

Ranbaxy laboratories

[Business](#), [Entrepreneurship](#)



| Ranbaxy Laboratories Ltd. | | “ Personally, I feel that companies who constantly innovate to provide better products and services and who can offer superior value propositions to the consumer are the ones likely to command more respect globally than others” Malvinder Mohan Singh, former CEO and MD, Ranbaxy Laboratories Ltd

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Executive Summary

Product patent regime implemented in India from Jan 2005 compelled Indian pharma companies to relook in to their marketing strategies so as to become competitive & strongly withstand in the competition with MNC’s & big giants in domestic markets. Product patent

regime posed Indian pharmaceutical companies to change their strategies. If the Indian companies wanted to withstand in competition & survive, they have to invest more in the R&D for development of New Chemical Entities (NCE's).

Before patent regime, with the help of reverse engineering & process patent companies were enjoying copying MNC's molecules & introducing their own brands & investing less in NCE's. The rapid growth of the Indian Pharmaceutical Industry was sponsored by the non-recognition of product patents for drugs under the Indian Patent Act, 1970. However, the case reversed with the advent of signing of the TRIPs agreement.

This change ensured that firms should reorient themselves for R&D-based innovation to survive. This would enable them to compete in regulated and open market. Ranbaxy Laboratories Ltd. adopted a “ High-Risk-High>Returns” strategy to respond to the challenging business environment brought about by the introduction of the new patent regime.

But the financial health of the firm was affected severely by the increasing expenditures on risky R&D and patent challenges with inadequate returns. High cost acquisitions in foreign markets and setting own manufacturing & selling facilities abroad in order to increase its geographical presence added further to the problem. Eventually, Ranbaxy had to redefine its business model. In 2008, a strategic combination of an innovator and generic powerhouse was brought in by Ranbaxy by selling its 63.92% shares to Daiichi Sankyo Company Ltd. The study reveals how Ranbaxy adopted a new

strategy every time the company confronted a new challenge in the ever so changing scenario of Indian Pharmaceutical Industry.

From pioneering the art of reverse engineering and becoming a cost-effective firm globally, the firm went on to become the first Indian Pharmaceutical firm to launch the first original drug developed by an Indian entity, Synriam, and reaping profits by way of para IV filings for the star-drug Lipitor. Ranbaxy made a way out through its strategies to claim its top position in the Indian Pharmaceutical Industry and globally. The Company Ranbaxy Laboratories Limited is one of the India's largest pharmaceutical companies. It is an integrated, research based, international pharmaceutical company. It produces a wide range of quality, affordable generic medicines, that are trusted by healthcare professionals and patients across geographies. Ranbaxy is ranked 8th amongst the global generic pharmaceutical companies, and has a presence in 23 of the top 25 pharmaceutical markets of the world.

The global presence of the firm encompasses 49 countries, and it has world-class manufacturing facilities in 11 countries to serve customers in over 125 countries. Ranbaxy entered into an alliance in June 2008 with Daiichi Sankyo Company Ltd. The combined entity now ranks among the top 15 pharmaceutical companies, globally. The strategic deal will place Ranbaxy in a higher growth trajectory and it will emerge stronger in terms of its global reach and in its capabilities in drug development and manufacturing. A detailed portfolio of company's financial positioning and market structure is provided in the exhibits. (Exhibit I, II and VI) Hybrid Business Model Ranbaxy

is working very closely with Daiichi Sankyo to extract synergies in various geographies. Ranbaxy markets Daiichi Sankyo's brands in countries such as Romania and Malaysia.

Additional resources and capabilities are also being directed towards this region. These capabilities will result in improved business performance in other markets also, like Africa, Middle East and Asia. Branded business is the core factor that differentiates Ranbaxy from most other Indian generic companies. Ranbaxy has its own teams in more than 40 countries, while many Indian companies elect to sell their products through distributors.

The 'Global Hybrid Business' team took several initiatives during the year to leverage synergies between Ranbaxy and Daiichi Sankyo, individually and collectively. Their collaboration is maturing with time and the synergies now extend beyond marketing and cover a significant part of the pharmaceutical value chain. A manufacturing and supply framework was established between Ranbaxy and Daiichi Sankyo Espha Co. Ltd. during the year and they are working together to develop products for the Japanese market.

Porter's Five Force Analysis The analysis is done from the perspective of an average incumbent player in the industry. Overall attractiveness of industry is moderate at 3.

1 points. The key buyers are hospitals and pharmacies. The key suppliers are active pharmaceutical ingredients and clinical trial services providers. The pharmaceutical market witnesses fairly strong buyer power. Oligopsony status strengthens buyer power. The price control policies of state and

private sector institutions also add to buying power, as they are the ultimate purchasers of drugs.

The business of pharmaceutical companies depends vitally on obtaining high quality equipment, materials, personnel, and third-party clinical testing services. The regulators must be satisfied that the products of new entrants are safe and effective. Pharmaceutical industry also experiences substitutes in terms of non-drug therapies and like. In addition, cheaper generic copies are substituting research based drugs as they are no longer protected by patents. Bargaining Power of Buyers Pharmaceutical manufacturers sell to drug wholesalers. These then sell on to pharmacies, or to healthcare institutions as hospitals. Most pharmaceutical products require prescription except for OTC and similar drugs. Marketing of prescription drugs is therefore heavily directed at medical practitioners.

Medical condition may entail several different drug treatments leading to product differentiation and weakening buyer power. Differentiation includes efficacy, side effects, ease of use and cost-effectiveness. The reverse happens when generic copies are available. The buyer power is also increased because the ultimate source of funds for most drug purchases is a public or private-sector health insurer or similar body. Such large purchasers exert monopsony market power and it is very common for them to use one or more specific price control strategies. In some scenarios governments may directly set drug prices, making any departures illegal.

