CHAPTER 3: LITERATURE REVIEW

The thesis, “A Study of Strategic Alliances between Indian and Foreign Companies with Reference to the Indian Pharmaceutical Industry”, traces the trends in the alliances in the Indian pharmaceutical industry over the decades spanning from 1960 to 2010. The last 20 years have transformed an inward looking industry to a globally recognized contributor today.

Alliances in business have a long history, but over the last couple of decades they have become an important feature to such an extent that Dunning, a prominent researcher of multinational enterprises since the 1950’s, has described this new trend which gives increased emphasis to cooperation as well as competition between firms as ‘alliance’ capitalism (Dunning 1995). Strategic alliances refer to alliances that enhance the long-term competitive advantage of an enterprise (Johnston et al, 1988). They are significantly different from the old style of collaborative agreement and can take many forms (Delvin & Biggs, 1989). The spectrum includes joint ventures, minority participation, co-manufacturing efforts, cross-marketing, cross-distribution, cross-licensing arrangements, supply purchasing, franchising, R&D consortia, and partnerships in marketing and other areas.

The literature review has been discussed under the following heads:

- Global trends in strategic alliances
- Global trends in strategic alliances in pharmaceutical companies
- Strategic Alliances among Indian pharmaceutical companies
- Factors that impact the formation of strategic alliances
- Impact of strategic alliances on various aspects of the business
- Success factors for strategic alliances

3.1 Global Trends in Strategic Alliances

According to Kesic (2008), the world pharmaceutical industry is characterized by increased globalization and increased competitiveness. Increased costs involved in the development of a new drug has led to firms adopting a strategic orientation, leading to fast consolidation and concentration of the world pharmaceutical industry. The investments involved in the development of a brand new drug is more than $1.2 billion and the time taken to bring
a molecule into the market is typically 12 years. The success of the molecule would depend on the marketing and sales activities. Thus, the success of a pharmaceutical company largely depends upon, strong research and development combined with a compelling marketing and sales related activities.

Firms create competitive advantage by perceiving or discovering new and better ways to compete in an industry and bringing them to market, which is ultimately an act of innovation. Porter (1985), indicated that competitive advantage grows out of the value that a firm is able to create for its buyers that exceeds the cost of creating it. Competitive advantage is achieved by cost leadership and differentiation. In Built to Last, Collins and Porras (1994) outline habits of long-successful, visionary companies which is, an orientation towards evolutionary change: try a lot of stuff and keep what works. There is no one formula that would suit all the firms, but the core ideology of the company is the fundamental differentiator.

Competitive strategy involves deciding how the company will compete within each line of business unit. Hamel (1991), indicated that core competencies and value creating disciplines are not distributed equally among firms, thereby indicating that international strategic alliance might play a crucial role in effecting partial redistribution of skills among partners.

3.1.1 Competitive Advantage and Strategic Alliance:

The pharmaceutical industry in the 1980s evolved to be a global oligopoly with unprecedented strategic activities which included ‘mega mergers’ and the disappearance of small players (Langley et al., 2005). Pharmaceutical industry researchers have tended to focus upon two types of strategy that create competitive advantage for pharmaceutical firms, namely research and development (R&D) and marketing on the basis that new technologies and new successful products improve the competitiveness of firms. The industry was plagued by high level of product failure, a widening gap in the product portfolio and an onslaught of cheaper generic products post patent expiry. There was a strong need among pharmaceutical firms to identify strategies that would reduce costs, strengthen the product pipeline and maximize revenue. Literature suggests two prominent views on competitive advantage: Industry structure view popularized by Porter and the Resource based view.
Porter (1980), indicated that a firm’s membership in an industry governs its strategic orientation. Porter develops three potentially successful generic strategies for creating defensible position and outperforming competitors in a given industry.

- Overall cost leadership in consideration with quality and service.
- Differentiation either in product or service that is recognized industry wide as being unique.
- Focus strategy, in which the firm concentrates on a particular group of customers, geographic markets or product line segments.

