

## EMERGING ECONOMY MULTINATIONALS: THE ROLE OF BUSINESS GROUPS

**NEELAM SINGH**

neelamsi@gmail.com

Lady Shri Ram College-Delhi University

**ABSTRACT.** The early/rapid internationalization through outward FDI (OFDI) by firms from emerging nations is a well-recognized phenomenon. This study posits that an important explanation for it is the Corporate Business Group affiliation of many of the emerging economy multinational enterprises, EMNEs, as the Business Group affiliation enhances the effective resources of the firm. This study analyzes the potential role of Group strengths in facilitating OFDI by the firm. Further it attempts to illustrate this through an intensive case study of Tata Motors, a flagship company in the Tata Group, one of India's largest conglomerates. Tata Motors itself is a Business Group. The Group resources and competencies are examined here in terms of the competitive assets of the Tata Group as a whole, as well as particularly those of the domestic subsidiaries and substantial-equity associates of Tata Motors which operate in automotive or allied sectors. This study relates the OFDI by Tata Motors to its standalone competencies combined with the Group-derived strengths.

**JEL: F21, F23, L14, L22**

**Keywords:** outward FDI, EMNEs, corporate business groups, OFDI case study, automotive sector, India

### 1. Introduction

As per Dunning's OLI (ownership-location-internalization) eclectic approach, the first prerequisite for having international operations by a firm is the possession of ownership specific advantages. An important though not universal explanation of the so-called 'early/accelerated' internationalization by firms from emerging economies appears to be the corporate Business Group (henceforth BG) affiliation, as that enlarges the effective capabilities set. This paper illustrates this by examining the Group strengths of Tata Motors Limited which is a flagship company of the Tata Group, one of India's largest conglomerates. Tata Motors, a vehicle manufacturer, is a

Group by itself through a number of its own subsidiaries and (up to 50%) equity associates in automotive and related businesses. This study attempts to relate Tata Motors' OFDI to its Group strengths which subsume the Group OFDI. Notwithstanding these derived strengths, Tata Motors' stand-alone competencies have been critical to its OFDI activities.

For examining the role of 'Group-derived' strengths, the study considers the capabilities and resources of the Tata Group as a whole, as well as separately those of the other members of the Tata Motors Group itself. Like a subsidiary gains from the competencies of its holding/ parent concern and sister affiliates, the parent/holding company too is likely to benefit from its own subsidiaries and equity associates' product-related capabilities. Again, in a dynamic sense, the synergies developed and utilized subsequent to an OFDI are likely to enhance the competitive assets set of the investing firm. The existing OFDI by a firm, particularly strategic assets seeking OFDI, along with the associated reconfigurations at home and abroad, contribute to the firm's ability to undertake further OFDI. Accordingly, the 'Tata Motors Group' strengths are discussed inclusive of its OFDI enterprises. This study differs from previous studies of Tata Motors (referred to later) by way of its focus on the OFDI and relates it to the Group strengths.

The information for this case study has been obtained partly from the annual reports and websites of Tata Group, Tata Motors and associated firms, and supplemented from media reports. This paper has also explored a new source, namely Tata Motors Form-20F annual report, as filed with the Securities and Exchange Commission, U.S. (see Tata Motors, 2010b); Tata Motors has been listed on the New York Stock Exchange since September 2004. This report provides a lot of structured and some new information, also on the OFDI and other internationalization activities.

Section 2.1 reviews the literature on firm-specific advantages explaining the OFDI-internationalization of emerging economy MNEs (henceforth EMNEs). The potential role of corporate Business Group (BG) affiliation is the focal point of discussion in Section 2.2. To gauge Tata Motors stand-alone competencies Section 3 describes Tata Motors local operations, including its exports from India. Section 4 examines Tata Motors OFDI in recent years, and the associated motives and assets. Section 5 evaluates the competitive assets of the Tata Motors Group; this Section describes Tata Motors' automotive-related domestic subsidiaries and substantial-equity associates, and recent developments relating to its major OFDI enterprises and product introductions. Section 6 discusses the Tata Group Strengths – pertinent to Tata Motors OFDI – in the conventional sense of the derived gains to the associate member of a Business Group. Section 7 concludes the paper.

## 2. Firm-specific Advantages and Business Groups

The literature on international business strategy of EMNEs considers the industry, (firm) resource and institution based views as three legs of the tripod (e.g. Peng et al., 2008). This paper is confined to the role of the ‘firm and the associated BG’ specific resources influencing the OFDI. This Section examines the related theoretical arguments and existing empirical evidence, along with some relevant features of the automotive industry.

### 2.1 Importance of Firm-specific Assets

The ‘early’ internationalization of EMNEs – as compared to the predictions of the investment development path hypothesis – has led to a lively debate regarding the extent and type of ownership advantages of these foreign investors. Even at somewhat early stages of their OFDI the EMNEs are investing abroad simultaneously in developed and developing countries; the entry into more advanced countries is aimed at an exposure to sophisticated, cutting-edge demand (e.g. Guillén and Canal, 2009) and strategic asset-seeking. Mathews (2006, p. 13) argues that their accelerated internationalization is not through technological innovation but through organizational innovation. We concur with Dunning (2006) and Narula (2006) that for undertaking OFDI the existence of some unique and sustainable resources is a pre-condition – to compensate the liability of foreignness. At the same time it is possible to rapidly renew and augment the ownership-advantages through the OFDI. We believe that there is a need to consider also the Group strengths of outward foreign investors from emerging nations. A company level analysis of OFDI activities without taking cognizance of any Group affiliation may appear to provide undue/ excessive corroboration to an interpretation of Mathews (2006)’s arguments, viz. EMNEs initiate their OFDI as a technological weakling.

A number of studies (e.g. Bonaglia et al., 2007; Duysters et al., 2009; Goldstein, 2008; Kaya and Erden, 2008; Lee and Slater, 2007) indicate that the emerging market firms pursuing aggressive internationalization through OFDI in recent years had already well-established themselves in the domestic market through the emphasis on quality, design, technological capability and operational excellence. Before initiating the OFDI they also had significant international linkages via joint venture/ technical alliances for home operations and as OEM exporters as Tier-1 suppliers.<sup>1</sup> Based on the OFDI experience of firms from BRICs, Mexico, South Africa, Israel and Thailand, Ramamurti (2009) indicates the firm-specific advantages of EMNEs as *inter alia*: technical skills for adapting imported products/ technology; production and operational excellence; adversity advantage (Guillén and

Canal (2009) term it as the “institutional entrepreneurial ability”); in many cases having technological strength – i.e. being close to the global production frontier or being in niche areas – and strong local brands developing into international brands.<sup>2</sup> Kumar (2008) emphasizes the Indian MNEs managerial and frugal engineering skills, and cost effective processes; their corporate social responsibility adherence and sensitivity to workers’ concerns make them more welcome acquirers.

Strategic asset-seeking OFDI – seeking technology, skilled personnel, distribution networks, brandnames, or even prestige – involves subsequently developing synergies between the (new) OFDI and the existing home and foreign operations of the MNE. Rapidly internationalizing EMNEs have usually also simultaneously fast expanded as well as substantially restructured their domestic operations to meet the increased demand for high-end products (Fortanier and Tulder, 2009; Luo and Tung, 2007). The proportion of OFDI by EMNEs to developed country destinations has gone up (Gammeltoft, 2008; Pradhan, 2008).<sup>3</sup> Empirically, at the firm-level the bigger size, technological advantages and superior labor skills are found to increase the probability of developed country location choice for OFDI (Aw and Lee, 2008; Carvalho et al., 2010; Makino et al., 2002).

## 2.2 Business Group Affiliation and OFDI

A corporate Business Group is a group of inter-related jointly controlled companies, as a parent/ holding company(s) and a number of subsidiaries – with or without sub-subsidiaries, and other equity associate firms. These may be legally independent entities but have coordinated activities through several types of ties. The Group affiliated firms in India are generally professionally run. The concept of corporate Business or Industrial Group differs across nations. As for the Indian BGs the conception of the Group as a single business firm with centralization of control over a number of firms, rather than as a coalition of firms, fits better (Mazumdar, 2008, p. 4).

### 2.2.1 Theoretical Arguments

Compared with a standalone firm, a corporate Business Group-affiliated firm is likely to have an edge in undertaking OFDI. Its effective strength is partly derived from the accessibility to the Group resources, and the economies of scale and scope spanning the Group. The Group strategic network provides the member firms with access to the information, knowledge, resources and markets, and leads to faster diffusion of knowledge. The Group pooling of top managerial resources reduces the entrepreneurial capacity required per unit of innovative decision-making (Leff, 1978), and promotes innovation

(Belenzon and Berkovitz, 2010). The Group reputation helps in forging alliances with leading global firms (Duysters et al., 2009). Sharing the Group resources lowers the search and transaction costs of international expansion (Elango and Pattnaik, 2007), and enhances the ‘large project’ execution capabilities of EMNEs (e.g. Guillén and Canal, 2009). Balcet and Bruschi (2008) allude to the intra-Group technology transfer and information flow and the Group financial strength as strategic internationalization advantages for the Indian conglomerates in automotive sector.

In the context of emerging economies Business Groups are viewed as a neo-institution formed by the network of firms – filling the institutional voids (Li and Kozikode, 2008 also for literature review). However, the increasing liberalization and globalization has generally dwindled the importance of BG’s ‘local’ institutional embeddedness and void-filling roles, vis-à-vis the importance of BG’s developed capabilities, (Guillén, 2000; Kedia et al., 2006; Yiu et al., 2005). *Ceteris paribus*, the product-relatedness and developed capabilities of the associated Group are potentially more useful to firms operating in: high-tech sectors, industries undergoing major restructuring, and foreign locations, especially in advanced host nations. In India prior to the OFDI surge since the early 2000s, for almost a decade the big corporate BGs, including the Tata Group, undertook measures to enhance focus on their core competencies (Kedia et al., 2006; Ruet, 2010). Hence we consider only the developed capabilities of the Tata and Tata Motors Groups.

As compared to greenfield OFDI, acquisitions provide potentially greater technology spillovers from the host location institutions and firms, tacit knowledge of skilled employees of the acquired firm and the access to its major global clients. Acquisition of the already approved production facilities (in terms of quality Standards) reduce entry barriers for the products originating from the investor’s domestic R&D efforts (Athreya and Godley, 2009). However, overseas acquisitions (even partial) usually involve sensitive negotiations with the acquired firm’s top management, workers union and sometimes the host government. The negotiating skills and prior international experience of top BG executives are likely to be assets for the internationalization (Guillén and Canal, 2009; Tan and Meyer, 2010).

For BG affiliates, the analysis of threshold levels of ownership-advantages for OFDI, and strategic asset seeking and augmentation through OFDI should be also extended to the Group. A Business Group is likely to evaluate the potential benefits and synergies from an OFDI also from the point of view of the Group as a whole, and not just that of the firm undertaking the OFDI. The likely spillovers to the rest of the Group can be sizeable and thus may be decisive. An OFDI may have multiple intertwined motives. While an OFDI may be asset seeking for the investing firm, it may lead to strategic assets and/or market gains for the Group-related units. Tata Motors’

acquisition of Jaguar and Land Rover (henceforth JLR) e.g. has such favorable implications for the auto components, IT and engineering services units of the Tata Motors Group/ Tata Group.

For a BG-affiliate planning outward FDI, the OFDI undertaken by the Group associates provides intra-Group strength. Rugman and Verbeke (2007) point to greater liability of inter-regional vs. intra-regional global expansion due to many firm-specific assets being somewhat home-region bound. The Group reputation, competencies and market intelligence facilitate the international and inter-regional spread of OFDI by BG affiliates. According to Asmussen et al. (2009), individual host environments may be strong in some dimensions as a centre of excellence while weak in others, having potential for complementarity. We may add that relative to standalone firms, BG-affiliates, by being able to invest in more host locations and regions and by indirectly accessing the foreign resources of their Group associates, are likely to enjoy greater complementarity of resources across different nodes. Also given the parent/ holding company's international trade network – e.g. Tata International for the Tata Group (Goldstein, 2008) – individual BG affiliates need to undertake less of pure trade-supporting OFDI.

