Acquisitions in US$ million/number					
Region	*Value*	*Number*	*Sector*	*Value*	*Number*
Africa	3439 (27.8)	37 (22.3)	**Primary**	7402 (59.9)	32 (19.3)
North Africa	1190 (9.6)	10 (6.0)	Mining	1527 (12.4)	8 (4.8)
West Africa	3 (0.0)	3 (1.8)	Oil & Gas	5875 (47.6)	24 (14.5)
East Africa	1304 (10.6)	10 (6.0)	**Manufacturing**	3530 (28.6)	78 (47.0)
Southern Africa	942 (7.6)	14 (8.4)	Food & beverages	0.5 (0.0)	3 (1.8)
Latin America & the Caribbean	509 (4.1)	19 (11.4)	Textiles and wearing apparel	93 (0.8)	6 (3.6)
South America	450 (3.6)	15 (9.0)	Plastic & Products	16 (0.1)	3 (1.8)
Central America	59 (0.5)	2 (1.2)	Metal and fabricated metal products	1163 (9.4)	10 (6.0)
Caribbean & other America	0.3 (0.0)	2 (1.2)	Electrical machinery and equipment	109 (0.9)	3 (1.8)
Asia & Oceania	5901 (47.8)	96 (57.8)	Telecommunication Equipment	752 (6.1)	1 (0.6)
West Asia	1119 (9.1)	10 (6.0)	Transport equipment	193 (1.6)	9 (5.4)
East Asia	1040 (8.4)	22 (13.3)	Chemicals	704 (5.7)	22 (13.3)
South Asia	2 (0.01)	3 (1.8)	Pharmaceuticals	500 (4.0)	19 (11.4)
South-East Asia	3739 (30.3)	60 (36.1)	**Services**	781 (6.3)	51 (30.7)
Oceania	1 (0.0)	1 (0.6)	Banking & Financial Services	53 (0.4)	6 (3.6)
South-East Europe & the CIS	2501 (20.3)	14 (8.4)	Hospitality and Tourism	254 (2.1)	3 (1.8)
South-East Europe	679 (5.5)	9 (5.4)	Telecommunication Services	60 (0.5)	5 (3.0)
CIS	1822 (14.8)	5 (3.0)	Media & Entertainment	55 (0.4)	6 (3.6)
			IT & ITES	358 (2.9)	29 (17.5)
Developing region	12350 (100)	166 (100)	**All Sectors**	12350 (100)	166 (100)

Note & Source: Same as Table-12.

US $1273 million and Iran with US $1000 million are other important destinations for Indian firms' overseas acquisition activities in developing region. Table-14 lists top 15 acquisitions in developing region done by Indian companies.

Table-14
Top 15 Developing Region Acquisitions Done by Indian Firms

Indian Company	*Target*	*Sector*	*Host country*	*Acquisition Value (US $ Million)*	*Year*
ONGC	Stake in offshore project at Sakhalin	Oil and Gas	Russia	1700	2002
Tata Power Company Ltd.	30% stake in PT Kaltim Prima Coal and PT Arutmin Indonesia	Mining	Indonesia	1100	2007
Indian Oil Corporation Ltd.	50% stake in Iranian liquefied natural gas block	Oil and Gas	Iran	1000	2004
ONGC	25 per cent interest in the Greater Nile Oil Project	Oil & Gas	Sudan	766	2002
Essar Oil Ltd	50% stake in Kenya Petroleum Refineries Ltd	Oil & Gas	Kenya	764	2008
Videocon Industries Limited led consortium	Daewoo Electronics Corporation	Electrical & electronics	South Korea	752	2007
ONGC	50% stake in an offshore oil field	Oil and Gas	Angola	600	2004
Hindustan Petroleum Corporation Ltd.	67% stake in a Kenyan petroleum refinery	Oil & Gas	Kenya	500	2005
Tata Steel	Millennium Steel	Steel	Thailand	398.5	2005
Ranbaxy Laboratories Ltd.	Terapia S.A.	Pharmaceuticals	Romania	321	2006
Tata Steel	100% stake in NatSteel Ltd.	Steel	Singapore	286	2004
Ballarpur Industries Ltd.	78% stake in Sabah Forest Industries	Paper & Pulp	Malaysia	261	2006
Overseas Hotels Ltd (a subsidiary of DLF Ltd.)	100% stake in Aman Resorts	Hotel	Singapore	250	2007
Reliance Power	a coal mine located in South Sumatra	Mining	Indonesia	247.2	2008
Wipro Ltd.	100% stake in Unza Holdings Ltd.	Personal care products	Singapore	246	2007

Source: Same as Table-12.

In terms of value of acquisition, natural resources seeking activities seem to dominate the sectoral profile of Indian firms' acquisitions in developing region. Primary sector that includes oil, gas and mining activities accounts for about 60 per cent of Indian brownfield investment and has a total of 32 cases of acquisitions during 2000 to March 2008 (Table-13). Manufacturing is the next important sectoral host to Indian acquisitions. It accounted for 28.6 per cent of value of acquisitions through a total of 78 acquisition deals. The share of service sector is just 6 per cent with 51 cases of acquisition. The motivation of Indian firms in the case of manufacturing and service sector is unlikely to be of strategic asset-seeking type with a few exceptions. Indian firms interested in

acquiring intangible assets for operating in global market will choose innovation-centric developed region over developing countries who themselves are technology laggards. In majority of the cases, the main motivation of Indian firms seems to be of market-seeking type where acquiring Indian firms get access to an existing market, local brand name, distribution and marketing networks.

