

## Indian Multinationals in Brazil: Emerging Players in Emerging Markets

August 2008

It is indeed a puzzle that at a time of unparalleled interest in giant firms and globalization... latecomers should make their dramatic entry.

*-John Mathews, Dragon Multinational, 2002*

Firms are by no means equal in their ability to operate in an industry. Certain firms have considerable advantages in particular activities. The possession of these advantages may cause them to have extensive international operations of one type or another....There are as many kinds of advantages as there are functions in making and selling a product.

*-S. Hymer, The International Operations of National Firm, 1976<sup>1</sup>*

API production moves very fast. Brazil wants today's technology, but one year from now, India will already be speeding far in the distance. The prices are dropping like stones and India and China are simply light years ahead.

*-Brazilian Manager of major Indian Multinational, Sao Paulo, June 2006*

The arrival of multinational companies from emerging economies in sectors as diverse as communications systems, cement, appliances, electronics, aero-design and pharmaceuticals has become a defining characteristic of the world economy. As changes in the global economy take shape, what some describe as the "new titans"--emerging countries and their firms--are claiming an increasing share of the market.<sup>2</sup> Beyond cases of individually successful firms, global trade indices reveal a trend towards of an increased number of firms internationalizing operations.

At a firm level, this aggregate increase reflects the rapid crafting of new competitive strategies as developing country firms internationalize and face off with multinational incumbents and indigenous competitor firms in hitherto unexplored markets and geographies. But beyond the

---

<sup>1</sup>(Hymer, 1967 (1976): 41)

<sup>2</sup> In 2006, the share of global exports from emerging markets reached 43%, a considerable increase from 20% in 1970. The term emerging economy, like developing economy is the source of confusion and ambiguity. Many emerging economies may be most accurately described as "re-emerging economies;" the dominant source of world GDP in the late 1890s was the trade of India and China (Mahbubani, 2008).

aggregate picture of trade increases, what does this dynamic look like at a sectoral or country level? This paper fills in a cross-country meso picture of evolving trends in South-South trade by examining EMNC firms entering emerging markets, through the experiences of Indian pharmaceutical firms and traders in Brazil.

Once referred to as Third World Multinationals,<sup>3</sup> Newly Industrialized Country (NIC) firms<sup>4</sup> now Developing-Country MNEs, global RDEs<sup>5</sup> periphery multinationals,<sup>6</sup> or Dragon Multinationals,<sup>7</sup> for more than 30 years international business literatures have sought to understand the experiences, strategies and obstacles of firms based outside the US, Europe and Japan, the original “triad” or home terrain of multinational firms. Parallel to debate in business literatures, a conversation has taken place in development literatures, in the hope of understanding how firms based in the periphery surmount the challenges of their embeddedness in economies less developed in infrastructure, financial access and management experience. Multiple waves of developing country MNE activities, strategies, and organisation have been examined and analyzed in the context of industrialized incumbents and competitors (Dunning, 1981; Wells, 1983; Mathews, 2002). Studies have examined emerging country based firms in their home region (Yeung, 1994; Han and Brewer, 1987), as endowed with advantages in small scale, low technology, labour intense activities (Wells, 1983); performing in developed markets (Agrawal, 1987; Lall, 1983), in joint ventures with northern MNCs (Beamish, 1988) or as cases of successful global firms creating advantages through strategic organization (Bonaglia, Mathews, & Goldstein, 2007; Mathews, 2002). Peng, Wang & Jiang (2008) review current trends, suggesting that recent research of international business strategy for firms from emerging markets indicates a need for an institutional based view (compounded by industry and resource-based views).

This paper builds on these works to stake new ground, analyzing the experiences of Indian firms in Brazilian active pharmaceutical ingredient (API) and generics and *similares* markets. The paper illustrates how Indian firms’ strategies have shifted according to national regulatory frameworks and illustrates a case of how multinational firms from developing countries are adapting to and building advantages in emerging markets.

---

<sup>3</sup> Common nomenclature in 1970s and 1980s literature analysing the “first wave” of firms from the periphery. See Yeung (2000) for a collection of these early works and Goldstein (2007) for a concise review of the current trends.

<sup>4</sup> See Aggarwal & Agmon, (1990).

<sup>5</sup> As characterized by the Boston Consulting Group (2006).

<sup>6</sup> The periphery defined as those countries outside the “triad” markets of the US, Europe and Japan. In comparison to these markets, all other economies are “small” (Rugman 2006 and 2000). Of the largest MNEs in the world, over 85 percent have their origin in the Triad.

<sup>7</sup> Coined by Mathews (2002).

## 1.1 Indian Multinationals in Brazil: Products and Processes

It is destination Brazil for Indian generic drug makers as companies are making a beeline for the Latin American Country.

*-CNBC, May (2007)*

In the period from 1999 to 2006, eleven Indian pharmaceutical firms established subsidiaries or joint ventures in Brazil. This wave of investment was unprecedented, before 1999, not one Indian firm had direct operations in the country.<sup>8</sup> With annual sales of more than \$11 billion, the Brazilian pharmaceutical market ranks among the top 10 pharmaceutical markets in the world and presently vies with Mexico for the position of the leading pharmaceutical market in Latin America<sup>9</sup>. The size of the Brazilian market and perceived potential, (despite a slump in the early 2000s) was one of the key factors which drove early Indian interest. But in addition to Brazil's market size, a string of regulatory and political factors, in both domestic and foreign arenas, contributed to the quick and concentrated entrance of Indian firms in the market.

While it is widely known that this wave of Indian firms entered the Brazilian market over a short period of time, no research provides us with a comprehensive picture of this shift. Based on surveys, interviews, and data collection with eleven Indian firms, Table 1 provides a view into the timing, location and type of entry and ownership decisions made by Indian firms in the Latin American market. This region-wide picture affords the advantage of seeing firms' view of Brazil as a "pioneer" market for Indian firms.<sup>10</sup>

---

<sup>8</sup> Pre-1999, Indian firms worked through traders and distributors to bring their products, which were predominantly APIs, or other pharmaceutical inputs to the market.

<sup>9</sup> Generics consumption as a percentage of total pharmaceutical sales in Brazil is on the rise. In the first nine months of 2006, generic drug sales in Brazil leapt 53.6 percent (year on year) to US\$ 755.6 million.<sup>9</sup> Total sales in Brazil's generics sector for 2006 grew by 38.8 percent to US\$ 1.5 billion. Brazil's supportive political environment, combined with the expiration of blockbuster drugs were the two factors which contributed to this growth. Expansion of Brazil's generics market is expected to continue. In 2006 the share of generics was approximately 10 percent, this is estimated to increase to 22.8 percent by 2011 (Maheshwari, 2007).

<sup>10</sup> This corroborates the opinion voiced by company managers and representatives who saw Brazil as a potential "platform" country for marketing across Latin America.

**Table 1: Locations, Ownership and Activities of Indian Generic Drug Firms in Latin America**

Company	Latin American Affiliate	Location	Entry Year	Ownership Structure	% of Interest	Activities
Aurobindo	AB Farmo Quimica <sup>11</sup>	Brazil	2000	Subsidiary	100%	R&M&M
Dr. Reddy's	Dr. Reddy's Farmacéutica do Brasil	Brazil	1999	Subsidiary	100%	R&M
Glenmark	Glenmark Farmaceutica	Brazil	2003	Subsidiary	100%	R&M
	Laboratorios Klingler	Brazil	2004	Acquired Subsidiary	100%	R&M&M
	Serveycal	Argentina	2005 <sup>12</sup>	Acquired Subsidiary	100%	R&M&M
Ipca	Ipca do Brasil	Brazil	2003	Subsidiary	100%	R&M
Orchid Chemicals & Pharma	Ogna Farma	Brazil	-	Subsidiary	-	R&M
Ranbaxy	Ranbaxy Farmaceutica (Formerly Ranbaxy SP Medicamentos)	Brazil	2000	Subsidiary	93.67% <sup>13</sup>	R&M&M
	Ranbaxy do Brasil	Brazil	-	Subsidiary	100%	R&M
	Ranbaxy Panama, SA	Panama	2001	Subsidiary	100%	R&M
	Ranbaxy PRP	Peru	-	Subsidiary	100%	R&M
	Ranbaxy Mexico S.A. de C.V.	Mexico	2004	Subsidiary	100%	R&M
Strides Arcolab	Strides Latina	Uruguay	2000	Subsidiary	67% <sup>14</sup>	R&M&M

<sup>11</sup> Changed to Aurobindo Pharma Produtos Farmaceuticos Limitada, Brazil (Aurobindo Pharma Limited, 2007).

<sup>12</sup> Purchase of this company made Glenmark the first Indian company to invest in Argentina.

<sup>13</sup> Equity share increased from 80% in 2006. Held by Ranbaxy (Netherlands) B.V. group. (Ranbaxy Laboratories Limited, 2006) Page 31.

<sup>14</sup> Strides' ownership of Strides Latina has transformed three times during the years 2004-2005: until 30.09.04, Wholly owned subsidiary; 01.10.2004 to 04.02.2005, Associate; on and after 05.02.2005, Subsidiary.

	Celofarm Farmaceutica	Brazil	2000	Subsidiary-Merger <sup>15</sup>	100%	R&M&M
	Goodlanza	Uruguay		Subsidiary	60%	R&M
	Biopharma	Venezuela	2006	Acquisition	80%	R&M
	Solara SA de CV	Mexico		Subsidiary	74% <sup>16</sup>	R&M&M
Torrent	Torrent do Brasil	Brazil	2002	Subsidiary	100%	R&M
Unichem	Unichem Farmaceutica do Brasil	Brazil	2004	Subsidiary	100%	R&M
Wockhardt	Wockhardt Farmaceutica do Brasil	Brazil	2004	Subsidiary	100% <sup>17</sup>	R&M
	Wockhardt Mexico SA de CV	Mexico	2004	Joint Venture <sup>18</sup>	51%	R&M
Zydus Cadila	Zydus Cadila	Brazil	2000	Subsidiary	100%	R&M
	Quimica e Farmaceutica Nikkho do Brasil	Brazil	2007	Acquisition	100%	R&M&M
<p>*Reported  Key: M&amp;M = Marketing and Manufacturing, Registration and Marketing R&amp;M,  - = unknown  Source: Compiled by Author<sup>19</sup></p>						

<sup>15</sup> Merged with Infabra Industria Farmaceutica Ltd.Brazil, October 1, 2004.

<sup>16</sup> Up to 30.09.04 subsidiary; On and after 01.10.04 subsidiary of Strides Latina SA. (Strides Arcolab Limited, 2006)

<sup>17</sup> Held by two Wockhardt European Subsidiaries, The Wallis Laboratory Limited with a majority share of 90% and Wockhardt Europe Limited with 10%. (Wockhardt, Annual Report, 2005).

<sup>18</sup> A joint venture with RIMSA to market generic insulin products.

<sup>19</sup> Note, information in this chart is current as of October 30, 2007.