### 2.2.2 Empirical Evidence

Most of the large EMNEs seem to be BG affiliates and/or holding companies, as it appears from the extensive literature examining OFDI by emerging market select firms, as case studies. Kaya and Erden (2008) observe the same in the case of Turkish outward foreign investors. However, there is little systematic empirical evidence relating to the impact of corporate Business Group affiliation on OFDI. Bhaumik et al. (2010) report an insignificant effect on the internationalization of assets for Indian automotive and pharmaceutical companies during 2000-06. Kathuria (2010) reports no significant effect on the 'wholly-owned subsidiary versus joint venture' OFDI choice of Indian manufacturing firms during 1992-99. Pradhan and Singh (2011) examine the differential locational patterns of OFDI by standalone and BG-affiliated firms from India during 2000-08. They find that unlike standalone firms, BG-affiliates are significantly attracted to high growth rate and bilateral investment treaty host nations while the cultural proximity is not an important consideration for them. Garg and Delios (2007) find that the advantage of BG affiliation in terms of a lower exit rate (higher survival) of foreign subsidiaries is significant for OFDI in developing host nations, but weak in the developed host context.

The Group affiliation is usually found to favorably impact the exports (Das and Bandyopadhyay, 2003; Singh, 2009). Elango and Pattnaik (2007) find that during 2000-03 among Business Group affiliated firms, *ceteris*

*paribus*, the extent of internationalization of the firm – total revenue from foreign countries to total sales ratio – is positively affected by the degree of internationalization of (the rest of) the parental network, i.e. the Group.<sup>4</sup>

These econometric studies examining the internationalization effects of corporate Business Group affiliation do not exclude the parent/ holding companies from the sample. This approach assumes implicitly that (i) like subsidiaries and associates, the parent or holding company too gains from the Group membership/ rest of the Group's strengths, and (ii) the gains are similar. We adhere to point (i) above. Some subsidiaries and substantial-equity associates of Tata Motors are themselves holding companies and have undertaken OFDI.

### 2.2.3 The Industry

OFDI permits firms from emerging economies to leapfrog into new technologies. The spillover gains from locating in innovation centers and participating in key networks are the highest during periods of technological discontinuity in the industry (Athreye and Godley, 2009). The automotive industry, known to be medium-high tech,<sup>5</sup> has witnessed technological and organizational discontinuities during the last 10–15 years. The stringent emission and safety regulations and quality management standards, severe cost-cutting pressures, the emergence of new final demand and component procurement centers, and the wide-spreading of global and regional value chains have led to a massive global restructuring of both the vehicle and component segments.<sup>6</sup> Also the increasing tierization and modularization and the proximity of final assembly to the end markets have affected the global geography of automotive production (Guillén and Canal, 2009; Singh, 2007; Sturgeon et al., 2009). Globally there has been an R&D shift towards alternative fuels and materials. The vehicle manufacturers are increasingly involving their strategic direct suppliers in the product development.

A significant number of medium-large and big automotive firms from India have achieved the minimum threshold competencies for leapfrogging through OFDI. For the Group affiliated units the Group capabilities in automotive related operations, i.e. in the major downstream/ upstream industries and services are an additional important source of strength. In India, 15 Indian promoter Groups accounted for approx. 57% of auto components production during financial year 2009–10, while MNCs and unorganized sector had 24% and 19% shares (Berger and Bhinde, 2010, p. 3). In the vehicle sector all the private Indian-owned firms or the local strategic partners in local-foreign joint ventures (henceforth JV) are associated with corporate Business Groups; earlier Maruti-Suzuki JV was an exceptional JV through government participation. Some of the Indian BGs, including the



Tata Group, have significant operations in both the vehicle and auto component segments, and in automotive services.

### 3. Tata Motors Local Operations

Tata Motors was initially incorporated as public limited company in 1945 as Tata Locomotive and Engineering Company. In 1954 making a path-breaking decision to enter the automotive sector, it started medium commercial vehicles (henceforth CVs) production under a financial-cum-technical collaboration with Daimler-Benz AG (now Daimler AG), Germany. This collaboration was till 1969. The locomotive business was discontinued in 1971. The company has added to its production portfolio heavy and light CVs since 1983 and 1986, and passenger vehicles since 1991. In early 2000 some company Divisions – axle, gearbox and machine tools Divisions since 1954 – were converted into separate companies. To reflect better its product profile, the company changed its name to Tata Engineering and Locomotive Company (TELCO) in September 1960 and then in July 2003 to Tata Motors Limited (TML). It is a Tata Group company (details in Section 6). It is a widely held listed company with over 3 lakh shareholders.

At present Tata Motors is India's largest automobile company. Tata Motors' revenue (sales net of excise duty, and other income from operations) during Fiscal (April-March) 2010 were Rs. 35,593 crores, i.e. approx. \$8 billion (1 crore = 10 million = 100 lakhs). Its domestic market shares in wholesale volumes were: 16.0, 12.4, 64.8 and 63.3% in passenger cars (including Fiat vehicles distributed since March 2006), utility vehicles, light CVs and medium and heavy CVs respectively; and 25.5% overall in these segments of its operations (Tata Motors, 2010b). Its CV range includes many special purpose vehicles. As a supplier to India's defense and paramilitary forces since 1958, Tata Motors has an extensive customized product portfolio; it launched a mine protected vehicle in February 2010. Tata Motors is the world's 4<sup>th</sup> largest truck-maker and 2<sup>nd</sup> largest bus manufacturer, and aims to be among the top two CV players globally.<sup>7</sup>

Tata Motors operates five principal automotive manufacturing facilities in different parts of India: at Jamshedpur, Jharkhand (production since 1945); at Pune, Maharashtra (1966); at Lucknow, Uttar Pradesh (1992); at Pantnagar, Uttarakhand (2008); and at Sanand, Gujarat (2010) – the first three being ISO/TS 16949:2000 certified (Tata Motors, 2010b). Its subsidiary Tata Marcopolo Motors Ltd. manufactures 'Tata Marcopolo' buses at Dharwad in Karnataka and at Lucknow (having combined plant capacity of 15000 bus bodies) under a 51: 49% JV concluded with Marcopolo S. A., Brazil in 2006. Following a strategic alliance with Fiat Group Automobiles S.p.A



Italy, Tata Motors has a 50: 50% JV (associate), Fiat India Automobiles Limited since 2007; it has manufacturing facility in Ranjangaon, Maharashtra for producing Tata and Fiat branded cars as well as engines & transmissions for use by both partners. Tata Motors is a signatory to the United Nations Global Compact, and is engaged in community and social initiatives on labor and environment standards.

### **Technology Acquisition and Internationalization through Exports**

Since inception Tata Motors has emphasized in-house R&D and selective technology import. It has also established JVs in India with multinationals (for details see e.g. Balcet and Bruschi, 2008; Kathuria, 1996; Pradhan and Singh, 2008). During its 1954–1969 collaboration with Daimler Benz, Tata Motors was quick to absorb and adapt the technology. Subsequently in terms of foreign collaboration in India with global vehicle manufacturers, Tata Motors has tried to be largely a self-sufficient automobile company. It had a short JV with Daimler-Benz for car assembly during 1994–2001.

In recent years, Tata Motors has continuing JVs with Marcopolo since 2006 for bus manufacturing and with Fiat since 2007 for cars, and engines and transmissions. A large number of its technical collaborations have been for engine and transmission development (TML Annual reports various years, Annexure on Technology Absorption). It has also been importing technology from foreign automotive research and designing institutes, e.g. Institute of Development in Automotive Engineering S.p.A Italy, and M/s Stile Bertone, Italy. The designing and styling know-how is important to Tata Motors as it has advanced from producing only sturdy value-for-money commercial vehicles to passenger vehicles and commercial vehicles having state-of-the-art exteriors too. Tata Motors has also been engaging intensively in knowledge-seeking OFDI in manufacturing units and research/technical establishments. Tata Motors also leverages the competencies of design teams of its suppliers.

Tata Motors has 4 well-equipped R&D centers in India; the one at Jamdeshpur was set up in 1959. The Engineering Research Centre, or ERC, established in 1966, is one of the few governments recognized in-house automotive research and development centers in India (Tata Motors, 2010b, pp. 24–25). Tata Motors has modern testing facilities for vehicle crash, pedestrian safety, pendulum impact, and bus rollover, as well as hemi-anechoic chamber testing noise and vibration levels and engine emissions. Tata Motors has exhibited a steep learning curve; its concurrent engineering initiative has reduced its product development cycle time (Bowonder, 2004). In designing its vehicles Tata Motors has laid emphasis on lower life-cycle cost and sturdiness of the vehicle.

Tata Motors has to its credit India's first indigenously developed light CV (1986) and sports utility vehicle (1998), India's fully indigenous passenger car '*Indica*' (1998), India's first mini truck '*Ace*' (2005) and many more products (see Tata Motors – Rearview.htm, Tata Motors website). Venugopal (2001) provides a succinct description of Tata Motors success in developing and manufacturing '*Indica*' car. This happened through: experience from Daimler collaboration for CVs; emphasis on R&D, and the Engineering Research Centre having world-rated facilities, and undertaking designing of vehicles, machine tools, fixtures and other equipment; Sumant Maolgaokar, TELCO chairman (for 1970–1998; in 1998 after his retirement, Ratan Tata took over); the capabilities of Tata Motors auto related Divisions, subsidiaries and associates, e.g. its machine tools Division; emphasis on skills, and training on imported machinery; and the Tata Group's financial support.

Since 2008 Tata Motors has developed and launched many new products (see Section 5). In the recent years Tata Motors has been pursuing the development of vehicles running on alternative fuels, including hybrid vehicles, and electric vehicles, and working intensively in the area of vehicle electronics like telematics and tracking. The company was granted 11 patents in Fiscal 2008. During Fiscal 2009 and 2010 Tata Motors was granted 6 patents in each year; also 73 and 30 designs, and 3 and 34 copyrights respectively were registered to Tata Motors.

**Table 1.** Tata Motors' Technology Acquisition and Export Intensities, 2002-03 to 2009-10

	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Size:								(Rs. crore)
Net turnover <sup>a</sup>	9111	13282	17585	20891	27470	28739	25630	35593
<b>Consolidated</b> net turnover <sup>b</sup>	9628	13981	19667	23962	32361	35928	70881	92519
R&D expenditure:								
a) charged to profit & loss a/c	57.84	118.05	128.45	132.21	160.13	138.56	54.32	81.75
b) capitalised during the year <sup>c</sup>	85.16	33.83	264.89	343.91	636.73	1057.41	1422.29	1089.22
Total R&D expenses	143.00	151.88	393.34	476.12	796.86	1195.97	1476.61	1170.97
R&D intensity <sup>d</sup> (%)	1.57	1.14	2.24	2.28	2.90	4.16	5.76	3.29
Technology Import remittances:								
i) Technical Know-how fees & Royalty <sup>d</sup>	29.90	16.77	76.89	91.56	188.88	172.21	160.60	217.59
ii) Consultancy/ Professional charges	-	-	30.99	28.18	64.07	112.12	110.73	113.44
Total Tech-Import remittances	29.90	16.77	107.88	119.74	252.95	284.33	271.33	331.03
Tech-Import Intensity <sup>e</sup> (%)	0.33	0.13	0.61	0.57	0.92	0.99	1.06	0.93
Exports (f.o.b.)	458.07	1006.32	1452.69	2196.69	2687.30	2754.05	2206.43	1921.48
Export intensity <sup>e</sup> (%)	5.03	7.58	8.26	10.51	9.78	9.58	8.61	5.40

Source: Tata Motors Annual Reports, various years.

Notes: <sup>a</sup> One crore = 10 million. Net turnover is net sales (net of excise duty) and other income from operations.