2.5. Leading Indian Players in Developing Region

Table-15 presents 10 largest outward investing Indian firms in different periods from 1960s to 2000s. To identify these influential firms, an outward investment index was constructed by giving equal weight to both the size of outward investment undertaken by a firm and the number of host countries for such investment. Each of these series, namely outward investment and number of host countries are made scale-free by dividing them with their respective mean (i.e., average value) and summing them to arrive at the consolidated OFDI index. The profiles of leading Indian outward investing firms vary sectorally and geographically over different time periods.

Table-15
Period-wise top 10 greenfield outward investing Indian firms in developing region, 1960s–2000s

Company Name	*Business House*	*OFDI (US $ million)*	*Name of host countries*	*OFDI Index*	*Rank*	*Areas of operation*
1960s						
Raymond Ltd.	JK Singhania group	9.3	Kenya	3.38	1	Woolen textile
Birla Bombay Pvt. Ltd.	Birla group	3.4	Nigeria, Thailand	2.64	2	Light engg. goods, textile
Ballarpur Industries Ltd.	Thapar group	5.8	Malaysia	2.45	3	Glass containers
Godrej & Boyce Mfg. Co. Pvt. Ltd.	Godrej group	2.6	Malaysia	1.57	4	Steel furniture
Birla Corporation Ltd.	M.P. Birla group	0.9	Uganda	1.10	5	Jute goods
Jay Engineering Works Ltd.	Shriram group	0.0	Sri Lanka	0.87	6	Sewing machine and electric fans
1970s						
Orient Paper & Industries Ltd.	C.K. Birla group	23.3	Kenya	15.35	1	Pulp and paper
Ballarpur Industries Ltd.	Thapar group	8.5	Thailand, UAE	7.03	2	Pulp, construction and trading
Usha Martin Ltd.	Usha Martin Group	6.3	Bosnia & Herzegovina, Thailand	5.68	3	Steel wire
Birla Bombay Pvt. Ltd.	Birla group	4.5	Indonesia, Nigeria	4.56	4	Viscose staple fibre, consultancy services

Company Name	*Business House*	*OFDI (US $ million)*	*Name of host countries*	*OFDI Index*	*Rank*	*Areas of operation*
Karam Chand Thapar	Thapar group	4.1	Nigeria, Seychelles	4.31	5	Textile, sea resort hotel
Hyderabad Industries Ltd.	C.K. Birla group	2.8	Nepal, Nigeria	3.51	6	Minerals, asbestos, cement products
LIC	Govt. owned	3.5	Kenya	3.07	7	Insurance
Grasim Industries Ltd.	Aditya Birla group	2.1	Indonesia, Thailand	3.02	8	Viscos staple fibre, carbon black
Eastern Spinning Mills Industries Ltd.	Birla group	1.7	Indonesia, Philippines	2.81	9	Textile
Forbes & Co. Ltd.	Forbes Group	2.8	Indonesia	2.63	10	Textile Mills
1980s						
Aero Traders Pvt. Ltd.		28.6	Kazakhstan	26.99	1	Tannery
General Insurance Corporation of India	Govt. owned	20.7	Singapore	19.74	2	Insurance
Indian Farmers Fertiliser Co-Op. Ltd.	Govt. owned co-operative society	15.8	Senegal	15.27	3	Fertilizers & phosphoric acid
Indian Hotels Co. Ltd.	Tata group	6.6	Nepal, Sri Lanka	7.69	4	Hospitality
Bombay Burmah Trading Corporation Ltd.	Nowrosjee Wadia	4.6	Hong Kong, Indonesia, Malaysia	6.65	5	Agriculture & allied products
Ballarpur Industries Ltd.	Thapar group	4.5	Malaysia, Nigeria, Seychelles	6.57	6	Palm oil, glass & other manufacturing
LIC	Govt. owned	4.9	Bahrain	5.27	7	Investment holding company
Tata International Ltd.	Tata group	2.2	Oman, Zambia, Zimbabwe	4.42	8	Trading, textiles and wearing apparel, investment holding company
Voltas Limited	Tata group	0.4	Singapore, Sri Lanka, UAE, Oman	3.61	9	Engg. goods & machine tools
Ambalal Sarabhai Enterprises Ltd.	Sarabhai group	0.8	Indonesia, Kenya, Malaysia	3.16	10	Pharmaceuticals
1990s						
Videocon Industries Ltd.	Videocon group	274.3	Mauritius, Hong Kong	102.08	1	Consumer electronic goods & home appliance, investment holding company

Company Name	*Business House*	*OFDI (US $ million)*	*Name of host countries*	*OFDI Index*	*Rank*	*Areas of operation*
Southern Petrochemical Inds. Corporation. Ltd.	MA Chidambaram group	155.0	Jordan, Kuwait, Mauritius, Senegal, UAE	60.90	2	Fertilizers & phosphoric acid, other petroleum products
Krishak Bharati Co-Op. Ltd.	Govt. owned co-operative society	138.2	Oman	51.43	3	Fertilizers
Reliance Industries Ltd.	Reliance group	119.9	UAE	44.72	4	Refinery
Indian Hotels Co. Ltd.	Tata group	103.2	Hong Kong, Russia	39.45	5	Hotels & restaurant
Indian Oil Corporation Ltd.	Govt. owned	59.2	Iran	22.48	6	Oil exploration
United Phosphorus Ltd.	RD Shroff group	42.3	Bangladesh, Indonesia, Mauritius, Nepal	18.82	7	Agro chemicals, fertilizers, tea
Larsen & Toubro Ltd.	Larsen & Toubro group	27.2	Bangladesh, Malaysia, Mauritius, Oman, Saudi Arabia, Singapore, Sri Lanka	15.77	8	Cement & cement products, heavy engg. goods, communication services, tea, shipping
Chambal Fertilisers & Chemicals Ltd.	K.K. Birla group	32.5	Morocco	12.72	9	Fertilizers
Ajanta Pharma Ltd.	Ajanta Pharma Group	10.2	Kazakhstan, Kyrgyzstan, Mauritius, Tajikistan, Turkmenistan, Ukraine, Uzbekistan	9.56	10	Drugs and pharmaceuticals
2000s						
ONGC Videsh Ltd	Govt. owned	2184.3	Brazil, Cote-d'Ivoire, Cuba, Iran, Kuwait, Libya, Myanmar, Qatar, Russia, Sudan, Syrian Arab Republic, Vietnam	273.44	1	Oil exploration, drilling, natural gas, petroleum products
United Phosphorus Ltd.	RD Shroff group	682.5	Mauritius, South Africa	84.06	2	Chemical and chemical Products
Tata Sons Ltd.	Tata group	364.3	Singapore, South Africa	45.60	3	Ferro alloys steel bars, tubes & sheets, vehicles, investment holding company
Videsh Sanchar Nigam Ltd.	Tata group	312.9	Nepal, Singapore, Sri Lanka	40.19	4	Communication services, telecom products
Essel Propack Ltd.	Essel group	217.6	China, Egypt, Mauritius,	28.67	5	Plastic and plastic products,
Tata Chemicals Ltd.	Tata group	230.6	Mauritius	28.66	6	Chemical and chemical products
Reliance Infocomm Ltd	Reliance group	217.1	Bermuda, Singapore	27.82	7	Telecomm equipments & services