In terms of geographies of Indian investment, some clear trends stand out. Firstly, of the eleven Indian pharmaceutical firms which established subsidiaries or joint-ventures in Latin America, 100 percent have at least one company in Brazil, rendering it the leading choice as a base for Indian companies expanding operations and investment to the region. Sixty-three percent of the companies only have operations in Brazil. Four firms--Glenmark, Ranbaxy, Strides Arcolabs and Wockhardt—have branches in countries beyond Brazil. In every case, however, these offices were established after Brazilian offices. Of the total 23 companies established with Indian capital (or the subsidiary of an Indian parent firm), 14 were based in Brazil. With over half of Indian pharmaceutical companies in Latin America located in Brazil, and Brazil serving as the first place for establishing operations, the market has led both in geographical considerations and timing.

Ownership structure is another area in which patterns emerge. The ownership structure of Indian pharmaceutical firms—that is, the percent of parent capital invested in the local firm—is overwhelmingly one in which the home company wields direct and total control in the shape of a wholly-owned subsidiary (referenced as subsidiary in chart). Only 3 of 11 Indian firms in Brazil have experimented with less than 100 percent interest in their local companies; Ranbaxy, Strides Arcolab and Wockhardt. Strides Arcolabs has been the most adventurous in terms of building companies with mixed capital sources; in 4 out of its 5 companies, it owns between 60 and 80 percent share. In only one company does Strides Arcolab hold 100 percent interest. This is an interesting pattern, as we will see in analysing Strides Arcolabs' strategy, the company has led in terms of integrating themselves into the local market, from management leaders to culture and integration with local political networks.

The activities of Indian firms in Latin America also provide contrasts. Indian pharmaceutical companies are focused in registration and marketing of products, with only four out of eleven of the firms engaging in manufacturing activities in Brazil. Of those firms which have initiated some form of production, two have done so via acquisition and two have embarked on manufacturing activities through organic growth strategies, via building their own facilities.

Indian acquisitions of Latin American firms were led by Glenmark and Zydus Cadila. Both took over Brazilian companies with locally registered portfolios and established manufacturing facilities and brand names. These acquisitions enabled competition in the *similares* segment as well as the generics segment (see Generics and *Similares*: Regulatory Frameworks and Getting the Documents in Brazil, p. 19). Glenmark is the only company to have acquired subsidiaries in

more than one country in the Latin American region. Soon after the establishment of its subsidiary, Glenmark Farmaceutica Ltd in November 2003, it purchased Laboratorios Klinger for a reported US\$ 5.2 million. As a privately owned Brazilian company, Klinger provided a platform through which Glenmark could build its name and expertise in the Brazilian market. Firstly, Klinger had 21 approved pharmaceutical registrations and an approved manufacturing facility (in Sao Bernado do Campo, Sao Paulo). The business operated in the *similares* or branded generics market, with some OTC (over the counter) products. In addition, Klinger had 176 employees, 91 of which were sales representatives.

Following the acquisition of Klinger in 2004, in 2005 Glenmark expanded its product line in Brazil by purchasing a leading hormonal brand, Uno-Ciclo, a popular anti-contraceptive administered in injectible form. The product was previously owned by the Brazilian company the Instituto Biochimico Indústria Farmacêutica Ltda and was acquired by Glenmark for the publicly disclosed sum of US\$ 4.6 million. In the 12 months prior Glenmark's acquisition of Uno-Ciclo, Biochimico reported that the product generated sales of US\$3.1 million in the Brazilian market alone. In the agreement set out between the Biochimico and Glenmark, Glenmark acquired the trademark and exclusive global manufacturing and marketing rights. But Glenmark made the initial decision to contract the manufacturing of the drug to Biochimico, while Glenmark worked on marketing of the product in Brazil and expanding it to other Latin American markets. In their report of the Biochimico-Glenmark agreement, leading Brazilian economic magazine *Valor Econômico* highlights both how conscious the local Brazilian industry is of the entrance of Indian companies, and the gloomy picture shared by local industry of its own market:

Like other Indian laboratories who have entered Brazil, Glenmark arrived exactly two years ago, offering imported drugs. In contrast to the dominant [local] pharmaceutical industry, the Indian laboratory Glenmark came to a positive evaluation of the Brazilian market. Brazil is one of the most attractive semi-regulated markets and offers immense opportunities for pharmaceutical companies like Glenmark, according to the company (Vieira, 2005).

Also in 2005, Glenmark broke into the Argentinean market through the purchase of the local company Servycal, for an undisclosed amount. Glenmark's expansion during this period contrasted with other Indian firms, most of which chose paths of expansion in Brazil and Latin America which entailed the establishment of their own companies, and not via acquisition.

Another outlier in terms of the financial structure and strategy pursued by Indian companies was Zydus Healthcare Brasil Limitada (henceforth Zydus). Zydus established an office in Sao Paulo in 2002 and registered 13 products which were all geared to the generics segment. In June 2005, Zydus' parent company, Cadila Health Care acquired a 100% stake in Quimica e Farmaceutica Nikkho do Brasil (Nikkho) through Zydus Healthcare Brasil Limitada, the wholly owned subsidiary of the company. Zydus reportedly acquired the company for US\$ 25 million. Nikkho was a privately held, mid-sized, profit-making company with a sales posted of US\$ 26 million for the fiscal year 2006.

Like Glenmark, before the acquisition, Zydus was represented in the generics market, but not in the *similares*, or "branded generics" market and acquisition signals the attempt of Indian firms in repositioning themselves in the *similares* segment while gaining the legitimacy of local firm's marketing and distribution structure. With a headquarters in Rio de Janeiro, Nikkho is a pharmaceutical company with a manufacturing facility, four decades of business and sole focus in the *similares* market. Nikkho's product basket includes a wide range of therapeutic segments, including general medicine, paediatrics, gynaecology, neurology, gastroenterology, otolaryngology, respiratory, dermatology and others. The history of the company are some of the critical advantages it offers to Zydus, which has had a difficult time expanding rapidly in the pure generics market (India Infoline News Service, 2007). According to Pankaj R. Patel, chairman and managing director of the company:

The Brazilian market is reasonably large and growing rapidly. With Nikkho, we gain a company with a heritage. It stands for high quality therapeutic products and has a strong equity with the doctors (IRIS Business Services, 2007).

Zydus projected that entrance into the *similares* segment would result in better margins and earnings for the company. In addition, Zydus expected for its original firm to "step up the registration process of several molecules." Nikkho has a sales force of 125 and purported "rapport with 60,000 medical practitioners" (Economic Times of India, 2007; Thompson Financial-Forbes.com, 2007). Its production facilities in Rio de Janeiro have a capacity of 4.99 million ampoules/annually of bioequivalency and oral liquids and 96 million units/annually of tables. Before acquisition, Nikkho had 22 products on the market under 13 different brands.<sup>20</sup>

---

<sup>20</sup> This was Zydus's second acquisition in the year 2007 (Amedabad Domain-b, 2007).



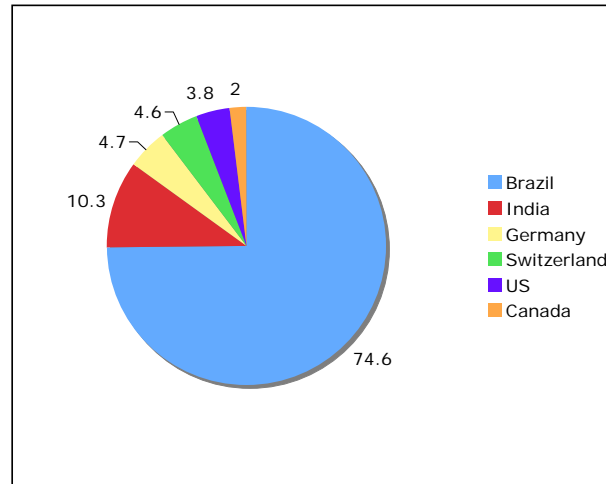
Through the purchase of these local firms, Glenmark and Zydus gained more than product portfolios, they gained the heritage and legitimacy local firms could provide.

In contrast to Glenmark and Zydus, two other companies which have entered into manufacturing activities in Brazil have done so through organic growth, and the building of facilities from the ground up. Ranbaxy reportedly built a manufacturing facility in Sao Gonzalo, Sao Paulo but it has been alleged that the operations revolve mainly around the packaging of finished goods. Cellofarm (subsidiary of Strides Arcolabs) built manufacturing facilities in Serra, Espirito Santo. These facilities are also more geared toward packaging of goods manufactured in India than value-added stages of generic production.

For those Indian companies which acquired local Brazilian companies, their strategy was attaining registered portfolios, marketing and distribution expertise, but not technological capabilities. Indian companies entering the Brazilian market have thus far focused their activities on breaking into registration and marketing and have not engaged in significant technological or value added activities.

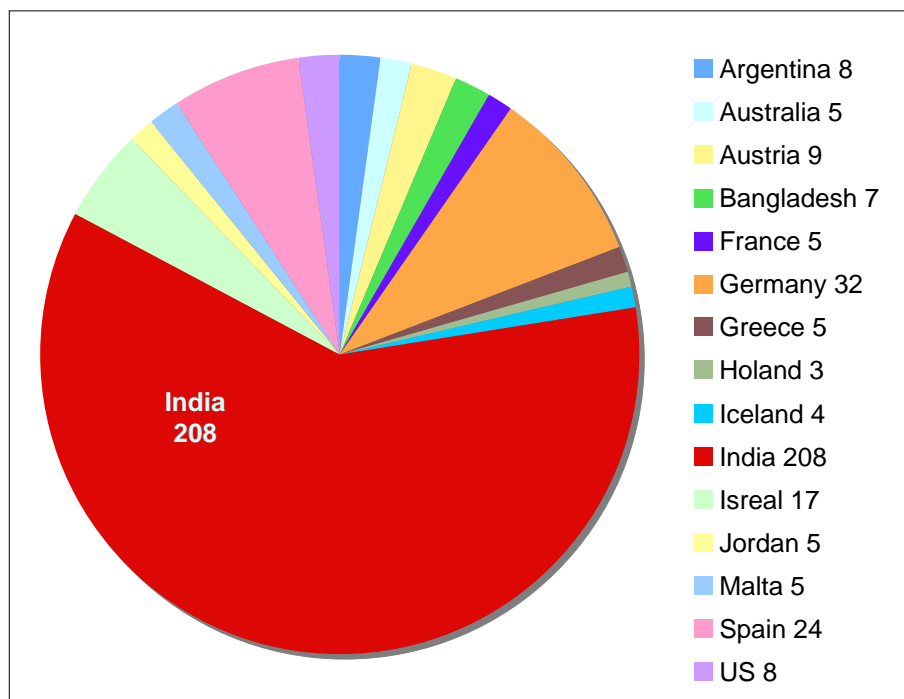
### **Performance in the Generics Segment According to Nationality**

The rapid entry of 6 of India's top ten firms, and 11 of its top 20 firms, all establishing operations in Brazil during the 1999-2006 period, followed the introduction of the generics category and increasing bilateral commercial relations initiated by Indian and Brazilian governments. Table 1: Locations, Ownership and Activities of Indian Generic Drug Firms in Latin America, documents the onslaught of relatively homogenous Indian firms into the Brazilian market during a very short period of time. While Indian firms may have recognized the opportunities arising in Brazilian generics, creating a "beeline" for the Latin American country, by 2006 the lion's share of sales in the market remained in the hands of companies of national capital, with generic Brazilian firms racking up 74.6 percent of national sales and Indian firms earning 10.3 percent of national generics sales. Figure 1 illustrates share of sales in Brazil's generic market according to national origin of firm.