<sup>b</sup> Consolidated net turnover in 2008-09 covers the period June 2, 2008 (since acquisition) to March 2009 for Jaguar Land Rover.

<sup>c</sup> For 2002-03 and 2003-04 we computed it as total R&D minus the expense charged to profit & loss a/c.

<sup>d</sup> Royalty mentioned only for 2002-03.

<sup>e</sup> Ratio to the company net turnover.

Considering the period 2002-03 to 2008-09, the R&D expenditure by Tata Motors has risen consistently, becoming 10-times over this period; there is also a substantial increase in the R&D intensity from 1.57% to 5.76% (Table 1). Notably, the R&D expenditure has been almost entirely on capital account. The technology import intensity too has increased, hovering around 1% in more recent years. The decline in the R&D expenditure in 2009-10, an aberration, may be due to: grappling with the financial implications of acquisition of JLR; global recession; years 2007-08 and 2008-09 being marked by particularly heavy R&D expenses – on ‘Nano’ car, ‘Prima’ CV, and hybrid technology projects; at present much emphasis on developing technology at JLR research centers for more fuel-efficiency and environment-friendliness of JLR vehicles. In Fiscal 2008, 2009 and 2010 Tata Motors alone had total capital expenditure of respectively 51, 101 and 97 billion rupees on ‘product development, capacity expansion & plant modernization’ (Tata Motors, 2010b, p. 60) – being 17.88%, 39.48% and 27.25% as ratio to net turnover.<sup>8</sup>

Tata Motors export operations have been continuing since 1961. It exports vehicles to many countries in Europe, Africa, Middle East, SE Asia and S. Asia. However, 80% and 78% of CVs and passenger vehicles exported from India in Fiscal 2010 went to just the top 5 destination countries (Tata Motors, 2010b). While the export intensity doubled from 5.03% in 2002-03 to 10.51% in 2005-06, it has fallen in Fiscal 2009 and 2010 (Table 1), probably due to the global recession. In 2008–09 Tata Motors had Rs. 1.39 billion foreign exchange earnings on account of transfer of technology – a remarkable internationalization step.

#### 4. OFDI by Tata Motors

Along with acquiring threshold competencies for being a foreign investor, Tata Motors Limited (TML) has accelerated its outward foreign direct investment since 2004, and this recent OFDI has been predominantly for vehicle manufacturing and/ or R&D. Since much earlier Tata Motors has some foreign operations for assembly of CVs, e.g. since 1991 in Bangladesh. By then Tata Motors had ample expertise by way of appropriate production technology and frugal engineering for sturdy-cum-inexpensive CVs required by developing economies. Section 4.1 discusses details of only the recent OFDI (since 2004) at the time of investment, also referring to the associated motives and the assets acquired or established. Section 4.2 evaluates the overall quantitative importance of international operations of the Tata Motors Group. The OFDI enterprises develop over time and facilitate the expansion

of existing international and domestic operations of the MNE. These issues are analyzed in Section 5.

#### 4.1 OFDI Enterprises

*Daewoo Commercial Vehicle Co. Limited, TDCV, S. Korea:* As a major step towards globalization, Tata Motors in March 2004 acquired Daewoo Commercial Vehicle Company – a spin-off of Daewoo Motor Company in 2002. It had to convince Daewoo CV stakeholders of Tata Motors and the Tata Group’s technological capabilities and good corporate governance. This company at Gunsan, South Korea having 20000 CVs plant-capacity was acquired for about \$102 million (KRW 120 billion) and re-christened Tata Daewoo Commercial Vehicle Company Limited, TDCV. It had a wide product range of heavy CVs with high power to weight ratio complementing as a strategic fit Tata Motors product portfolio in the CV segment. Tata Motors also saw an opportunity to sell light and medium CVs produced by Tata Motors in India to Korean and other markets (especially in South Asia) through TDCV. Along with the Gunsan plant, Tata Motors also acquired the right for perpetual, exclusive and royalty-free use of the “Daewoo” brand and trademarks in Korea and abroad for the TDCV products.

*Tata Hispano Motors, Spain:* In February 2005 Tata Motors acquired a 21% stake – as 21: 79% JV with Investalia S. A., Spain, having a call option for the remaining equity – in Hispano Carrocera S. A., a leading Spanish bus manufacturing company. The total cost was Euro 12 million, including the technology licensing. Tata Motors acquired the balance 79% equity of Hispano Carrocera in October 2009, and renamed it Tata Hispano Motors Carrocera S.A. Tata Motors continues to own the brand rights of Hispano. The acquired Hispano Carrocera has an in-house product development facility for buses and coaches. Its manufacturing unit in Spain caters to the European and nearby markets, and that of its wholly owned subsidiary, Carrosseries Hispano Maghreb, Morocco caters to North African markets; their plant-capacities are respectively 330 and 240 ‘buses and bus bodies’. Tata Motors’ Hispano acquisition is expected to strengthen its existing capabilities for bus manufacturing in India through its JV with Marcopolo and associate Automobile Corporation of Goa Ltd. Tata Motors (2010b, p. 21): “We believe that our subsidiary Hispano, with its design and development capabilities in manufacturing bodies for high-end buses, will complement our current range of light and medium commercial passenger carriers.” In recent years the luxury bus and coach segment has been promising in India in view of the emphases on infrastructure under the national highway development schemes, and tourism. Also, through Hispano acquisition, Tata Motors expects to get a foothold in the European luxury bus markets.

*Tata Motors European Technical Research Centre, TMETC, UK:* In September 2005 Tata Motors set up a 100% subsidiary Tata Motors European Technical Centre, TMETC, UK to work in synergy with Tata Motors' Engineering Research Centre, ERC, at Pune. The aim was to gain access to leading-edge technologies and support for Tata Motors' product development activities by way of automotive product engineering services. "TMETC is a window to European design and engineering talent" (Managing Director, TMETC in an interview to *Auto Monitor*, February 21, 2007). TMETC, UK has attracted professionals – previously engaged outside India in designing and developing vehicles for several European automotive majors – who might have been reluctant to relocate to India for joining Tata Motors. Tata Motors' and the Tata Group's engineering and technical strengths and corporate governance were important considerations for their joining TMETC.

In October 2008 TMETC acquired 50.3% shareholding (acquisition cost Kroner 12 million) in Miljø Grenland, Norway. In October 2009, Miljø Grenland's 100% subsidiary Miljo Innovasjon merged with it. At present Miljobil Greenland/ Innovasjon is an indirect subsidiary of Tata Motors with 71.69% holding. This is a strategic acquisition as currently the electric vehicles is a major R&D focus area for Tata Motors. Miljobil Greenland/ Innovasjon specializes in the development of electric vehicles, and manufacture of lithium ion batteries for electric vehicles. "We gained access to what we believe are leading edge propulsion and electric energy systems through our investment in Miljobil Grenland –, by TMETC" (Tata Motors, 2010b, p. 24).

*Tata Motors (Thailand) Limited:* In December 2006, Tata Motors entered into a JV agreement with Thonburi Automotive Assembly Plant Co Ltd., Thonburi, Thailand to manufacture pickup trucks in Thailand. Through this OFDI, Tata Motors hopes to access the Thailand market, a major market for pickup trucks, and other potential markets in that region. Currently, Tata Motors owns 86.78% equity (in Fiscal 2010 raised to 81.36%, up from initial 70% till Fiscal 2009), while Thonburi owns the remaining 13.22%. This greenfield subsidiary having 25000 units plant-capacity began production in March 2008.

*Jaguar Land Rover, JLR, UK:* On June 2, 2008 Tata Motors acquired from Ford the global businesses relating to Jaguar and Land Rover – developers and manufacturers of high end luxury cars and sports utility vehicles respectively. It included: three major manufacturing facilities (one component facility too); two advanced design and engineering centers in the United Kingdom with testing and prototyping facilities; a worldwide sales and dealership network (sales in more than 100 countries and over 2,200 dealers); and intellectual property rights, patents and trademarks. Tata Motors acquired

ownership/co-ownership of core intellectual property, and additionally, perpetual royalty free licenses to use other essential intellectual properties in Jaguar and Land Rover vehicles. In June 2008 long term agreements were entered with Ford for technology sharing and joint development providing technical support focused mainly around powertrain engineering, and 7-9 years supply of engines (Tata Motors, 2010b, p. 60).

“Acquisition of JLR provides the Company with a strategic opportunity to acquire iconic brands with a great heritage and global presence, and increase the Company’s business diversity across markets and product segments.” (Tata Motors Annual Report 2007–08, p. 16). At the time of JLR acquisition, Tata Motors believed that Jaguar was at the ‘cusp’ of growth with a pipeline of promising model line-ups (*Auto Monitor* sources); however, there were important concerns, viz. persistent losses prior to the acquisition; and rather high CO<sub>2</sub> emissions of the JLR fleet (Pradhan and Singh, 2008).

The acquisition consideration of approximately Rs. 107.65 billion (\$2.5 billion; net \$2.3 billion) was initially financed through a bridge loan facility provided by a syndicate of banks. During calendar 2007 the JLR combined sales volume was around 288 thousand vehicles. At the time of the JLR acquisition, JLR having 16,000 employees across the world was bigger than the then Tata Motors Group consolidated in value terms. During April 2007 to March 2008, the JLR combined estimated revenue was \$15.55 billion (calculation based on Tata Motors Annual Report 2007–08, p. 16); Tata Motors net revenue and consolidated net revenue were respectively Rs. 287.39 billion and Rs. 359.28 billion (below \$10 billion). Thus it is a relatively massive OFDI by TML. This acquisition has been challenging for TML, rendered unpredictably more difficult by the global recession. However, this acquisition would have been almost unthinkable if Tata Motors was a standalone firm, *ceteris paribus*. Tata Motors had behind it the competitive strengths of its own Group and those of the Tata Group.

The simultaneous aiming at being the lowest cost car producer (e.g. the small car ‘Nano’) and acquiring the luxurious JLR brands may appear incongruous (Goldstein, 2008). However, we view this acquisition as a medium/long-term strategy. There are economies of scale and scope across different vehicle sub-segments. There are potential positive spillovers from the JLR acquisition for the technological and designing upgradation of Tata Motors CVs, and for the premium cars expected to be introduced in India. For a long time Tata Motors has been consistently improving the technical specifications and exterior of its vehicles produced in India. Also, all previous OFDI by Tata Motors for overseas production was in the commercial vehicles segment. Tata Motors has been producing commercial vehicles in India since 1954 and exporting these since 1961. Though it has produced cars in India since



1991 in foreign collaboration, its car manufacturing operations started significantly in the late 1990s with 'Indica', its indigenously developed car. By 2007 Tata Motors had rolled over one million passenger cars off the *Indica* platform (Pradhan and Singh, 2008). Yet it was little known globally in the passenger vehicle segment where the brandname and company name counts a lot. In early 2000s Tata Motors concluded a few marketing agreements with Rovers, UK (in December 2002), and others for the export of passenger vehicles, but the sales were under the collaborator's name. Though the company is still carrying on the JLR business with the Jaguar and Rover brandnames as earlier, the JLR acquisition would substantially enhance the global visibility of Tata Motors in this segment, implying the motive of seeking prestige as a strategic asset. Along with this, the extensive international distribution network of JLR is likely to increase the exports of passenger and other vehicles produced by Tata Motors at home to different countries.

*Trilix, Italy:* As per the company release (dated 4<sup>th</sup> October 2010), Tata Motors has acquired 80% stake in Trilix Srl., Turin (Italy), a design and engineering company, for a consideration of €1.85 million. The remaining 20% stake is equally held by its three promoters. This profit-earning firm had €1 million turnover in 2009. The acquisition is aimed at enhancing Tata Motors styling/design capabilities to global standards. Trilix offers design and engineering services in the automotive sector, specifically styling, architecture, packaging, surfacing, macro and micro feasibility, and detailed engineering development. Trilix has earlier worked with Tata Motors on several projects and is thus familiar with those design and product developments.

