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## The emergence of Indian multinationals: An empirical study of motives, status-quo and trends of Indian investments in Germany

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# **Technology and Innovation Management**

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## **WORKING PAPER**

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Working Paper No. 56



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# **The Emergence of Indian Multinationals: An Empirical Study of Motives, Status-quo and Trends of Indian Investments in Germany**

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## **Abstract**

Germany has advanced to the position of a key destination for Indian multinational enterprises in their spirited pursuit of growth opportunities overseas. In 2008, Indian firms invested an estimated amount of US\$ 1.8 billion in Germany while 16 acquisitions by Indian firms were monitored, up from 7 in 2007. In fact, Indian FDI stock in Germany seems to have surpassed German FDI stock in India. Our research shows that, as of October 2008, 123 Indian MNEs with 167 subsidiaries were active in Germany and had approx. 20,000 full-time employees on their pay-rolls.

However, there has been hardly any independent, academic research, so far, on Indian investments in Germany, especially on the motives, experiences, and employment effects on the host and home economies. The present study, presumably the only empirical study of Indian firms overseas to date, provides unique insights into the motives, operations, experiences, and future plans of Indian firms. It shows that Indian firms have generally performed well and intend to further strengthen their operations, including in research & development activities, in Germany. Nonetheless, firms are also faced with several challenges, including but certainly not limited to cross-cultural issues, which need to be mastered. There are also sectoral differences in the motives, experiences, and location selection criteria of Indian MNEs.

**Keywords:** Globalization, FDI, India, Germany, Emerging Economies, R&D, Organizational Innovations, Technology Transfer, Mergers & Acquisitions

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The authors are grateful to Dr. J.P. Pradhan of the Institute for Studies in Industrial Development (ISID), New Delhi, for providing historical data on Indian FDI flows to Germany. Thanks are also due to Mr. Jayachandran K. Mani at our institute who provided valuable organizational and research assistance for this project.

## 1. Introduction

India, of late, has emerged as a major source of foreign direct investment (FDI) amongst developing (emerging) economies. Within a span of just seven years, between March 2001 and March 2008, India's overseas FDI stock has grown nearly 18-fold from US\$ 2.6 billion to \$ 46.2 billion, as the Reserve Bank of India's (RBI) data on India's international investment position reveal. The growth is even more remarkable when contrasted against the meagre \$ 617 million as overseas FDI stock in March 1997.

The "explosive" interest of Indian firms in overseas investments may be traced back to various factors, such as:

- The high growth of the Indian economy in general, and of the service sector in particular, in the previous decade has created the requisite slack resources for expansions;<sup>1</sup> while simultaneously heating the home market so that growth opportunities overseas are in many instance more lucrative than at home;
- There is a pressure to build and maintain on-site operations abroad to support the increased exports of both merchandise goods and services;
- The economic liberalization and the resultant entry of global players in India has intensified competition on the home-turf;
- Global players in India are raising quality standards and making domestic consumers more and more quality conscious thereby enforcing the need for Indian firms to access advanced technologies and research and development (R&D) infrastructure abroad;
- The Indian government has been supportive of overseas investments and has created a favourable policy infrastructure.

Indian firms' recent overseas FDI spree has been well documented by the business press, see e.g. Financial Times (Leahy and Tucker 2006), Economic Times (Sharma 2007; Krishan 2008), Economist (Economist 2008); and Business Week (Lakshman 2008). Also major business consultancies such as Accenture (2006), A.T. Kearney (Rothenbuecher and Hoyningen-Huene 2008), Boston Consulting Group (Aguiar, Bailey, Bhattacharya et al. 2009), Deloitte (2003; 2007), Ernst & Young (FICCI and E&Y 2007), KPMG (2008; Thakur and Böhmer 2008), McKinsey (Sinha 2005), and PriceWaterhouseCoopers (2009) have published various reports that explicitly or implicitly deal with Indian investments abroad. India Brand Equity Foundation (Rodrigues 2006) and U.S. International Trade Commission (Greene 2007) have also published reports on Indian overseas FDI.

This topic has however attracted relatively less attention from independent, academic researchers. In the 1980s Lall (1983) and Agarwal (1985) looked into various aspects of Indian FDI. More recently, apart from Pradhan's various solo and co-authored works, e.g. (2004; 2007b; 2007a; 2008); only a few authors have dealt with Indian firms' growing quest for overseas assets and operations; for instance see Kumar (1996; 2007), Sauvart (2005), Gupta (2006), Das (2007), and Sauvart, Mendoza et al. (2008).

It is therefore not surprising that Indian firms' increasing engagement in Germany has received even less academic attention up to now; despite German print media's regular reports

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<sup>1</sup> Slack resources, see Nohria and Gulati (1996), are considered useful and even necessary for innovative activities, including for innovations such as venturing into new markets, as defined by Schumpeter (1934) or characterized as "organizational innovations" by OECD (2005). Especially Iyer and Miller (2008) demonstrate the importance of slack resources for acquisitions and inter alia also for foreign direct investments.

on Indian investments, e.g. see (Hucht 2007; Steinkühler 2007; Reppesgaard 2008). Notwithstanding this lack of research, Indian firms have discovered Germany as a major destination for their investment activities, as the next sections will show. This article seeks to provide a status-quo report on Indian investment and business activities in Germany. Further, we will present the results of an empirical survey conducted with Indian firms in Germany in order to identify their primary motives, experiences and investment plans in the medium run.

The present study, presumably the only empirical study of Indian firms overseas, to date, provides unique insights into the motives, operations, experiences, and future plans of Indian firms. It shows that Indian firms have generally performed well and intend to further strengthen their operations, including in R&D activities, in Germany. Nonetheless, firms are also faced with several challenges, including but certainly not limited to cross-cultural issues, which need to be mastered. There are also sectoral differences in the motives, experiences, and location selection criteria of Indian MNEs.

The article is structured as follows: After this brief introduction we shall dwell on Indian FDI in Germany, based on extensive desk research and “hard facts”. In this section we shall also determine the scope of the study. Section 3 presents the results of our empirical survey in greater detail about various aspects such as employment effects and technology transfer. The final section entails conclusions, a brief discussion on the limitations of the study and some ideas for future research.

## 2. Indian FDI in Germany

India and Germany share a long tradition of economic relations dating back to the early 16<sup>th</sup> century (Kundu 2005).<sup>2</sup> Such historical trade connections notwithstanding, Indo-German trade languished at abysmal levels for long. In 2003 India ranked on 31<sup>st</sup> place as Germany’s source of imports and on 41<sup>st</sup> place as its export market, behind countries like Romania and the “City State” of Singapore. In recent years, however, the trade volume has flourished: growing from approx. 5.1 billion euros in year 2003 to over 12 billion euros in 2007, as per official data by Germany’s Federal Statistical Office; see Figure 1.