A second view was creating unique resource combinations that, if valuable, rare, and difficult to imitate, can form the basis for a competitive advantage (Barney, 1991), which is why strategic resources are heterogeneously distributed across firms and that these differences are stable over time. Peteraf (1993), discusses the “Resource – Based” model of competitive advantage, where the cornerstones of competitive advantage are: Resource heterogeneity which creates Ricardian or monopoly rents. She explains that heterogeneity is the basic condition for sustainable competitive advantage, which is not sufficient as firms may have short lived readily imitable differences. So long as its assets are imperfectly mobile: inimitable and non substitutable, other firms will not be able to mimic its strategy. Heterogeneity is a short-lived phenomenon and sustained competitive advantage required the preservation of heterogeneity. Barney (1986) argued that the economic performance of firms depends not only on the returns from their strategies but also on the cost of implementing those strategies. This is very true to the pharmaceutical industry, which witnessed a sudden rise of alliances in the 80s. The last decade has witnessed more than 10,000 alliances in the pharmaceutical industry. For instance, Pfizer has been created from five big international players like Pfizer itself, Warner Lambert, Upjohn, Searle and Pharmacia, respectively. The world leading generic player, Teva from Israel, has acquired more than 10 generic companies, like Lemmon, Gry, Prosintex, Biogal, Human, Biocraft, Pharmascience, Copley, Novofarm, Bayer Classics, Sicor and Ivax to form today’s Teva (Kesic 2007).
3.2 Global Trends in Strategic Alliances in the Pharmaceutical Industry

The pharmaceutical industry is a knowledge driven industry and is heavily dependent on Research and Development for new products and growth. Since 1930 many large firms have specialized in chemical modifications of basic compounds in the quest to produce new drugs. The resources required to invest in the search for new molecules, conduct clinical trials and market the drug was huge and only large pharmaceutical firms could invest in these activities extensively. Higgins (2005) indicated that productivity in the pharmaceutical industry declined in the late 1990s, because more drugs were coming off exclusivity protection than were being replaced by new Food and Drug Administration (FDA) approved products. New products take an average of ten to fifteen years to develop from initial discovery to final FDA approval and the cost of developing a new drug was estimated to be in excess of $800 million in the year 2000 (DiMasi, 2007). Pharmaceutical companies have responded to the decline in R&D productivity by: enhancing their internal R&D efforts through acquisition of smaller pharmaceutical and biotech companies, engaging in horizontal mergers to achieve greater economies of scale and scope in their research, acquiring existing mature products through licensing agreements, increasing alliance activity and changing their business models (Higgins (2006), Kesic (2007)).

Thus the main reasons for the strategic consolidation of the pharmaceutical industry are: lack of new products, globalization of the world economy, high R&D costs, large investments on global sales and marketing activities, increased competitiveness, reforms in the world healthcare, increased importance of regulation in the global context. Kesic (2007) argues that pharmaceutical companies make alliances to create common synergies and to better exploit their common assets, knowledge, product life cycle and, to improve their strategic market positions. Thus, the most important strategic activities of pharmaceutical firms include: R&D to create new products, development of products to gain market shares, acquire new markets through geographic expansion, organize and streamline marketing and sales activities to compete on the global markets, develop financial strength to create common cost reduction synergies and investment capabilities (Dyer, 1998).
In 1960s Discovery was by design. Today despite significant investments in pipeline management and novel technologies, there is still no recipe to ensure a blockbuster hit. R&D productivity, the ratio of input R&D versus its output, is suboptimal in the pharmaceutical industry. This is attributed to:

1. Increased costs of R&D, driven by larger and more complex clinical studies
2. Decline in per drug productivity
3. Over supply of “me too” products or undifferentiated products which are also called as generic molecules
4. Lack of new promising molecules in the pipeline, and long development times

3.2.1 Strategies for Growth

Strategic actions that have been discussed in pharmaceutical literature can be categorized as corporate, global, network, marketing, research & development and investment strategies (Langley, 2005). Companies can adopt different strategies based on their strategic orientation and business plans. The growth strategy concentrates on growth of the organization and the various types of growth strategies can be categorized under six heads based on their strategic action points and implications.