Company Name	*Business House*	*OFDI (US $ million)*	*Name of host countries*	*OFDI Index*	*Rank*	*Areas of operation*
Punj Lloyd Ltd.	Punj Lloyd group	205.8	Indonesia, Kazakhstan, Singapore	27.24	8	Engineering services, consultancy & construction
Tata Steel Ltd.	Tata	191.1	Cote-d'Ivoire, Sierra Leone, Singapore, Sri Lanka	26.24	9	Mining, iron and steel pipes tubes and fittings
Videocon Industries Ltd.	Videocon group	174.1	Hong Kong, Oman	22.62	10	Consumer electronic & home appliances

Source: Same as Table-1.

There are only six outward investing Indian firms in 1960s. These firms are fully private owned and belong to a total of five large Indian business houses like Thapar (Ballarpur Industries), JK Singhania (Raymond Ltd.), Birla (Birla Bombay & Birla Corporation), Godrej (Godrej & Boyce Mfg. Company) and Shriram group (Jay Engineering). The existing policy restrictions on growth of large firms in domestic market like MRTP, FERA, licensing regime, etc., have forced these business groups to resort to OFDI as an alternative way of growth. OFDI activities of these firms, except Birla Bombay Private, were confined to a single host country and cover a range of manufacturing activities. Moreover, all the six host countries are those which have presence of strong Indian origin population.

The majority of leading outward investing Indian firms in 1970s continued to be private owned by large business houses and have largely invested in the manufacturing sector. However, service sector public owned companies like Life Insurance Company started undertaking cross border investment. This company undertook direct investment for providing insurance services in Kenya. Besides, Thapar group has set up an overseas venture in another service sector, namely hotel and restaurant. Unlike in 1960s, the average number of host countries per investing Indian firms has gone up to two in 1970s.

The visibility of public owned companies among leading 10 outward investing firms in developing region has improved considerably in 1980s. Public owned Indian companies such as General Insurance Corporation of India, Indian Farmers Fertilizers Co-Op (IFFCO), and Life Insurance Company ranked second, third and seventh important outward investing firms in this period. The sectoral profile of leading investors became more diversified—textile, fertilizers, glass, palm oil, agricultural products, engineering goods, pharmaceuticals, insurance and hotel. Beside market-seeking motivation, raw material sourcing has emerged as another driving factor for investment by leading Indian firms. For example, sourcing phosphoric acid and palm oil respectively were the motivating factors behind IFFCO's investment in Senegal and that of Ballarpur Industries

in Malaysia. The number of host countries per investing Indian firm has gone up to three in the case of four leading outward investing Indian firms and four host countries for another leading company.

The 1990s has witnessed the rise of two natural resource-seeking Indian companies to be among leading outward investors. Private owned Reliance Industries and public owned Indian Oil Corporation respectively claimed 4th and 6th positions in the list of top 10 Indian investing firms in developing region with operation in oil refinery and exploration. In 2000–07, ONGC has emerged as the top outward investing firm. This government owned company is now operating in the hydrocarbon and natural gas sector of as many as 12 developing countries. In this period, two Indian telecommunication service providers, namely Videsh Sanchar Nigam and Reilance Infocom occupied 4th and 7th positions among large outward investing Indian companies. This shows that Indian service OFDI, which emerged from insurance and hotel sectors since 1970s is being joined by new players from other service firms belonging to telecommunication sector.

The analysis of the changing profile of leading Indian outward investors shows that large business houses continued to dominate the list of top outward investing Indian companies, but a number of government owned enterprises have been quite visible in recent periods. It appears that the leading Indian parent companies are now more confident in their OFDI operation and are capable of managing their overseas activities in multiple countries as opposed to a single host country in 1960s. Although the main motivation of leading outward investing firms in initial period was accessing the overseas market, other objectives like accessing raw materials and natural resources like oil and gas can be discernable in subsequent periods. Apart from diversifying the nature of their manufacturing activities, OFDI from leading firms are being increasingly led by a wide range of service activities from financial and insurance services to hotel and telecommunication services.

3. Main Drivers and Determinants of Indian FDI

Considering the phenomenal growth of developing region oriented Indian FDI since 1990s, it is important to understand the factors that are behind the trans-border expansion of Indian enterprises. Drivers and determinants of Indian OFDI directed at developing region can be argued to be quite different between the periods of 1960s–80s and 1990s onward.