The above discussion points to strategic assets seeking nature of Tata Motors recent major OFDI, though it has been partly market-seeking as well. Besides, Tata Motors has franchisee/JV vehicle assembly operations in Bangladesh, Kenya, Ukraine, Russia, Senegal and South Africa, which are essentially market-seeking for CVs. Among these, Nita Company Ltd, Bangladesh, a minority (40%) JV since 1991, assembles Tata brand CVs. Tata Motors acquired the Nissan assembly line in South Africa in March 2007 (Goldstein, 2008, p. 49). Subsequently Tata Motors (SA) Proprietary Limited, a 60:40 JV with Tata Africa Holdings (SA), was incorporated in December 2007; it is expected to commence operations shortly.

## 4.2 Overall Operations outside India

Tables 2-5 highlight the overall extent of internationalization of the Tata Motors Group. At present (Fiscal 2010) about 59% of consolidated revenues of Tata Motors and its subsidiaries are from sales outside India (Table 2). The proportion of non-current assets (property, plant and equipment, intangible

assets and goodwill) located outside India is similarly high, at about 56% (Table 3); over 51% of these Group assets are concentrated in the UK only. A considerable proportion of the UK assets are in the form of intangibles purchased as part of the JLR acquisition (Table 3, Note a). Complete separate information on tangible fixed assets and intangibles by geographic area is not available.

There has been a truly remarkable jump since 2007–08 in the extent of internationalization of sales by Tata Motors Group. Following the inorganic growth associated with the JLR acquisition, the Tata Motors Group's consolidated revenue and the proportion of sales outside India have risen substantially (Table 2). The USA and UK revenue shares have increased respectively from mere 1.6% and 0.4% to 10.8% and 12.6% in 2009–10.

The JLR business is quite sizable in relation to the parent company Tata Motors' standalone activities; it is in fact slightly bigger than the rest of the Tata Motors Group, i.e. excluding JLR (Table 4). The JLR vehicle business alone constitutes 53% of Tata Motors Group's consolidated revenue (Table 4). In Fiscal 2010 the JLR business contributed 54.7% of Tata Motors Group's consolidated automotive revenues (before inter-segment elimination), the Tata and other brand vehicles in India and outside India (including spares and financing thereof) contributed the remaining 45.3% of this revenue. The JLR volume and value shares differ substantially due to the JLR vehicles being luxury/premium-range. In Fiscal 2010 Tata Motors Group sold about 870 thousand vehicles. The percentage shares are respectively 22.3% of JLR vehicles (5.5% Jaguar and 16.8% Land Rover vehicles) and 77.7% of Tata and other brand vehicles sold in India and abroad (i.e. including Tata Daewoo and Fiat traded vehicles). It is clear from Table 5 that Tata Motors automotive turnover through OFDI is mainly from its JLR business, accounting for 94% value share; Tata Daewoo, Korea contributes 5%. The other OFDI units are much smaller in comparison.

**Table 2.** Tata Motors Group: Consolidated Revenue by Geographic Area

Area	Year ending March 31					
	2008		2009		2010	
	Rs. million	%	Rs. million	%	Rs. million	%
<b>India</b>	<b>298,315</b>	<b>80.6</b>	<b>272,889</b>	<b>37.8</b>	<b>380,846</b>	<b>41.1</b>
USA	5,973	1.6	60,070	8.3	100,018	10.8
UK	1,576	0.4	167,605	23.2	116,646	12.6
Rest of Europe	12,091	3.3	91,071	12.6	131,358	14.2
Rest of the World	52,300	14.1	131,171	18.1	197,395	21.3
<b>Total</b>	<b>370,255</b>	<b>100</b>	<b>722,806</b>	<b>100</b>	<b>926,263</b>	<b>100</b>

Source: Tata Motors (2010b), pp. 43 and F-85.

Note: These are net sales to external customers by geographic area by location of customers.

**Table 3.** Tata Motors Group: Non-current Assets (Property, Plant & Equipment, Intangible Assets and Goodwill) by Geographic Area

Area	Year ending March 31			
	2009	2010		
	Rs. million	Rs. million	\$ million	%
<b>India</b>	<b>150,240.8</b>	<b>168,557.3</b>	<b>3,754.0</b>	<b>44.16</b>
USA	2,180.6	1,921.4	42.8	<b>0.50</b>
<b>UK<sup>a</sup></b>	<b>180,977.9</b>	<b>197,383.7</b>	<b>4,396.1</b>	<b>51.71</b>
Rest of Europe	5,415.3	1,358.3	30.3	<b>0.36</b>
Rest of the World	11,760.7	12,457.9	277.5	<b>3.26</b>
<b>Total</b>	<b>350,575.3</b>	<b>381,678.6</b>	<b>8,500.7</b>	<b>100.00</b>

Source: Tata Motors (2010b), pp. F-62, F-63 and F-86.

Note: <sup>a</sup> Of the JLR acquisition purchase price, the recognized amount of acquisition included Rs. 101,622 million of property, plant and equipment, and Rs. 74,724 million of intangibles (indefinite life trademarks and brands, Rs. 51,570 million; patents and technical know-how, Rs. 12,260 million; customer related intangibles, Rs. 7,399 million; in-process R&D, Rs. 1,903 million; and software, Rs. 1,592 million).

**Table 4.** Tata Motors Group: Product Revenues

Area	Year ending March 31				
	2008	2009	2010		
	Rs. million	Rs. million	Rs. million	\$ million	%
Tata and Fiat vehicles	286,823.6	253,673.7	356,230.7	7,933.9	<b>38.46</b>
Jaguar Land Rover vehicles <sup>a</sup>	—	390,889.1	491,738.9	10,951.9	<b>53.09</b>
Tata Daewoo commercial vehicles	30,308.3	25,184.8	26,455.2	589.2	<b>2.86</b>
Hispano buses and coaches	1,892.3	1,601.7	1,473.1	32.8	<b>0.16</b>
Finance revenues	17,566.6	20,170.3	21,796.9	485.5	<b>2.35</b>
Construction equipment	24,097.0	21,416.8	21,109.3	470.1	<b>2.28</b>
Others	9,567.0	9,869.9	7,458.7	166.1	<b>0.81</b>
<b>Total revenues</b>	<b>370,254.8</b>	<b>722,806.3</b>	<b>926,262.8</b>	<b>20,629.5</b>	<b>100.00</b>

Source: Tata Motors (2010b), pp. 42 and F-86.

Note: <sup>a</sup> For Fiscal 2009 the JLR figures are for June 2, 2008 to March 31, 2009.

**Table 5.** Tata Motors: Automotive Turnover Abroad through OFDI (Rs. crore)

Overseas Subsidiary	Turnover		
	2008-09	2009-10	%
TML Holdings Pte Ltd, Singapore (consolidated; representing Jaguar Land Rover business <sup>a</sup> )	39270.70	49344.21	<b>94.03</b>
Tata Daewoo Commercial Vehicle Co. Ltd, South Korea	2540.77	2733.78	<b>5.21</b>
Tata Motors European Technical Centre Plc., UK (consolidated)	147.58	177.29	<b>0.34</b>
Tata Motors (Thailand) Ltd, Thailand	37.55	152.33	<b>0.29</b>
Tata Hispano Motors, Spain (consolidated)	-	67.38	<b>0.13</b>
<b>Total</b>	<b>41996.60</b>	<b>52474.99</b>	<b>100.00</b>

Source: Tata Motors Annual Reports 2008-09 (pp. 30 and 50) and 2009-10 (pp. 50-51).

Note: <sup>a</sup> The 2008-09 figure covers the period June 2, 2008 (since acquisition) to March 2009.

The importance assigned at present to the international operations of the company also reflects in the appointment of Mr. Carl-Peter Forster as the Group CEO in February 2010, entrusted with the overall responsibility of Tata Motors operations globally, including Jaguar Land Rover. Further he has also been appointed as the managing director of Tata Motors since April 2010 (note: MD, India Operations is separate). He has 24 years of international experience in the automobile industry. Previously he was the CEO of General Motors, Europe, and prior to that, was on the Managing Board of BMW, responsible for worldwide manufacturing, including the Rover Group operations, and product engineering projects (Tata Motors, 2010b, p. 65).

## 5. The Tata Motors Group

This Section dealing with the Tata Motors Group highlights its overall strengths and progress in recent years, especially in terms of technological competencies. The Tata Motors Group – i.e. Tata Motors Limited and its (above 50% equity) subsidiaries – had consolidated revenues of Rs. 925 billion (approx. USD 20 billion) in 2009-10, as seen in Table 1.<sup>9</sup> As of March 31, 2010, Tata Motors Group had approximately 50 thousand permanent employees (51% in consolidated subsidiaries; 36% located abroad) and approx. 25 thousand temporary employees (Tata Motors, 2010b). Tata Motors Group

operates primarily in the automotive sector – having activities relating to development, design, manufacture, assembly and sale of vehicles including financing thereof, as well as sale of related parts and accessories. For Fiscal 2010, revenue from automotive operations before inter-segment eliminations was Rs.896 billion, accounting for 96.9% of the total revenue. According to ‘*Brand Finance (UK) and Economic Times (India)*’, in 2010 Tata Motors-JLR had the top brand value in India, with \$8.45 billion brand equity (5<sup>th</sup> rank, \$3.1 billion in 2009). Tata Motors has been included for the first time in the *Fortune 500* global companies in 2010, with the Group revenue of \$19.5 billion in 2009 and rank 442.

According to Tata Motors (2010a), in terms of vehicle manufacturing worldwide base, Tata Motors has established or acquired 7 plants abroad since 2004 with a total capacity of 399 thousand vehicles – Tata Daewoo (1 in Korea), Tata Motors Thailand (1 in Thailand), Tata Hispano Motors (1 in Spain and 1 in Morocco) and JLR (3 in UK). At the same time Tata Motors has also rapidly expanded its domestic capacity. By March 2005 it had an aggregate capacity to manufacture 515 thousand vehicles in its 3 domestic plants. In the next 5 years it has expanded capacity at the existing domestic plants and set up another 3 plants in India, and has now an aggregate domestic capacity to manufacture 1275 thousand vehicles. Besides, the company also shares capacity with Fiat at its 50:50 JV plant in India. Thus the Tata Motors Group’s vehicle manufacturing capacity worldwide overall has more than trebled since March 2005, and the ratio of foreign to total capacity of vehicle manufacturing is at present above 20%.<sup>10</sup> The domestic plants at Jamshedpur, Pune, Uttarakhand and Lucknow are already OHSAS-18001 certified for organizational health and safety, and all Jaguar Land Rover sites have been prepared to commence the process for OHSAS-18001 certification.

Tata Motors Group has core competencies in the engineering field and IT services. Through its subsidiaries and associates, Tata Motors is engaged in engineering and automotive solutions, construction equipment manufacturing, automotive vehicle components manufacturing and supply chain activities, machine tools and factory automation solutions, high-precision tooling and plastic and electronic components for automotive and computer applications, and automotive retailing and service operations. Tata Motors Group’s ‘non-automotive’ operations are closely related to the company’s main business, i.e. automotive production. Tata Motors’ related party transactions are substantial. Excluding purchases from own subsidiaries, the purchases from equity associates and JVs during Fiscal 2010 were Rs. 28 billion and Rs. 32 billion (source: Tata Motors, 2010b, p. F-86).<sup>11</sup>

On 31<sup>st</sup> March 2010 Tata Motors had 65 direct and indirect subsidiaries (Tata Motors, 2010a, pp. 50–51, 106). Apart from 10 (direct) subsidiaries domestically, it had 55 foreign subsidiaries: 6 direct and 49 indirect (38 of

JLR; 1 of Tata Hispano; 1 of TMETC; 9 of Tata Technologies Limited, India, in which Tata Motors has 81.36% shareholding). The JLR trading subsidiaries have a wide international spread, being in North America, Germany, France, Russia, Italy, France, China, South Korea, Brazil, South Africa etc. The rapid recent internationalization associated particularly with the JLR acquisition is evident, given that on April 1, 2008, Tata Motors had only 30 direct and indirect subsidiaries (including domestic). Some subsidiaries have been merged or liquidated in Fiscal 2009 and 2010.