In case of reimbursements governments may set a very low price for new or existing drugs. Under reference price regimes reimbursement levels are

determined by contrasting the price of a drug in therapeutic category and/or peer group countries. If therapeutic category contains generics the reference price is pushed down for on-patent drugs in the same category. If peer group countries have lower per capita incomes, a similar effect occurs. Price-volume or profit control may also exist.

Beyond the stipulated amount manufacturers have to offer either price reductions or compensatory disbursement to government. Overall, industry attractiveness due to buyer's bargaining power is moderate at 3 points.

Bargaining Power of Suppliers Manufacturers of active pharmaceutical ingredients (APIs) are major suppliers to the pharmaceutical market. This forms a sub-sector of the chemical industry. Many leading pharmaceutical companies enjoy less bargaining power of suppliers due to major investments in fine chemicals manufacturing which provides a high degree of self-sufficiency. APIs are provided on a contractual basis and so pharmaceutical companies risk elevated switching costs if they think about moving their business to a different place. Sequentially, pharmaceutical companies make use of sourcing managers to diminish costs and to lessen supplier power.

However chemical manufacturers can demand higher prices in case of development of new therapeutic agents as it requires sourcing of newer APIs. Most companies purchase raw materials from many suppliers thereby lessening their reliance on any one company. In general, suppliers have little differentiation as laboratory equipment and chemicals are mostly uniform.

Thus companies have a many options to acquire the best quality and cost relationship, diminishing supplier power. But, there are cases requiring specialized facilities or raw materials, such as sterile processing of biological materials. These cases increase supplier power.

Forward integration by suppliers is highly unlikely; however due to chemical synthesis capabilities they are ideal candidates for production of generic drugs. Recent years have seen a trend of large pharmaceutical companies producing their own chemicals to enhance profits, however smaller companies lacking the resources necessary to do this have relied on API manufacturers. Pharmaceutical companies outsource their drug testing and clinical trials to third-parties. As these trials are very important for regulatory approvals, these service providers constitute important suppliers. Overall, the industry attractiveness due to supplier's bargaining power is moderate at 3.28 points.

Threat of New Entrants Market entry is affected by regulation and legal frameworks in quite a few ways. A company that wants to market its products is obliged to show that its drugs are safe and effective, to a national regulator. The Drug Standard Control Organization (CDSCO) plays this role in India.

A start-up company needs significant up-front investment which must be accessible for the time it takes to develop and test the product. It is time-consuming to meet these regulatory requirements; it may take 10-15 years to get a drug to market. According to the Pharmaceutical Research and Manufacturers of America (PhRMA), out of 5,000 to 10,000 screened

compounds, only 250 enter preclinical testing, of which only 5 enter human clinical trials, and finally just 1 will be approved. Another regulatory barrier to entry is the use of restrictive formularies: only certain drugs may be listed as preferred for a specific therapeutic category. This means that non formulary alternatives can only be prescribed under special circumstances and with prior consent from the appropriate authority, or with more sizeable co-pays from the patient. Thus the potential market for non-formulary drugs is smaller than the size of the therapeutic class market. New entrants to the market are also slowed by the strength of intellectual property protection. Overall, industry attractiveness is moderate at 3.

44 points. Threat of Substitutes As far as substitutes are concerned patients may prefer traditional remedies. Physicians may decide on non-drug treatments if they deem them more apt. Switching costs for patients are moderately low. Though, they may be more important for the final buyers, the healthcare providers.

For example, presume a healthcare system reviewed the clinical data and determined that a chronic condition that is treated by drugs taken for the patient's lifetime can be treated by a simple surgical procedure. This would be a valuable and inexpensive alternative. However, it may need more surgical teams to be trained and more availability of operating theatres, requiring funding from the healthcare system.

The attractiveness of industry due to threat of substitutes is moderate at 2. 75 points. Threat of Rivalry The general structure of the industry is reflected as near perfect competition (Exhibit II). Industry has also witnessed high

growth over the years (Exhibit III) Several multinational corporations dominate the Indian research-based pharmaceutical industry, beside smaller firms as biotech players fixed on a small quantity of new products. There is some proof of consolidation, which reduces rivalry as players increase their product portfolio or geographical spread. Certain specific therapy areas may have more effective concentration. Therefore products can be highly differentiated based on their clinical effectiveness.

Generic companies can be profitable by selling the same molecule at lesser price than the original. This shows that setting up good-quality manufacturing processes is not very expensive. A resulting effect of this is that it is comparatively trouble-free for research-based companies to increase output, for example by licensing agreements with other companies, eliminating the need to expand their own production facilities. This tends to increase rivalry. Exiting the market is moderately easy. Many assets can be classified as 'weightless'. For example trademarks, patents, synthetic methods, and others. These can be sold comparatively easily.

Many of the production facilities and equipment and R; D will find uses outside pharmaceutical industry. Overall, industry attractiveness due to the degree of rivalry is moderate at 3 points. Value chain analysis Inbound logistics Ranbaxy has implemented various ERP solutions to minimise cost of inbound logistics.

Operations CMC- Chemistry, Manufacturing and Control - Trial manufacturing of small scale API and intermediates of some of Daiichi Sankyo's pipeline products is ongoing at Ranbaxy's manufacturing facilities. The result is huge

cost savings and efficiencies for Daiichi Sankyo. * PDR- Product Development Research – Daichii Sankyo's knowhow is being used to reduce deviation rate of products. Transfer of new drug research to Daichii Sankyo has enabled Ranbaxy to focus on generic research. * Ranbaxy achieved a total of 230 filings across markets. * Rationalization of potable water supply by operating one system instead of earlier practice of two systems.