**Figure 1: Percent of Generic Sales in Brazil by Origin of Firm's Home Country, 2006**

Source: (Pró-Genéricos, 2007)

The advantages Brazilian firms held over newcomers in terms of registering, marketing and distributing their products ensured that the newly created generics category would provide many opportunities for home companies which would be difficult for outsiders to crack (CC73, 2006). However, while the national firms enjoy the dominant share of sales, the pecking order among foreign firms is lead by Indian companies. Behind the Indian firms are generic firms from Germany and Switzerland, each with sale levels which do not reach half that of their Indian competitors. Another indicator of India's investment in Brazil's generic industry in comparison to that of other generic competitors is registration of generics by nationality.

**Figure 2: Number of Foreign Generic Registrations by Country**

Source: ANVISA, 2006

Many of these northern-based generic firms, such as Sandoz in the US, Bayer generics in Germany and Apotex generics of Canada are among the top global firms in generics. The success of Indian generic companies is therefore intriguing because in global generics production, India ranks number 13 in terms of value, far behind its European competitors. In the Brazilian market however, Indian companies have beat out major competitors from the developed world, including those with strong global brands.

While the dominant share of Brazilian generic sales is enjoyed by national firms, the challenge presented by Indian firms is recognized by industry analysts, who see low-cost competitors and increasingly rigid regulations as potential stumbling blocks for the national industry. While acknowledging the boon that generics have provided for Brazilian companies, Globalinsight (2007) highlights the challenges ahead:

Less fortunately for Brazil's traditional producers, both multinationals and low-cost Asian firms are targeting the generic market, and at a time when local firms

are under growing pressure to prove bioequivalence and compliance with patent legislation.

Although Globalinsight highlights the arrival of multinationals and “Asian firms,” as of December 2007, Indian firms were the only Asian companies to have registered generics approved for the Brazilian market. Indeed, much is made of “Asian” competitors, but according to one ANVISA official, “I have yet to see any Chinese firm apply to bring a generics product to this country” (BG375, 2006). The view of the arrival of Asian firms is a generalization which does not accurately reflect the realities of what has actually only been an Indian arrival, buttressed by the unique capabilities of the Indian industry and the efforts of Brazilian politicians such as Minister Jose Serra, during his two visits to India during the early 2000s to recruit those companies to the country.

In addition, the common view of the arrival of Indian generics in the Brazilian market as primarily or solely a source of competition for Brazilian firms is inaccurate. Indeed the very success of each of these groups has been intertwined because of Brazil’s dependence of foreign manufactured APIs in its pharmaceutical production chain. India’s role as a supplier of APIs has made the Brazilian generics market anything but a zero-sum game. The gains of Brazilian companies have been enjoyed by the Indian firms who are their competitors, but also their API suppliers. In Figure 1 the pie chart’s clear division of sales is misleading, as each Brazilian generic drug likely has a piece of Indian production in it.

### **Brazilian Generics and Indian Generics: Interlinked Through APIs**

While Indian companies have competed with Brazilian companies for a larger share of the increasing finished formulation generics market, at the same time, they have also become important input suppliers of APIs for Brazilian generic companies. This is due to the weakness of Brazilian basic chemical production; according to industry estimates, over 97 percent of all pharmaceutical APIs are imported into Brazil. Only 3 percent of all APIs are produced domestically.

Traditionally, Brazil imported the majority of its APIs from the US and Europe. Over the last decade, Indian suppliers have gone from the 14<sup>th</sup> to the 2<sup>nd</sup> supplier of APIs for the Brazilian market in terms of volume. In aggregate terms, the success of Brazilian national generics firms

has not been at the expense of Indian generics firms. The very success of the Brazilian generics firms is intertwined with Indian generics companies, which play a role as important suppliers in APIs. Data in Table 2 below presents unique, unprecedented view into the emerging trade dynamics for Indian pharmaceutical products (APIs and finished formulations) entering the Brazilian market. The table reveals the vast number of Brazilian pharmaceutical companies which have been importing from India, and their expansion both in number, and quantity of import over the last six years.

The table is culled from data released by Brazil's Ministry of Commerce. For each year, data included a total list of importing firms from India, in order of import size. The firms were sorted only by four categories, those which imported more than US\$ 50 million, those importing between US\$ 10 and 50 million, those importing between US \$10 and US\$ 1 million and those importing less than US\$ 1 million. The number of entries per year went into the thousands and did not distinguish by individual category of import by product, or exact volume or price. Despite these missing pieces of information, we sorted the data according to firm activity to illustrate some interesting trends.

Firstly, the number of importing companies has increased nearly two fold over the six year period. In 2001, 1,406 countries imported products from India. By 2007, that number had doubled to 2,707. This increase represents the diversification of Brazilian firms which are looking to India as a supplier country for inputs generally and in the pharmaceutical category.

Secondly, each annual list was analyzed firm by firm for the nature of the business conducted. Over 9,000 entries were reviewed. National pharmaceutical industry and fine chemical's lists of Brazilian companies (ABIFINA and ABIQUIM lists) were cross-referenced with internet searches for each business in question to separate those in the pharmaceutical sector from those in other areas. Many of the entries were easy to identify as businesses in the pharmaceutical sector, as they were either interviewed, or referenced by the companies included in this study. Those companies or institutions working in the pharmaceutical sector were then separated into national firms, public institutions (public laboratories or federal or state departments of health), or Indian companies. By separating these firms from the seven separate data bases we were able to compile one sheet with all the information, colour coding the different firms (Brazilian generic-green, Indian generic—blue, Brazilian public entity—yellow), and allowing a view into the changing position of Indian product importing entities in relationship to each other, over time.

**Table 2: Import of Indian Products by Firm (2001-2007)**

	2001	2002	2003	2004	2005	2006	2007
<b>HIGH IMPORTERS</b>	EUROFARMA LABORATORIOS LTDA	CELLOFARM LTDA		CELLOFARM LTDA	CELLOFARM LTDA	CELLOFARM LTDA	CELLOFARM LTDA
	FUNDACAO OSWALDO CRUZ	FUNDACAO NACIONAL DE SAUDE		AB FARMO QUIMICA LIMITADA	INSTITUTO BIOQUIMICO INDUSTRIA FARMACEUTICA	AB FARMO QUIMICA LIMITADA	EMS S/A
				DAVIDSON QUIMICA E FARMACEUTICA LTDA	AB FARMO QUIMICA	EMS S/A	MINISTERIO DA SAUDE
							RANBAXY FARMACEUTICA LTDA
<b>MEDIUM IMPORTERS</b>	FUNDACAO NACIONAL DE SAUDE	LABORATORIO INDUSTRIAL FARMACEUTICO DE ALAGOAS SA	AB FARMO QUIMICA LIMITADA	AGRIPEC QUIMICA E FARMACEUTICA SA	EMS S/A	RANBAXY FARMACEUTICA LTDA	MEDLEY S A INDUSTRIA FARMACEUTICA
	LABORATORIO NEO QUIMICA COMERCIO E INDUSTRIA LIMITADA	DAVIDSON QUIMICA E FARMACEUTICA LTDA	CELLOFARM LTDA	INSTITUTO BIOQUIMICO LIMITADA	DAVIDSON QUIMICA E FARMACEUTICA LTDA	MEDLEY S A INDUSTRIA FARMACEUTICA	INSTITUTO BIOQUIMICO INDUSTRIA FARMACEUTICA LTDA
	DAVIDSON QUIMICA E FARMACEUTICA LTDA	CLARIANT S.A	DAVIDSON QUIMICA E FARMACEUTICA LTDA	GALENA QUIMICA E FARMACEUTICA LTDA	MEDLEY S A INDUSTRIA FARMACEUTICA	EUROFARMA LABORATORIOS LTDA	EUROFARMA LABORATORIOS LTDA
	CELLOFARM LTDA	INDUSTRIA QUIMICA DO ESTADO DE GOIAS S A IQUEGO	AGRIPEC QUIMICA E FARMACEUTICA SA	EMS INDUSTRIA FARMACEUTICA LTDA	TORRENT DO BRASIL LTDA	CLARIS PRODUTOS FARMACEUTICOS DO BRASIL LTDA.	CLARIS PRODUTOS FARMACEUTICOS DO BRASIL LTDA.
	GALENA QUIMICA E FARMACEUTICA LTDA	MINISTERIO DA SAUDE	MEDLEY S A INDUSTRIA FARMACEUTICA	MEDLEY S A INDUSTRIA FARMACEUTICA	EUROFARMA LABORATORIOS LTDA	MINISTERIO DA SAUDE	TORRENT DO BRASIL LTDA