Tata Motors has also equity associates in India and abroad which add to the effective Group strength enjoyed by Tata Motors.<sup>12</sup> Tata Cummins (producing engines) and Fiat India are its 50:50 JVs in India. Tata AutoComp Systems (TACO) produces auto components. Automobile Corporation of Goa produces sheet metal components and bus bodies. TELCON produces construction equipment. Nita Co. Ltd., Bangladesh, a 40% equity associate, assembles Tata CVs. Jaguar Cars Finance Ltd., UK is a 49.90% associate. Again Tata Motors has a 49.99% shareholding in Tata Precision Industries Pte. Ltd., Singapore, which manufactures high precision tooling and equipment for computer and electronics industries. We discuss below the competitive strengths of Tata Motors' major domestic automotive-related subsidiaries and associates.

### 5.1 Domestic Subsidiaries and Associates

*Tata Technologies Limited, TTL* is a global leader in Engineering Services Outsourcing, and Product Development IT services solutions for Product Lifecycle Management and Enterprise Resource Management primarily to the world's leading automotive and aerospace manufacturers and their suppliers. TTL has a global workforce of over 4000 professionals. In March-end 2010 TTL has 9 functional subsidiaries and two offshore development centers in India and Thailand (Tata Motors, 2010b). In Fiscal 2010 Tata Technologies Group had a consolidated turnover of about Rs. 11 billion, including about Rs. 6.9 billion turnover of its foreign subsidiaries. About 35% of its consolidated income is from USA. Tata Hal Technologies Ltd., India – a 50:50 JV between TTL and HAL, India – having 3600+ professionals, provides engineering and design solutions and services for aerostructures.

Tata Technologies was incorporated in 1994, and became a subsidiary of Tata Motors (TELCO) in 1997. In October 2005 Tata Technologies acquired 100% equity of INCAT International Plc, UK, which had subsidiaries in US, Europe, Japan and Singapore. This acquisition supported by Tata Motors was aimed at integrating engineering and design services skills into the automotive business (Goldstein, 2008). Earlier INCAT International got formed



in 1998 by merging INCAT, UK and Integrated Systems Technologies, USA. Thus with the combined expertise, resources and experience, the Tata Technologies Group has world class developed and acquired competencies in its domain.

Tata Motors has undertaken several IT initiatives, like e-commerce, with the assistance of TTL.<sup>13</sup> Tata Technologies is a strategic partner for strengthening the designing and engineering IT capabilities in Tata Motors Group. TTL has contributed to the frugal engineering and lean design of Tata 'Nano' car. TTL is involved in JLR's program to re-engineer Product Creation capability. At present the Tata Technologies Group's clients include Boeing, Airbus, Dow Automotive, JLR and Genovation Cars. TTL has a multi-year contract with JLR for providing a wide range of application management services and Product Lifecycle Management products and services. Genovation Cars Inc., US has contracted TTL to design and prototype its G2 model; Genovation's G1 model is an electric conversion of a Ford 'Focus' (TTL sources).

*HV Axles Ltd* and *HV Transmissions Ltd* are at present 85% subsidiaries of Tata Motors, and are major suppliers of axles and transmissions for medium and heavy CVs to Tata Motors. These units started operations in 1954 as axle and gearbox Divisions of the company for its CVs, and were converted into separate companies in March 2000. Both are certified under ISO/TS-16949, ISO-14001 and OHSAS-18001, employ high-tech machines including a large number of CNC machines, and have in-house tooling facility. HV Axles has fixture designing facility too, while HV Transmissions has a modern heat treatment shop. *TAL Manufacturing Solutions Ltd* was incorporated in early-March 2000 and acquired Tata Motors' (TELCO) Machine Tool and Equipment Building Division on March 30, 2000. This wholly-owned subsidiary of Tata Motors provides factory automation solutions, and designs and manufactures machine tools and computer equipment.

*Tata AutoComp Systems Limited, TACO* is an associate of Tata Motors; Tata Sons and Tata Industries are its other promoters. In Fiscal 2009 Tata Motors reduced its equity stake from 50% to 26% through a related party sale. Established in 1995 as a Tata Group company, TACO – a holding company for subsidiaries and JVs with major auto component MNEs – has at present 7 subsidiaries and 9 affiliates. TACO has undergone much restructuring in the last 2-3 years. TACO had a turnover of Rs. 34 billion in Fiscal 2010; about 2/3<sup>rd</sup> of its sales are to Tata Motors. TACO has overseas facilities for manufacturing and assembly of interior plastic products through its 100% subsidiaries TACO Kunststofftechnik, TKT, Germany, and Nanjing Tata AutoComp Systems Limited, China. TKT was formed by acquiring Wüdsch Weidinger in September 2005, costing €7 million, to gain access

to European markets. The acquired 'ISO/TS 16949 certified plastic components manufacturing facility' offered a development tool shop, precision injection moulding, surface enrichment and assembly operations (Pradhan and Singh, 2008). Nanjing TACO, a greenfield subsidiary incorporated in 2007, started operations in July 2008. TACO has engineering centers in India and Japan, and a technical centre of TACO-IPD (Interiors and Plastics Division) in India.

TACO has made significant contributions to the engineering, design and supply of components to the Tata 'Nano' car and 'Prima' CVs – particularly bumpers, dashboard, cockpit, seating system, battery for 'Nano' and advanced seating system, wiring harness, mirrors, bumpers and front grille for 'Prima' (TACO sources). The TACO design and engineering teams have been involved since the inception of these projects. For Tata Motors the involvement of Group enterprises (vs. independent vendors) for the designing of components may imply greater speed and technology secrecy. TACO has planned an investment of Rs.3 billion in Fiscal 2011 to set up new plants and upgrade the quality and technology. TACO's five new plants in the Tata 'Nano' car vendor park at Sanand are operational or near completion. Tata Technologies subsidiaries and TACO have formed a strategic alliance to supply both vehicle design services and required component manufacturing within their respective markets.

*Automobile Corporation of Goa Ltd (ACGL)*, a listed company, is Tata Motors' 42.37% associate (stake raised over time), controlled jointly with EDC, an enterprise of Goa Government, holding 6.31% shares on September 30, 2010. It manufactures sheet metal components, assemblies and (primarily) bus coaches, and also exports these items. Incorporated in 1980, ACGL started with sheet metal components productions in 1982. It entered into a technical collaboration with Fuji Heavy Industries Ltd, Japan, makers of Subaru car for chassis mounted bus body building in 1988, and another agreement in 1995 for Monocoque buses. All manufacturing plants of AGCL have quality management certification; the sheet metal Division at Honda, Goa was TS16949-2002 certified in 2005, and the Bus Body Division and Jejuri Pressing Unit received this certification in 2008. *Tata Cummins Limited*, incorporated in July 1993, is a 50:50 JV between Tata Motors and Cummins, USA. It designs and manufactures diesel engines; Tata Motors is the main customer for use in its medium & heavy commercial vehicles. In a related area, *Telco Construction Equipment, TELCON*, having 4 subsidiaries and affiliate, is Tata Motors' 40% associate since February 2010 (earlier a subsidiary; source: Tata Motors, 2010b). In recent years it has made 2 acquisitions in Spain; these wholly-owned manufacturing subsidiaries have manufacturing/

trading OFDI subsidiaries. It is clear thus that Tata Motors domestic subsidiaries and equity associates fortify its competitive strengths.

## 5.2 Development of OFDI enterprises

Having discussed in Section 4 the assets acquired or initially established abroad by Tata Motors since 2004, we describe now important subsequent developments relating to the major OFDI enterprises, and also evaluate the contribution of these enterprises to the new products developed by the Tata Motors Group in recent years. We may quote: "Tata Motors Limited is in the process of managing the global automotive business with an integrated and synergic strategy. Towards this objective, various steps have been initiated/being taken which mainly include sharing of resources, platforms, facilities for product development and manufacturing, sourcing strategy and mutual sharing of best practices" (Tata Motors, 2010b, p. 15). Along with synergizing their technical capabilities, skills and marketing geographies, Tata Motors has also identified sources of components and engineering & IT services from India, including from within Tata Motors (e.g. for JLR).

The literature on OFDI by EMNEs points to their leveraging the existing resources and an active augmentation of the firm-specific advantages. We emphasize that along with the domestic assets the existing OFDI is leveraged for expanding the firm's OFDI. Again the new OFDI contributes to the development of domestic as well as the existing OFDI enterprises. For example, prior to the JLR acquisition Tata Motors had confidence in the competencies of both its Engineering Research Centre, Pune, India and Tata Motors European Technical Centre (TMETC), UK. To turn around Jaguar Land Rover business it is essential to develop fuel-efficient and environment-friendly vehicles. Again as hybrid vehicles are an option for this purpose, the resources of Miljobil, acquired a few months after the JLR, would be extremely useful.

*TMETC, UK* provides design engineering, program management, testing and validation, R&D and launch support for vehicle manufacturing. Complementing and strengthening Tata Motors skill sets, TMETC has contributed to the design engineering and development of all major new launches by Tata Motors Group in recent years, like 'Nano' car, 'Xenon' CV, new 'Indica' car models, and 'Prima' CVs. TMETC focuses on body engineering, power-train engineering, chassis, ride and handling, electronics and systems integration. TMETC currently has approx. 200 employees. Now it has also third parties customer base. TMETC, through its created capabilities and OFDI (acquisition of Miljobil Greenland/ Innovasjan), and thereby also Tata Motors, has developed an expertise in electric vehicles.

*Jaguar Land Rover, JLR* acquisition has enabled Tata Motors as a Group to enter the premium car market in developed markets such as the UK and USA. Its extensive distribution network can also be utilized to market there Tata Motors small and mid-size cars. In Fiscal 2010 JLR exported to over 100 countries 138,546 vehicles, i.e. 71.47% of its volume sales.<sup>14</sup> The US, European and Chinese exports were 38756, 59415 and 17004 vehicles respectively. JLR reported a small profit during 2009-10. The JLR business has been continued maintaining its pre-acquisition identity, without adding so far Tata or Tata Motors to the Jaguar and Land Rover brandnames, given their iconic appeal. This acquisition is still in the process of integration.

In Fiscal 2010, JLR was granted a loan of £338 million by the European Investment Bank under the European Clean Transport Facility to finance development of micro and full hybrid drive trains and research into more energy efficient car bodies. The series '10 Models' introduced by JLR are claimed to be much superior in performance, fuel economy and emissions. The new Jaguar XJ launched in July 2009 (deliveries started in May 2010) has aluminium body architecture, enhanced power trains and the instruments cluster having TFT screen.

The JLR has approximately 14,500 employees, predominantly in the UK, including about 3,500 engineers at two product development centers in Whitley, Coventry and Gaydon, Warwickshire (Tata Motors sources). Despite the severe financial conditions of Fiscal 2010, Jaguar Land Rover has invested heavily in process and product research, especially hybrid vehicles; it had a capital expenditure of Rs. 58 billion, mainly on product development and tooling for proposed product introductions (Tata Motors, 2010b, p. 60). JLR unveiled the Range Rover *Evoque* in June 2010 for production expected in summer 2011 – claimed by the company to be the smallest, lightest and most fuel efficient 'Range Rover' ever produced. Jaguar Land Rover is pursuing various initiatives, like Premium Lightweight Architecture to reduce emissions and improve manufacturing efficiency (Tata Motors, 2010b). Over recent years, JLR has made significant progress in reducing the development cycle times. The Engineering Research Centre in India and Jaguar Land Rover engineering and development centers in the UK have identified areas to leverage the facilities and resources to enhance the product development process. Tata Motors has started sales of Jaguar and Land Rover vehicles in India and is likely to commence soon the assembly of JLR sports utility vehicle 'Freelander2' at Tata Motors' Chikhli facility in Maharashtra, earlier leased to Mercedes Benz (*Economic Times*, August 22, 2010). Tata Motors is now planning to jointly re-engineer JLR vehicle engines from India and UK. It is also planning a greenfield JV in China for producing JLR vehicles.