Measures for Conservation of Energy resulting in savings of 11. 71 million rupees. (Exhibit VIII) Source: Ranbaxy Files Outbound logistics The company has also focussed on cost cutting at this level to strive towards its goal of cost leadership. Sales and marketing * Ranbaxy used its strong distribution network to introduce Daiichi Sankyo's innovator products in Singapore, Malaysia and Italy. * Marketing synergies are rolled out in India and Romania.

Source: Ranbaxy Files Service * Ranbaxy ensures high levels of service to distributors. Procurement To gain advantage a project related to supply chain of API and drug product is ongoing. The intent is to promote rationalisation and increase price efficiency to mitigate risk. Technological Development * Anti counterfeiting system to reduce pilferage. * Flexible multipurpose manufacturing to de-risk business and utilise production capacities optimally. Human Resource Management * Daiichi Sankyo talent exchange programme to ensure cultural synergies and skill enhancement. * Rotated employees through international assignments to create global leaders. * Additional features added in PMS.

Introduction of whistle blower policy. * Long term ESOPs applicable to people in 43 countries and multiple nationalities. Firm Infrastructure * Upgradation of global manufacturing capabilities to enhance capacities, efficiencies and strengthen processes and compliance. * Dosage form facility in US has been upgraded and manufacturing capacity increased. * Investment in Greenfield facility in Africa.

* Plan of a Greenfield facility in Malaysia. * Setup of a dedicated facility at Paonta Sahib. * Quality compliance, quality improvement and signing of consent decree with FDA. Implemented 22 global quality standards. * Implemented enterprise wide quality management system (TrackWise, Documentum, LMS etc).

The company has inculcated sufficient changes in the value chain to be in line with its hybrid policy. As the company strives to be a global leader it has made huge investments in firm infrastructure. Also human resource management has been suitably enhanced to create a culture that assists in growth. VRIO Analysis Under the hybrid business model Ranbaxy has transferred new drug discovery to Daiichi Sankyo, while Ranbaxy will take care of generic drugs. Utilising these synergies Ranbaxy has also implemented flexible manufacturing at many facilities. Resource| Valuable| Rare| Costly to imitate| Used by organisation| | Daiichi Sankyo's R; D| Yes| Yes| Yes| Sustained competitive advantage| Flexible manufacturing capabilities| Yes| Yes| Yes| Yes| Sustained competitive advantage| Expertise in acquiring Abbreviated New Drug Applications (ANDAs)| Yes| Yes| No| Yes| Temporary competitive advantage| SYNRIAM a breakthrough molecule for

Malaria| Yes| Yes| Yes| Yes| Sustained competitive advantage| Internal Analysis- A Resource Based View The purpose of this section is to utilize the concept of resource based approach to determine the resources and the interactions that exist among these resources leading to differential performance of Ranbaxy in the Indian pharmaceutical industry.

The internal analysis could be thought of as strengths and weaknesses of the SWOT framework applied to a firm. The RBV focuses on idiosyncratic and costly to copy resources, the exploitation of which may give a firm a competitive advantage. I. Assets: These refer to the ' resource possession'. They are the factors of production that the firm may draw upon to provide valuable goods and services to the customers. They are both, tangible as well as intangible in nature.

As a part of this project, these assets were identified in case of Ranbaxy, which are as follows: 1. R; D Expenditure: Firms that invest heavily in R; D are more likely trying to compete on the basis of innovativeness and technology breakthrough although high investment does not necessarily guarantee generation of successful innovation. Ranbaxy has been investing heavily in the R; D of new drugs. The ration of R; D expenses to Sales stands at 11% for Ranbaxy (2009-10) compared to the 5% industry average. 2. Marketing Expenditure: Morgan et al. (2009) find that marketing excellence do lead to superior performance. Marketing as a resource has been considered in itself to have huge potential in making a difference to the firm's performance.

Due to the venture into OTC products (Volini, Revital etc), the marketing expenditure has increased by 18% over 2010's expenditure, when compared with the industry average. . Tacit Knowledge (Company's Age): As a firm grows, with age, it develops a network of relationships with various institutional actors like government, suppliers, customers, banks and other institutions (Makhija, 2003).

The stock of tacit knowledge can be only built over time as the individual learns a particular skill or as member of a group or as a team learns to interact with each other. Thus, as the company ages, the interactions build, networks build, resources build and relationships build. The company is over 50 years old and was incorporated in 1961. .

Culture: Ranbaxy firmly believes in providing autonomy to their employees and in letting the employees discover their potential while working for them. Individuals are given fair bit of responsibility quite early in their careers and hence, their actions impact the business. This has resulted in a culture of entrepreneurship within the organization. The spirit of innovation and creativity supports this entrepreneurial culture. An employee should not be part of R; D to bring about innovations. Creativity is promoted in all the parts of the organization. Genuine mistakes are considered as a part of learning and calculated risk taking behavior is encouraged. II.

Capabilities: This is better understood in terms of ' resource utilization'.

Capabilities are those constituents of the firm which help exploit the resources in implementation of the firm's strategies. 1. MD Experience:

Ranbaxy is flourishing under the able guidance of Mr. Arun Sawhney who

joined Ranbaxy in May 2008 and was elevated to the position of President-Global Pharmaceutical Business in January 2010. Since August 2011, he is CEO ; Managing Director. Mr. Sawhney is a veteran in industry, with international experience of three decades in the Chemical and Pharmaceutical industry.