	LABORATORIO INDUSTRIAL FARMACEUTICO DE ALAGOAS SA	AGRIPEC QUIMICA E FARMACEUTICA SA	CLARIANT S.A	EUROFARMA LABORATORIOS LTDA	ZEUS LIFESCIENCES LTDA.	PHARMA NOSTRA COMERCIAL LTDA	AB FARMO INDUSTRIA FARMACEUTICA LTDA
	MINISTERIO DA SAUDE	LABORATORIOS BIOSINTETICA LTDA	ITACA LABORATORIOS LTDA	ZEUS LIFESCIENCES LTDA.	EUROFARMA LABORATORIOS LTDA	TORRENT DO BRASIL LTDA	PHARMA NOSTRA COMERCIAL LTDA
	LABORATORIOS BIOSINTETICA LTDA	GALENA QUIMICA E FARMACEUTICA LTDA	INDUSTRIA QUIMICA DO ESTADO DE GOIAS S A IQUEGO	LABORATORIO NEO QUIMICA COMERCIO E INDUSTRIA LIMITADA	PHARMA NOSTRA COMERCIAL LTDA	INSTITUTO BIOCHIMICO INDUSTRIA FARMACEUTICA LTDA	SANDOZ DO BRASIL INDUSTRIA FARMACEUTICA LTDA.
	INDUSTRIA QUIMICA DO ESTADO DE GOIAS S A IQUEGO	AB FARMO QUIMICA LIMITADA	GALENA QUIMICA E FARMACEUTICA LTDA	BIOSINTETICA FARMACEUTICA LTDA	BIOSINTETICA FARMACEUTICA LTDA	GENIX - INDUSTRIA FARMACEUTICA LTDA	BIOLAB SANUS FARMACEUTICA LTDA
	ARISTON INDUSTRIAS QUIMICAS E FARMACEUTICAS LTDA	LABORATORIO NEO QUIMICA COMERCIO E INDUSTRIA LIMITADA	CLARIANT S.A	BAYER CROPSCIENCE LTDA	FUNDACAO OSWALDO CRUZ	CMS PRODUTOS MEDICOS LTDA	CRISTALIA PRODUTOS QUIMICOS FARMACEUTICOS LTDA
	LIBBS FARMACEUTICA LTDA	EUROFARMA LABORATORIOS LTDA	EMS S/A	LIBBS FARMACEUTICA LTDA	MINISTERIO DA SAUDE	BIOLAB SANUS FARMACEUTICA LTDA	GLENMARK FARMACEUTICA LTDA
	MEDLEY S A INDUSTRIA FARMACEUTICA	PHARMA NOSTRA COMERCIAL LTDA	LABORATORIOS BIOSINTETICA LTDA	TORRENT DO BRASIL LTDA	GALENA QUIMICA E FARMACEUTICA LTDA	CRISTALIA PRODUTOS QUIMICOS FARMACEUTICOS LTDA	TORRENT DO BRASIL LTDA
	LAOB BIOQUIMICOS LTDA	MEDLEY S A INDUSTRIA FARMACEUTICA	SECRETARIA DE ESTADO DA SAUDE - SUSAM	BIOLAB SANUS FARMACEUTICA LTDA	BIOLAB SANUS FARMACEUTICA LTDA	BIOSINTETICA FARMACEUTICA LTDA	ANTIBIOTICOS DO BRASIL LTDA.
	INDUSTRIA E COMERCIO DE MEDICAMENTOS LABOGEN S/A	EMS INDUSTRIA FARMACEUTICA LTDA	EUROFARMA LABORATORIOS LTDA	GENIX - INDUSTRIA FARMACEUTICA LTDA	MEDAPI FARMACEUTICA LTDA.	LABORATORIO NEO QUIMICA COMERCIO E INDUSTRIA LIMITADA	FUNDACAO PARA O REMEDIO POPULAR FURP
	ITACA LABORATORIOS LTDA	CIBA ESPECIALIDADES QUIMICAS LTDA	PHARMA NOSTRA COMERCIAL LTDA	LABORATORIO TEUTO BRASILEIRO S/A	FARMACO INDUSTRIA FARMACEUTICA LTDA	GLENMARK FARMACEUTICA LTDA	BIOSINTETICA FARMACEUTICA LTDA

		ITACA LABORATORIOS LTDA	EMS INDUSTRIA FARMACEUTICA LTDA	GALENA QUIMICA E FARMACEUTICA LTDA	CRISTALIA PRODUTOS QUIMICOS FARMACEUTICOS LTDA	EUROFARMA LABORATORIOS LTDA	LABORATORIO QUIMICO FARMACEUTICO BERGAMO LTDA
		SECRETARIA DE ESTADO DA SAUDE - SUSAM	INSTITUTO BIOQUIMICO LIMITADA	GENIX - INDUSTRIA FARMACEUTICA LTDA	LABORATORIO NEO QUIMICA COMERCIO E INDUSTRIA LIMITADA	LABORATORIO TEUTO BRASILEIRO S/A	NORTEC QUIMICA S.A.
		EUROFARMA LABORATORIOS LTDA	LABORATORIO NEO QUIMICA COMERCIO E INDUSTRIA LIMITADA	LABORATORIO TEUTO BRASILEIRO S/A	LIBBS FARMACEUTICA LTDA	SANDOZ DO BRASIL INDUSTRIA FARMACEUTICA LTDA.	MEDLEY S A INDUSTRIA FARMACEUTICA
		BAYER CROPSCIENCE LTDA	MINISTERIO DA SAUDE	GALENA QUIMICA E FARMACEUTICA LTDA	LABORATORIO TEUTO BRASILEIRO S/A	LIBBS FARMACEUTICA LTDA	EMS S/A
		LIPO DO BRASIL LTDA	EUROFARMA LABORATORIOS LTDA	LABORATORIO QUIMICO FARMACEUTICO BERGAMO LTDA	BIOSINTETICA FARMACEUTICA LTDA	NOVARTIS BIOCIENCIAS SA	NOVARTIS BIOCIENCIAS SA
		LABORATORIO TEUTO BRASILEIRO S/A	CIBA ESPECIALIDADES QUIMICAS LTDA	CLARIANT S.A	EMS S/A	LABORATORIO QUIMICO FARMACEUTICO BERGAMO LTDA	EUROFARMA LABORATORIOS LTDA
		BIOLAB SANUS FARMACEUTICA LTDA	ZEUS LIFESCIENCES LTDA.	ZODIAC-PRODUTOS FARMACEUTICOS S.A.	INDUSTRIA QUIMICA DO ESTADO DE GOIAS S A IQUEGO	FUNDACAO OSWALDO CRUZ	ZYDUS HEALTHCARE BRASIL LTDA.
		CIBA ESPECIALIDADES QUIMICAS LTDA	BIOLAB SANUS FARMACEUTICA LTDA	CIBA ESPECIALIDADES QUIMICAS LTDA	GLENMARK FARMACEUTICA LTDA	ZYDUS HEALTHCARE BRASIL LTDA.	ACHE LABORATORIOS FARMACEUTICOS SA
		LIBBS FARMACEUTICA LTDA	CIBA ESPECIALIDADES QUIMICAS LTDA	FUNDACAO OSWALDO CRUZ	LABORATORIO QUIMICO FARMACEUTICO BERGAMO LTDA	NORTEC QUIMICA S.A.	INDUSTRIA QUIMICA DO ESTADO DE GOIAS S A IQUEGO

Source: Compiled by author from Ministerio de Comercio e Desenvolvimento Documents, Table abridged, full data in CD form. Available upon request for any interested researcher.



One of the most immediate observations garnered from this data is that claims made by Indian firms that their generic subsidiaries are not the primary importers of Indian pharmaceutical products are confirmed. Indeed, by number of importers, Brazilian national companies far surpass their Indian cohorts. Furthermore, the interlinkage of Brazilian generic companies with Indian suppliers is revealed by the consistent and growing presence of all the top performing national generic companies EMS, Medley, Eurofarma and Ache in the high and medium range categories. EMS ranks in the high importers category for two years. Eurofarma tops the list of all importers in 2001. In the medium range category, leading Brazilian generics firms EMS, Medley and Eurofarma are present in the top five slots since 2004. As the generics sector has strengthened, so have these companies' imports of Indian products. These results are consistent with anonymous interviews with representatives at these firms. According to the director of API purchases for one of the top three Brazilian generic firms:

We purchase APIs from over 150 Indian companies a year. They have become our major foreign suppliers. Their products are cheap and provide quality, and in most [product] segments Brazilian [API] companies just can't compete (CC74, 2006)<sup>21</sup>.

This picture of increasing Indian pharmaceutical imports from Brazilian companies, Indian companies, and public Brazilian institutions is unique for many reasons. One is that national Brazilian companies are highly secretive about the exact quantities of Indian products that they import. Due to the sensitive commercial and political nature of this information, access to records of purchases from India or exact figures were rejected by every firm contacted. This is not data which is released to the public in any form. However, in informal and off-record conversations with representatives of these firms, the increasing prevalence of Indian APIs was repeated. There is every indication that the import of Indian products is higher than government data would indicate. For example, for the year 2005, records from the Indian firm Ranbaxy show sales in Brazil of US\$ 25 million. And yet in the import data provided by the Ministry of Commerce, Ranbaxy is registered as importing less than US\$ 1 million worth of products.

---

<sup>21</sup> This paper draws from over 80 interviews with firm representatives, policy makers and regulators. All interviewees were offered anonymity; those who selected to remain anonymous were coded according to three categories, Indian Government (IG), Brazilian Government (IG) and Companies and Consultants (CC).

This inconsistency spurs several potential explanations: Firstly, Indian goods imported by Indian or Brazilian firms could come from destinations other than India. For example, Ranbaxy Brazil is actually owned by Ranbaxy Netherlands, and it is possible that many of the goods sold in Brazil are brought through the Netherlands and registered as imports from that country. The justification for indirect-route exporting could be based in Indian draw-back policies,<sup>22</sup> or simple shipping and supply chain modalities. When this was suggested to some of the firms, it was rejected, and the inaccuracy of government statistics was attributed to government incompetence. However, some representatives acknowledged that a circular route was occurring and that the passage of goods from India through other destinations diminished the aggregate trade numbers significantly. As observed by an insider at the Indian Embassy of Brazil:

I had always wondered why pharmaceutical products were so low, with the high number of our companies operating here. Circular routes would be quite natural, really (II30, 2006).

The “circular route” explanation could also entail the use of free tariff ports such as Uruguay or Paraguay. A third explanation for yearly inconsistencies is the presence of stockpiles. For example, it is possible that Ranbaxy’s sales in 2005 were supplied by stocks shipped to the country in 2004. But the theory of stockpiles does not hold much water in this case, as in 2004, Ranbaxy’s imports into the country were also in the low end category.

By 2007 however, Ranbaxy’s reported sales are consistent with its recorded imports. It sold approximately US\$ 39 million worth of goods, and was fourth in the high importers category, reported by the Ministry as having imported between US\$ 10 and 50 million. So while the import data does not appear to reflect the sales of all Indian firms accurately, other firms’ records are consistent with their published sales. The firms Cellofarm is outstanding in this regard. In the seven years for which we have data,

---

<sup>22</sup> A simplified description of India’s drawback policy is the following: Indian firms are reimbursed by the government for taxes paid on input imports destined for manufacture of products which are ultimately exported. As described in interview with Pharmexcil director Kini (2006).

Cellofarm is the top importer for five years. In three of the seven years AB Farmo Quimica (the subsidiary of Aurobindo) also ranks in the top category.<sup>23</sup>

### **Generics and *Similares*: Regulatory Frameworks and Getting the Documents in Brazil**

Making it in pharmaceuticals is much more complicated than simply having a good product. You have to have the documents and the distributors. After that, only drug and arms dealings surpass you in profit.

*-Head of APIs for Latin America, Top 10 Indian firm, 2006<sup>24</sup>*

The introduction of a generics category in Brazil ushered in a new era of competition and the entry of Indian pharmaceutical companies in the Brazilian market. But while the generics category provided opportunities for local and foreign firms, it quickly developed into a highly competitive market, and one in which the lowest price offering would not necessarily determine successful outcomes for a firm. By 2006, the Brazilian head of sales Latin American for a prominent Indian company observed, “the market is closed, there are extremely high levels of competition and nobody new is going to make it” (CC61, 2006).

Why was the Brazilian market “closed” when its legislation had been crafted with the aim of opening the market to higher competition and lower prices, and in fact, had succeed in attracting a number of new competitors into the fray? As another analyst explained it, in generics the two “principle entryways” are regulation and distribution. The idiosyncrasies of these entryways rendered significant impact on the pathway of a product in Brazil. In addition, the specific characteristics of regulation and distribution of generics in Brazil were further complicated due to the different categories of competing pharmaceutical products. In the post-generics scenario, three types of pharmaceutical products were available in the Brazilian pharmaceutical market: patented products, *similares*, and generics. The following sections outline the regulatory and distribution characteristics of these products which is followed by analyses of the rationale behind Indian companies

---

<sup>23</sup> See Appendix 8, “Assets and Sales of Indian Generic Drug Firms in Brazil,” for specific data regarding released firm sales.