*Tata Daewoo*, TDCV has received the Export Tower Award in Korea in 2006 and 2008. There is product range complementarity between Tata Daewoo and Tata Motors. Tata Daewoo has launched several new products in Korea, and is also exporting these products. Also the product lineup has been expanded from heavy CVs to include medium CVs, starting with the ‘*Novus*’ range in 2005. Under the Province Act, TDCV was selected as the Model Company for year 2009 for its growth performance since 2004 in terms of production, exports and employment. In view of the financial instability of its earlier sole distributor Daewoo Motor Sales Corporation, in April 2010 TDCV has established a separate marketing and distribution Company to cater to its products. In Fiscal 2010 TDCV got an export order of 2,570 CVs from the IRAQ Ministry of Defense. In January 2007 Afzal Motors (Pvt.) Limited of Pakistan commissioned a new truck and bus assembly plant in Karachi to assemble heavy-duty trucks of TDCV, Korea, as per a technical assistance agreement. The assembly of vehicles has started with sourcing knocked-down sets of TDCV trucks.

TDCV has pioneered the development and introduction of Liquefied Natural Gas (LNG) tractor trailer and an LPG-powered medium CV in South Korea. This LPG vehicle was developed in association with the Korean Ministries of Commerce, Industry and Energy, Korea Energy Management Corporation and a consortium of 12 organizations. It conforms to EURO V emission norms and uses the Liquid Phase Injection technology. In September 2009 Tata Daewoo launched in Korea a premium truck range ‘*Prima*’ – jointly developed by Tata Motors and Tata Daewoo. ‘*Prima*’ was awarded “Grand Prize of 2009 Good Design Selection of Korea”. TDCV has received the ISO/TS 16949 certification; it is the first Korean original automobile equipment manufacturer to have this certification (Tata Motors, 2010b).

*Tata Hispano* has developed a new Intercity Coach ‘*Xerus*’ and a new Suburban Bus ‘*Intea*’, and is working on developing a range of other buses (Tata Motors, 2010a). During Fiscal 2010 it received a grant from the Spanish Government for the development of a Hybrid Low Floor City Bus. Tata Motors has introduced such buses in India in September 2010 (Section 5.3). *Tata Motors (Thailand)* sold 4,225 vehicles between January and October 2010; having acquired about 2% share in the Thai pickup market within two years of operation, it plans to raise it to 5% within five years (*Business Standard*, December 1, 2010). It has also launched a ‘*Super Ace*’ variant pick-up for the Thai market.

The above discussion highlights Tata Motors’ immense derived resources through its own Group. Considering only Tata Motors Limited’s standalone resources and competencies would be a gross understatement of its capabilities for undertaking innovation and further OFDI.

### 5.3 Tata Motors Recent Product Developments

The Tata Motors Group has R&D centers in Pune, Jamshedpur, Lucknow, and Dharwad in India, and in South Korea, Spain, and the UK, together having over 1,400 engineers and scientists. Tata Motors' Engineering Research Centre, Pune is integrated with all of the Tata Motors Global Automotive Product Design and Development Centers in South Korea, Spain and United Kingdom. These centers are equipped with computer-aided design, manufacture & engineering tools, and rapid prototype development systems, testing cycle simulators, etc. to create a digital product development environment and virtual testing and validation, thus reducing the product development cycle-time (Tata Motors, 2010b).

Tata 'Nano', People's Car (under \$2500) was unveiled at Auto Expo, Delhi in January 2008 and launched in March 2009; the delivery started in July 2009. It has intensified the competition in small/ mini car segment in India and globally. As small car is becoming a global need, India's expertise and knowledge in this area will be invaluable (Automotive Component Manufacturers Association of India, ACMA, India, Annual Report 2008-09, President's Message). Right from its conception 'Nano' car has been designed to meet adequately the safety and emission norms in India and the global ones. This car is largely a product of Tata Motors Engineering Research Centre, and Tata Motors subsidiaries Tata Technologies and TMETC, UK, a greenfield OFDI in R&D. Tata 'Nano' car has won many awards, e.g. Edison Award 2010 for 'Best New Product – Transportation category', and Frost & Sullivan 2009 Innovation Award as an automotive engineering marvel. From a design and engineering perspective this car has been described as a true innovation driven by a real need.<sup>15</sup>

In May 2009 Tata Motors unveiled its world standard range of 'Prima' heavy trucks developed jointly with its subsidiary TDCV. The Managing Director of Tata Motors, Mr. Ravi Kant, said, "The range is an output of collaboration across the Tata Motors family, supplemented by inputs from partners across the world. This approach has enabled us to harness appropriate expertise and develop relevant products faster than ever before." TMETC, UK has made special contributions to it. It is a sophisticated and contemporary medium & heavy CV range including multi-axle trucks, tractor-trailers, tippers, mixers, and special application vehicles – in different configurations of 10- to 75-tonne with 150-560 hp, having Global Positioning System, and being Euro III and Euro IV compliant, while being Euro V ready. This new range will facilitate more effective penetration of Tata CVs in international markets. Again, with the developing road infrastructure in India the transporters here are likely to demand higher power, speed and carrying capacity. Tata Motors had invested nearly Rs. 10 billion in product development and plant capacity for this range (*Business Line*, May 29, 2009).

In October 2010 Tata Motors launched 'Aria' cross-over (a blend of sedan and sports utility vehicle), the company's most ambitious domestic launch so far in the luxury/ premium car segment. It has 2.2 litre Direct Injection Common Rail engine, in-dash GPS-based navigation system, and safety features like the Electronic Stability Programme, Antilock Braking System and six airbags (*Economic Times*, October 11, 2010). It satisfies all current crash safety norms in India and Europe. Besides these, Tata Motors has launched many other products/variants in recent years, including: in Fiscal 2009 new 'Indica Vista' car, 'Xenon XT' a pick-up, CNG variants of 'Ace', 'Magic' and 'Xenon' trucks, and a new range of buses; in April 2010 'Indica Vista Drivetech4', with a specially designed Eurotech gearbox, and in May 2010 'Indigo e-CS' (Tata Motors, 2010b).

In recent years Tata Motors and its subsidiaries have introduced CNG variants of several vehicles in India and abroad. Tata Motors has been working on developing Diesel and CNG hybrid solutions for city bus applications in India and also in Spain through its subsidiary Tata Hispano. Tata Motors has delivered a large number of low entry buses for public transport in India. In September 2010 Tata Motors delivered a few CNG-Electric Hybrid Low-floor *Starbuses* having a parallel hybrid engine for plying during Commonwealth Games in Delhi held during October 2010.

On the electric vehicle range, Tata Motors has launched 'Ace EV' and 'Indica Vista EV' at the Thailand International Motor Expo 2010 (*Business Standard*, December 1, 2010). The 'Indica Vista EV' is undergoing tests in Europe; it uses super polymer lithium ion batteries which have superior energy density to conventional batteries. Both TMETC and its subsidiary Miljo Grenland/Innovasjon have contributed to the 'Indica Vista EV' model. Tata Motors' electric vehicles will be produced in association with Miljo Grenland/Innovasjon. Thus, as evident from the above discussion, Tata Motors has been able to introduce a large number of new products/ variants in recent years through its technological and designing strengths, also derived perceptibly from that of its Group, including its OFDI enterprises.

## 6. The Tata Group Strengths

The Penrosean theory of growth of the firm emphasizes the role of managerial and technological resources of the firm. This Section examines these core strengths of the Tata Group and its size and reputation, as well as OFDI by the Tata Group. The rapid internationalization through OFDI by Tata Motors can be partly attributed to these Group strengths.

*Tata Group Size and Structure:* The 'Tata Group' has highly diversified operations, broadly in seven sectors, namely, engineering, materials, energy,



chemicals, consumer products, services, communications and information systems. Tata Sons is the privately held (equity) holding company of the 'Tata Group'. The various companies promoted by Tata Sons, including its flagship company Tata Motors, had combined revenues of approximately US\$67.4 billion for April-March Fiscal 2010; these companies do not constitute a 'Group' under the Indian Law (Tata Motors, 2010b, p. 34). The Tata Group has 98 operating companies (*Economic Times*, October 28, 2010). Of these, 28 are publicly listed which had a combined market capitalization of about \$106.04 billion, and a shareholder base of 3.5 million on December 30, 2010 (Tata sources). Over 1/4<sup>th</sup> of Tata's around 395,000 employees are located outside India. About 57% of the Tata Group revenues come from international markets. It has operations in 80 countries and exports to 85 countries.

In 1868, Jamsetji N. Tata established a private trading firm, thereby founding the Tata Group. After his death in 1904, his two sons took over his business, later renamed Tata Sons. In the pre-independence period Tata Sons expanded to sectors like hotel, steel (Tata Steel set up in 1907 which has acquired Corus; now a Fortune 500 firm), power, chemicals, and locomotive & engineering (present Tata Motors). In the post-independence period the Tata entities set up include: Voltas; Tata Tea; Tata Consultancy Services (TCS), now one of the global largest IT service providers; and Tata Communications.

At present several philanthropic and charitable trusts established by the Tata family own a substantial majority of the shares of Tata Sons Limited (Tata Motors, 2010b). The Tata Sons chairman has always been a relative by marriage or blood.<sup>16</sup> Tata Sons and Tata Industries Limited (TIL) are the two promoter companies. Tata Sons holds a sizable shareholding in the Tata-promoted companies. Tata Sons set up TIL in 1945, initially as a managing agency. Since the early 1980s TIL has been promoting the entry into new and high-tech areas, including IT, financial services, auto components, advanced materials, and telecommunication. These ventures are often partly financed by Tata Sons and the main Tata Group companies, with TIL generally maintaining a small stake (Goldstein, 2008).

A large number of the Tata Sons promoted entities hold shares and some even directorships in one another. Some of Tata Motors directors hold directorships on the boards of Tata Sons and/or Tata Sons promoted entities. Tata Sons Limited is the largest shareholder of Tata Motors. As per Tata Motors (2010b, p. 35), from March 31, 2007 to March 31, 2010, the holdings of Tata Sons Limited (and its subsidiaries) in Tata Motors have increased from 22.45% to 30.58%, as a result of their subscribing to the Tata Motors 'Rights Issue 2008', including any unsubscribed portion thereof. This is an example of the 'Group affiliation' benefits, as this Rights Issue was meant

to part-finance the repayment of bridge loan taken for the JLR acquisition. Tata Steel (a Tata Group company) and its subsidiaries held 6.15% shareholding of Tata Motors on March 31, 2010. For financing the JLR acquisition Tata Motors benefitted from an excellent credit-rating of the Tata Group (Ruet, 2010).

*Managerial and entrepreneurial Strengths:* The Tata Administrative Services, conceived by JRD Tata in the 1950s to recruit talented managers, has been grooming the managers as a Group resource and from a global perspective (Goldstein, 2008). The Companies using the Tata name must adhere to the Tata Code of Conduct. It is a set of five core values – integrity, understanding, excellence, unity and responsibility. The Tata Group companies have employed in key positions even non-resident Indian professionals and foreign nationals having experience in the related industries. Prior to the Daewoo Commercial Vehicles and JLR acquisitions, acquainting their stakeholders of the Tata Group management philosophy and corporate governance certainly helped Tata Motors to be the preferred bidder.

Since inception the Tata Group has been keen to adopt and adapt the global technologies, standards and practices (see e.g. Goldstein, 2008). JRD Tata, the Tata Sons chairman from 1938 to 1991, kept exploring new technological domains. Tata Motors's present Chairman Ratan Tata has been with the Tata Group since 1962. He became the chairman of Tata Industries Limited in 1981, and in 1991 that of Tata Sons Limited. Ratan Tata has been also on the Boards of several other Tata companies, like Tata Steel, TCS, Tata Chemicals, and Tata Power. He has been a promoter of high-tech new ventures. Since Ratan Tata took over the helm in 1991, there has been an increasing focus on automotive business<sup>17</sup> and IT services segments of the conglomerate, and in this century also on the internationalization of these activities. In general he has emphasized the technological dynamism of the Tata Group.