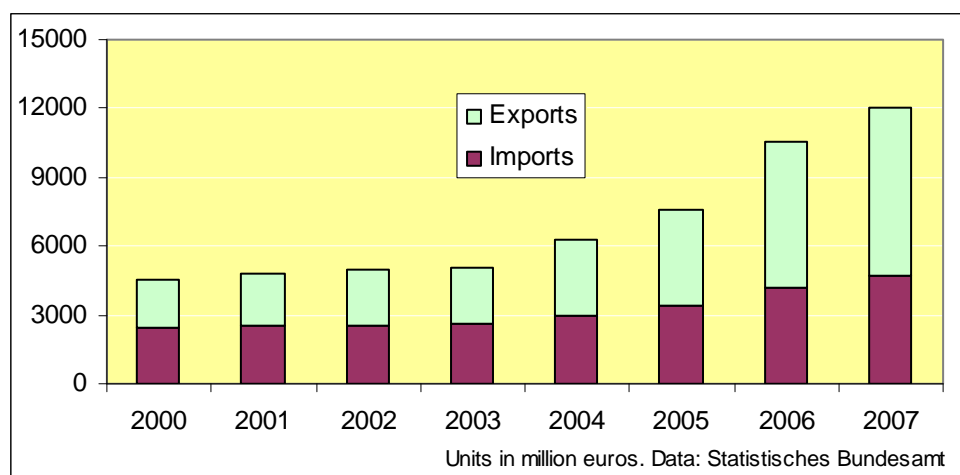


Figure 1: Germany's trade volume with India (2000-2007)

<sup>2</sup> Kundu (2005) also provides a brief history of Indo-German (business) relations.

By 2007 India had advanced to 26<sup>th</sup> position as Germany's trade partner in both imports and exports. Though the trade balance in this period has steadily tilted in Germany's favour, Indian exports have also nearly doubled from 2.6 billion euros to 4.7 billion euros. Since Indian exports are seen to be positively correlated with its outward FDI (Pradhan 2007a) it is not surprising that Germany has advanced to a major focal point for Indian multinational enterprises (MNEs) in their pursuit of growth opportunities.

Judging by the number of acquisitions in the period 2003-2007 Germany has averaged just behind USA and UK as target market for Indian investors (Thakur and Böhmer 2008). Between 2001 and 2006 Indian MNEs were involved in 32 mergers & acquisitions (M&A) deals in Germany. In contrast, only 21 M&A deals involving Chinese MNEs in Germany in the same period were reported by the Bundesverband Mergers & Acquisitions, a national body for M&A. According to one Deloitte report India has even emerged as the single largest source of FDI from emerging countries in Germany (Deloitte 2007), see Figure 2.<sup>3</sup>

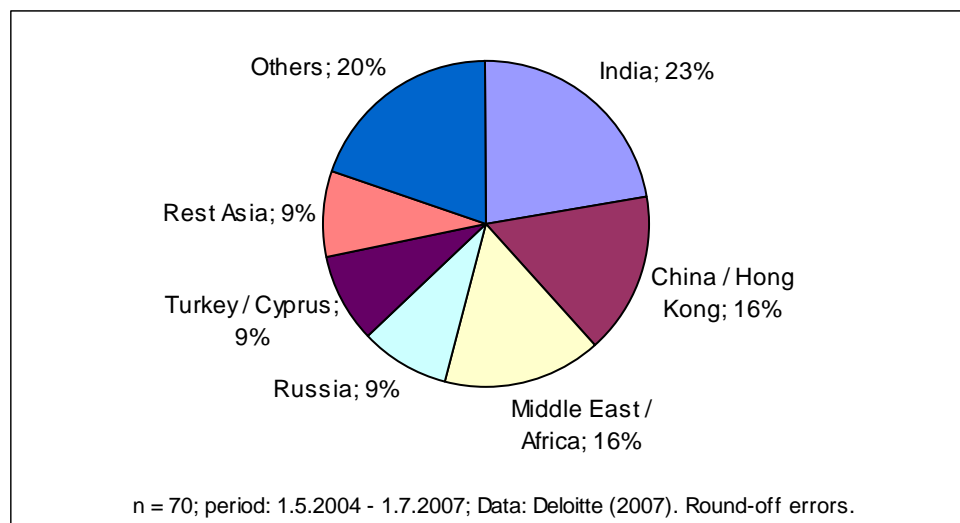


Figure 2: M&A in Germany from Emerging Market Multinationals

Early Indian investments in Germany can be traced back to mid-1960s. By 2008, Indian FDI stock in Germany had crossed the mark of US\$ 4 billion. With spectacular deals like that of Suzlon/REpower, see (Krümpel 2008a), Indian FDI stock in Germany seems to have surpassed German FDI stock in India, which is reported at \$ 2.26 billion by Government of India (GOI 2008) and at 2.58 billion euros at year-end 2006 by the Bundesbank (2008). In 2008 alone, Indian firms invested an estimated amount of \$ 1.8 billion in Germany, up from \$ 825 million in 2007 and \$ 850 million in 2006. Table 1 shows India's greenfield investments in Germany.

<sup>3</sup> Germany's Central Bank, the Bundesbank, reports Indian FDI stock in Germany to stand at 88 million euros at year-end 2006 (Bundesbank 2008). The official data – for several comprehensible reasons – do not seem to reflect the ground reality. For instance, India's Dr. Reddy's Laboratories Ltd. acquired Germany's fourth-largest generic pharmaceuticals company Betapharm Arzneimittel GmbH for a publicly stated amount of 480 million euros in February 2006. This deal alone would change the FDI stock figure dramatically. For an explanation of the discrepancy in data, see Pradhan (2008a, p. 53).

Year	FDI Value (USD million)					No. of Firms
	Primary	Manu- facturing	Services	Others	All Sectors	All Sectors
1961–69		0.60	1.50		2.10	<b>3</b>
1980–89		0.20			0.20	<b>2</b>
1990–99	0.20	13.70	2.30	7.50	23.80	<b>47</b>
2000–07		101.20	36.80		137.90	<b>84</b>
<b>Total</b>	<b>0.20</b>	<b>115.70</b>	<b>40.60</b>	<b>7.50</b>	<b>164.00</b>	<b>131</b>

Table 1: Greenfield investments by Indian firms in Germany (1961-2007)<sup>4</sup>

Sixteen M&A deals involving Indian firms in Germany were monitored by the authors in 2008, up from 7 in 2007 and 11 in 2006. The deals also involved a substantial increase in the average deal value over past few years. Table 2 shows Indian firms' brownfield investments in Germany.

Year	Value (USD million)	No. of deals
2000	?	1
2001	28.50	3
2002	3.00	2
2003	43.00	3
2004	140.00	6
2005	65.70	7
2006	838.36	11
2007	817.00	7
2008*	~ 1800.00	16
<b>Total</b>	<b>3733.56</b>	<b>54</b>

Table 2: Brownfield investments by Indian firms in Germany (2000-2008)<sup>5</sup>

According to Indo-German Chamber of Commerce more than 240 Indian firms were “already engaged in a business in Germany” in 2007 and their number was “constantly growing” (IGCC 2007). One problem with most such numbers and firm directories that we

<sup>4</sup> Based on ISID database; underreporting and/or variations possible owing to dataset limitations

<sup>5</sup> Based on ISID database and various news reports; underreporting and/or variations possible owing to dataset limitations; (\* Data for 2008 do not include investment by the ICICI Bank). Earlier data are no more traceable.

consulted, e.g. (IGCC 2006) was that they very often incorporated all businesses, including restaurants, grocery stores and travel agencies, run by persons of Indian origin living in Germany. Moreover many authors and news media tend to include firms owned by persons of Indian origin as “Indian” firms even if the persons concerned are not Indian citizens and/or the firm has its registered headquarters outside India. For instance, Arcelor Mittal, which is majority-held by India’s UK-based business tycoon Laxmi Mittal, is very often reported as an “Indian” firm even though it is headquartered in Luxembourg. Even before merging with Arcelor, Mittal Steel was headquartered in Rotterdam and was legally a European firm, even though Mr. Mittal continues to hold an Indian passport.