<sup>24</sup> (CC65, 2006)

emphases on the alternative segments *similares* and generics categories, and of the public sector, as viewed and pursued by Indian firms.

Since Brazil's harmonization with WTO intellectual property rights standards in 1996, patented products were bequeathed with 20 years of monopoly marketing rights to the owner firm, from the date of application. Patent applications are reviewed by the IPN and according to the director of that agency, Roberto Jaguaribe, take approximately 5-8 years (Jaguaribe, 2005). The patented category is one in which Indian firms do not have products, nor do Brazilian firms to any great extent. Price controls on patented products exist for 30 percent of goods (Bezerra, 2006). The average price of a branded product is however more than 40 percent higher than a generic product as the regulations curtail the maximum price differential and many firms go further in reducing their price from the patented level. Table 3 illustrates the basic differences in the three market segments of patented, *similar*, and generic goods.

Table 3: Pharmaceutical Product Forms in Brazilian Market				
Legal Name	Other Names	Regulation	Pathway to Customer Distribution and Marketing	Market Share by value in Brazil
Patented Products	Originator product	<ul style="list-style-type: none"> <li>IPN approves patent</li> <li>ANVISA approves quality</li> </ul>	<ul style="list-style-type: none"> <li><b>Doctor</b> provides prescription with company name specified</li> <li>Pharmacist does not have a cheaper alternative to offer customer</li> </ul>	88%
<i>Similar</i>	Branded generic	<ul style="list-style-type: none"> <li>No bioequivalency tests (in 2009, should change)</li> <li>No disponability tests (to change in 2009)</li> </ul>	<ul style="list-style-type: none"> <li><b>Doctor</b> provides prescription with company name specified</li> <li>Marketed and packaged with company name</li> <li>No price regulations</li> </ul>	12%
Generic	Generic	<ul style="list-style-type: none"> <li>ANVISA requires bioequivalency, biodisponibility tests</li> <li>As of 2006 These tests can only be carried out</li> </ul>	<ul style="list-style-type: none"> <li><b>Pharmacist</b> offers generic alternative to customer</li> <li>Marketed with only active</li> </ul>	12% <sup>25</sup>

<sup>25</sup> Statistics regarding the breakdown between *similares* and generics segment are not available, in this chart, they are

		in approved Brazilian laboratories	ingredient name <ul style="list-style-type: none"> <li>Required by law to be at least 30 percent cheaper than originator product</li> </ul>	
Source: Compiled by author				

Early Indian entrants in the Brazilian market dedicated their investments to registering products in the generics segment. Ranbaxy was pioneer in these regards and remains the largest holder of generic registrations with 110 approved products. Yet, despite their early arrival, generics have been one of the most difficult segments for Indian firms to sustain over time. For example, in 2004 Ranbaxy generated sales of US\$31 million in 2004, but by 2006, these sales had evaporated to US\$ 17 million. With competitive generics prices and a good position in the world market, why has it been difficult for Indian firms to establish themselves in the generic market?

The pathway for generics products begins with registration and regulatory approval. Once the firm achieves registration of their product, they then focus on the optimum pathway for bringing the product to the public. With generic products, the critical point in the purchase of generics lies with the pharmacy. When a doctor prescribes a medicine, according to law, if a generic version is available, the pharmacist has the option to offer it to the consumer. At the pharmacy's *banco* or counter, the consumer decides to choose the generics product over the name-brand.

Pharmacies however, chose which generic products to offer. Indian firms claim that it has been difficult to compete with indigenous Brazilian firms, who have advantages in navigating the registration system, and already had pre-established relationships with national distribution and pharmacy chains. As one Indian executive described it,

...if I have 15 products I have registered and want to present them to a pharmaceutical chain, the chain likely already has an agreement with one of the large national firms for 150 products. Unless my 15 products are differentiated from those carried by the national producer they will go with their original partners (CC70, 2006).

In terms of generic registrations, national firms lead Indian firms by 6 to 1, but among foreign importers, Indians are the dominant country represented in the generic segment

by registration. These registrations are evidence that over the at least three years Indian firms have invested considerable resources in the registration process with expectations of returns which would compensate for the time and investment period. This has not been the case. One firm which focused in this area, Ipca labs, withdrew its operations after incurring major losses. Ranbaxy saw its market share depleted. Canada's largest generics firm Apotex provided the classic case of a firm over-investing in the Brazilian market and folding before returns could be realized.<sup>26</sup>

Why did early Indian firms focus so heavily on the generics sector, and avoid the *similares* category? Because *similares* depends on brand name, it was assumed that profit in this category would take more time to build. As one pharmaceuticals consultant has described it:

With time, generics fall because you probably launch a few attractive products in the beginning. You are able to improve your profitability very quickly because those products [you are supplying] are not available. But very soon, competitors come in since there is no barrier entry, which is a brand. So your profitability dissipates away. On the other hand as you build a brand, you invest a lot. So you don't have much profitability. But over time your brand gets stronger. But most Indian companies want instant gratification. (CC72, 2006)

Self-described "latecomer" Unichem opened office in Sao Paulo in 2005, following on the heels of the first wave of Indian companies in the early 2000s. They benefited from the experiences of the previous companies, by analysing which segments to invest in the process of registering products. They saw the second channel of access in generics as the most problematic: Major pharmaceutical chains they noted, were not interested in carrying one or two random generics products from an unknown Indian firm, even if the prices they offered on their products were up to forty percent lower those that offered by Brazilian companies:

One product doesn't fly, unless it has unique characteristics. As there are very few Indian companies which have a unique product. It is difficult find a platform through which to access the market.

---

<sup>26</sup> Apotex, the largest Canadian generics company, entered Brazil in 2002, investing over US\$ 40 million in a local manufacturing plant. It closed operations in 2006, facing fierce local competition.

One strategy for overcoming the commoditisation of generics, and the saturation of product lines for goods in which Indian firms have a clear price advantage, is “piggy backing.” In this strategy, an Indian firm finds a niche generic, in which they offer some unique characteristic, for example, a different delivery form of a product, or two products fused into one. They then are able to offer the unique product to the drug store chain and demand that other low-cost generics be included in a package arrangement. Nevertheless, several firms noted that top Brazilian firms, such as Eurofarma, Medley and EMS enjoyed cordial relationships with major pharmacy chains in which shut out Indian firms and their products. And while there are nearly a dozen Indian firms marketing products in the generics market, there is no coordination among these companies:

Everyone is dependent on a Brazilian distribution company. There is never any Indian company investing in infrastructure and distribution. Nobody has realized the potential of distribution because there is no expertise in that area.<sup>27</sup>

With distribution channels in Brazil controlled by a select number of national pharmaceutical chains, Indian companies with their product lines in the generics segment emphasized .

### ***Similares* Focus: Flashy but Trustworthy**

In developing countries like ours, institutions are not trusted by many people, so people trust brands a lot, especially in Brazil.

*-Rakesh Vaidyanathan, Director, The Jai Group, Sao Paulo Interview, April 2006*

The *similares* category is a vestige of the pre-generics system. Before the introduction of generics, *similares* were the alternative to brand-name originator products. With the commencement of the generics category, new regulations were instituted to regulate *similares* products. Today to register a similar, a dossier is required which proves the bio-equivalence of the registered drug as listed by ANVISA; there has been a convergence, at least upon the introduction of the product standards for both segments.

---

<sup>27</sup> Bavaskar Vijay, Country Manager, Wockhardt, Interview, Sao Paulo, May 18, 2006.

Some products which were on the market before the bioequivalency requirements were inaugurated are registered as *similares* but do not yet have this paperwork. Re-registration of *similares* however, required every 4 years. Therefore, ANVISA estimates that by 2009, all *similares* will have fulfilled the requirements for generics products or will no longer be available on the market. The *similares* has been pointed to as a source of advantage for firms because the requirements are less stringent, but the differences in regulatory standards are expected to all but disappear before 2010.

In terms of the distribution process, or pathway to the customer, the difference between *similares* and generics products renders a notable impact on the means of marketing the product. With the standardization of the registration process, the two major characteristics which do differentiate the *similares* and generics medicines are now: packaging and prescription pathway. Unlike generic products, which are known by their active principle name and ubiquitous packaging with a large G and the name of the active ingredient, *similares* are given a specific name by the company which is traditionally more easy to pronounce and as one managing executive describes it, “flashy but trustworthy” (CC37, 2006). Therefore the *similares* category allows for a brand name, a possibility which allows the company marketing the product to structure its marketing campaign toward building recognition and a relationship with its consumer based on a product name that is easily recognizable.

Drawing from a random example, the widely used amoxicillin (or *amoxicilia* as it is known in Brazil) would in its generic form be packaged under the name “amoxicilina.” As a *similar*, the basic antibiotic would take on a brand name crafted by the company as part of a marketing package. For example, amoxicillin is sold in Brazil by two Indian firms, as axepen® by Cellofarm and as camoxin® by Glenmark. With names so different, a customer may remember the brand and in the ideal case for a pharmaceutical firm, subsequently repeats to a doctor for example, “last time I took camoxin® and it was effective.” This recognition is the name of the of the name appears to be a critical strategy in achieving grounds for a firm from a developing country, where concerns about quality and sourcing in the public minds may be minimized by building brand name and confidence.

Beyond building trust and brand recognition with doctors and consumer, the *similares* segment differs from the generics in its pathway toward prescription. “Similares you don’t



have to have the bio-equivalency test. You focus on your relationship with the doctors, marketing and promotions. You have to create a name that has credibility in the medical community.” (CC65, 2006) This is a crucial point for firms in terms of how its product reaches the customer. It also demands different levels of interaction:

I'll give you a real Indo-Brazilian example. In India, if you see someone selling peanuts, he doesn't give you three or four peanuts free of cost, just to have a nibble. But if you go to the beach in Brazil, the customer expects that peanut guy to hand over a few free nuts. It's the same in pharmaceuticals, you have got to go loaded with *amostras*--samples, to give them a taste of your product.

Unlike in the generics segment, where the *balconista* or pharmacist offers the option to the purchaser of the generics product over the name brand prescribed by the doctor, in *similares*, the doctor prescribes a specific company's product which is then rarely challenged by the pharmacist. Firms that have recognized this difference have positioned themselves accordingly. Torrent's sales team has more than 300 sales persons focused exclusively on relationships with doctors, they also have programmes for building relationships with leading doctors in the specific disease categories in which they have their major products: cardiovascular and depression (specifics). In conclusion, while the regulatory differences between generics and *similares* have experienced a period of conversion, the distribution requirements and channels are notable.