He has held senior functional and management positions previously in global pharmaceutical companies like Max-Gb, Bayer India Limited and Dr. Reddy's Laboratories Limited. Factors Leading to Growth The key to Ranbaxy's growth lay in the strategic decisions taken by its management from time to time. These strategies – specific patterns of decisions and actions – helped them achieve a competitive advantage. It exemplifies how symbiotic interdependencies can be managed and harassed for the organisation's benefit, by manipulating the specific and general environmental forces.

Ranbaxy's main strategy to manage its environmental forces seems to be through forming strategic alliances for the various products and markets. The company has followed an r-strategy i. e.

the strategy of entering a new environment early, and has thus reaped the benefits of being an early entrant in new market. Strategy Ranbaxy is focused on increasing the momentum in the generics business in its key markets through organic and inorganic growth routes. It is the company's constant endeavour to provide a wide basket of generic and innovator products, leveraging its unique Hybrid Business Model with Daiichi Sankyo. As part of the Hybrid Business Model, Daiichi Sankyo will utilise Ranbaxy's strong manufacturing capabilities and expertise in developing generic

medicines for the Japan and market them through Daiichi Sankyo Espha Co. , Ltd.

The company will also increasingly focus in high growth potential segments like Vaccines and Biosimilars. These new areas will add significant depth to the existing product pipeline. Business-level Strategy Focus on Differentiated Products The company realized the importance of having a versatile product portfolio and thus is focusing on offering differentiated/value-added new products to the Indian masses. Ranbaxy has accelerated its pace to bring in new differentiated products in the Indian market to consolidate its leadership position.

Ranbaxy is building upon the practice of related Diversification – entry into a new domain that is related in some way to an organization’s domain- to gain a competitive advantage Examples:- 1. Rank in Therapy Segments Over the last few years, Ranbaxy has realigned its domestic operations to the needs of its target customer groups to have a more focused relationship with the doctors. This is aimed at providing customer specific quality services surpassing expectations. By forming relationship with doctors, demonstrates that Ranbaxy manages symbiotic resource interdependencies by the way of co-optation to manage its specific environment better. 2. Entering into the Oncology Segment Since Ranbaxy did not have a significant presence in the Oncology segment, it entered into a strategic alliance with Zenotech Laboratories Ltd. Of Hyderabad, India, a company with a strong hold in this segment.

3. Strengthening presence in Asthma Segment In- Licensing agreement demonstrates that Ranbaxy makes use of the informal strategy of long term contracts to manage its resource interdependencies. Ranbaxy has entered into ' In- Licensing' agreement with Euro drug laboratories, the Netherlands-based pharma company for the Asthma product Doxophylline – a Novel Xanthine Bronchodilator. It is a strategic step in the direction of expanding the product portfolio through differentiated products for the Indian Market, in the post patent era. 4.

NCE Products – India Focus Recently a licensing agreement with a swiss bio-pharmaceutical company, Debiopharm, was signed for the New Chemical Entity (NCE) Drug in the Gastroenotlogy segment. 5. Strengthening Product Basket in New Markets In Canada, soon after the launch of its products in 2005, Ranbaxy is further expanding its product portfolio through in- licensing and has already emerged as a pioneer in this area. In mid 2006, Ranbaxy Pharmaceuticals Canada Inc (RPCI) and Janssen – Ortho Inc (JOI) entered into a licensing and supply agreement for a generic version of Risperidone compressed tablets, sold under Ranbaxy's label, Ran Risperidone. Corporate-level Strategy R; D in Ranbaxy NDDR – A separate Entity Decentralization Ranbaxy received an in- principle approval from the Board of Directors to De-merge its Drug Discovery Research (DDR) operation. This is a significant step in creating an independent pathway for DDR with dedicated resources and enhanced focus for long term value building. Ranbaxy's state-of-the-art research infrastructure and scientific talent pool can be more effectively leveraged through an independent vehicle that better aligns assets with priorities to accelerate the company's drug discovery programs.

The resulting operational freedom and flexibility will also help to open up new growth opportunities, while providing a platform for increased collaboration. By the way of Decentralization of NDDR, Ranbaxy has promoted flexibility and responsiveness by allowing the research department to make on the spot decisions. Ranbaxy practices division of labour and specialization by allocating dedicated resources and creating scientific talent pool to DDR.

The core competency of DDR is to discover new drugs First Mover Advantage Ranbaxy saw a great business opportunity in Japan, and hence entered the market in the year 2002 through a strategic alliance with a mid-sized research pharmaceutical company, Nippon Chemipharm Co, Ltd (NC) of Japan. Ranbaxy owned 10% equity * The company further consolidated its presence in Japan by increasing its equity stake in the NPI, from 10% to 50% in 2006 and NPI thus became a 50: 50 joint venture between Ranbaxy and NC.

Information Security and Information Synergy * Information security has been a priority at Ranbaxy since 2006. 'Operation Safed Sagar' was initiated to protect the company's information assets. The program is focussed on bringing behavioural change in people, sensitizing them to the importance of Information Security. By using Information Security, Ranbaxy has demonstrated that it uses IT * To make critical information accessible to employees.

* To facilitate beliefs norms and values of Ranbaxy. * To enhance motivational effects of cultural values. Acquisitions * June 2005 Efarmes in Spain * March 2006 Senetek in the US * March 2006 Allen in Italy * March

2006 Terapia in Romania * March 2006 Ethimed in Belgium July 2006 Mundogen in Spain * Sep 2006 Cardinal Drugs in India * Dec 2006 Be-Tabs in South Africa In the year of 2007 alone, Ranbaxy made and acquisition of 13 established and well recognized brands of the dermatology segment from Bristol- Myers Squibb in the US.