Illustration 2: Mapping Pharmaceutical Strategic Actions with Related Strategies

<table>
<thead>
<tr>
<th>Strategic Actions</th>
<th>Related Strategy</th>
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<tbody>
<tr>
<td>Mergers, acquisitions, vertical integration, retrenchment, divestment, diversification, creation of spin-off companies</td>
<td>Corporate strategy</td>
</tr>
<tr>
<td>Niche marketing, advertising, “detailing” by sales representatives, marketing and distribution networks, co marketing agreements</td>
<td>Marketing strategy</td>
</tr>
<tr>
<td>Licensing agreements, R&amp;D alliances, establishment of overseas R&amp;D function, focus upon ‘minor local products’, ‘me too’ R&amp;D Strategies</td>
<td>Research &amp; Development (R&amp;D) strategy</td>
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<tr>
<td>Raising additional funds, investing in other companies</td>
<td>Investment strategy</td>
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<tr>
<td>Licensing strategies, outsourcing, strategic alliances, joint ventures, co marketing agreements</td>
<td>Network strategy</td>
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<tr>
<td>Establishment of overseas subsidiaries and R&amp;D facilities, cross border mergers and acquisitions, cross border co operative arrangements, co marketing agreements</td>
<td>Globalization strategy</td>
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</tbody>
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Source: Compiled from Langley et al (2005)
3.2.2. Strategies Adopted by Pharmaceutical Companies

The grand strategies adopted by the pharmaceutical companies can be a source of competitive advantage, *Pearce and Robinson (2003)*, have proposed 14 grand strategies which were followed by the firms in the pharmaceutical industry during 2001 and 2002 which were grouped as follows,

*Langley et al (2002)*, have developed upon Pearce and Robinson’s identification of 14 grand strategies in the pharmaceutical industry and have extended them. They are tabulated as follows:

**Illustration 3 : Grand Strategies Implemented by Pharmaceutical firms 2001- 2002**

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<td>1</td>
<td>Organic concentration (market penetration)</td>
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<td>Co operative concentration (market penetration)</td>
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<td>3</td>
<td>Organic market development</td>
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<td>Cooperative market development</td>
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<td>5</td>
<td>Organic product development (R&amp;D)</td>
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<td>6</td>
<td>Cooperative market development (R&amp;D)</td>
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<td>7</td>
<td>Acquisition based product development</td>
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<td>8</td>
<td>Organic innovation (R&amp;D)</td>
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<td>9</td>
<td>Cooperative innovation (R&amp;D)</td>
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<td>10</td>
<td>Organic innovation (Information Technology)</td>
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<td>11</td>
<td>Cooperative innovation (Information Technology)</td>
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<td>12</td>
<td>Horizontal integration</td>
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<td>Vertical integration</td>
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<td>Joint venture</td>
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<td>15</td>
<td>Organic concentric diversification</td>
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<td>16</td>
<td>M&amp;A Concentric diversification</td>
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<td>17</td>
<td>Conglomerate diversification</td>
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<tr>
<td>18</td>
<td>Turnaround / organic growth / retrenchment</td>
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<td>19</td>
<td>Divestment</td>
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<td>20</td>
<td>Liquidation</td>
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<td>21</td>
<td>External finance raising</td>
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*Source: Compiled from Langley et al (2005)*
Higgins (2006), found evidence to suggest that firms experiencing declines in internal productivity engage in outsourcing of R&D, in an effort to replenish their research pipeline. One of the method of outsourcing R&D is through mergers and acquisitions which was prevalent in the 1990s. Acquisition of latest external technologies ensures that pharmaceutical companies bridge their research gaps. Mc Cutchen (2004), studied the motivating factors for strategic alliances among small and large firms. He argued that the motivations of strategic alliances change with time, while in the 80s 90s the key factor was market access and risk mitigation. The motivational factors depend upon the size of the firms as well. Small firms need capital to deal with regulatory bodies, clinical testing, downstream processing and establishing marketing capabilities. The larger firms need the technological expertise and additional resource of new products hence are always on a lookout for new strategic partners.