For the purpose of this study only those firms are considered “Indian”, whose corporate headquarters are located in India. While orienting on the Organisation for Economic Co-Operation and Development’s (OECD) definition of FDI (OECD 2008, p. 40) we have regarded only majority-stakes as subsidiaries of “Indian” firms.<sup>6</sup> Minority stakes, holding companies, and non-corporate investments, e.g. by non-resident Indian (NRI) citizens based in Germany, by government agencies or non-profit organizations such as trade & tourism promoting bodies, have been excluded from the scope of this study.

We were able to identify 123 “Indian” MNEs in Germany, which were active as of October 2008. More than half of all Indian “parent” firms came from the Information and Communication Technology sector that included all IT and IT consultancy firms. Life Sciences (pharma & biotech) and Automobile sector firms also had a significant presence.

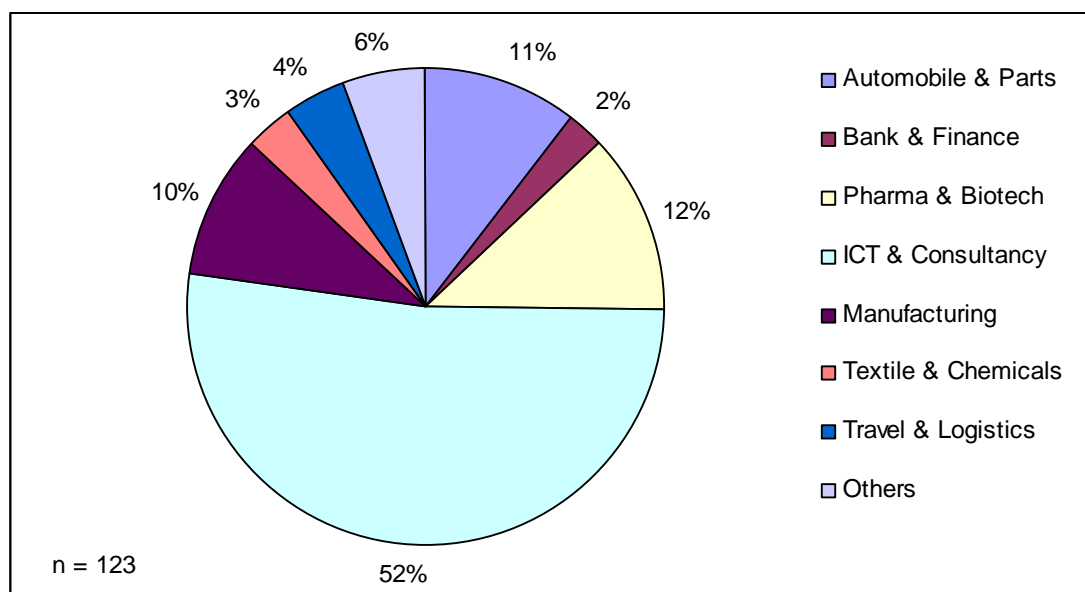


Figure 3: Active Indian MNEs (majority stakeholders) in Germany as of Oct. 2008

The above-mentioned 123 Indian MNEs owned, or had a majority stake in, 167 German subsidiaries. As can be seen in Figure 4, the state of Hesse, where Frankfurt is located, had attracted the highest number of Indian subsidiaries (29%), followed with some distance by

<sup>6</sup> FDI, according to OECD (2008) “reflects the objective of establishing a lasting interest by a resident enterprise in one economy [...] in an enterprise [...] that is resident in an economy other than that of the direct investor. The lasting interest implies the existence of a long-term relationship between the direct investor and the direct investment enterprise and a significant degree of influence on the management of the enterprise”, e.g. “direct or indirect ownership of 10% or more of the voting power”.



North Rhein-Westphalia (home to Cologne/Düsseldorf), Bavaria (home to Munich), and Baden Württemberg (home to Stuttgart). The remarkable presence of Indian subsidiaries in the Hanseatic City of Hamburg is also interesting, for Hamburg is a “City State” with a population of about 1.7 million.

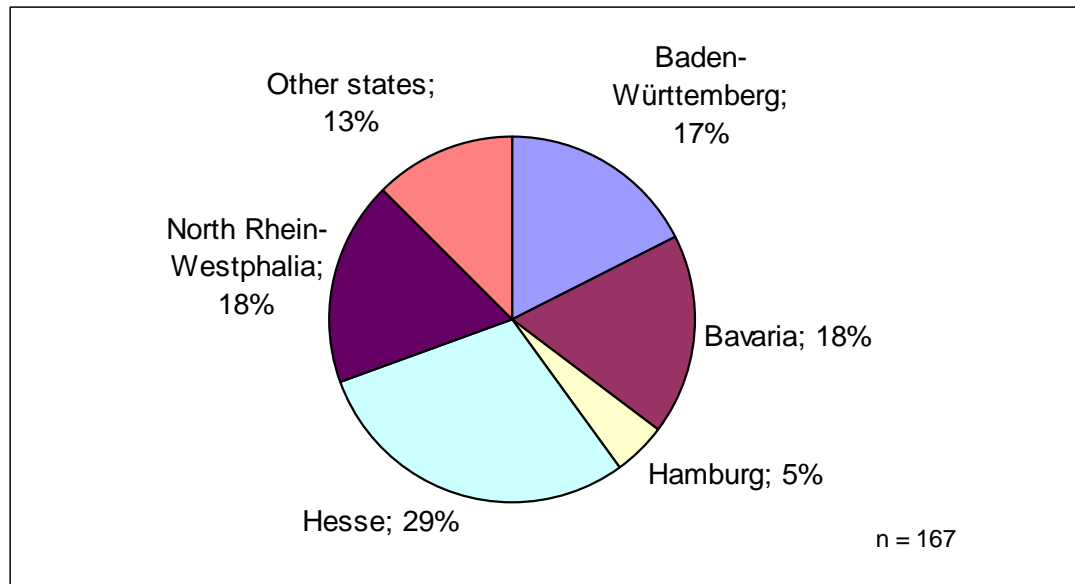


Figure 4: Subsidiaries of Indian MNEs in Germany's federal states

The 167 German subsidiaries of Indian MNEs provided employment to approximately 20,000 people on an annual, full-time average, as a study of available data suggested.<sup>7</sup> Table 3 shows top-5 Indian owned employers in Germany.