Thus Ranbaxy has aggressively adopted merger and takeover strategy for growth in newer markets. Agreements and Collaboration Agreements and Collaborations 1. Agreement with GSK Extended * Strategic alliance with GlaxoSmithKline (GSK) helped Ranbaxy expand its drug development responsibilities and further financial opportunities. Ranbaxy was to conduct stages till clinical proof is established.

GSK thereafter will conduct further clinical development and take resulting products through the regulatory approval process to final commercialization. By forming strategic alliance with its competitor, GSK, Ranbaxy has demonstrated that it uses strategic alliance to manage its competitive interdependencies. . 2. Collaborating with DST * Under this collaboration, Department of Science ; Technology (DST) will provide financial support by way of soft loans to Ranbaxy. * The funding will enable Ranbaxy to conduct the pre clinical toxicity studies/safety studies and take the molecules up to human phase-1 clinical trials.

Recommendations Since its inception, Ranbaxy has been innovating on way to conquer the market. The strategies the company would adopt would be highly influenced by the external stimulus of the pharmaceutical industry. Following are the expectations from the Pharmaceutical Industry in the times

to come and how Ranbaxy should strategise to reap in the opportunities of the changing times. Medium term Strategy (5-7 years) Focus on increasing the scale of generic operations 1. Indian market to be at USD 55 billion with potential for more With market diversity on the rise, the drivers of the growth have proliferated and become more nuanced.

Among the various drivers of the growth epidemiology factors, increasing affordability, enhanced accessibility, and rising acceptability are the most prominent (Exhibit VI). This opportunity can be fully utilized by Ranbaxy if it continues to ace its present strategy of capitalizing on generic drugs. This has to be accompanied by heavy investments in R; D for securing the leadership position in the times to come. But the cost strategy can made effective only by focussing on generics. 2.

Mass therapies will remain important even though speciality therapies will increase share Mass therapies have evolved to comprise two differing opportunity areas. The first which makes up the majority of the opportunity is acute indications within therapeutic areas such as respiratory and gastrointestinal that have been traditionally treated by general practitioners (GPs) and consulting physicians (CPs). The second segment comprises older therapies in chronic indications such as diabetes, hypertension, and epilepsy.

With the growing cases of both the types in India, Ranbaxy can actually look forward to organic or inorganic growth so as to be able to serve the particular area. The venture can be through differentiation or entering the market jointly by some other player. 3.

Metro and Tier I Markets will drive growth while rural market will increase its share Metro and Tier I markets each account for about 30% of the Indian pharmaceuticals market. Mass therapies constitute a majority of this market. During the last 5 yrs, Metro and Tier I markets have grown at an estimated rate of 14 to 15 percent, in line with the overall market.

The expectation is that the current momentum will continue and this segment will become a USD 33 billion market by 2020. This calls for a very strong distribution so as to penetrate in the rural sectors of the country. This is very important particularly in case of India wherein more than 70% of the population resides in rural areas. Low cost strategy will help the firm to gain success in the particular area. Apart from the distribution network, Ranbaxy can take the leverage of the Govt's initiatives to expand healthcare in the rural areas. 4. Hospital channel will increase significantly in influence, though retail will stay important. Currently, as much as 80 to 85% of the market is being accounted for by the retail segment.

Even in 2020, the expectation is that the retail segment will remain the mainstay of the market. However, consumption in hospital settings will rise to a considerable 20 to 30% share of the market. India will continue to witness a remarkable rise in medical infrastructure throughout the next decade. Not only will there be a dramatic rise in infrastructure, the nature and mix of hospitals and care delivery centres will undergo major shifts.

As a result, the expectations are that the hospital segment of the pharmaceuticals market to grow at well above 20% and reach a size of USD 14 billion by 2020. The firm can leverage the opportunity by attaining the

corporate-level strategy wherein the firm can get into strategic alliance so as to become the sole strategic partner to supply medicines to the hospital. More so, the firm can also get into ventures of laboratory partnerships. The laboratory collection centres needs comprehensive chain of branches across the country. The same infrastructure can be utilized to expand the retail chain of pharmacy. .

Drugs worth more than 45 billion USD going off patent by 2015 Indian pharma companies have depended heavily on drugs coming off patent in the US to fuel their growth. But with the patent cliff nearing its end, they are now widening their horizon to include new growth areas. In 2012, drugs worth \$ 35, 514 million went off patent in the US. In contrast, in 2013, only 30 medicines worth \$16, 966 million are expected to come off patent and the value would fall to \$ 2, 952 million by 2020. Ranbaxy has won several ANDAs in the recent history, the prominent one being the ANDA of the star-drug “ Lipitor”. The marketing exclusivity obtained by the company by the ANDA can help boost the profitability. Ranbaxy must continue doing to sought for more acquisitions of ANDAs so that the company can harp in the profits and at the same time build the reputation of a reliable manufacturer worldwide.

Long term Strategy (10-15 years) The organisation should diversify into other revenue streams Contract Research Bio-Pharma Contract

Manufacturing New Drug Development The three major segments – domestic formulations, formulation exports and bulk drug exports – have traditionally been the backbone of the Indian pharmaceutical industry. With the generics market set to become extremely competitive in the long term (next 10

years), Ranbaxy should look to make the most of the current generic opportunity and achieve a substantial scale of operations. (Refer to Exhibit VII for Indian Pharmaceutical future forecasts.) However, going forward, with more MNCs foraying into India and a shrinking generic market, Ranbaxy will have to increase their reach in segments such as contract research, biopharmaceuticals and new drug development (NDD).

Global challenges will force the organisation to offer a whole gamut of products and services to ensure stable revenues and margins. The company can leverage its hybrid structure to achieve this long term diversification need. References 1. Barney, J. B. (1986), “ Strategic factor markets: expectations, luck, and business strategy”, Management Science, Vol. 32 No. 10, pp. 1231-41. 2. Amit, R.