*Technological Strengths:* The Tata Group companies have exchange programs for engineers. Under challenging situations the scientists and engineers of the Tata Group companies tend to interact across companies more intensely. In 2001 the Tata Group initiated a closer and more stable collaboration among various Group companies in the automotive engineering sector. The companies involved were Tata Consultancy Services (TCS), Tata AutoComp Systems Limited, Telco Automation Limited, and partly TELCO (now Tata Motors) and companies in related areas, namely Tata Infotech, Tata Technologies and Tata Elxsi in IT, and Tata Honeywell and NELCO in industrial automation.<sup>18</sup>

The growing dependence of the automotive sector on IT-enabled skills favors the Indian Groups like the Tatas, having IT expertise and global presence. Soon after Tata Motors signed the JLR acquisition deal, it announced

the transfer of JLR's IT application development and maintenance programs to an INCAT (Tata Technologies) and Tata Consultancy Services (TCS) combine. TCS is a Tata Group company operating in over 50 countries and having over 1 lakh employees.

According to a media report, the number of automotive engineers and designers with the Tata Group in late 2008 was about 8000; this includes the teams at Tata Motors in-house R&D units, the acquired JLR's product development centers, TMETC, INCAT (Tata Technologies) and TCS.<sup>19</sup> These days with a considerable part of vehicle and component designing being done digitally, engineers located at various centers having different domain expertise can work simultaneously – sharing their engineering and design skills as one block of talent and having a sharper focus. With complementary diverse resources, they can avoid waste in duplicating resources. An integrated team of related and nested entities enables faster and cost-effective innovations. For developing environment friendly cars Tata Motors has been working with Tata Chemicals on bio-fuels and with Tata Steel on hydrogen, a by-product of steel furnaces.

In 2007 the Tata Group formed 'Tata Group Innovation Forum', TGIF.<sup>20</sup> This Forum, managed by the Tata Quality Management Services, facilitates interaction among technologists and researchers of different Tata Group companies. Besides, there are workshops, visits to global companies, and contests and award functions organized across Tata Group companies for encouraging innovation. The TGIF consists of innoclusters (innovation clusters) – clusters of companies with similar technological needs – working on subjects such as nanotechnology, polymers & composite materials, IT and water. The nanotechnology cluster e.g. consists of Tata Pigments, Tata Chemicals, Tata Steel, Tata Motors, Tata Power, Tata Advanced Materials, Titan and Tanishq companies. This innovation centre has already acquired 31 patents, of which 10 are international. *BusinessWeek* magazine ranked the Tata (Group) 17<sup>th</sup> among the '50 Most Innovative Companies' list (Tata sources).

Overseas acquisitions like Corus and Jaguar-Land Rover in recent years have exposed the Tata Group to a better intellectual property rights system. The Tata Group has created intellectual property clusters in Bangalore, Pune and Jamdeshpur, where flagship companies will mentor the associates in technological advancement, e.g. Tata Motors and Tata Steel to mentor in Pune and Jamdeshpur.<sup>21</sup>

*Tata brand and reputation:* According to the Brand Finance, UK and the Reputation Institute, Tata is ranked 51<sup>st</sup> among the World's most valued brands and 6<sup>th</sup> most reputable company in 2008; the 2009 rankings are 65<sup>th</sup> (\$11.22 billion brand value) and 11<sup>th</sup> respectively.<sup>22</sup> Tata Sons is the owner of the Tata name and the Tata trademark, which are registered in India and several other countries (Goldstein, 2008). In the mid-1990s Ratan Tata realized

the importance of Group strength and a strong Tata brand; accordingly, Tata Sons started increasing its stake in important Tata companies (*Economic Times*, October 28, 2010). In 1996, Tata Sons introduced a 'Brand Equity and Business Promotion Agreement' (Goldstein, 2008). All the Group companies wishing to use the Tata name and brand sign the Agreement, and pay an annual royalty to Tata Sons. They must also adhere to the Tata Code of Conduct and adopt the Tata Business Excellence Model (TBEM), a quality management system based on the Malcolm Baldrige Model. Tata Motors uses the Tata brand, licensed to it since December 1998. Tata Motors Limited and some of its subsidiaries pay an annual subscription fee to Tata Sons Limited equal to 0.15%–0.25% of the net income, subject to maximum 5% of pre-tax profits (Tata Motors, 2010b).

Building global brands is a painstaking work. Prior to the Corus and JLR acquisitions, Tata was a little known name in the UK; this awareness improved subsequently (*Economic Times*, October 28, 2010). Given the JLR strong brand value, Tata Motors has still not added Tata or Tata Motors name to the acquired JLR business. In October 2010 Ratan Tata donated \$50 million to Harvard Business School to fund a new building for executive-education programs; this building to be completed in 2013 shall be named Tata Hall.

*OFDI by Tata Group:* Goldstein (2008) discusses the early internationalization by the Tata Group. After the 1991 liberalization in India, the Tata Group realized even more that it is imperative to internationalize. However, till the beginning of the 21<sup>st</sup> century their OFDI was primarily trade-supporting. In 2004 Alan Rosling, chairman of Hong Kong's Jardine Matheson Group (an investment bank with large holdings in Tata Industries) was hired as an executive director of Tata Sons.<sup>23</sup> Subsequently, the OFDI by the Tata Group has sought prestigious global brands and strategically critical industrial enterprises.

Between March 2004 and May 2010 the Tata Group, including the Tata Motors Group, undertook 42 overseas acquisitions (14 in 2005).<sup>24</sup> These add to the global visibility of the Tata name. In the automotive related areas, viz. IT and steel, TCS and Tata Steel made 4 overseas acquisitions each over this period. OFDI in these areas by the Tata Group firms have special relevance to Tata Motors' automotive business. For example, steel is an important input in automotive manufacturing. Tata Steel has undertaken significant OFDI for production (1 major overseas acquisition each during 2005 to 2007). Corus acquired by Tata Steel in January 2007 has a large research, development and technology department, having facilities for industrial scale testing of new products, including for production of blanks for car parts and brazing of aluminium radiator elements.<sup>25</sup> This department employs 950 researchers in Britain and Netherlands, and works in close collaboration with research institutions and key customers in automotive, transport and construction areas.

This acquisition has benefitted Tata Motors, also (i) by way of having an intra-Group source for specialty steel (used in luxury/ premium-range vehicles, like JLR), and (ii) by convincing the UK financial market of the managerial capabilities of the Tata Group which facilitated Tata Motors' acquisition of the JLR business (Ruet, 2010). This is an example of intra-Group OFDI-strengths.

## 7. Conclusions

In the context of early/accelerated internationalization through OFDI by EMNEs this paper attempts to highlight the role of Business Group strengths, by taking the case of Tata Motors, an Indian vehicle manufacturer. Tata Motors has substantial international operations, mainly as OFDI. During Fiscal 2010 about 59% of consolidated revenues of Tata Motors and its subsidiaries are from sales outside India, with the US and Europe accounting for about 11% and 27% revenues. The proportion of non-current assets (fixed assets and intangibles) located outside India is about 56%, though being heavily concentrated in the UK. At present Tata Motors manufactures vehicles abroad in 6 acquired plants – 3 in UK (JLR), 1 in S. Korea (Daewoo CV), and 1 each in Spain and Morocco (through Hispano) – and in an established (greenfield) plant in Thailand. The JLR business acquired in 2008 was bigger than the consolidated Tata Motors Group then, and the JLR business still dominates the rest of the Tata Motors Group in revenue terms. Tata Motors set up a technical research centre in UK in 2005; this subsidiary made a cross-border acquisition in 2008. While Tata Motors has been importing technology for designing vehicles, it has recently acquired an Italian automotive designing firm, Trilix, an erstwhile designing consultant to Tata Motors.

Tata Motors started in a significant way in 2004 its OFDI for vehicle manufacturing and R&D, though its overseas assembly operations commenced much earlier, e.g. in Bangladesh in 1991. Since around 2002-03 there has also been policy liberalization of OFDI from India. Prior to 2004, Tata Motors had well-established itself in India. Right from the inception it has laid emphasis on skill formation, training and in-house R&D, including well-equipping the research centers. It has imported technology selectively, also through a few foreign financial collaborations for vehicle manufacturing, starting with the collaboration for CVs during 1954-1969. It developed indigenously a light CV in 1986 and a sports utility vehicle in 1998. It also launched 'Indica' car in 1998 without any technical/ financial collaboration with a global vehicle company. Tata Motors' acquisition of Daewoo CV unit has been preceded by 50 years experience of manufacturing CVs at home since 1954 and over 40 years for its CV exports from India since 1961. Tata Motors' standalone competencies had a sizeable threshold level by then.

Along with that, Tata Motors has established over time a number of domestic subsidiaries and equity associates (some also promoted by Tata Sons) – producing components, axles, transmissions, engines, metal sheets etc., and automotive related products and services; some of these companies are erstwhile company Divisions since 1954. Also, the strengths derived from the affiliation with the Tata Group by way of its managerial, technical and financial resources, and brandname and reputation have provided enormous support to Tata Motors' OFDI endeavors. For example, the acquired JLR business was massive for Tata Motors, not just financially. Before this acquisition Tata Motors was well aware that for an improvement in profitability and technological strengthening of JLR business, and reducing the emission levels of JLR fleet to the expected permissible levels, a lot of re-engineering of engines, body structure, assemblies and sub-assemblies would be required. For this, it had the confidence based on its own standalone resources and competencies combined with the Group-derived ones. Again, alternative fuels is another technology-option for JLR vehicles. Tata Motors is working in the research area of alternative fuels with Tata Group companies like Tata Chemicals and Tata Steel. Also OFDI by the Group members has provided intra-Group strength to Tata Motors' OFDI activities.

By selecting a single firm for the case study this paper attempts to examine intensively its OFDI activities, and the role of Group affiliation. But the analysis thus also gets limited to a single industry and single country. More diverse case studies of emerging economy firms are needed to validate our findings. Also a dynamic analysis of the Group Strengths and OFDI would lead to a more enriching exploration of the facilitative role of Business Group affiliation.

## ACKNOWLEDGEMENT

I am extremely grateful to Jaya Prakash Pradhan for sparking my interest in the area of outward foreign direct investment and Business Groups. This paper is a follow-up of a brief case study of 'Tata Group's automotive sector OFDI' as part of a joint working paper, namely Pradhan and Singh (2008).

## NOTES

1. Mathews (2006) refers to these international connections as linkage, leverage and learning (LLL).
2. He adds that profound changes since the 1990s in the international policy environment and technological factors have created 'global gateways' or a 'flat' world.
3. According to KPMG International's *Emerging markets International Acquisition Tracker*, the emerging and high growth market economies made 243 acquisitions in

developed economies during January-June 2010; India was the top acquirer in the emerging-to-developed deals, with 50 acquisitions.

4. For the largest Chinese and Indian MNEs, Fortanier and Tulder (2009) find relatively low levels of international production activity; while some of the firms have substantial sales internationalization, it is largely through exports.

5. In the automotive sector there are significant economies of scale in manufacturing, more so the vehicles, and in R&D, especially in designing vehicles and critical components. There are international and regional variations in automobile specifications due to the demand, fuel and regulatory differences.

6. See PricewaterhouseCoopers Report (2010) for evidence relating to global automotive M&As.

7. Source: *Strides*, November 2010, Tata Motors (strides-nov10.pdf, available online).

8. The capital R&D expenses were thus 20.58%, 14.05% and 11.23% of the total capital expenses. The Fiscal 2009 and 2010 involved huge expenditure on setting up (and relocating) the 'Nano' car plant having 2.5 lakh units annual (double shift) capacity.

9. The associates considered for consolidation are: Fiat India and Tata Hal Technologies which is a 50% associate of Tata Technologies, a Tata Motors subsidiary (Tata Motors, 2010a, pp. 95 and 106). Tata Motors (2010b) seems to consolidate revenues by including pro-rata all 20-50% equity associates and/or JVs (p. F-13).