No.	German Firm	Indian Stakeholder	Employees
1	Novelis Deutschland GmbH	Hindalco (Aditya Birla Group)	2316*
2	SONA BLW Präzisionsschmiede GmbH <sup>8</sup>	Sona Group	1630
3	Trevira GmbH	Reliance Industries Ltd.	1584
4	REpower Systems <sup>9</sup>	Suzlon Energy Ltd	1246*
5	Sakthi Europe GmbH & Co. KG <sup>10</sup>	Sakthi Group	990

Table 3: Top Indian-owned employers in Germany in fiscal year 2007<sup>11</sup>

Indian investments in Germany have by and large received positive reactions in the business press and news media see e.g. (Abendblatt 2007; FTD 2008b; Preuss 2008; Reppesgaard 2008); some press reporters, such as Krieger (2006), Hucht (2007), and Reppesgaard (2008)

<sup>7</sup> Data were available for 63 firms which provided employment to 17,227 people on annual, full-time average during 2007. Sector- and Size-adjusted estimates were made for the rest of the firms (\* as on 31.03.2008).

<sup>8</sup> Based on newspaper reports about the acquisition of Thyssen-Krupp Präzisionsschmiede by the Sona Group

<sup>9</sup> The “REpower Concern” includes the REpower Systems AG

<sup>10</sup> Includes employees of Sakthi Germany GmbH and Sakthi Ueckermünde in year 2008

<sup>11</sup> Does not include foreign-based employees of the German subsidiaries

have however also pointed to certain difficulties, especially of cross-cultural nature, in Indo-German projects.

While not much is known about the actual performance of Indian MNEs in Germany, there have been some negative reports about the developments in Indian-owned subsidiaries in Germany primarily concerning Betapharm/Dr. Reddy's, and REpower/Suzlon, which are described below.

The generic drug manufacturer Betapharm (acquired by Dr. Reddy's Laboratories for 480 million euros in 2006) has reportedly not done well, see e.g. Kuchenbuch (2006) and Economic Times (2008). Kuchenbuch (2006) has also suggested that Dr. Reddy's paid a price significantly higher than the actual market value of Betapharm.

In case of REpower Systems (acquired by Suzlon Energies Ltd. for nearly 1.35 billion euros in 2007 with the deal's actual execution stretching up to 2009) the performance of the "daughter" concern has been impressive. The operations have been however marred by recent uncertainties regarding Suzlon's capacity to finance the deal (BusinessLine 2008; Leahy 2008; Stürmlinger 2008). Apparently, certain discontentment at REpower has led some of the top management to leave the company (Stürmlinger 2007). Suzlon's alleged efforts to access REpower's technologies without first securing a "Domination and Profit & Loss Transfer Agreement" (*Beherrschungsvertrag*) have reportedly led to some internal dissatisfaction (Krümpel 2008b; Müller 2008). Finally, Suzlon chief Tulsi Tanti's public deliberations on the possibility of divestment from REpower have created confusion and irritations in the Hamburg-based "daughter" concern regarding long-term intentions of the "parent" in Pune (FTD 2008a; Krümpel 2008c). Most of the "rumours" have been however officially denied.

The section above has dealt with "hard facts" regarding Indian investments in Germany, especially their volume, sectoral composition, geographic distribution, and public perception. We have also dwelt upon some problems that Indian MNEs are probably facing. It would be therefore interesting to know the perception of the firms concerned as regards to how they view their investments and operations in Germany.

### 3. Survey of Indian-owned Subsidiaries in Germany

In order to gather first-hand information on activities, motives, challenges and experiences of Indian firms in Germany an empirical survey was conducted. For this purpose 7 relevant research issues were identified on the basis of an extensive literature review. Apart from the literature on outbound FDI from emerging economies in general, and India in particular, as mentioned in section 1, scholarly works on internationalization of firms and theories of multinational enterprises, e.g. Kumar and Mcleod (1981), Dunning (1992; 1994), and Dunning and Narula (1996) were consulted for the purpose of identifying and formulating the research issues. Questions related to the motives and challenges in regard to the internationalization of R&D activities were drawn from Tiwari, Buse and Herstatt (2007).

In addition to the literature-based inputs, opinion of 10 experts from India and Germany was sought so as to better reflect practical issues and concerns. The experts represented various institutions that are – in many instances – one of the first contacts an Indian firm might make while deciding to invest in Germany. The experts represented the following institutions: Hamburg Chamber of Commerce, Indo-German Chamber of Commerce, Hamburg Business Development Corporation, Indo-German Export Promotion Foundation,

German-India Business Centre, Institute for Studies in Industrial Development (New Delhi), German Consulate General (Mumbai), Invest in Germany GmbH, ElGa Biotech, and KPMG.

- ✚ Which factors are motivating Indian firms to invest in Germany? To what extent have Indian MNEs been able to realize the intended motives?
- ✚ What is the preferred mode of initial investment for Indian MNEs to enter Germany? Whether there have been subsequent investments by them?
- ✚ How do Indian MNEs select their location in Germany?
- ✚ What are the technology implications of these investments to the MNEs in question, and to the home and host countries (i.e. for India and Germany)?
- ✚ What is the employment effect of the Indian investments in Germany?
- ✚ What are the challenges Indian MNEs typically face during their investment process and in day-to-day operations in Germany?
- ✚ What are their future plans in Germany? (as a proxy for satisfaction measurement)

*Table 4: Research issues for the empirical survey*

Subsequently a questionnaire was prepared that incorporated the research issues identified. The questionnaire was tested with two Indian firms in Hamburg in the form of a pilot study. For further information on survey's preparation see Tiwari and Mani (2009).

The survey was conducted in July/August 2008 and targeted senior-level management in German subsidiaries of Indian MNEs. After a careful research applying the scope criteria specified earlier, 148 Indian MNEs were contacted by post. The survey questionnaire was also made available online and in the form of a PDF document to enable comfortable participation. Twenty five of the 148 MNEs could not be traced by the Postal Department, possibly an indication for the closure of their operations.

### **Characteristics of Respondents**

Altogether, 21 valid responses (17% of the active sample) were received. Amongst the respondents – all members of senior-level management – were 7 Indians, 12 Germans and 2 other Europeans. The sectoral composition was as follows: ICT (11), Automotive and Automotive Components (6), Wind Energy (2), Pharmaceuticals (1), and Logistics (1). Except for 3 Indo-German Joint Ventures (JVs), all other respondent firms were wholly-owned subsidiaries of India-based MNEs. The “oldest” subsidiary in the sample was active in Germany since 1991, the “newest” ones (2) were established in 2008. Ten subsidiaries were founded as greenfield investments while 11 had been acquired. The 21 firms had 43 subsidiaries/branches.

Except in one case, all other subsidiaries were active in the same sector as their “parent” concern. Twenty respondent firms employed a total number of 3225 full-time employees on average in the last fiscal year. The largest firm in the sample employed 610 employees, the smallest only one. Figure 5 shows annual turn-over of firms in Germany in million euros in the last fiscal year. 12 of the 21 firms (57%) had a turn-over of up to 10 million euros; one-third of all respondents had a turn-over of over 50 million euros, with 4 firms even having a turn-over of up to 250 million.