3.2.3 Strategic Alliance between Indian and Foreign Pharmaceutical Companies

Over the years the Indian pharmaceutical companies have used multiple strategies to build the pharmaceutical industry in India. Before the signing of the TRIPS, the strategy was to make use of the product patent regime and produce new drugs through reverse engineering as the process patent was not applicable in India. Pharmaceutical companies produced drugs for the domestic consumption, which generated business and helped the companies to expand their facilities and look outwards by exporting essential medicines to third world countries. This was in line with observations from Hamel and Prahalad (1994), who indicated that firms should develop a portfolio of core competencies. According to Sampath (2005), the major strength of the Indian pharmaceutical company was the cost competitive manufacturing base and the extensive skill in chemistry. He has identified the strategies adopted by Indian firms as:

- R&D Strategies
- Competitive strategies
- Collaborative strategies
The R&D strategies of Group 1 firms are driven by the need for entry and establishment in the regulated markets. Hence the strategy would be greater investment into R&D to generate innovative generic products, process and bulk drugs. Group 2 firms are driven by the need to strengthen competitive advantages, make use of CRAM opportunities, to take advantage of the business. Their strategic orientation would be towards generating active supply of off-patent generics to the unregulated and semi regulated markets and establish themselves as niche players in contract research, by choosing specific areas like – clinical research, domestic marketing etc. Group 3 firms are driven by the need to survive in the scenario of complete TRIPS compliance, thus leading towards the upgradation of facilities to continue being outsource centers for Group 1 and 2 firms. The competitive strategies adopted by Indian companies are centered around R&D involving research on new chemical entities, non infringing processes, novel drug delivery systems generics and specialty generics for regulated market and biopharmaceutical research.

The main emerging collaborative strategies adopted by Indian firms are - In licensing arrangements, collaborative R&D and contract research.

3.2.4 Need for Strategic Alliances in the Indian Pharmaceutical Industry

The Indian pharmaceutical industry ranks very high among developing countries, in terms of technology and quality, and is today in the front rank of India’s science based industries (DIPP, 2005). The growth of the Indian pharmaceutical industry has been remarkable. From 1947 to 1970; the Indian pharmaceutical industry was small in terms of number of firms and production capacities. In the 1950s the Indian pharmaceutical industry was mainly based on imported bulk, which was later processed into formulations in India (Bergman, 2006). India sensed a strong need to develop and strengthen the pharmaceutical industry to meet the demands of its millions. A crucial aspect of the Indian Pharmaceutical Industry is the role played by the Multinationals. They brought in foreign capital and technological knowhow into the sector. They also established collaborative relationship with the local Indian firms.

The 1978 drug policy imposed conditions on foreign controlled firms and the Indian companies took advantage of the new policies and produced molecules that were still under patent
elsewhere, thus creating technological competence among the Indian firms and satisfying the demands of the domestic market. In the 1980s the government implemented a new drug policy. Technological obsolescence and the need to modernize the market were the critical factors that initiated the need for the new drug policy. The policy reduced the trade barriers and opened the doors for liberalization in 1991. In 1995, India joined the WTO TRIPS agreement and that was the turning point for the pharmaceutical industry in India, which has opened the door to innovation in this sector Bergman (2006).

The study conducted by Beena (2008), indicated that, the Indian pharmaceutical industry experienced greater consolidation through mergers, acquisitions, alliances as well as sale of assets, which was very similar to the global trend. One of the major motives of the strategy is capacity expansion. Majority of the firms are using merger as a means to expand their product profile and thus to remain risk free.

Thus the need for the alliances were two way: Indian firms needed the technological knowhow and foreign firms were on the lookout for a foothold in the huge domestic market in India. Additionally there was the attractiveness of available resources and plant capacities which could be utilized to produce drugs in large capacities to meet global demands.

It is evident that many of the Indian pharmaceutical companies have undertaken alliances with companies in foreign country; inward alliances between multinationals or with other domestic companies. These alliances have a definite clear objective. Many of the alliances have been successful for many years and have fulfilled their original purpose. The study of the alliances undertaken by the top 5 Indian Pharmaceutical companies indicates some interesting aspects.