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Marketline reports 10. Ranbaxy.com Exhibits I. Market Share Ranbaxy has a market share of 4.78 % in Indian industry.

Also Company has its considerable earnings from the global markets.

Region| Sales in US\$ in Million| % Share| USA| 791| 41.5| India| 412| 21.62| Europe| 297| 15.59| CIS| 108| 5.67| Africa| 189| 9.92| Asia Pacific| 108| 5.67| Thus, Ranbaxy needs to develop their global strategy as more than 75% of its revenue is generated from their global business.

II. Market Structure ; Herfindahl-Hirshman index |

Company Name	Market Cap (Rs. Crore)	s (% of market Cap)	s2	1
Sun Pharma	84,736.49	23.76	564.55	2
Cipla	31,418.31	8.81	77.61	
Dr Reddys Labs	30,889.01	8.66	75.02	4
Lupin	27,046.65	7.58	57.52	5
Wockhardt	22,623.49	6.34	40.24	6
GlaxoSmithKline	17,896.05	5.02	25.18	7
Ranbaxy Labs	17,042.			

55| 2| Cipla| 31, 418. 31| 8. 81| 77. 61| | Dr Reddys Labs| 30, 889. 01| 8. 66| 75. 02| 4| Lupin| 27, 046. 65| 7. 58| 57. 52| 5| Wockhardt| 22, 623. 49| 6. 34| 40. 24| 6| GlaxoSmithKline| 17, 896. 05| 5. 02| 25. 18| 7| Ranbaxy Labs| 17, 042.

01| 8. 66| 75. 02| 4| Lupin| 27, 046. 65| 7. 58| 57. 52| 5| Wockhardt| 22, 623. 49| 6. 34| 40. 24| 6| GlaxoSmithKline| 17, 896. 05| 5. 02| 25. 18| 7| Ranbaxy Labs| 17, 042.

49| 6. 34| 40. 24| 6| GlaxoSmithKline| 17, 896. 05| 5. 02| 25. 18| 7| Ranbaxy Labs| 17, 042.

95| 4. 78| 22. 84| 8| Cadila Health| 15, 200. 53| 4. 26| 18. 17| 9| Divis Labs| 13, 754.

59| 3. 86| 14. 88| 10| Glenmark| 13, 726. 38| 3.

85| 14. 81| 11| Piramal Enter| 9, 951. 71| 2. 79| 7. 79| 12| Ipca Labs| 6, 395.

77| 1. 79| 3. 22| 13| Torrent Pharma| 5, 839.

88| 1. 64| 2. 68| 14| Biocon| 5, 439. 00| 1. 53| 2. 33| 15| Strides Arcolab| 5, 409.

10| 1. 52| 2. 30| 16| Sanofi India| 5, 345. 52| 1. 50| 2. 25| 17| Aurobindo Pharm| 4, 796.

25| 1. 4| 1. 81| 18| Pfizer| 3, 150. 36| 0.

88| 0. 78| 19| Abbott India| 2, 953. 23| 0.

83| 0. 69| 20| Jubilant Life| 2, 942. 72| 0.

83| 0. 68| 21| Sun Pharma Adv| 2, 655. 82| 0. 74| 0. 55| 22| Unichem Labs| 2, 115.

98| 0. 59| 0. 35| 23| Wyeth| 1, 914. 96| 0. 54| 0. 29| 24| Novartis India| 1, 885. 05| 0. 53| 0.

28| 25| AstraZeneca| 1, 884. 75| 0. 53| 0. 28| 26| Alembic Pharma| 1, 869. 14| 0.

52| 0. 27| 27| Fresenius Kabi| 1, 863. 13| 0. 52| 0. 27| 28| FDC| 1, 690. 56| 0. 47| 0.

22| 29| Ajanta Pharma| 1, 558. 75| 0. 44| 0.

19| 30| Natco Pharma| 1, 358. 77| 0. 38| 0. 15| 31| Claris Life| 1, 198. 18| 0. 34| 0. 11| 32| Merck| 1, 048.

25| 0. 29| 0. 09| 3| Panacea Biotec| 907. 74| 0.

25| 0. 06| 34| JB Chemicals| 703. 92| 0. 20| 0.

04| 35| Elder Pharma| 676. 49| 0. 19| 0. 04| 36| Hikal| 628. 01| 0. 18| 0. 03| 37| Shilpa| 625| 0. 18| 0.

03| 38| Dishman Pharma| 599. 98| 0. 17| 0. 03| 39| Indoco Remedies| 576. 4| 0. 16| 0. 03| 40| Orchid Chemical| 566.

79| 0. 16| 0. 03| 41| Plethico Pharma| 453. 26| 0.

13| 0. 02| 42| Shasun Pharma| 444. 3| 0. 12| 0. 02| 43| Vivimed Labs| 416. 49| 0.

12| 0. 01| 44| Nectar Life| 386. 85| 0. 11| 0. 01| 45| TTK Healthcare| 375.

52| 0. 11| 0. 01| 46| Sequent Scienti| 373. 44| 0. 10| 0. 01| 47| Sharon Bio Medi| 369. 76| 0.

10| 0. 01| 48| Aanjaneya Life| 357. 1| 0.

10| 0. 01| 49| Fulford| 288. 62| 0.

08| 0. 01| 50| Parenteral Drug| 279. 62| 0. 08| 0. 01| | | 3, 56, 630. 63| | 938.