Although Indian FDI was predominantly destined to developing region in pre-1990s period, the number of investing Indian companies and size of their investment was small. In this period involvement of Indian firms in developing region through OFDI

was limited to a small group of large business conglomerate houses like Birla, Tata, Thapar, JK Singhania, Mafatlal, Kirloskar, United Breweries, etc. These enterprises were forced to seek trans-border market due to policy-led barriers on their growth in the domestic market and overall slow economic growth of the home country. The system of industrial licensing, Monopolies and Restrictive Trade Practices (MRTP) Act, Foreign Exchange Regulation Act (FERA), reservation of large-scale industrial areas for public and small-scale sector, etc., have seriously prevented their expansion in the home market, leading to a business strategy of outward investment[13]. Given the formative stage of their firm-specific capability building and modest intangible advantages, these Indian firms could only target developing region which has similar factor and business conditions like India. Indian firms were enhancing their technological capability from a variety of means—reverse engineering of imported products, equipment and machineries, buying of foreign technologies and doing adaptive and incremental in-house R&D but were still lacking broad-based technological assets to be aggressively engaged in foreign production activities.

The lack of participation of small- and medium-sized enterprises and many other large non-MRTP Indian companies in Indian OFDI flows directed at developing region has been largely driven by the contemporary inward-looking development policies pursued by the home country. These policies marked by strong barriers to imports and severe restriction on entry of foreign companies have adversely affected the propensity of majority of Indian companies to participate in the world market, either through exports or OFDI. Another determining factor for low level of Indian OFDI and smaller number of outward investing Indian firms in developing region was the pursuance of a restrictive OFDI policy by India (Pradhan, 2007a). Indian firms desirous of undertaking OFDI were not allowed to do so through cash transfer, but only in the form of exporting Indian made machinery, equipment and know-how. Indian investing firms were discouraged to hold majority ownership in their OFDI projects and the approval procedures for OFDI projects were extremely cumbersome.

Although Indian OFDI policy in pre-1990s period was in general a restrictive one, it has a strong positive bias towards developing countries. In keeping with the philosophy of south-south cooperation Indian policy makers wanted to promote Indian FDI into developing countries. Many of the restrictive clauses like promotion of joint venture (JV)

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[13] A small group of Indian business houses categorized as MRTP houses accounted for nearly about 83 per cent of actual Indian OFDI stock as at the end of 1982 and their share has declined to 65.6 per cent at the end of 1987 (Ranganathan, 1990). So, clearly the largest chunk of Indian economy consisting of Indian non-MRTP private companies and small- and medium-sized enterprises did not participated in OFDI process directed at developing countries during 1960s–80s.

mode of Indian FDI was inspired by the realization that Indian FDI should not operate in similar manner as developed region FDI operate in host developing countries. A JV form ensures that Indian FDI becomes an effective means of sharing India's development experience with fellow developing countries. Many host developing countries had a cordial attitude towards FDI projects from developing countries like India. This has also influenced many outward investing Indian firms to get involved in developing region where they are treated favourably than their developed country counterparts.

Since 1990s the underlying forces of Indian OFDI into developing region has changed significantly. Abolition of non-tariff barriers and large scale reduction in tariff across industrial products has infused greater external competition into Indian market. Allowing foreign companies into India under automatic route with 100 per cent ownership in almost all areas of productive operation, except a small negative list, has further intensified competitive pressures on Indian firms hitherto concentrating on domestic markets. These competitive pressures led to a turning point in the outward orientation of Indian firms and OFDI emerged as a preferred strategy for survival. Indian domestic firms across sizes—small, medium and large—resorted to OFDI as a means of survival and growth in a globalized business environment (Pradhan and Sahu, 2007). In this context, developing region and particularly neighbouring countries with familiar socio-economic environment seem to be the first natural choice for recently internationalizing Indian domestic firms. Entry into intra-regional developing countries is relatively less risky a strategy for firms new to internationalization than entering into fiercely competitive non-familiar markets in developed region.

Since 1990s a number of natural resource-based Indian enterprises emerged to explore developing region for accessing relevant resources. The growing global competition for securing natural resources like oil, gas and minerals has forced Indian government-owned firms like ONGC, Oil India, Hindustan Petroleum Corporation Limited, etc., to undertake resource-seeking investment abroad. Many privately-owned enterprises like Reliance, Gujarat NRE Cook, Hindalco Industries, Tata Steel, etc., started investing in many natural resource rich developing countries.

The liberalization of OFDI policy regime in the 1990s that has virtually lifted any ceiling on outward investment, permitted cash transfer, and encouraged overseas acquisitions, has led to a watershed in the history of India's international production. Large Indian companies that have significantly improved their ownership advantages by innovating cost-effective processes and undertaking high R&D expenses for product developments, quality and skill improvements, for them OFDI came as a natural choice for becoming a multinational entity. In their globalization strategy, developing region continued to

receive attention although developed region with large market are relatively more attractive.

The summary of empirical findings from three major existing studies on the determinants of Indian OFDI is presented in Table-16. The two studies by Sanjaya Lall (1983) and Rajiv Lall (1986) pertain to the OFDI behaviour of early outward investing Indian firms in pre-1990s period. These two studies found that OFDI of Indian firms is strongly positively correlated with their size, age and is led by modest competitive advantages derived from adaptive innovations done according to Indian factor conditions. The formal R&D intensity of Indian outward investing firms did not possess any significant statistical power in explaining inter-firm differences in OFDI position.