- Highly successful companies have entered into multiple alliances and have used alliance to time and again fulfil their business objectives – new market entry, develop generics production capability or develop new molecules.
- The alliances are not restricted to foreign companies alone. Competing companies have undertaken alliance to achieve a particular business interest which is of mutual interest.
- The objectives of the alliances can be grouped into the following categories:
o Acquiring manufacturing capabilities
  ▪ Overseas in regulated (US, UK, France) and non-regulated markets (Nigeria, Malaysia etc)
  ▪ Contract manufacturing for MNCs locally

o Generic Business capability
  ▪ Supply locally from India
  ▪ Develop manufacturing capabilities at host country

o Marketing
  ▪ Specific therapeutic segment
  ▪ Co- Marketing in a geography

o Research and Development
  ▪ Screen new chemical entities
  ▪ Develop and commercialize promising molecules
  ▪ Clinical Trials
  ▪ New drug delivery systems

o Access to emerging markets

3.2.5 Inward and Outward Alliances

Need for alliances emerge out of a company’s basic mission and vision, and are used to fulfill long term objectives and achieve future competitive advantages. Foreign corporations are allowed to collaborate with Indian businesses in three basic ways: (1) licensing of technology where no equity capital is involved; (2) joint venture with foreign equity capital; and (3) outright purchase of technical know-how in the form of design and drawings.

Data on alliances indicate that alliances between Indian pharmaceutical companies and foreign companies has evolved through different stages in the last four decades. The strategic alliances that took place in Indian pharmaceutical industry can be broadly classified as:

- Outward FDI - Indian firms entering into alliances abroad
- Inward FDI - Foreign firms entering into alliances in India
3.3 Factors that Impact Strategic Alliances

Parvartiyar and Gupta (1994), discusses the payoffs in Indo-US strategic alliance that have happened in the 1990s. According to them, only those actions aimed at altering the strength of the company relative to that of its competitors can be considered as part of strategy. The spectrum includes joint ventures, minority participation, co-manufacturing efforts, cross-marketing, cross distribution, cross-licensing arrangements, supply purchasing, franchising, R&D consortia, and partnerships in marketing and other areas. The Indian partners seek the benefit of technology available in the US, while their American counterparts like to achieve synergistic payoffs using the low labor cost in India. Both partners have defined roles. The Indian company concentrates on manufacturing quality products, and the necessary training is provided by the US partner.

The benefits sought by Indian companies through alliances are listed as:

- Availability of latest technology
- Worldwide information on technology and products can be obtained through the alliance partner
- Exposure to large global market
- The ability to become part of a global supply network, thereby obtaining large volume production, less machine downtime due to economic production
- Gain knowledge on systems and processes for planning, operations and control.
- Higher credibility in the domestic market
- Develop a culture with total quality consciousness and market orientation

The benefits sought by foreign companies through Indian alliances are:

- Entry into the Indian market, in some instances the Indian government has limited the entry mode, thus joint ventures being the route adopted
- Setting up production base to serve Far East, USSR, Africa and South Asia
- Low labor cost
- Availability of cheap raw materials and skilled manpower
- Obtain local market knowledge of Indian partners
• Capitalise on goodwill of local partners for further ventures and regular relationships
• Avoid creating future competitor of an Indian partner

With a lack of new blockbuster drugs in the pipeline, the global pharmaceutical industry is increasingly under financial pressure. According to a report released by the US Government Accountability Office, between 1993 and 2004 annual R&D spending by the pharmaceutical companies increased by 147%, to nearly $40 billion (Dragan, 2008). Yet during this period, new drug applications to the US Food and Drug Administration grew by only 38%, nearly two-thirds of the new applications were for drugs that were modifications of existing medicines with only one-third for innovative new drugs. Such financial pressure explains in part why big pharmaceutical companies were rushing to set up collaborations with local companies in cost-effective locations like India. In addition, a significant pool of trained biomedical and chemistry professionals, a strong bioinformatics tradition, and a large genetically diverse population from which to recruit patients for clinical trials, Bartlett & Ghosal (1989) makes India an attractive destination for alliances.