### **Public Sector Supply Focus**

In addition to generics, one of the early attractions of the Brazilian market was the policy to lower price costs by inviting the Indian firms to enter the market. Two problems have illustrated that this segment is one which though it provided early sources of income for Indian firms was not sustainable in the long run for many of the companies. After benefiting from the volume and stability of payment provided by the *pregão system*, they observed a system increasingly riddled with corruption. According to one executive of a company which is a leading producer of ARV antiretrovirals, in the middle of an online auction which was stipulated to last a certain period of time, a bid would come on the screen which was extremely low and then the *pregão* would just close prematurely. This was evidence of the rigged nature of the *pregão*, which once had been advantageous

for the Indian firms. In addition to the increasingly murky operational nature of some of the government's bidding processes, the arrival of low-cost Chinese firms did effect procurement of low-cost APIs. And second, looking for the lowest price bidder, so eventually losing out to Chinese and Indians who supply directly from Chinese. Like their Brazilian counterparts, many Indian companies saw the Chinese prices as artificially deflated. As observed by the President of one Brazilian company: "These are political prices, not real market prices. Nobody can produce for that and make a profit." (IG13, 2006). The Indian representative of another company echoes that sentiment, reflecting on the purchases of one of Brazil's leading public laboratories:

Farmanguinhos used to do *pregão* with the variable being lowest price. If the Chinese can give you the best price, they can give you a price, something that is unimaginable. But when you see the product, you know it is a big loss to the country (CC73, 2006).

Contrasting views are shared throughout Indian firms regarding the potential of government sales. On one side, the size of the public market is heralded as worthy. According to one manager of an Indian firm "The public sector is quite lucrative, it is voluminous." (CC73, 2006). While another observes: "You can't build business on government contracts. People don't look at volumes, they look at prices. Government contracts will give you volume but they won't give you prices." (CC72, 2006). These sentiments are illustrated clearly through the diverging strategies of firms.

Vagaries in purchasing systems also became an impediment to Indian firms. Cellofarm and Cipla were pushed out of these areas. As a representative of sales for Cipla put it bluntly: "Look, we had to exit that arena years ago. Now we focus on the Brazilian private sector" (CC59, 2006). Aurobindo is the only firm that has continued to sell to national laboratories and Ministry of Health calls for tender, but some questionable issues (corruption scandal).

## 1.2 Indian Generic and API Firms in Brazil: Strategies of Dragons?

*Kitna jigra hai chati mein.*

How strong is your chest?

–Unichem Representative, Interview, Sao Paulo, July 2006<sup>28</sup>

Pharmaceutical companies in Brazil, the large, dominant multinationals, don't like the entrance of the Indian generic manufacturers.

–Rakesh Vaidyanathan, *The Jai Group*, Sao Paulo, 2006

Despite the heterogeneous mix of Indian firms, with substantial variety in innovative capacity and drug segment concentration, Indian firms share some common characteristics. Their strength in reverse engineering and API and generics is the core productive similarity. Furthermore, national firms are in present phase of consolidation and potential acquisition (both internally and through agreement with multinationals) and internationalization. The wave of internationalization efforts by Indian firms, which resulted in 11 companies commencing operations in Brazil in the late 1990s and early 2000s has born mixed results and divergent focuses for the firms, be it in generics, *similares*, or public sector strategies. In the following sections, we look more closely at the experiences and strategies of four firms and their concentration in difference segments of the Brazilian markets.

### **Aurobindo: Building Value through APIs and Government Focus**

Aurobindo's success in the Brazilian market offers the classic Indo-Brazilian model—in timing, substance and strategy. Aurobindo entered the market in the years immediately following the generics regulation, but it built its presence in the API category, not in generics. Aurobindo focused on APIs and specifically on competing in the public sector. Over the last decade, Aurobindo expanded its strategy to include generics products, but the keystone of its entrance in the Brazilian market through the API channel and the majority of its sales are still derived from this segment.

---

<sup>28</sup> Unichem representative in Sao Paulo, quoting Hindi parable to describe the strength demanded from Indian entrepreneurs entering what he called a “highly competitive and locally controlled market.” Interview, Sao Paulo, June 6, 2006.

In 2002 ANVISA approved Aurobindo's pharmaceutical formulations unit in Hyderabad, spurring the firm to release a jubilant press release that "this certification will give a major boost to Aurobindo Pharma's efforts to penetrate into Brazil, which is a huge market for pharmaceutical formulations" (Aurobindo, 2002). Brazil has featured predominantly in Aurobindo's global strategy of market expansion to both regulated and semi-regulated markets. In 2005, Aurobindo established two plants in China and a Subsidiary in Brazil. In an interview with promoter and managing director of Aurobindo Pharma, K. Nityananda Reddy described the company's growth strategy as "two-fold." Brazil and Latin America figured predominantly in both prongs of the firm's strategic plan:

1. Further penetrate and capture larger shares in the markets of India as well as South East Asia and Latin America through Subsidiaries, joint ventures and alliances.
2. Enter regulated markets on the strength of our R&D engine. We have made significant progress towards achieving both these objectives. Our investments in India, China and Brazil are producing excellent results." (Pharma Pulse, 2002)

Emblematic of the Indian pharmaceutical industry's push to move into higher value segments of the value chain, Aurobindo has made a strategic decision to reduce its dependence on APIs sales and enter the fixed formulations business. In 2007, Aurobindo registered its 3<sup>rd</sup> largest turnover from its Brazilian subsidiary, earning \$ US 25 million (Aurobindo Pharma Limited, 2007: 89). Nevertheless, it is API supply that still drives its revenues; according to one insider, by 10 to 1. Aurobindo's supply of APIs to the Brazilian government, in particular for the HIV/AIDs program, has been a frequent reference by policy makers citing evidence of Indo-Brazilian cooperation which has emerged from increasing trade. But according to one trader, "perhaps Aurobindo has gotten a little *too* Brazilian" (CC65). Aurobindo's relationship with the government has not been without controversy, during a major corruption scandal in 2006, (known as the *Sangue Suga* scandal), Aurobindo director Premanand was implicated in vast network of corrupt officials which included 335 representatives of the federal congress.<sup>29</sup>

---

<sup>29</sup> In 2005, the subsidiary's president, Premannandam Modapohala, was arrested with ten others, notably including Darci Accorsi, then President of IQUEGO, the state of Goiás' public laboratory, which produces antiretrovirals for Brazil's federal programme. The group was accused by the Federal Police of coordinating a "megaoperation" including in the states of Rio de Janeiro and

Nevertheless, upon President Lula's issuance of a compulsory license for Merck's antiretroviral efavirenz in 2007, Aurobindo was chosen as one of the Indian companies to supply APIs for formulation by national laboratories.

### **Cellofarm: Building a Brand in the Hospital Segment**

Although they both entered the market in the late 1990s<sup>30</sup>, the strategies of Cellofarm (the Brazilian subsidiary of Indian company Strides Arcolab) contrast markedly from those of Aurobindo. Unlike Aurobindo, Cellofarm moved quickly away from the bulk API market and toward strategy in the injectables and finished formulations segment.<sup>31</sup> Cellofarm has focused on building a brand and in particular, sales to private hospitals. The company is the 8th largest hospital and generics supplier in Brazil and recorded a 57 percent growth in the 2005-2006 period. In 2004, it registered sales of approximately US\$ 45 million and was the leading Indian firm in the country.

Central to Cellofarm's strategy has been the targeting of relationships with private hospitals and doctors, and its promotion reflects this. The company frequently publishes local "*Artigos Médicos*" or articles from doctors and hospital directors on issues such as methods for preventing hospital infections or use of medicines such as its anticoagulant, heparina. In addition to building a brand, Cellofarm has invested in local infrastructure. In 2002, it built a manufacturing plant in Serra, Espírito Santo, which in 2003 produced 250 thousand pills and 80 thousand capsules for the diabetes, cardiological and antiretroviral segments.

---

Goiás of formation of a cartel, fraud, money laundering and corruption, among others. Modapohala was allegedly involved with the fixing of prices in the supply of APIs to the IQUEGO laboratory (Correio Braziliense, 2005). See also (Rio, 2006).

<sup>30</sup> Cellofarm has, like Aurobindo, gone through a number of ownership changes. It was established in 1998, then formed a joint-venture with Strides Arcolab in 2001. Then in 2003, the company Infabra, also owned by Strides Arcolab, was purchased by Cellofarm. Infabra remains a division within the organization of Cellofarm, which is responsible for bulk sales.

<sup>31</sup> V. Madhusudhan, president of the Cellofarm explained that when the company entered the Brazilian market it participated in the electronic "*pregão*" tender calls for supplying HIV/AIDS medicines to government programmes. Over time, Madhusudhan and his colleagues noticed that the *pregoes* were altering their parameters. For example, an electronic *pregão* would be set for a certain time with a set duration of 15 minutes. During that period, companies could register their prices, and lower them if necessary, given the prices appearing on the screen. In several cases, Cellofarm noted *pregoes* that terminated before the set time period: "We had to get out of that business," said Madhusudhan, "how can you compete when the rules are always changing?" (Madhusudhan, Interview, Rio de Janeiro, July 2006).

Cellofarm's draws heavily on Brazilian expertise within its organization, with Brazilian Director Elcemer Almeida, a long time local pharmaceutical executive, playing a significant role in positioning the focus on the hospital segment and building name-recognition and legitimacy with the local medical community. Cellofarm's emphasis on investing in long-term growth through name-recognition and brand building in the *similares* segment has successfully positioned the company as one of the most well-known Indian players in the market.

### **Ranbaxy: Symbolic Firsts, Winding Path**

Ranbaxy<sup>32</sup> has followed a different path from both Aurobindo and Cellofarm. As the first Indian company to attain approval of its production facilities by ANVISA, the first Indian company to market bio-equivalent generics in Brazil, and the first Asian company to get generic dosage forms approved by the Ministry of Health, Ranbaxy was a leading market entrant and symbolic early player in Brazil's generics market. Ranbaxy is frequently referenced in Indo-Brazilian bilateral meetings, as an indicator of increasing commercial linkage and successful South-South exchange. Ranbaxy has been a supplier to the Brazilian government of antiretroviral APIs for its HIV/AIDS programme, and is a supplier to leading Brazilian generic firms of APIs. However, while Aurobindo is mainly known as a supplier of APIs, and Cellofarm for its focus on the hospital segment, Ranbaxy is best known, for its investment in the generics category.

Despite its position in India as the market leader, Ranbaxy's performance in Brazil has been far from a straight, or successful path. In November 2000, Ranbaxy commenced operations in Brazil through its majority-owned entity - Ranbaxy SP Medicamentos Ltd.

By the year 2003, it was ranked in the top 5 generic firms in Brazil (Ranbaxy Laboratories Limited, 2003: 12). In 2004, with little over three years in the country, it had achieved annual sales of US\$ 31 million, a 37 percent raise over the previous year's sales.

---

<sup>32</sup> Like the other Indian firms in Brazil, Ranbaxy's ownership structure has undergone a number of changes during since its commencement of operations in Brazil. Technically Ranbaxy Brazil is owned by Ranbaxy of India's Dutch subsidiary. It owned a majority stake in 70 percent of the outstanding equity shares of Ranbaxy Farmaceutica Ltda. ("RFL") through, Ranbaxy Netherlands B.V. ("RNBV"). During the year ended December 31, 2005, RNBV acquired an additional 10 percent of the equity shares, resulting in a total holding of 80 percent at an aggregate consideration of Ranbaxy Laboratories Limited. Annual Report 2005 Consolidated Schedules for year ending December 31, 2005.