Table-16
Empirical Studies on Firm-level Determinants of Indian OFDI

Period of Study	*Pre-1990s*		*1990s*
Author	*S. Lall (1983)*	*R.B. Lall (1986)*	*J.P. Pradhan (2004)*
Method	Exploratory and interview-based analysis	Econometric analysis with Logit and Tobit estimations	Econometric analysis with Tobit estimation
Sample and Period	17 outward Investing firms, November 1981–March 1982	162 firms (of which 24 are outward investors), 1977–78 and 1978–79	3,951 manufacturing firms with 26, 346 observations (of which 2,155 observations belongs to outward investors), 1990–91 to 2000–01.
Main Findings	Indian OFDI, led by relatively older and large-sized firms, mostly belong to the large Indian conglomerate businesses, and do not have any significant foreign ownership. These samples of Indian multinationals tend to derive their monopolistic advantage from production and adaptive innovations in accordance with local requirements, and specialized marketing skills.	Most important determinants of Indian OFDI are firm size and capital-intensity. The desire to have an access to overseas raw material sources also plays a modest role in the FDI outflows from India.	Age and size are two non-linear determinants of Indian OFDI. In-house R&D is the important technology variable for OFDI but not the imports of foreign technologies through licensing or capital goods imports. Export intensity, managerial skill, labour productivity and policy liberalization are other positive contributors to FDI outflows. There are inter-industry differences in OFDI performance of Indian firms.

The study by Pradhan (2004) that belongs to the 1990s has explored the issue of determinants for a large number of Indian companies and considered largest number of possible causal factors. The study has further confirmed that Indian OFDI at the firm level is positively influenced by firm age and size up to a critical point. On technological determinants, it has obtained that in-house R&D intensity, which was not a significant factor in earlier studies, now possesses a positive and significant impact on firm's OFDI

performance. Therefore, this study highlighted the fact that current flow of Indian OFDI is being crucially supported by indigenous technological activities of Indian companies. Another important finding is that Indian firms with past export experience are likely to undertake more OFDI activities than Indian firms that are not exporting or have just recently entered into export activities. This shows that Indian firms' desire of providing better after sales services to their exported products from India is favouring establishment of overseas sales subsidiary and in most cases the familiarity of Indian companies with a particular export market seems to be stimulating them to set up overseas manufacturing subsidiaries or goes for acquiring foreign companies. The results also confirmed that outward investment from Indian firms would be higher if they are relatively more productive and possess higher managerial skills. Moreover, the impact of a liberalized policy regime covering inward and outward FDI, trade, technologies and industry pursued by the home country since early 1990s has been the instrumental factor behind the rising volume of Indian OFDI undertaken by a rising number of Indian parent companies.

Although the above-discussed three empirical studies did not distinguish between Indian parent companies operating in developing and developed region, their general findings can be reasonably presumed to be holding in the case of developing region. This is because the pre-1990s period had seen largest concentration of Indian OFDI in developing region and hence any separate estimation for developing region may not lead us to substantial deviation from the overall inferences drawn by studies of Sanjaya Lall and Rajiv Lall. However, a substantial part of Indian OFDI went into developed countries in 1990s and one can expect that determinants of Indian firms may vary by developed and developing host countries. Yet, a greater part of Indian OFDI in 1990s is accounted by Indian service companies (nearly 40 of Indian OFDI stock) and is relatively developed region oriented in character. Since the study done by Pradhan (2004) is confined to the manufacturing sector alone and the fact that manufacturing claims for a major chunk of Indian FDI flows into developing region, his empirical results may broadly be valid for Indian investing firms active in developing region.

4. Development Impacts on Host Developing Countries

The developmental role of Indian FDI in host developing region crucially depends upon the average quality of FDI projects undertaken by Indian firms. The benefits of Indian FDI projects can vary by six quality dimensions involving sectoral composition, nature of value-added activities, market-orientation, ownership participation, the relevance of technology transfer and extent of local knowledge creation activities (see Pradhan, 2006 for more on the concept of FDI quality). The following discussion will consider these

quality aspects of Indian FDI to infer about their likely impact on the development process of developing countries.

1. *Sectoral Dimension*: The developmental role of Indian FDI, inter alia, dependent upon the type of sectors where much of Indian FDI projects that have gone into host developing region. Indian FDI in mining, natural resource extraction and labour-intensive manufacturing activities offers limited opportunities for growth, employment and knowledge-spillovers. Developing host countries that possess inadequate domestic capabilities in knowledge-based manufacturing activities would benefit significantly if Indian firms operate in such segment of the host economy. The empirical evidence on the sectoral composition of Indian FDI flows into developing region as discussed before suggest that Indian investing firms possess a highly diversified sectoral portfolio. The primary sector accounted for 16.8 per cent, 36 per cent, 11 per cent, and 80 per cent in the total Indian FDI flows that went respectively into Africa, Latin America, Asia and South-East Europe & CIS countries. Except the South-East Europe & CIS region, majority of Indian FDI has gone into either manufacturing or service sectors like finance, telecommunication and software services. Apart from traditional labour-intensive industries like food processing, textile and leather, Indian firms have been operating in knowledge-intensive manufacturing activities like chemicals, pharmaceuticals, transport equipment and machinery & equipment. This sectoral pattern of Indian FDI flows with a well representation of technology-intensive industries suggests that Indian FDI involve better quality projects that have large potential for generating knowledge-spillovers within host developing countries.
2. *Nature of value-added activities*: Indian FDI projects not withstanding their concentration in technology-intensive manufacturing and service sectors may involve narrow developmental impact unless they are into right kind of value-added activities. An FDI project that generates all its value-added through marketing and distribution of products exported from India is clearly of low quality than another FDI project that leads to value addition through local production and marketing in the host developing countries. The nature of value-added activities of Indian FDI appear to be of fairly good quality. As on 1st July 1982, Indian enterprises undertook a total of 138 OFDI projects for manufacturing and marketing in the host countries as compared to only 27 OFDI projects exclusively meant for trading and marketing activities (FICCI, 1982). The number of manufacturing FDI projects amount to be quintuple of those of trading OFDI projects. This suggests that Indian OFDI flows during 1960s–70s were mostly for locally producing the products in host countries. The available information for recent years indicates that this nature of Indian FDI seems to have changed little over time. Table-17 presents OFDI flows from India that