The pharmaceutical companies have been compelled to move towards globalization for the following reasons: lack of new products to drive sales growth, huge investments needed for R&D, increased competitiveness, increased importance of regulatory issues, world reforms of healthcare system. According to Kesic (2009), there have been more than 10,000 alliancing processes in the last decade in the world pharmaceutical industry (Datamonitor, 2005). It has been found that the consolidation and alliancing processes have been carried out practically in all three segments of the world pharmaceutical industry (inventive – original pharmaceutical companies, generic producers and specialists). The alliancing process has churned the entire industry mitigating the identity of some firms and has led to the emergence of new firms. Pradhan and Alakshendra (2006), indicated that a variety of factors like liberalization of domestic policies, strong intellectual property right regime, increased competitive pressures and emerging new global market opportunities have instigated the Indian pharmaceutical industry towards rapid globalization.

Some clear cut objectives of the alliances that emerged were as follows:
• Accessing firm specific Strategic assets like international USFDA approved manufacturing facilities
• Acquiring new products and brands
• Accessing advanced research capabilities
• Gaining Access to new markets
• Achieving operating synergies
• Contract manufacturing
• Outsourcing research and manufacturing of intermediaries

Hagedoorn (1993), has studied the motives for strategic (technology) alliances, he has identified broadly 3 groups of motives for inter-firm cooperation.

The first group is related to the sharing and further advancement of research, increased complexity and inter-sectoral nature of new technologies, cross fertilization of scientific knowledge for instance the growing interrelationship between chemistry, physics, biology and computer science increases the need for close collaboration between these companies. The increase in the costs of R&D in a large number of fields has further encouraged this aspect.

The second group of motives is related to the concrete innovative projects in a joint activity of two or more companies. Capturing the partner’s tacit knowledge of technology, and innovative capability to enable technology transfer is the primary motive. Another motive that is considered here is the reduction of the total period of product–life–cycle and the contraction of the period between invention and market introduction.

The third group of motives is linked to the market access and technology development through the combined effort of companies. Combining some activities of two geographically separated firms for particular markets favors internationalization and globalization of companies.

Unlike most tangible physical resources which depreciate with use, a firm's skills of using technology and the technology itself actually improve with more practice, thus transferring technology through strategic alliances to other firm irons out the technical problems
encountered in application. The R&D cost incurred by a pharmaceutical company in developing a new drug is astronomical and mired with uncertainty. Thus there is a need to share the risks and project cost by collaborating and reducing risks. Although there is a possibility of pooling resources and reducing costs, the pressures of cultures and work procedures between collaborating companies can complicate decision making and thereby add onto the administrative costs. Strategic alliances dominated by the imitation motive are less stable than ones formed by other motives and are dependent on the absorptive capacity of the firm. While studying the strategic alliances among Indian pharmaceutical companies, they seem to be outcomes of clearly defined objectives.

There is a lot of literature that have identified the various contributing factors for alliance formation. The focus of alliance have always been market access, technology acquisition, financial support, political insurance and competitive reality (Barrie, 1985). Varadarajan and Cunningham (1995) have indicated that the main motive for partnership between firms is the pooling of specific resources and skills. Alliances create value which is an ongoing process especially by fostering close interfirm ties which create more opportunity to exploit technology, marketing and other aspects. Wang and Zajac (2007), indicate that in today’s business environment, firms constantly assess and reassess their own portfolios of resources and capabilities, and are typically open to the opportunities presented in the environment, including the opportunity to combine resources with other firms. They have focused on three types of paired - firm characteristics: (1) resource similarity and complementarity between two firms, (2) the combined relational capabilities of two firms and (3) the partner specific knowledge of two firms.

**Competitive advantage:** Alliances gives access to new technology which can ultimately lead to better value addition to customers, thereby enhancing competitive advantage of a firm. Silverman & Baum (2002) have explored the competitive implications of alliances, and have indicated that rivals’ alliance puts a pressure on competing firm. Hess (2005), indicated that with the onset of patent expiry, branded drug companies need to opt for more defensive
strategies to combat the generic competitors. Narula & Dunning (1998) have observed an increase in alliances across all of the advanced industrialised economies and the nature of the alliances are strategic.