10. Tata Motors (2010b, pp. 37-38) reports plant-wise capacity as on March 31, 2010.

11. Tata Motors has been undertaking vendor rationalization. Each vendor is reviewed quarterly for quality, cost and delivery parameters, and TS-16949 certified vendors are preferred. For the JLR business, the quality and delivery performance of external vendors is measured daily and they must be TS-16949 and ISO14001 certified. All the JLR vendors have to formally warrant new component parts (Tata Motors, 2010b, p. 17).

12. For the distribution and after-sales services, crucial to vehicle business, Tata Motors has 'local' alliances abroad.

13. Tata Motors has implemented an integrated customer-dealer management system (CRM-DMS) across 2,000 plus locations (1,000 plus in 2007); Tata Motors uses these CRM-DMS data for production and sales planning, inventory management, and distribution logistics.

14. The combined sales of 193,841 vehicles were only 2/3rd of calendar 2007 sales of about 288 thousand vehicles.

15. [Outlookbusiness.com](http://outlookbusiness.com) 1 November 2008 Print Edition > Interviews > Q&A.

16. Source: Our businesses > Tata companies > Tata Sons > Articles February 2010, Ann Graham

17. Venugopal (2001, p. 57) refers to his 'almost boyish passion' for cars.

18. Our businesses > Tata companies > Tata Consultancy Services > Articles November 2001, Kiron Kasbekar

19. Source: *Outlook Business*, November 1, 2008.

20. Tata Group Innovation Tata Group Innovation Forum.htm, accessed on June 7, 2010.

21. *Economic Times*, April 8, 2010.



22. Source: Tata website accessed January 4, 2011; north\_america\_brochure.pdf, Tata Group website accessed 14th June 2009. The Tata Group is also well reputed for taking good care of its employees and environment, and its commitment to social causes; for details for the Tata Group and Tata Motors see strides-nov10.pdf (available online).

23. Source: Our businesses > Tata companies > Tata Sons > Articles February 2010, Ann Graham.

24. Tata Group, Our businesses Mergers and acquisitions.htm, accessed on October 7, 2010.

25. Tata Group, Innovation Corus.htm, accessed on June 7, 2010.

## REFERENCES

Asmussen, C.G., Pedersen, T. and Dhanaraj, C. (2009), "Host-Country Environment and Subsidiary Competence: Extending the Diamond Network Model," *Journal of International Business Studies* 40(1): 42–57.

Athreye, S. and Kapur, S. (2009), "Introduction: The Internationalization of Chinese and Indian Firms – Trends, Motivations and Strategy," *Industrial and Corporate Change* 18(2): 209–221.

Aw, B.Y. and Lee, Y. (2008), "Firm Heterogeneity and Location Choice of Taiwanese Multinationals," *Journal of International Economics* 76(2): 403–415.

Balcet, G. and Bruschi, S. (2008), "Technology Transfer, Joint Ventures and the Emergence of Indian Multinationals: The Case of the Automotive Industry," in Andreosso, B., O'Callaghan, B. and Zolin, B. (eds.), *Asia and Europe: Connections and Contrasts*. Venezia: Ca' Foscarina.

Belenzon, S. and Berkovitz, T. (2010), "Innovation in Business Groups," *Management Science* 56(3): 519–535.

Berger, R. and Bhide, R. (2010), "Indian Automobile and Component Industry Trends: Presentation for OESA," Tata Strategic Management Group, 18 May (downloaded as 02[1].Roland Berger-R.Bhinge.pdf ).

Bhaumik, S.K., Driffield, N. and Pal, S. (2010), "Does Ownership Structure of Emerging-Market Firms Affect their Outward FDI? The Case of the Indian Automotive and Pharmaceutical Sectors," *Journal of International Business Studies* 41(3): 437–450.

Bonaglia, F., Goldstein, A. and Mathews, J.A. (2007), "Accelerated Internationalization by Emerging Markets' Multinationals: The Case of the White Goods Sector," *Journal of World Business* 42(4): 369–383.

Bowonder, B. (2004), "Concurrent Engineering in an Indian Automobile Firm: The Experience of Tata Motors," *International Journal of Manufacturing Technology and Management* 6(3–4): 291–314.

Carvalho, F., Duysters, G. and Costa, I. (2010), "Drivers of Brazilian Foreign Investments – Technology Seeking and Technology Exploiting as Determinants of Emerging FDI," UNU-MERIT Working Paper 17.

Das, S.K. and Bandyopadhyay, A. (2003), "Quality Signals and Export Performance: A Micro-Level Study, 1989–97," *Economic and Political Weekly* 38(39): 413–543.



Dunning, J.H. (2006), "Comment on Dragon Multinationals: New Players in 21<sup>st</sup> Century Globalization," *Asia Pacific Journal of Management* 23(2): 139–141.

Duysters, G, Jacob, J., Lemmens, C. and Jintian, Y. (2009), "Internationalization and Technological Catching Up of Emerging Multinationals: A Comparative Case Study of China's Haier Group," *Industrial and Corporate Change* 18(2): 325–349.

Elango, B. and Pattnaik, C. (2007), "Building Capabilities for International Operations through Networks: A Study of Indian Firms," *Journal of International Business Studies* 38(4): 541–555.

Fortanier, F. and Tulder, R. (2009), "Internationalization Trajectories – A Cross-Country Comparison: Are Large Chinese and Indian Companies Different?" *Industrial and Corporate Change* 18(2): 223–247.

Gammeltoft, P. (2008), "Emerging Multinationals: Outward FDI from the BRICS Countries," *International Journal of Technology and Globalization* 4(1): 5–22.

Garg, M. and Delios, A. (2007), "Survival of the Foreign Subsidiaries of TMNCs: The Influence of Business Group Affiliation," *Journal of International Management* 13(3): 278–295.

Goldstein, A. (2008), "The Internationalization of Indian Companies: The Case of Tata," Center for the Advanced Study of India, Working Paper 2.

Guillén, M.F. (2000), "Business Groups in Emerging Economies: A Resource-Based View," *The Academy of Management Journal* 43(3): 362–380.

Guillén, M.F. and García-Canal, E. (2009), "The American Model of the Multinational Firm and the "New" Multinationals from Emerging Economies," *Academy of Management Perspectives* 23(2): 23–35.

Kaya, H. and Erden, D. (2008), "Firm-Specific Capabilities and Foreign Direct Investment Activities of Turkish Manufacturing Firms: An Empirical Study," *Journal of Management Development* 27(7): 761–777.

Kathuria, S. (1996), *Competing Through Technology and Manufacturing: A Study of the Indian Commercial Vehicles Industry*. Delhi: Oxford University Press.

Kathuria, V. (2010), "Entry Choice of Indian Multinationals: A Transaction Cost Analysis," in Siddharthan, N.S. and Narayanan, K. (eds.), *Indian and Chinese Enterprises: Global Trade, Technology and Investment Regimes*. London-New York-New Delhi: Routledge, 159–179.

Kedia, B.D., Mukherjee, D. and Lahiri, S. (2006), "Indian Business Groups: Evolution and Transformation," *Asia Pacific Journal of Management* 23(4): 559–577.

Kumar, N. (2008), "Internationalization of Indian Enterprises: Patterns, Strategies, Ownership Advantages, and Implications," *Asian Economic Policy Review* 3(2): 242–261.

Lee, J. and Slater, J. (2007), "Dynamic Capabilities, Entrepreneurial Rent-Seeking and the Investment Development Path: The Case of Samsung," *Journal of International Management* 13(3): 241–257.

Leff, N. (1978), "Industrial Organization and Entrepreneurship in the Developing Countries: The Economic Groups," *Economic Development and Cultural Change* 26(4): 661–675.

Li, J. and Kozhikode, R.K. (2008), "Knowledge Management and Innovation Strategy: The Challenge for Latecomers in Emerging Economies," *Asia Pacific Journal of Management* 25(3): 429–450.

Luo, Y. and Tung, R.L. (2007), "International Expansion of Emerging Market Enterprises: A Springboard Perspective," *Journal of International Business Studies* 38(4): 481–498.

Makino, S., Lau, C.M. and Yeh, R.S. (2002), "Asset-Exploitation versus Asset-Seeking: Implications for Location Choice of Foreign Direct Investment from Newly Industrialized Economies," *Journal of International Business Studies* 33(3): 403–421.

Mathews, J.A. (2006), "Dragon Multinationals: New Players in 21<sup>st</sup> Century Globalization," *Asia Pacific Journal of Management* 23(1): 5–27.

Mazumdar, S. (2008), "The Analysis of Business Groups: Some Observations with Reference to India," ISID Working Paper 11, Delhi.

Narula, R. (2006), "Globalization, New Ecologies, New Zoologies, and the Purported Death of the Eclectic Paradigm," *Asia Pacific Journal of Management* 23(2): 143–151.

Peng, M.W., Wang, D.Y.L. and Jiang, Y. (2008), "An Institution-based View of International Business Strategy: A Focus on Emerging Economies," *Journal of International Business Studies* 39(5): 920–936.

Pradhan, J.P. (2008), *Indian Multinationals in the World Economy: Implications for Development*. Delhi: Bookwell.

Pradhan, J.P. and Singh, N. (2008), "Outward FDI and Knowledge Flows: A Study of the Indian Automotive Sector," ISID Working Paper 10, November.

Pradhan, J.P. and Singh, N. (2011), "Business Group Affiliation and Location of Indian Firms' Foreign Acquisitions," *Journal of International Commerce, Economics and Policy* 2(1): 1–23.

PricewaterhouseCoopers Report (2010), "Automotive M&A Insights 2009," PricewaterhouseCoopers, February.

Ramamurti, R. (2009), "What Have We Learned about Emerging-Market MNEs?" in Ramamurti, R. and Singh, J.V. (eds.), *Emerging Multinationals from Emerging Markets*. Cambridge: Cambridge University Press, 399–426.

Ruet, J. (2010), "When a Great Industry Globalizes: Indian Conglomerates Pioneering New Trends in Industrial Globalization," in Sauvart, K.P. and Pradhan, J.P. with Chatterjee, A. and Harley, B. (eds.), *The Rise of Indian Multinationals: Perspectives on Indian Outward Foreign Direct Investment*. New York: Palgrave Macmillan, 79–110.

Rugman, A.M. and Verbeke, A. (2007), "Liabilities of Regional Foreignness and the Use of Firm-level versus Country-level Data: A Response to Dunning *et al.* (2007)," *Journal of International Business Studies* 38(1): 200–205.

Singh, D.A. (2009), "Export Performance of Emerging Market Firms," *International Business Review* 18(4): 321–330.

Singh, N. (2007), "Automotive Industry," in Kumar, N. and Joseph, K.J. (eds.), *International Competitiveness and Knowledge-based Industries in India*. Delhi: Oxford University Press, 233–279.

Sturgeon, T.J., Memedovic, O., Biesebroek, J.V. and Gereffi, G. (2009), "Globalization of the Automotive Industry: Main Features and Trends," *International Journal of Technological Learning, Innovation and Development* 2(1–2): 7–24.

Tan, D. and Meyer, K.E. (2010), "Business Groups' Outward FDI: A Managerial Resources Perspective," *Journal of International Management* 16(2): 154–164.

Tata Motors (2010a), *Tata Motors Ltd Annual Report 2009–10*. India: Tata Motors Limited.

Tata Motors (2010b), “Form 20F-2010,” as filed with the Securities and Exchange Commission, U.S. on September 30, 2010, Tata Motors Ltd.

Venugopal, R. (2001), “TELCO’s Small Car,” *Asian Case Research Journal* 5(1): 49–69.

Yiu, D., Bruton, G.D. and Lu, Y. (2005), “Understanding Business Group Performance in an Emerging Economy: Acquiring Resources and Capabilities in Order to Prosper,” *Journal of Management Studies* 42(1): 183–206.

© Neelam Singh

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.