went for manufacturing in host countries as contrast to those for simply trading activities. It can be seen that the volume of Indian investment associated with manufacturing projects (US$ 3 billion) is nearly 17-times higher than the amount of investment related to projects for trading purposes (US$179 million) during May 2001 to September 2002. However, the difference between manufacturing and trading Indian investment is likely to vary greatly by individual industries but information at disaggregate level is not available. The available information for two industries such as pharmaceuticals and textile suggest that the value of manufacturing OFDI flows from them respectively is US$61.3 million and US$5.3 million. This would suggest that Indian FDI projects from pharmaceutical sector is of better quality ($61.3 million manufacturing OFDI flows as compared to $24.9 million trading OFDI flows) whereas that from textile sector is of low quality ($5.3 million of manufacturing OFDI flows as compared to $11.6 million of trading OFDI flows).

Table-17
Nature of Value-added Activities in Indian OFDI, May 2001 to September 2002

Category	*OFDI flows in US$ million*
Manufacturing	3015.19
Trading	178.72
Agriculture and allied Products	8.43
Software packages & Computers	0.79
Gems and Jewellery	4.02
Electrical Equipments	15.43
Textile, Garments	11.56
Drugs & Pharmaceuticals	24.94
Tea and Coffee	5.82
Chemicals	16.97
Others	90.76

Source: Unpublished RBI monthly report on Indian OFDI.

3. *Market-orientation*: Market focus of Indian FDI project is another quality aspect which needs a close look for appreciating their role in the development of host developing countries. Domestic market-seeking Indian FDI projects as compared to export-oriented projects are likely to be of low quality projects as they tend to crowd-out domestic competitors in labour-intensive industries and possess limited scope for knowledge-spillovers and local linkage generation. While data limitation on the export-orientation of Indian foreign affiliates makes it difficult to explore market-orientation aspect of Indian FDI, the scope of export platform FDI from India appears to be limited. There are some cases of Indian FDI in Nepal and Sri Lanka where Indian subsidiaries are exporting their products into India but motivation of Indian investing firms using other host developing countries as export bases may not be very strong. Indian greenfield manufacturing projects in developing region are mostly of local market-seeking variety.

4. *Ownership participation*: The relevance and efficacy of Indian FDI in developing countries has also to be gauged in terms of the magnitude of ownership held by Indian parent companies in their overseas ventures. Knowledge and skills that Indian FDI project carry have a greater scope for diffusion in cases where Indian investing companies tend to share ownership with host country entrepreneurs. Given this reason, host developing countries may not consider fully-owned Indian FDI projects as useful when compared to Indian joint venture projects. The empirical evidence discussed elsewhere indicates that Indian parent companies in most of the OFDI projects had shared the responsibility of management with local parties in pre-1990s period. However, recently since 1990s Indian investing companies preferred full ownership of their overseas units. This fact would imply that overtime the quality of Indian FDI projects measured by ownership participation for host developing countries is effectively getting reduced.

5. *Appropriateness of Technology*: The appropriateness of technologies associated with inward FDI in host developing region has been a long debated issue in the development literature. One strand of thought on the subject see developing country FDI projects as a source of intermediate technologies that is well suited to the needs and requirements of host developing countries. Since FDI projects originating within developing region are assumed to involve labour-intensive technologies, they are more relevant to capital scare and labour abundant developing countries. This characterization of developing country FDI projects fits reasonably well with the character of Indian FDI during 1960s–1980s. Largest concentration of Indian FDI flows were in sectors with relatively simple/well diffused technologies, low intensity of product differentiation, and utilizing relatively labour-intensive technologies (Lall, 1983). Given the past technological capability building under a process patent regime, many Indian companies started rapidly emerging from knowledge and scale-intensive sectors with differentiated marketing requirements in 1990s (Pradhan, 2007a, 2008). Large-sized Indian firms not only graduated towards product development based on in-house R&D efforts, but also started acquiring large number of foreign companies representing new products, skills and technologies. Clearly, the technologies that are being transferred by Indian investing companies through OFDI in the present time underlined a more complex technological process that is nearer to the world frontiers of innovation and hence are likely to be far away from the initial portrayals as being intermediate and appropriate to the requirements of host developing countries.

6. *Local knowledge creation*: There are no statistics available on the research and development (R&D) activities of Indian foreign affiliates. However, it can be argued that the chances of Indian companies investing in developing countries for doing R&D activities are very remote. The contribution of foreign affiliates of Indian firms

in local technology creation can be believed to be minimal except minor investments in adapting Indian technologies to the local conditions and troubleshooting. However, Indian firms are likely to provide training to local employees of their overseas affiliates in initial period for the successful operation of production process. In the 1970s Indian OFDI policy had a compulsory training provision to be imparted by Indian parent companies to their joint venture collaborators. However, such provision do not exist now.

It is evident from above discussion that the nature and relative significance of Indian FDI for host developing countries vary among different indicators of quality. Indian FDI projects are of good quality as far as they are more for local manufacturing as opposed to trading purposes and are also into knowledge-intensive sectors. Moreover, Indian FDI represents financial and knowledge resources with scope for knowledge-spillovers. However, the benefits of Indian FDI project seem to be narrowing down considering the fact that Indian investing firms have been progressively opting for wholly-owned entities as opposed to joint ventures and their technological assets are getting complex and very advance. Indian foreign affiliates are believed to incur little R&D expenses and whatever technologies they are receiving from their Indian parents are likely to be beyond the initial categorization of intermediate technologies from the development perspective of host developing countries. Further, Indian FDI in developing countries is unlikely to possess any strong motivation for export activities.