Alliances are no longer simply undertaken as a means of avoiding transaction and coordination costs of markets. Nerkar & Roberts (2004), indicated that the growth and development of a firm is dependent on its ability to introduce new products over time which requires technological knowledge, the ability to combine knowledge elements into valuable new products and complementary assets that facilitate the manufacturing, sales, and distribution of those products. They indicate that inventions are the result of combining or recombining existing elements of knowledge into new syntheses and an invention becomes a successful innovation if it has a marketable use. Eisenhardt & Martin (2000), identified dynamic capabilities as a set of specific and identifiable processes such as product development, strategic decision making and alliancing, which have significant commonalities across firms and are homogeneous, equifinal and substitutable, commonly known as best practices.

Researchers have theorized that when firms have resources that are valuable, rare, inimitable, and non-substitutable (so-called VRIN attributes), they can achieve sustainable competitive advantage by implementing fresh value-creating strategies that cannot be easily duplicated by competing firms. Dynamic capabilities are complicated, detailed, analytic processes that rely extensively on existing knowledge and linear execution to produce predictable outcomes. They indicate that dynamic capabilities are the antecedent organizational and strategic routines by which managers alter their resource base—acquire and shed resources, integrate them together, and recombine them—to generate new value-creating strategies.

**Acquire market access:** One of the original motives for alliance formation was to acquire market access and/or overcome supply bottlenecks, i.e., to achieve vertical integration where such integration was not possible through hierarchies. Narula & Dunning (1998), indicate that inter-firm alliances are increasingly being undertaken, through various modes, as a direct response to pressures brought about by contemporary technological developments and globalisation.
Rothaermal (2001), indicated that firms entering into alliances look out for complementary assets which are advantageous to each other, especially so in the biopharmaceutical industry which is technologically very competitive and ever changing.

**Globalization:** Contractor & Lorange (2002), attempted to identify the environmental and regulatory conditions that have fostered the growth of alliances. They indicate that the fear of alliance formation is mitigated by two regulatory and environmental factors:

1. The global spread of the system of intellectual property protection under the aegis of TRIPS, a protocol of the World Trade Organization, which reduces the fear of misappropriation.
2. Greater articulation and codification of knowledge, which reduces the costs of its transfer to allies which is aided by broad-based adaptation of information technology.

Harmonization of standards and reciprocal acceptance of data has encouraged some of the recent alliances. Consistent application of intellectual property laws and continuous talks with the WTO lead to greater harmonization. This phenomenon is evident in the pharmaceutical industry where trials in different nations can be pooled and interpreted, thus allowing nations to accept the data collected in different places. Focus on “core-competence” makes it necessary for external knowledge acquisition, which is obtained by alliances. They have also indicated that alliances can reduce the escalating R&D costs and risks as risks are shared in collaborative R&D.

**Cost of research:** The process of research is a time consuming and expensive process. According to Cohen and Levinthal (1989), the two facets of R&D: it not only generates new information but also enhances the firm’s ability to assimilate and exploit existing information. Thus R&D generates innovations and also develops a firm’s ability to identify, assimilate and exploit knowledge from the environment thereby enhancing the firm’s learning and absorptive capacity.

**Relationships:** Combined relational capabilities of two firms would determine the alliance or acquisition which is dependent not only on the strategic needs of firms to combine their resources but also on relevant capabilities. Relational capability of a firm refers to its ability to
interact with and manage other firms in inter-firm relationships. Once a firm develops certain relational capabilities, it is more likely to exploit them by establishing more interfirm relationships with other firms, thereby gaining economic benefits Wang and Zajac (2007).

Collins and Hitt (2006), indicate that in highly competitive industries, firms need to focus on proactively managing their knowledge resources to ensure survival, although the knowledge management process may be difficult as it involves tacit knowledge. The transfer of tacit knowledge is facilitated by the relational capital between the collaborators. They explain how firms use relational capabilities to build relation capital with partners. They acknowledge that knowledge transfer is facilitated by repeated interaction among partnering firms and explore the need for firms to recognize the importance of inter-personal dynamics involved in the transfer of tacit knowledge. Tacit knowledge transfer requires greater trust between partners than does explicit knowledge transfer and building relational capital involves development of trust, information sharing and joint problem solving.