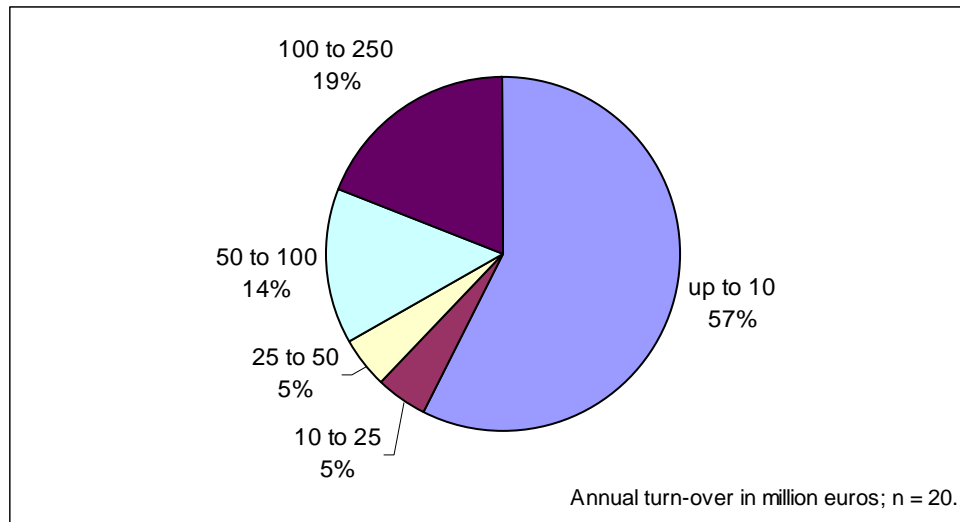


Figure 5: Annual turn-over of survey respondents in last fiscal year in Germany

### Activities in Germany

Most respondents (81%) were engaged in production of goods and/or services in Germany. About half (43%) engaged in R&D.<sup>12</sup> Firms generally engaged in multiple activities; however 2 respondents were engaged purely in marketing and other 2 purely in R&D. There were no significant sectoral differences in this regard.

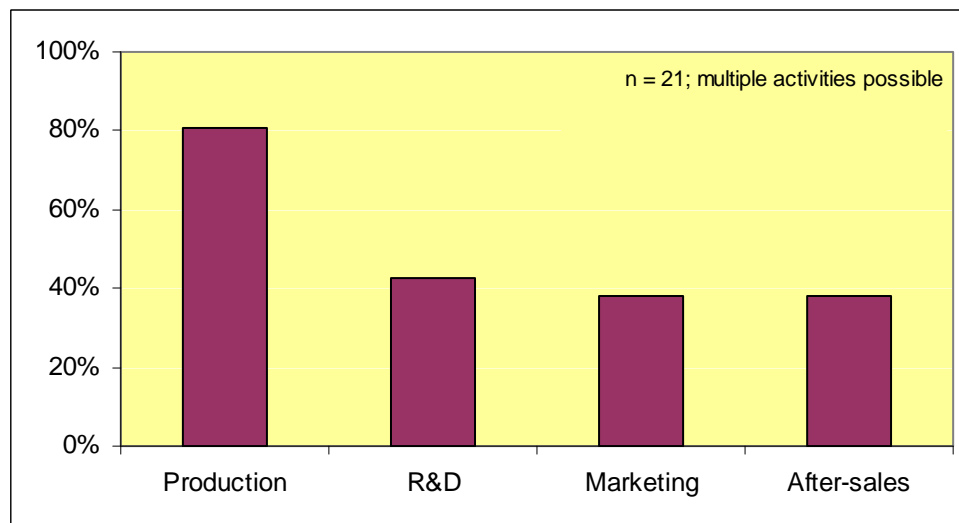


Figure 6: Business activities of Indian MNEs in Germany

### Characteristics of the “Parent” Concern

Seven of the firms (33%) had their corporate headquarters in Karnataka, 6 in Maharashtra, followed by Delhi (4), Tamil Nadu (3), and Andhra Pradesh (1). As can be seen in the chart below, most Indian MNEs active in Germany were relatively large firms in Indian context; 40% of them had an annual turn-over in the “billion euro” range; 2 of them even had annual revenues exceeding 5 billion euros. However there were some small-sized MNEs, whose

<sup>12</sup> For the purpose of this study we have adopted the OECD definition of R&D (OECD 2002).

annual turn-over did not exceed 10 million euros. Both of the smallest firms were from the IT sector.

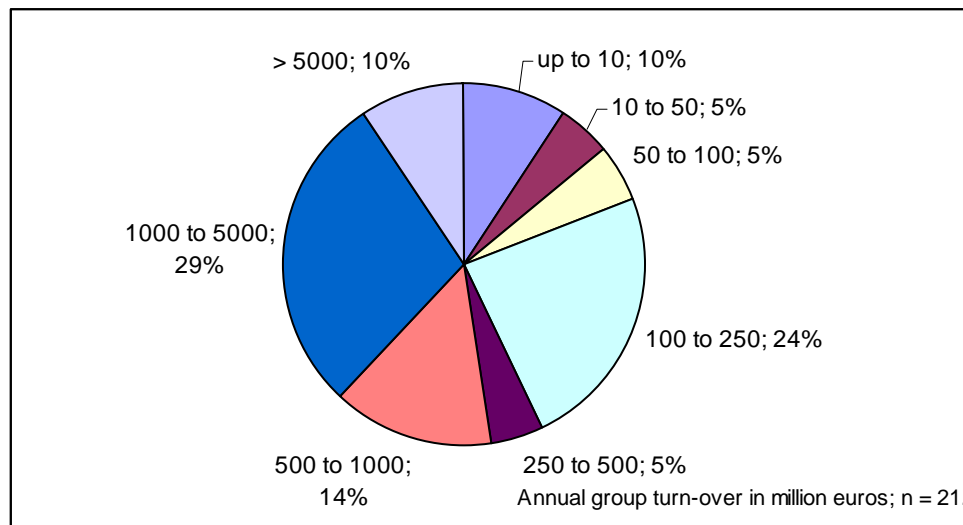


Figure 7: Annual turn-over of the whole group in the last fiscal year

Of the 19 respondents who chose to disclose the compound annual growth rate (CAGR) for their whole group for past 3 years in terms of sales, more than a third (37%) reported that their group had grown by over 50% a year; another 37% had grown by 25 to 50% a year. Not surprisingly, the firms seemed to be highly profitable. None of the 17 respondents to the question regarding operating profitability of the whole group on a 3-year average reported any losses; 6 MNEs had an operating profitability between 15 and 25%; another 5 between 25 and 50%.

### Size and Modes of Investment

Ten of the 19 respondents who chose to disclose the amount of the initial investments by their Indian “parent” reported the sum to be under 5 million euros. In about 90% of the cases the initial amount did not exceed 30 million euros.

However, 12 respondents (57%) reported that the Indian investor had made further investments, in the course of time. In 6 cases the Indian investor went on to acquire further assets in Germany, in 4 instances greenfield investments were carried out.

In one instance the capacity of the “daughter” concern was further expanded while in another case a new joint venture was entered into. The subsequent investments, in many instances, involved significant amounts so that the amount of total investments seems quite different from the initial investment, as can be seen in Figure 8.