78| The above data indicated the Market Capitalization of the top 50 pharmaceuticals companies. The Herfindahl index 938. 78 indicates that the pharmaceutical industry in India is low concentration and thus highly competitive industry. The high number of companies represent monopolistic environment, but market represents an Oligopolistic nature with top 8 firms having a market share of nearly 70% (69. 21%, Eight firm concentration ratio). Sun Pharma is the largest firm in the Indian industry with 23. 6% followed by all others with market share less than 10%. Thus we can conclude that Indian pharmaceutical industry is highly competitive and fragmented at the bottom.

III. Market analysis The Indian pharmaceuticals market has achieved strong, double digit growth for the 2007 - 2011 periods. The market is expected to maintain this level of robust growth from 2012 through to the end of the forecast period in 2016. The Indian pharmaceuticals market had total revenues of \$12. 3 billion in 2011, representing a compound annual growth rate (CAGR) of 17. 6% between 2007 and 2011. The performance of the market is anticipated to grow at a CAGR of 17. % for the five-year period 2011 - 2016, which is expected to drive the market to a value of \$27. 3 billion by the end of 2016.

Year	\$ billion	% Growth
2011	12. 3	15. 3
2010	10. 7	17. 6
2009	9. 1	18. 9
2008	7. 6	18. 9
2007	6. 4	

India pharmaceuticals market value: \$ billion, 2007-11 Market Share Company| Market Share (%)| Cipla Ltd. | 4. 1| Ranbaxy Laboratories Ltd. | 3. 6| Lupin| 2. 7| Dr. Reddy's | 2. 3| Others| 87. 3|

India pharmaceuticals market share: % share, by value, 2011

IV. Market

Forecast In 2016, the Indian pharmaceuticals market is forecast to have a value of \$27. billion, an increase of 122% since 2011. The compound annual growth rate of the market in the period 2011–16 is predicted to be 17. 2%.

Year| \$ billion| % Growth| 2011| 12. 3| 15. 3| 2012| 14. 2| 15. 4| 2013| 16. 7| 17. 6| 2014| 19. 7| 17. 8| 2015| 23. 1| 17. 7| 2016| 27. 3| 17. 8| V. Competitor

Analysis Dr. Reddy's \$ million | 2008| 2009| 2010| 2011| 2012| Revenues | 1, 067. 40| 1, 482. 30| 1, 500. 20| 1, 594. 40| 2, 065. 00| Net income (loss) | 82. 1| -110. 3| 22. 8| 235. 7| 304. 4| Total assets | 1, 828. 00| 1, 788. 60| 1, 714. 70| 2, 028. 00| 2, 550. 40| Total liabilities | 817. 2| 891. 1| 798. 7| 1, 046. 30| 1, 324. 20| Key Ratios Ratio | 2008 | 2009 | 2010 | 2011 | 2012| Profit margin | 7. 7% | (7. 4%) | 1. 5% | 14. 8% | 14. 7%| Revenue growth | (22. 2%) | 38. 9% | 1. 2% | 6. 3% | 29. 5%| Debt/asset ratio | 44. 7% | 49. 8% | 46. 6% | 51. 6% | 51. 9%| Return on assets | 4. 5% | (6. 1%) | 1. 3% | 12. 6% | 13. 3%|

Cipla Limited \$ million | 2008 | 2009 | 2010 | 2011 | 2012| Revenues | 926. 0 | 1, 134. 7 | 1, 219. 6 | 1, 371. 0 | 1, 521. 1| Net income (loss) | 149. 7 | 165. 8 | 230. 9 | 205. 0 | 239. 9| Total assets | 1, 223. 7 | 1, 422. 0 | 1, 560. 2 | 1, 835. 1 | 1, 995. 9| Total liabilities | 422. 1 | 493. 9 | 298. 5 | 412. 1 | 365. 3| Key Ratios Ratio | 2008 | 2009 | 2010 | 2011 | 2012| Profit margin | 16. 2% | 14. 6% | 18. 9% | 15. 0% | 15. 8%| Revenue growth | 15. 3% | 22. 5% | 7. 5% | 12. 4% | 10. 9%| Debt/asset ratio | 34. 5% | 34. 7% | 19. 1% | 22. 5% | 18. 3%| Return on assets | 13. 8% | 12. 5% | 15. 5% | 12. 1% | 12. 5%| Lupin

Limited \$ million | 2008 | 2009 | 2010 | 2011 | 2012| Revenues | 612. 8 | 822. 0 | 1, 031. 4 | 1, 242. 1 | 1, 511. 9| Net income (loss) | 87. 2 | 107. 1 | 145. 5 | 184. 1| 185. 2| Total assets | 718. 0 | 857. 5 | 1, 085. 6 | 1, 307. 3 | 1, 693. 6| Total liabilities | 444. 9 | 550. 3 | 532. 0 | 595. 9 | 821. 6| Key RatiosRatio |