5. Conclusions

Indian enterprises are pioneers among firms based in developing region to undertake direct investment activities in fellow developing countries. The volume of Indian investment and number of investing Indian parent companies in developing region has gone up significantly since 1990s. This rise in Indian investment across different developing sub-regions and countries is partly contributed by growing competition in Indian markets through cheap imports and entry of foreign firms and the motivation of technologically capable large Indian firms to expand into overseas market. Liberalization of Indian policies with regard to outward FDI, industry, technology, etc., have all contributed their bit to the increased Indian FDI activity in developing region. Regionally Indian FDI covers a total of 92 developing countries but substantial amount of investment has gone into intra-regional host countries (i.e. Asian countries), followed by Africa, South-East Europe & CIS and Latin America. Indian investment is widely spread across sectors, from manufacturing to services. Since 1990s, the amount of Indian FDI in natural resources covering oil, gas and minerals has gone up significantly propelled by the strategic energy security issues and mostly led by public-owned companies.

In a general sense, the growing flows of Indian FDI into developing region would be mostly development promoting by relaxing financial and knowledge resource constraints faced by host countries. Beside developing country FDI projects are more valuable to host developing countries than FDI projects from developed countries because they involve joint venture form of businesses and possess intermediate technologies with enormous positive social and economic impacts. These two characterizations of developing country multinationals fit quite well for developing region bound Indian FDI in pre-1990s period. However, with the growing complexities of the in-house innovation and technological activities of Indian parent firms and large scale acquisition of foreign technologies, it makes the assumption of intermediate technologies untenable. As Indian investing firms are increasingly going for wholly-owned FDI projects in developing countries, there is no direct spread of transferred technologies to local parties but only through potential spillover channels. It is also less likely that Indian firms are investing in developing region for doing R&D and performing substantial export activities.

However, there are certain positive characteristics of Indian FDI for host developing countries. Since Indian multinationals are involved not only in primary sector and labour-intensive industries, but also in knowledge-based sectors, their presence may play a catalytic role in the development of technology-intensive industries of host countries. This is also because Indian investing firms are more willing to produce the products and services locally than just perform marketing operation.

To conclude, there are costs and benefits of Indian firms operating in developing countries and the net developmental impact would vary across host countries and sectors. Host governments may need to examine Indian FDI projects from the angle of their development objectives and prudently encourage right quality of Indian FDI into their sectors for maximizing benefits.

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Appendix

A1: A Note on Indian OFDI Data Sources

It is a known fact in literature that the existing national data sources on developing country OFDI including that of India tends to be sketchy, underreported, highly aggregated and based on varying definitions overtime. Many elements of these problems can be easily seen in the case information on Indian outward FDI as provided by a number of government agencies.

The periodical surveys of India's foreign liabilities and assets as conducted by the Reserve Bank of India (RBI) and published in RBI bulletin from time to time provide stock and flows of Indian OFDI from corporate sector. The RBI, which used to provide the sectoral and country-wise break-up of Indian OFDI in too aggregative form, has recently and surprisingly stopped publishing that limited information after October 2000. The last results from the Census on India's foreign liabilities and assets with reference time point of March 31, 1997 was released in October 2000 RBI Bulletin. As per India's obligation under the Special Data Dissemination Standard of the International Monetary Fund, the RBI is now releasing OFDI stock data in its releases on International Investment Position but without any country and sectoral break-ups. Further, published report from RBI is clearly incapable of helping researchers to learn about the main Indian actors on outward FDI front, their ownership mode, and other relevant firm-specific dimensions. However, it is not suggested here that the RBI does not have firm-level information on Indian OFDI. In fact RBI has been maintaining remittance-wise information on OFDI approvals issued by it and authorized dealers to Indian companies for setting up of their joint venture/wholly owned subsidiary abroad (JV/WOS) since 1979–80. This information is nonetheless not published by the RBI. The main deficiency of RBI data source is that it relates to just the initial remittance proposed or made by each Indian company and fails to give the status of their OFDI project—under implementation or actually implemented or abandoned/cancelled.

The erstwhile Indian Investment Centre (IIC) under the Ministry of Finance, Government of India, has been among the primary agencies that used to provide information on Indian outward foreign direct investment at the enterprise level. Very recently it was wounded up by the Government of India with effect from 31st July 2005. The IIC used to publish information on accumulated Indian OFDI but without any consistent pattern. For example, it has published the list of Indian JV/WOS as on 31st December 1995 in March 1998. This report furnishes OFDI data by name of Indian outward investing companies, name of foreign collaborators in the case of JV, date of approval, field of activity, name of host country, share of ownership interest held by Indian party (%) and

status of implementation (whether in operation or under implementation). The most important limitation of this data source is that it does not provide the value of outward investment undertaken at the level of individual companies. In the same year, IIC has published another report on Indian JV/WOS approved during the year 1996. In contrast to the earlier report, this 1996 report provides the value of Indian equity at the firm level but does not give information on the exact level of equity participation. These IIC reports although provide country-wise value of Indian OFDI but their coverage is clearly unsatisfactory since they do not include reinvested earnings of directly held Indian overseas subsidiaries nor starting of indirectly held overseas subsidiaries by raising finance from overseas sources. Further, in the IIC data about 44 Indian JV/WOS that were approved in different years during 1976–1990 are still shown as under implementation in the report that is published in 1998. In addition to this a large number of overseas investment cases go without information on the value of investment undertaken. Take the case of the IIC report on Indian JV/WOS approved during the year 1996 which suggest that Indian firms were granted approvals for a total of 112 JVs and 146 WOSs. For this single year, the information on approved amount of outward investment for 10 JVs and 16 WOSs is reported to be not available. These features of the IIC reports shows that Indian data sources on OFDI severely underestimate the magnitude of OFDI from India.