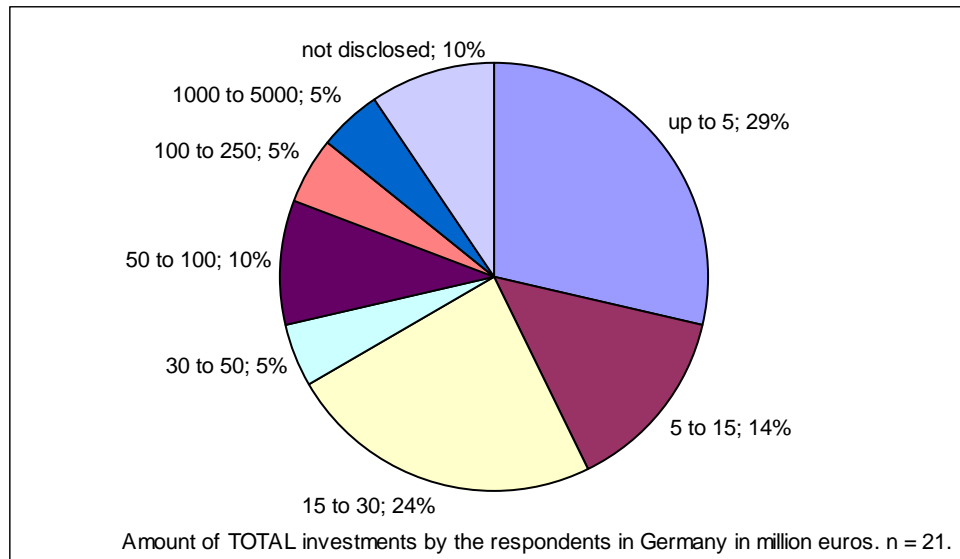


Figure 8: Total investment by the Indian MNE in the German subsidiary

### Investment Motives

The respondents were asked to evaluate the importance of 18 possible motives for investing in Germany. The importance of individual motives in the investment decision could be ranked on a scale of 1 (= “not at all relevant”) to 6 (= “highly relevant”). Additionally, the respondents were given the option of stating other individual motives.

Proximity to customers and suppliers was the most important reason for Indian MNEs (evaluated on average with 5.5) while investing in Germany. Developing products suitable for specific German market demands followed next with a ranking of 4.8. Market-seeking motives clearly dominate the picture, see Table 5.

Motives (1 = not at all relevant...6 = highly relevant)	Overall (n=20)	Automobile (n=6)	IT (n=10)
Foster proximity to existing customers/suppliers	5.5	4.8	5.8
Develop products/services for German market	4.8	4.5	5.2
Understand and adapt to German market	4.5	4.0	5.2
To build a base for business in Western Europe	4.5	4.5	4.5
Acquire new technology	4.1	5.0	3.3
Develop product/services for global market	3.9	4.8	3.1
Competitors' presence in German market	3.8	3.7	3.9
Access to infrastructure for advanced R&D	3.6	5.0	3.1
Access to skilled manpower	3.6	4.2	3.0
Acquisition of a reputed brand	3.3	4.0	2.8

Table 5: Top investment motives for Indian MNEs in Germany (with sectoral preferences)

Table 5 demonstrates clearly that there is a sectoral divergence in the motives of Indian MNEs in Germany. The automobile sector firms displayed an unmistakable preference for “technology-seeking” motives as opposed to “market-seeking” by IT firms.

Technology acquisition was evaluated with an average value of 4.1 by all respondents; thereby signalling that technology-seeking is as yet not that much relevant in the overall context of Indian MNEs in Germany. One motive that is common to all of them is that they are motivated by the presence of their competitors in Germany and seek to neutralize this advantage of the rivals by their own investments.

### **Realization of the Investment Objectives**

The survey participants were asked to choose from the list of motives 3 primary motives for the investment in Germany and to evaluate their realization on the earlier mentioned scale of 1 (= “not satisfied”) to 6 (= “fully satisfied”). The evaluation for the three primary motives revealed a high level of satisfaction with their actual realization, which received rankings of 5.3, 5.5 and 5.3 respectively. Remarkable in this respect, perhaps, are rather those motives which (some) firms failed to realize.

One small-sized IT company had stated “to build a base for business in Eastern Europe” as its primary motive for investment in Germany and evaluated its realization after less than one year operations with 1 (“not satisfied”). Another mid-sized IT firm (turn-over in Germany in the range of 100 to 250 million euros) stated “understand and adapt to German market”, “proximity to customers”, and “to build a base for business in Western Europe” as its three primary motives in this order. The realization of these motives was ranked with 3, 4, and 4 respectively, which reveals some traits of dissatisfaction. The motive “understand and adapt to German market” was one motive which received a somewhat subdued response (4.8) in regard to realization especially in comparison to other motives such as “proximity to customers” (5.5) and “acquire new technology” (5.3).

Summarizing, one can say that most respondents were able to realize their primary motives for investments, there were however isolated cases of dissatisfaction.

### **Criteria of Location Selection**

Survey participants were asked about their location selection within Germany. For this purpose they were asked to evaluate the influence of 10 pre-identified factors on their decision-making on a scale of 1 (= “no influence”) to 6 (= “high influence”). Additionally, they had the chance of stating other factors and evaluate them. The results are presented in Table 6.

As also with investment motives, the location selection within Germany revealed remarkable sectoral differences. Whereas IT firms basically looked for customer proximity and the presence of an industry cluster, Automobile sector firms called their location basically “accidental”, for example while the acquisition partner was already based in that location. Another factor which was important for Automobile but not IT sector firms was the presence of research institutes and universities. Automotive sector firms also showed some preference for the availability of skilled labour in the region and government support & subsidies,<sup>13</sup> both these factors did not matter much to IT firms, probably because they conduct a significant part

<sup>13</sup> This was especially true of firms that opted for locations in the Eastern part of Germany. On East Germany’s attractiveness for potential investors from India, see KPMG (2008).

of their production offshore in India and have a relatively high share of expatriates. The presence of Indian community in the region, surprisingly, was not considered an important criterion by the participants cutting across sectoral lines.

<b>Criteria</b> (1 = not relevant at all...6 = highly relevant)	<b>Overall</b> (n=20)	<b>Automobile</b> (n=6)	<b>IT</b> (n=10)
Presence of an industry cluster	<b>3.9</b>	2.7	<b>4.0</b>
Proximity to customer	<b>3.8</b>	2.5	<b>4.7</b>
Availability of skilled labour	3.8	3.8	3.1
Accidental (e.g. Investment by acquisition)	3.8	<b>4.3</b>	2.9
Connectivity to India by air	3.0	2.3	3.7
Cosmopolitan society	3.0	1.8	3.5
Presence of research institutes and universities	2.9	<b>4.0</b>	2.8
Government policies & subsidies	2.3	3.2	1.9
Presence of Indian community	1.8	1.5	2.2

*Table 6: Criteria influencing the location decision within Germany*

For actual geographic distribution of Indian-owned German firms see Figure 4

### **Job Shifts**

Investments especially in the form of acquisitions invariably have an effect on the number of jobs, since business process are re-organized and tasks shifted between the headquarters and global subsidiaries. In the following we describe the employment impact of the Indian investment projects in our survey sample.

Seventeen (17) participants answered the question about shifting of full-time, regular jobs between India and Germany. Eight reported that there was no shift in jobs following the Indian investment; other 9 reported that jobs had been actually shifted between the two countries. Table 10 shows the flow of job shifts in both directions.