2008 | 2009 | 2010 | 2011 | 2012| Profit margin | 14. 2% | 13. 0% | 14. 1% | 14. 8% | 12. 2%| Revenue growth | 40. 4% | 34. 1% | 25. 5% | 20. 4% | 21. 7%| Debt/asset ratio | 62. 0% | 64. 2% | 49. 0% | 45. 6% | 48. 5%| Return on assets | 14. 5% | 13. 6% | 15. 0% | 15. 4% | 12. 3%| VI. Ranbaxy Financials \$ million | 2008 | 2009 | 2010 | 2011 | 2012| Revenues | 1, 585. 1 | 1, 582. 6 | 1, 621. 7 | 1, 912. 8 | 2, 169. 1| Net income (loss) | 125. 1 | (203. 0) | 63. 3 | 319. 5 | (619. 0)| Total assets | 2, 008. 2 | 2, 830. 8 | 2, 594. 3 | 3, 022. 9 | 3, 605. 6| Total liabilities | 1, 410. 0 | 1, 899. 4 | 1, 655. 8 | 1, 812. | 2, 726. 8| Key Ratios Ratio | 2008 | 2009 | 2010 | 2011 | 2012| Profit margin | 7. 9% | (12. 8%) | 3. 9% | 16. 7% | (28. 5%)| Revenue growth | 23. 2% | (0. 2%) | 2. 5% | 18. 0% | 13. 4%| Debt/asset ratio | 70. 2% | 67. 1% | 63. 8% | 60. 0% | 75. 6%| Return on assets | 6. 5% | (8. 4%) | 2. 3% | 11. 4% | (18. 7%)| During the year 2011, the Company resolved its legacy issues with U. S. Food and Drug Administration (“ FDA”) and signed a Consent Decree with FDA in which the Company committed to further strengthen its procedures and policies to ensure data integrity and to comply with current good manufacturing practices. This is considered to be a positive development for the Company as it will provide greater clarity around the outlook for the business in the U. S. The Company has made a provision of Rs. 26, 480 million (\$500 million) for settlement with the U. S. Department of Justice, which the Company believes will be sufficient to resolve all potential civil and criminal liability. Further, due to sharp depreciation of rupee foreign exchange charge of Rs. 16, 584. 08 million was made during the year. The combined impact of these two exceptional items on the performance of the Company was Rs. 43, 064. 08 million. Due to the above exceptional items, the Company incurred a loss

(after tax) of Rs. 28, 834. 16 million in the year. * The debt to equity ratio for Ranbaxy is the highest among the big 4 pharmaceutical companies in India (refer to appendix for competitor figures). * The company's average return on asset has been considerably lower than that of the other top players in the industry (refer to exhibit V for competitor figures). * While the company's sales have picked up the constant less than expected return on asset will be a cause for concern for the investors.

VII. Pharmaceutical Industry Future

Medium term

Manufacturing opportunities for Indian players to remain upbeat * Increasing no. of drugs going off patent and decline in R; D productivity among the large global players provides an immense potential for Indian formulation and bulk drug players. * According to research the Indian Pharmaceutical Industry is set to grow at CAGR of about 17%. * Healthy growth momentum in formulation export to continue. * Rising ANDA approvals are a testimony to India's capability in this area, coupled with strong pipeline of ANDA approvals in the medium term. * Bulk exports are expected to witness robust growth

Long term

Growth in generic market to slow down over the next decade Over the last 40 years, since its inception, the Indian pharmaceutical industry has thrived on the generic model by leveraging on its process chemistry skills and low-cost manufacturing advantage. This has enabled players to tap the huge generic opportunity abroad. However, the R; D productivity of large global pharmaceutical players (innovators) has considerably slowed down over the past few years which is underscored by the declining number of new molecules (New Molecular Entities – NMEs) being approved by the US FDA each year. Taking this trend forward, the lack of new drug launches between 2010 and 2015

onwards will mean that the generic opportunity set to open up in the next decade (post 2020) is likely to be significantly lower. (assuming average age of 8-10 years of patent exclusivity) These changes in the global pharmaceutical landscape could cause a slowdown in the generics segment and hence, the Indian pharma industry will be forced to look at newer avenues for growth. * Large global players suffering from low R; D productivity. Over the past few years, R; D activities by large global players have resulted in the innovation of only a handful of new and significant molecules. Meanwhile drug development costs have escalated. The cost for developing a new molecular entity (NME) has more than doubled to \$1.5 billion over the past 5 years. During the same period, the number of NMEs approved by the US FDA continued to hover around 15-20 with an occasional rise to over 20 as seen in 2004 and 2008. * Higher risks and lower returns: New drugs over the last two years fail to deliver. In addition to low R; D productivity, innovators' returns from novel molecules have substantially declined over the last few years. None of the new drugs approved over the past 2-3 years have been blockbusters (with sales over \$1 billion) or even sales greater than \$750 million. This decline in sales is primarily due to the availability of substitutes (generic as well as patented) for existing diseases. Rising emphasis on usage of generics has also steadily reduced the prescription of patented molecules. Over the past few years, off-patent drugs have been the key growth drivers in the generic market. According to research post 2020, growth in the generic market is likely to slow down to 3-5 per cent. Fewer drugs going off-patent coupled with lower prices of the patented drugs (as a result of the availability of substitutes) will be the key

reasons that will result in a significantly lower incremental generic opportunity. VIII. Conservation of energy and its impact Measures for conservation of energy | Impact resulting into saving (in rs Million)| * Increase in steam to fuel ratio from 10. 2 to 11. 4 by increasing the condensate recovery| 3. 0| * Rationalization of potable water supply by operating one system instead of earlier practice of two systems| 2. 04| * Operational optimization of process air compressor by supplying air from instrument air compressor| 1. 55| * Fuel emulsification system for furnace oil to improve the combustion efficiency in boiler by 3%| 1. 40| * Installation of Solar Heating system for boiler feed water| 1. 20| * Modifications in cooling tower by replacing the fans and pumps with low energy consuming & efficient fans and pupms in old utilities for pilot plant and Lovastatin plant| 0. 9| * Flexibility was built into the system to facilitate operation of a single chiller unit at night time| 0. 63| * Reconditioning of cooling towers resulting in bringing down the cooling water temperature by 4'C thereby improving the chiller efficiency| 0. 47| * Re-engineering of air flow in AHU's in two production blocks thus saving energy| 0. 26| * Replacement of old window ACs with energy efficient split ACs, and installing new ACs in 2 Conference Rooms thereby avoiding operation of centralized cooling during weekend meetings| 0. 17|