In addition to its activities in registration and marketing, just two years after its arrival, in 2004, Ranbaxy announced the construction of a new “state-of-the-art manufacturing plant” with the stated aim to “meet the growing demand of Brazil and the neighbouring markets” (Ranbaxy Laboratories Limited, 2004: 56) in the municipality of Sao Gonzalo, near Rio de Janeiro. The plant was reportedly part of Ranbaxy’s plans to meet demand in Brazil and neighbouring market but there are mixed reports as to whether or not the completion of this plant actually occurred and whether its operations are more than that of a warehouse with some packaging processes underway.

Ranbaxy’s organisation of international activities includes the group demarcation of the BRIC countries (Brazil, Russia, India & China). For the year 2005 this was a convenient grouping as Ranbaxy’s performance surged in Russia and Ukraine (reaching sales of US\$ 64 million, 43 percent growth on compared to market growth of 23 percent).

	Sales(\$ mn)		Growth	CAGR	Share 05
	2004	2005	04-05 (%)	CAGR	(%)
India	198	210	6.2%	5.7%	73.4%
Brazil	29	34	17.0%	33.8%	11.9%
Russia	20	23	16.2%	29.9%	8.0%
China	18	19	7.5%	9.5%	6.7%
<b>Total</b>	<b>264</b>	<b>286</b>	<b>8.2%</b>	<b>9.4%</b>	<b>100.0%</b>

Source: IMS

Sales in China grew 25 percent to US\$ 15 million. But sales in Brazil dropped to US\$ 23 million, a regression the company attributed to “competitive pressures” (Ranbaxy Laboratories Limited, 2005). Ranbaxy’s performance in the last quarter of 2005 was weak, with sales of US\$ 4 million, a loss of 45 percent on the previous corresponding annual period. In the face of these dismal results, the company undertook a restructuring of its strategy:

To take greater advantage of the rapidly growing generics market and to improve overall profitability of operations, Ranbaxy in Brazil, restructured its business model. As a strategy, the Company enhanced its thrust on the Top 10 distributors and leading pharmacy chains. (Ranbaxy Annual Report, 2005, p.14)

How the company would “enhance its thrust” was not disclosed, but the problems Ranbaxy faced in expanding its generics business were widely acknowledged by Indian

firms (CC58, CC61, CC65, CC67). Moreover, it was a lesson to firms considering entering the market: "To make it in Brazil, you've got to build a name" (CC70). Ranbaxy had the largest number of generic drugs on the market (89), but little name recognition with doctors, or the ability for its product to be prescribed, as in the case of a *similares* product, Ranbaxy depended on the pharmaceutical chains to get its product to the customer. Given the problems in the generics category, Ranbaxy has recently begun to place attention on building a portfolio in the *similares* category. As of 2006, it registered five *similares* products.<sup>33</sup> Ranbaxy's experience reflects the tension that Indian firms have faced in Brazil. Even offering a generic product many times cheaper than that of the competitor, Indian firms had difficulties competing in the generics category, because they did not have a platform of products to offer drug store chains. It is possible that in expanding to the *similares* segment, Ranbaxy will begin to build its name with practitioners, which could spread to customers requesting its product at the *balconista*, or counter of drug stores. Either way, its aim in the coming years will surely be to break into the major pharmaceutical chain's generic offerings, or move very quickly into *similares*.

### **Torrent: Building a Name and a Base**

[In India] "Ranbaxy is #1, Torrent is #15 but they have been equally successful in this country, and the reason is the management team of Torrent.....basically they brought in someone extremely good. And in that way you see that globalization offers a grand opportunity for mid-sized companies or underdogs."<sup>34</sup>

In 1999 Torrent entered the Brazilian market with a decidedly different model than that of the generics-focused path blazed by Ranbaxy. Torrent went directly into the branded, *similares* segment. This early strategic decision is largely attributed to its management decisions. Torrent was the only Indian firm to not only accrue local staff but, to immediately appoint a local President (who was previously the head of a major northern based multinational) to head Torrent's operations in Brazil from the very beginning of its operations in the country.

---

<sup>33</sup> In the generics category, its sales were by Isotretinoin & Cecnoin products and in the *similares* segment, by the products Contiflo (Tamsulosin) and Cutison (Mometasone). Ranbaxy Website, <http://www.ranbaxy.com/brazil.htm>, as accessed August 14, 2006.

<sup>34</sup> Rakesh Vaidyanathan, Director, The Jai Group, Interview, Sao Paulo April 19, 2006.



Though, as one industry insider puts it, “the cost of promoting a product to a doctor is much higher [in similares] than in generics”<sup>35</sup> Torrent was able to slowly build credibility and name-recognition in the Brazilian *similares* segment. Furthermore, Torrent focused pointedly on a specific population segment, generics, and two disease segments, cardiovascular and central nervous system.

Torrent also focused heavily on marketing to the “*clase media*,” arguing that it provided quality drugs to lower income people. It also kept its portfolio of drugs extremely pared down to segments in which it had an advantage, for example, in the central nervous system segment, only fulfilling registration and marketing projects for drugs not offered by Brazilian competitors. It has argued that it is bringing medicines to the country which are not available (even if these are merely different dosage types) and this theme has worked into its branding. In their words, they are a “team of Brazilians,” serving the people: “Brazil is a country lacking basic medical necessities for more broad social classes.” They also have sought to establish trust and good relations with the medical community. They established a national lecture series called “*Corações e Mentes*”, or “Hearts and Minds” across several cities in the country with “the intention to pool knowledge and contribute to the exchange of experiences of specialists from every region in Brazil.

A quick purview of Torrents total international sales shows that the Brazilian market has provided the company with a significant portion of its foreign generated revenue. In contrast to other Indian firms, whose overall growth has been driven by international sales in the US and Europe, Torrent’s sales have been accelerated by growth in Brazil, and to a lesser extent, Russia. In the financial year 2004-2005, Brazil accounted for 46 percent of Torrent’s international sales. In the financial year 2005-2006, this percentage dropped to 28 percent in large part due to Torrent’s acquisition of the German firm, Heumann.

Torrent's International Sales				
Country/Region	FY 2005-06		FY 2004-05	
	Consolidated	%	Consolidated	%
Brazil	115.68	28%	59.72	46%
Russia/CIS	37.66	9%	13.01	10%
Europe/CEE	47.58	11%	19.50	15%
Heumann (Germany)	168.84	40%	-	-

<sup>35</sup> Bavaskar Vijay, Country Manager, Wockhardt, Interview, Sao Paulo, May 18, 2006.

Rest of World	49.19	12%	37.91	29%
<b>Total</b>	<b>418.95</b>	<b>100%</b>	<b>130.14</b>	<b>100%</b>
<i>Source: Torrent, Annual Report 2005-2006</i>				

Torrent's strategy pins on estimates that expanded healthcare funding promised by governments will increase per-capita spending in these markets. (Torrent, Annual Report 2005-2006, p.56). And its strategy appears to have been well placed. In 2006 international sales growth was 222%, largely reflecting successes in Brazil, Russia and sales contributed from acquisition of German generics firm Huemann.

Brazil is part of our strategic alliance and is the opening of the door to the Americas. In 2002, we established ourselves in Sao Paulo, and by 2005 we achieved presence across the entire Brazilian territory...Torrent brings to Brazil the excellence of its products and accessible prices, contributing to the access to medicines and making our part in caring for the life of Brazilian people.<sup>36</sup>

Torrent's achievements in Brazil illustrate the contrasting paths taken by Indian firms. The enactment of the generics law in 1999 was the regulatory shift which caught the attention of Indian firms, and resulted in their entering the Brazilian pharmaceutical market. Nevertheless, it has not been in the generics segment that Indian firms have had the most success. The institutional structures of distribution for API, *similares*, and generics products have had a great impact on the strategies experiences and outcomes for firms as they adapt to the Brazilian market and its characteristics.

### 1.3 Competitive Advantages or Competitive Disadvantages?

While Indian firms have some competitive advantages in Brazil, there are also what we call 'competitive disadvantages.'

*-Indian Firm Manager in Brazil, (CC73, 2006)*

*...What determines trade is traders themselves, that is, the preparation and positioning of buyers, sellers and investors at the right time and the right place, identifying business opportunities and acting upon them. In*

<sup>36</sup> Torrent Pharmaceuticals Brazil, "Empresa," <http://www.torrent.com.br/>, Accessed March 2, 2007.

other words, the macroeconomics of trade cannot substitute for business acumen and risk-taking.

*-Osvaldo Agatiello, 2005*

Two decades ago, the popular view of EMNCs expanding operations and products into other Southern markets was that they commanded a set of competitive advantages including shared commonalities and compatibilities such as “access to manufacturing technologies suitable to the conditions of the developing world: lower operating and overhead costs, familiarity with the business environment of the Third World states, and their perceived less threatening nature” (Kumar, 1982). In the current wave of increasing South-South trade, and in this study’s case of the arrival of Indian firms on the Brazilian market, a muddier picture emerges.

The position of the Indian firm in the Brazilian market is permeated with contradictions. As firms from a developing economy, Indian companies do share several characteristics with their Brazilian cohorts, most significantly, their reliance on a generic product range. Indian firms are differentiated however, by their capacity to face local institutional factors. In generics, the most notable is their ability to gain entryway into the generics sector via pharmacy chains. In *similares*, they face a high entry barrier of costs to build a brand name. While they are replacing northern producers in the API category, in the generics category they are facing off with Brazilian competition.

The challenges Indian firms have faced while working in the “business environment” of a “Third World state” does not arm them with accessibility to the Brazilian market. Without the established appeal of a brand name, which many northern companies enjoy, or the protection of a product line in which the intellectual property is protected, as in the case of patented goods, Indian companies must compete on the basis of price and marketing. But in order to arrive at that point of competition, they have to get the product to the market. And in the case of Brazil, that process has been far from simple. In the words of one firm manager: “Distributors today are very strong. Especially for those of us who work in generics. Unlike a branded product where you have a demand pull, and you can do business on your own terms.” (CC73, 2006) One of the fundamental problems with generics competition for the Indian players has been the tight linkage of the national

generics producers with pharmacy chains. Even offering as much as 60 percent lower prices than Brazilian generics firms, national pharmacy chains are linked into package deal with Brazilian firms. It has been easier for Indian firms to build rapport with Brazilian doctors than to break into the distribution chain.

This result is counterintuitive. While Indian firms have provided a source of competition for Brazilian firms, they have also become important input players as suppliers. Yet, that supply has not entailed any meaningful level of technological transfer. Rather it illustrates a shift in the global supply chain, as Indian API producers work their way into a generic category dominated by Brazilian firms. India's arrival in the Brazilian market affirms the story of emerging patterns in global trade in terms of increasing trade and investment among the global South and the rise of the Indian pharmaceutical firms as a global player. Nevertheless, the story is about conflict and cohesion at the periphery, albeit a redefined one; Indian and Brazilian firms are increasingly engaged in a battle for generic share, a battle from which northern multinationals with patented products have remained largely above the fray. Neither Brazilian nor Indian firms are threatening the position of patent-holding multinationals, they are creating competition for, or becoming suppliers for each other.