The Department of Commerce[1] under the Ministry of Commerce and Industry, Government of India, also used to maintain a database on Indian OFDI approvals. The Additional Secretary of Department of Commerce was the chairman of the Inter-Ministerial Committee, the nodal agency for permitting Indian OFDI since 1978 up to 1992. The OFDI database of the Department of Commerce appear to be the original source for the published reports of the Indian Investment Centre and it covers many other interesting aspects of Indian OFDI. It provides break-up of Indian OFDI equity into exports of machinery, royalty and know-how, extent of additional exports, dividends and other repatriations generated by such OFDI projects. However, this data source was never published.

The present study has to compile information from all the above three sources and compile them into a large and comprehensive firm-level database on Indian OFDI. The information on Indian OFDI up to 1996 has been collected from the above-mentioned two published reports of the IIC. Since the IIC reports do not provide the value of investment for OFDI projects up to December 1995, the Department of Commerce's unpublished fact sheets on Indian JV & WOS abroad has been utilized to incorporate the

[1] It was earlier known as the Ministry of Commerce, Government of India.

value of equity into the IIC database. As noted earlier, government sources on Indian OFDI do not include information on indirectly held entities formed by Indian firms' overseas subsidiaries through reinvested earnings or raising capital from overseas sources. Ranganathan (1990), based on annual reports of Indian companies listed in Bombay Stock Exchange, has prepared a list of foreign investment by Indian companies during 1985–89 that were not part of official statistics on OFDI[2]. From this source, a total of 92 OFDI projects were collected and assembled with the constructed database.

The firm-level information on Indian OFDI during April 1996–March 2001 has been collected from the unpublished IIC fact sheets on Indian OFDI before the IIC was formally wound up[3]. Remittance-wise information on Indian OFDI divided into equity, loan and guarantee from October 2002 to March 2007 has been collected from the Reserve Bank of India. The monthly reports of RBI on OFDI approvals during May 2001 to September 2002 are at the aggregate levels with a broad industrial classification, not at the firm level. Therefore, the constructed firm-level database does not include information on Indian OFDI projects approved during May 2001 to September 2002.

The constructed database was finally refined with two further improvements. First is the issue of incorporating the change in a company's name over-time. Addressing this issue is important to avoid double counting of a single company while computing the number of outward investing Indian companies. For example, consider a company named ABL that has invested overseas in 1987 and then changed its name to ABLI and undertook another OFDI project in 1995. Unless this change in name is incorporated this single company will be counted twice in estimating the exact number of Indian parent companies investing abroad. The company name change information during 1980s–2007 has been obtained from Bombay Stock Exchange and necessary changes have been implemented manually by reviewing over 8900 cases of outward investments. Similar treatment has been done in the case of merger information. Second is the issue of ultimate parent company. For example, two Indian companies have invested abroad, of which one is a domestic subsidiary of another Indian company. If both the companies will be counted as outward investing companies it would inflate the number of outward investing parent Indian companies. The fact is that the one company is the ultimate

[2] K.V.K. Ranganathan (1990), Export Promotion and Indian Joint Venture, Unpublished Ph.D. Thesis, Kurukshetra University, India.

[3] Copies of the two unpublished fact sheets, namely Ministry of Commerce (1994) 'Unpublished Facts Sheet on Indian Joint Ventures & Wholly Owned Subsidiaries Abroad Up To December 1993' and Indian Investment Centre (2002) 'Details of Approvals Granted to Indian companies for Setting Up JV/WOS Abroad during the Period from April 1996 to March 2001' have been collected from the Research and Information System (RIS), New Delhi.

parent firm, it is essential that OFDI projects of both companies should be ascribed to the ultimate parent company for obtaining accurate information on the number of outward investing Indian firms. We have also utilized available information from the Bombay Stock Exchange through company annual reports to implement this measure in the dataset. Although extreme care has been exercised while incorporating these changes, nevertheless, a caution should be borne in mind about the limitation of the constructed dataset.

It should be noted that the coverage of measuring OFDI has been revised and significantly expanded since 2000–01. Apart from including FDI outflows in the form of equity investment, the revised reporting system on OFDI include reinvested earnings, short-term and long-term borrowing, trade credit (more than 180 days), suppliers' credit (more than 180 days), and financial leasing. Clearly, the limitation of comparing revised FDI series with non-revised data should be kept in mind. Another important weakness in the official OFDI statistics is that it does not capture the full size of outward investment involved in overseas acquisitions done by Indian companies. A part of the acquisition value which involves resource transfer from India is only reflected in Indian OFDI statistics. However, large number of overseas acquisitions conducted by Indian parent firms is done through their subsidiaries incorporated in foreign countries that are raising significant proportion of resources in the foreign market required for acquisition. Take the case of Tata Steel's acquisition of Corus Group plc through a wholly-owned indirect subsidiary named Tata Steel UK Limited. In financing this acquisition, the parent company (Tata Steel) contributed $4.1 billion, its wholly-owned subsidiary in Singapore, Tata Steel Asia Holding Pte Limited, extended a bridge finance of $2.66 billion and its indirectly held subsidiary company, Tata Steel UK Limited is in the process of raising $6.14 billion debt[4]. Clearly, neither the bridge finance from Tata Steel Asia nor the fund being raised by Tata Steel UK is a part of Indian OFDI flows unless they involve transfer of finance from India. In view of these measurement problems, Indian OFDI statistics fail to capture the fullest picture of outflows on account of overseas acquisitions. This problem can be effectively address if government agencies that are responsible for collecting information on Indian OFDI adopt census of foreign assets of Indian companies by asking the right question: How much assets Indian companies owned abroad rather than seek information on amount of resources they have transferred from home country to abroad.

[4] Hindu Business Line (2007), 'Tata Steel raising $2.3 b for Corus payment', April 18.

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