	<b>Production</b>	<b>Management</b>	<b>R&amp;D</b>	<b>Total</b>
From India to Germany	143	21	5	<b>169</b>
From Germany to India	150	5	0	<b>155</b>
<b>Balance for Germany</b>	<b>-7</b>	<b>+16</b>	<b>+5</b>	<b>+14</b>

*Table 7: Shift in full-time, regular jobs between India and Germany*

A total of 324 jobs were reportedly moved between the headquarters in India and the subsidiary in Germany. Overall, Germany recorded a positive job balance as it “gained” 14 jobs more than what it “lost” to India. Job shifts can be observed in all the three activity fields “production”, “management”, and “R&D”. Interestingly, R&D is the only field in which shifts did not take place in both directions; R&D-related jobs were rather moved from India to Germany but not the other way round, possibly signifying the strength of Germany’s attractiveness as a knowledge-based economy. Considering that the survey participants



employed 3,225 people in full time, regular capacity, the shuffling of 155 jobs does not seem to be significant, especially so since it has a small albeit positive balance for the host country.

### Indian Expatriates

Overall, the share of Indian expatriates in the workforce of the German subsidiaries seems to be less significant. Forty percent of the firms reported that the share of Indian expatriates in their workforce was less than 5%. Generally speaking, IT firms had a higher number of expatriates than those from other sectors. Also greenfield investments usually saw more expatriates coming from India than was the case with M&A deals.

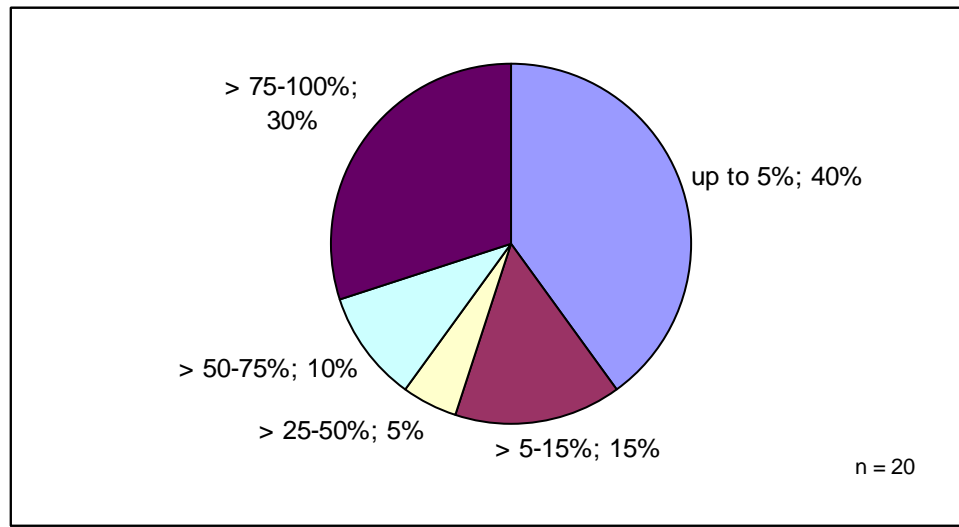


Figure 9: Share of Indian expatriates in the workforce of German subsidiaries

### Technology Transfer

Especially IT firms brought their own process and product technology from India to Germany. However, most firms reported an active transfer of technology between India and Germany. The transfer flows were mutual and not in any one single direction.

	Process Technology	Product Technology
India to Germany	11	10
Germany to India	8	11

Table 8: Technology transfer between India and Germany

Two wind energy firms in the sample “exported” product technology to their “parents” in India without “importing” it.

### Role of R&D Unit in Germany

The 9 survey participants, who currently maintained R&D operation in Germany, were asked about the present and expected role of their R&D unit here.

<b>Role of the R&amp;D Unit</b>	<b>Present</b>	<b>Future</b>
Adapt current product to local market	4	3
Execute individual tasks set by the headquarters	5	3
Product developer for local market	6	6
Product developer for global market	7	9

Table 9: Present and expected role of the R&D unit in Germany

As the table above shows, most of the R&D units were engaged in innovation activities (product development for the local and/or global market).<sup>14</sup> The innovation role was set to gain more importance as the firms intended to reduce adaptation and “executional” tasks. Automotive sector firms looked most often to their German R&D operations to act as product developer for the global market (at present 4, in future 5).

Eleven participants had R&D collaborations with customers, 6 with suppliers, 6 with research institutions and universities and 2 with other firms. Participants stated plans to increase cooperation with the academia. Some expressed their intention to work together with their competitors.

### Investment & Operational Challenges in Germany

Table 10 describes the extent of the various problems faced by Indian firms in Germany. The factors were ranked by the participants on a scale of 1 (= “no problem at all”) to 6 (= “a major problem”).

<b>Challenges</b> (1 = not at all a problem...6 = a major problem)	<b>Overall</b> (n=21)	<b>Automobile</b> (n=6)	<b>IT</b> (n=10)
Difference in work culture	<b>3.9</b>	<b>3.3</b>	4.0
High operational cost	<b>3.8</b>	<b>3.8</b>	<b>4.6</b>
Getting work permit and visa	3.8	2.7	<b>4.7</b>
Finding qualified personnel	3.7	2.7	4.2
Expatriates' social integration in Germany	3.2	2.2	4.0
Language problems	2.8	1.8	3.9
High attrition rate among employees	2.7	1.8	3.0
Finding a suitable partner & location in Germany	2.0	1.3	2.6
Government approval processes in Germany	1.9	1.7	1.9

Table 10: Challenges encountered in the investment process and day-to-day operations in Germany

Difference in work culture was, somewhat surprisingly, ranked as the foremost problem by all the respondents. There were again sectoral differences in the perception of the problems faced. Whereas the IT sector firms were most concerned about problems with getting work permits and visas for their expatriates, Automobile firms were more concerned with high operational costs. Generally speaking, IT firms were more prone to face problems than their Automobile sector counterparts. A possible explanation could be that IT firms generally had a

<sup>14</sup> For a definition and description of the individual roles, see Herstatt, Tiwari, Ernst et al. (2008, p. 18).

higher share of Indian expatriates and were accordingly faced with the problem of “foreignness” in a country with a language other than English. Automobile sector firms were mostly acquired by Indian MNEs and left with German management. There are less expatriates involved in day-to-day operations. Not surprisingly, there was a significant difference in how both the groups evaluated the challenge of integrating Indian expatriates in the socio-cultural environment Germany: Whereas Automobile sector firms ranked the problem rather mildly (2.2), IT firms ranked it significantly higher (4.0).

Interestingly, Indian and German/European respondents had certain differences in perception of problems faced by their companies. For instance, Indian managers saw language problems more critically (3.8) than did their German colleagues (2.3), who obviously had a home advantage.

### Performance of Indian Firms in Germany

Notwithstanding the problems faced by the firms, most firms reported positive growth experiences. Most respondents reported high CAGR in terms of sales for past 3 years; see Figure 10. About two-third of all respondents to this questions recorded a CAGR of over 25%, some even over 100%. No significant sectoral or size-specific differences were observed in this regard. The same was also true for growth in terms of employment.