The eleven Indian generic and API producing firms which entered the Brazilian market during the period 1999-2006, arrived with high hopes and a high degree of interest, from a high level in bilateral politics, to encourage cross level-investment and competition. Those firms which have succeeded however have been those that have been able to position themselves not in the trenches of low-cost generic products, but in the branded *similares* segment. This outcome is interesting because it is contradictory to the advantages which were initially presumed to provide the most power to the Indian companies, their low cost. Moreover, few of the Indian firms have remained in the public health sector, the original "doorway" to the Brazilian market. Indian firms which have focused on key market segments and on building name recognition among the Brazilian population for their company are those which have grown and sustained that growth to the most extent. The competitive advantages of low-technology and price turn out not to be advantages at all. Indian firms face competitive *disadvantages* as foreign companies without the institutional access or powerful branding apparatus of northern firms.

While Indian firms may maintain the level of generics they are offering on the market, they are not likely to invest substantially in expanding their portfolio in the generics direction. They will move toward the *similares* segment, where their products can be marketed directly to doctors, with a *similares*, name branded product written directly on the prescription. Brazil has bestowed on Indian firms the lesson of branding. For those firms who early on identified the importance of creating a brand, the market has provided a chance for mid-level to lower-level firms to outperform their top Indian competitors, as in the case of Torrent's success over that of Ranbaxy.

It is possible that based on experience in Brazil, Indian headquarters may focus on northern markets where regulatory environments are perceived as more stable and open for competition. A question put by Indian executive illustrates this point; "If I have 1 million to invest, in which economy do I take that, the US or Brazil?" (CC60, 2006) According to this manager in a market that lacks transparency, with distributional chains rigged, "the game in Brazil is about the big players." The changing of Brazil's pharmaceutical legislation, which had the intention of bringing about increased competition through the generics category was successful. Eleven low-cost Indian firms entered the market over a short period and fierce price battles among Brazilian generics firms lowered the cost of medicines in Brazil. Nevertheless, this period may prove evanescent, as the Brazilian market consolidates, following the pattern of the global pharmaceuticals market and moving toward oligarchic concentration in favour of "big players" which can influence institutions, distribution and the mighty force of branding.

This research reflects upon the awakening of meso-level outcomes from macro and micro-level trends. A handful of developing economies—long viewed as peripheral players—have become galvanisers in the global economy. This realignment at a macro level is now rendering a significant impact on the way business is conducted at the micro level, with products and capital shifting toward Southern sources. At the meso-level, the strategies of firms and the shape of policies are in constant conversation and flux. This case of Indo-Brazilian commercial relations and developments in the pharmaceutical sector provides a window into the dynamics of what will become more commonplace in the 21<sup>st</sup> century: the simultaneous diversification of inputs through the new geography of competitive, low-value input suppliers, and at the opposite end of the spectrum, the sharpening skills of those players as the initial field is winnowed of weaker competitors. In the case of Brazilian pharmaceutical industry, this has meant that the original wave of

11 firms which entered the country consolidated into 8 firms that are now expanding their businesses having stabilized both their strategies and revenues. Not all Indian firms will be winners and not all major EMNC firms will thrive at a global level, but many will break new ground.

## Bibliography

- Aggarwal, R., & Agmon, T. (1990). The international success of developing country firms: role of government-directed comparative advantage. *Management International Review*, 30(2), 163-180.
- Agrawal, G. (1987). *South-South economic cooperation: problems and prospects*. New Delhi: Radiant.
- Amedabad Domain-b. (2007). Zydus Cadila acquires Brazilian company Nikkho: [http://www.domain-b.com/companies/companies\\_z/zydus/20070625\\_nikkho.html](http://www.domain-b.com/companies/companies_z/zydus/20070625_nikkho.html).
- Aurobindo. (2002). Brazilian GMP Certification received for the formulations unit. In P. Release (Ed.). Hyderabad, India: <http://www.aurobindo.com/docs/gmpcertification.html>.
- Aurobindo Pharma Limited. (2007). *Aurobindo Annual Report 2007*.
- Bezerra, A. C. (2006). Interview. In A. General Manager of Medicines (Ed.), *Brasilia*. June 24, 2006.
- BG375. (2006). Interview. In A. Director (Ed.), *Brasilia*. June 26, 2006.
- Bonaglia, F., Mathews, J. A., & Goldstein, A. (2007). Accelerated internationalization by emerging markets' multinationals: The case of the white goods sector. *Journal of World Business*, 42(4), 369-383.
- Boston Consulting Group. (2006). *China's Global Challengers: The Strategic Implications of Chinese Outbound M&A*.
- CC59. (2006). Interview. In Manager (Ed.), *Sao Paulo*. July 6, 2006.
- CC60. (2006). Interview. In M. o. I. F. i. Brazil (Ed.), *Sao Paulo*. June 5, 2006.
- CC61. (2006). Interview. In I. F. i. B. General Manager (Ed.), *Sao Paulo*. May 6.
- CC65. (2006). Interview. In I. F. API Head for Latin America (Ed.), *Sao Paulo*. April 19.
- CC72. (2006). Interview. In I. C. R. i. Brazil (Ed.), *Sao Paulo*.
- CC73. (2006). Interview. In I. G. F. Country Manager (Ed.), *Sao Paulo*. April 18.
- CNBC, M. c. (2007). Indian generic drugmakers line up for Brazil: <http://www.moneycontrol.com/india/news/business/indian-genericdrugmakers-linefor-brazil/282079>.
- Correio Braziliense. (2005). A fraude milionária, *Correio Braziliense*: <http://clipping.planejamento.gov.br/Noticias.asp?NOTCod=216367>.
- Economic Times of India. (2007). Zydus buys Nikkho of Brazil for 25m: [http://economictimes.indiatimes.com/News/News\\_By\\_Industry/Healthcare\\_Biot ech/Zydus\\_buys\\_Nikkho\\_of\\_Brazil\\_for\\_25\\_m/articleshow/2148922.cms](http://economictimes.indiatimes.com/News/News_By_Industry/Healthcare_Biot ech/Zydus_buys_Nikkho_of_Brazil_for_25_m/articleshow/2148922.cms).
- Globalinsight. (2007). Multinationals and Local Drug Firms in Brazil Tweak Export Strategies Same-Day Analysis: [www.globalinsight.com/SDA/SDADetail7789.htm](http://www.globalinsight.com/SDA/SDADetail7789.htm).
- Goldstein, A. (2007). *Multinational Companies from Emerging Economies: Composition, Conceptualization and Direction in the Global Economy*. London: Palgrave Macmillan.
- Hymer, S. H. (1967 (1976)). *The International Operations of National Firms: A Study of Direct Foreign Investment*. MIT, Cambridge, MA.
- IG13. (2006). Interview. In a. B. I. O. President of Leading Brazilian Pharma Company (Ed.), *Sao Paulo*. July 8, 2006.
- India Infoline News Service. (2007). Cadila to buy Brazil's Nikkho. In <http://www.indiainfoline.com/news/innernews.asp?storyId=38039&lmn=1> (Ed.), June 25, 2007. November 11, 2007.

- IRIS Business Services. (2007). Zydus Cadila acquires Brazilian company Nikkho. In <http://www.myiris.com/newsCentre/newsPopup.phpfileR=20070625145154153&dir=2007/06/25&seclD=livenews> (Ed.), *June 25, 2007*. November 10, 2007.
- Jaguaribe, R. (2005). Comments at International Seminar on Contributions to the Development Agenda on Intellectual Property Rights. In c. a. s. l. c. v. e. Cassandra Sweet (Ed.) (Conference organized by INPI and United Nations University in Maastricht, Netherlands. Comments confirmed to author in correspondence via email on November 24, 2005 ed.).
- Kini, R. (2006). Interview. In P. Director (Ed.), *Sao Paulo*. July 2006.
- Kumar, K. (1982). Third World Multinationals: A Growing Force in International Relations. *International Studies Quarterly*, 26(3), 397-424.
- Lall, S. (1983). *The New Multinationals: The Spread of Third World Enterprises*. Chichester and New York: John Wiley & Sons.
- Mahbubani, K. (2008). *The New Asian Hemisphere: The Irresistible Shift of Global Power to the East*. New York: Perseus Books.
- Maheshwari, S. (2007). Generic Drugs Market in Brazil (2007-2001), *Research Connect*: [www.researchconnect.com/downloadreport.asp?ReplD=23917](http://www.researchconnect.com/downloadreport.asp?ReplD=23917).
- Mathews, J. A. (2002). *Dragon Multinational: A New Model for Global Growth*. Oxford University Press: Oxford.
- Peng, M., Wang, D., & Jiang, Y. (2008). An institution-based view of international business strategy: a focus on emerging economies *Journal of International Business Studies*, 39, 920-936.
- Pharma Pulse. (2002). Aurobindo goes global to grow, *Express PharmaPulse*: <http://www.expresspharmapulse.com/20020801/conversation.shtml>.
- Pró-Genéricos. (2007). Raio-X do Setor no Brasil. Mercado: [www.progenericos.org.br/mercado.htm](http://www.progenericos.org.br/mercado.htm).
- Ranbaxy Laboratories Limited. (2003). Annual Report. Gurgaon: <http://www.ranbaxy.com/irannualreports.asp>.
- Ranbaxy Laboratories Limited. (2004). Annual Report. Gurgaon, India: <http://www.ranbaxy.com/irannualreports.asp>.
- Ranbaxy Laboratories Limited. (2005). Annual Report. Gurgaon, India: <http://www.ranbaxy.com/irannualreports.asp>.
- Ranbaxy Laboratories Limited. (2006). Annual Report. Gurgaon, India: <http://www.ranbaxy.com/irannualreports.asp>.
- Rio, A. G. d. S. d. (2006, January 1, 2006). PF prende 11 em ação contra fraude na saúde. *Folha de São Paulo*.
- Strides Arcolab Limited. (2006). *Annual Report 2006: Leadership through Partnering*.
- Thompson Financial-Forbes.com. (2007). India's Cadila Healthcare to buy Brazilian drugmaker Nikkho (Vol. June 25, 2007): <http://www.forbes.com/markets/feeds/afx/2007/06/25/afx3852763.html>.
- Vieira, A. (2005). Glenmark compra marca brasileira, *Valor Econômico* [http://www.crememg.org.br/Noticias/Saude/news\\_item.2005-03-18.3323](http://www.crememg.org.br/Noticias/Saude/news_item.2005-03-18.3323).
- Wells, L. T., Jr. (1983). *Third World Multinationals*. Cambridge, MA: The MIT Press.
- Yeung, H. W.-C. (Ed.). (2000). *The Globalization of Business Firms from Emerging Markets* (Vol. 1). Cheltenham, UK: Edward Elgar.