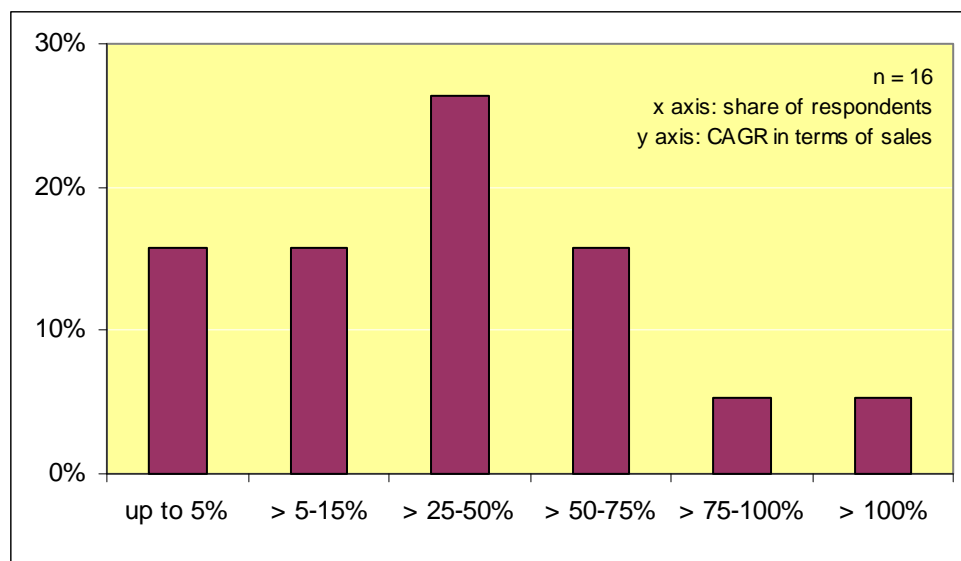


Figure 10: CAGR of the firm in Germany in past 3 years in terms of sales

### Planned Investments

In a corroboration to the reported positive performance, most survey participants (19 of 21) said they had plans for further investments in short to medium run (2 to 3 years). Augmentation of production capacities was the highest on the agenda, with 11 of 19 respondents planning investments in this area; 9 companies each planned investments to strengthen their R&D and/or marketing capabilities in Germany. Figure 11 shows the volume of planned investments. Nearly half (47%) of the firms planned investments not exceeding 15 million euros; 18% intended to invest more than 50 million euros.

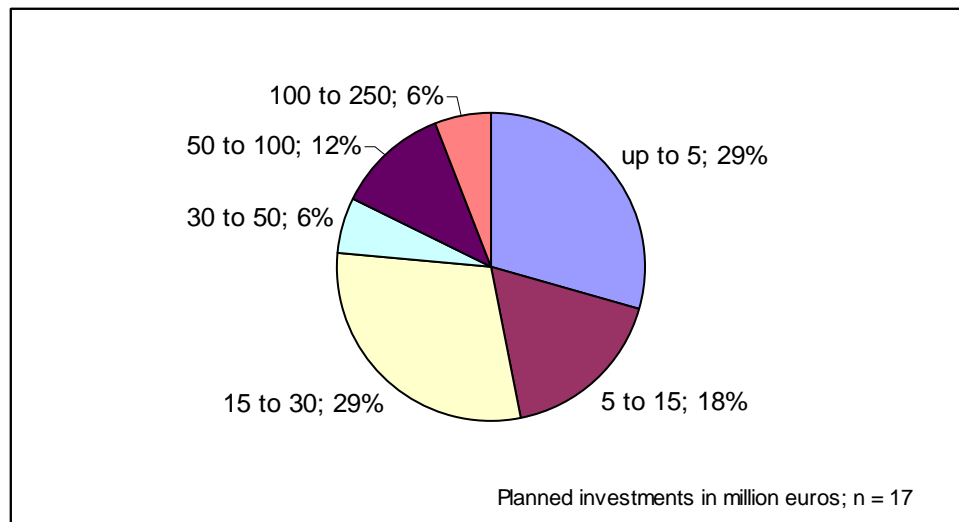


Figure 11: Short-to-medium term further investments plans

Cumulative investment plans point to an amount in the range of 270 to 600 million euros. Nearly two-thirds (63%) intend to conduct M&A deals, followed by greenfield investments (47%) and joint ventures (37%) (multiple further investments possible).

The table below presents the main findings of the survey in their relation to the research issues identified and described earlier.

Research Issue	Finding of the Survey
Motives & their realization	Market- and technology seeking (sectoral differences in investment motives); impressive realization to date (measured as CAGR in terms of sales & headcount)
Mode of Initial investment	Brownfield investments are more common; wholly-owned subsidiaries preferred to majority-stakes or JVs
Location selection	Presence of industry clusters and proximity to customers (however, sectoral differences exist); in case of acquisitions also “accidental” choices
Technology implications	Strong exchange of product & process technologies between home and host countries; in case of wind energy technology transfer from Germany to India
Employment effects	Job movement between India and Germany; India gains more production jobs, Germany gains more jobs in management and R&D; positive net effect for Germany
Challenges & problems	Differing work-cultures, getting work permit and visa for expatriates, and high operational costs pose major challenges (sectoral differences exist); differences of perception amongst Indian and German managers
Future plans	Most firms plan further investments in next 2-3 years to augment production, R&D and marketing; acquisitions are the most preferred mode for further investments

Table 11: A summary of the findings in relation to research issues

#### **4. Conclusions**

The study has shown that Indian firms have discovered Germany as an attractive destination for their investments. It provides unique insights into the motives, operations, experiences, and future plans of Indian firms, as most studies to date have worked either with case studies or with secondary data, such as newspaper reports. The study indicates that Indian MNEs in Germany have generally performed well and intend to further strengthen their operations there, including in the area of research & development. At the same time, Indian investments have been associated with positive employment effects for Germany.

Nonetheless, firms are also faced with several challenges, including but certainly not limited to cross-cultural issues, which need to be mastered. It seems to be imperative to offer cross-cultural trainings to employees in both countries so as to better coordinate the day-to-day business interaction and increase the efficiency of work-flow. Also, there should be greater emphasis on student and internship exchange programmes between the universities and firms of two countries to overcome such barriers. Also sectoral differences must be kept in mind while devising strategies to overcome any such challenges.

Since this explorative study is based on a relatively small sample, the findings invariably carry a tentative character. On the other hand, there are strong reasons for the assumption that the findings point in the right direction, for they are in conformity with expert opinions and available reports. The findings provide a useful base for formulating hypotheses regarding FDI flows from emerging markets to developed countries to look into various aspects of international business such as technology transfer, employment effects, globalization of innovations and R&D, and finally about the motives, location selection, and problems faced in the host country. It would be exciting to look into similar issues in other major destinations of Indian FDI, such as the UK, USA and the Netherlands. Also sector-specific determinants of success seem to be a promising research issue. Finally, a similar study of FDI from other emerging countries e.g. China or Brazil would provide an interesting comparison and may contribute to a better understanding of the process of the globalization.

Summarizing, we may say that Germany – without being properly reflected in the official statistics – has advanced to the position of a key destination for Indian MNEs in their spirited pursuit of growth opportunities in the form of market- as well as technology-seeking and this trend will probably continue in foreseeable future.

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