High profits from innovations: Roberts (1999), indicated that sustained high profitability may result when a firm repeatedly introduces valuable innovations that service previously unmet consumer demands. While the returns to the firm from each innovation may erode over time, innovation ensures that, overall the firm maintains a high performance position. His framework for firm-level profit persistence embraces product innovation, product–market competition and more importantly, the prospect that numerous product innovations may be embodied within a single firm. Innovation and anti-competition are identified as two explanations for firm level persistent profitability. An innovative new product tends to face low competition at the point of introduction and therefore earns relatively high profits. These high profits attract imitators, which increase the level of competition faced by the product as time passes. According to an anticompetition explanation, a firm may introduce an innovative product (or group of products) that is buffered from the competition that otherwise erodes the high profits associated with its introduction. On the other hand, an innovation explanation recognizes that relatively high profits may persist at the firm level even though competition is relatively intense. In such a case, the excess profits associated with any single innovation are transitory, but firms successfully introduce multiple innovations over time.
Van Reenen (1993), suggested that firms experience relatively high profits from innovations. They have also observed that profit margins of innovating firms are less sensitive to cyclical downturns than those of non innovators. They have observed that innovators are likely to be quicker, more flexible, more capable and more adaptable in dealing with market pressures.

Dynamic Technological changes: Rothaermal (2001) indicated that radical technological breakthrough is the reason when incumbent firms are forced to adapt to survive. Incumbent firms acquire the new technology through licensing agreements, strategic alliances, joint ventures and acquisitions. Nerkar and Roberts (2004) have suggested that the growth and development of a firm depends on the ability to introduce new products, whose success is dependent upon superior technological knowledge and marketing capabilities.

McCutchen Jr. & Swamidass (2004), conducted an exploratory study to investigate the motivations of strategic alliances among small and large pharmaceutical and biotech licensors and licensees. They have referred to many reasons that motivate the formation of strategic alliances, including the aspect of synergy where the alliance is a symbiotic relationship between two firms.

The most critical outcome of the research is that their results were in consistent with Hagedoorn (1993), where the primary motive for an alliance was concluded to be technology. R&D time – span reduction and financial aspects were the other identified reasons for alliances in the pharmaceutical industry. Some of the conclusions drawn throw light on the unique disposition of the small firms in the pharmaceutical industry. They have demonstrated that the licensees seek new products to improve their competitive position and gain access to new markets. Pharmaceutical industry’s small firms are often technologically advanced and may have a small scale of operation when compared to large firm. Their findings show that firm size, which serves as a proxy for firm capabilities, has a significant influence on the motivations for strategic alliances in this industry. They also conclude that the ownership of technology (licensor vs. licensee) also influences the motivations for strategic alliances.

According to Katila and Mang (2003), factors that speed up collaboration in the biopharmaceutical industry includes: patent protection, high intensity of Research and
Development of the discovering firm, partnering firms’ prior exposure to alliance and finally the infrastructure in the industry. Government initiatives to promote entrepreneurial activities in the pharma-biotech sector have been effective as they have also indirectly influenced the infrastructure development like building of biotech parks and increasing intellectual property protection.

To summarize, the factors that have influenced the alliance formation among companies are represented in the table below. (Adapted from: Contractor and Lorange, 2002)

**Illustration 4 : Reasons for Alliances**

<table>
<thead>
<tr>
<th>1. Governmental Policy related factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Intellectual properties</td>
</tr>
<tr>
<td>ii. Deregulation and Economic liberalization</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Gaining competitive advantage</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Growth strategy</td>
</tr>
<tr>
<td>ii. Mimic competition</td>
</tr>
<tr>
<td>iii. Gain access to key attributes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Globalization</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. New market access</td>
</tr>
<tr>
<td>ii. International harmonization of standards</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4. Cost related aspects</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Cost of production</td>
</tr>
<tr>
<td>ii. Cost of R&amp;D</td>
</tr>
<tr>
<td>iii. Cost of marketing and distribution</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5. Innovations</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Achieve high profits</td>
</tr>
<tr>
<td>ii. Achieve vertical integration</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6. Technology and knowledge management related</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Rapid advances in technology – related to lifescience</td>
</tr>
<tr>
<td>ii. Increasing role of information technology</td>
</tr>
<tr>
<td>iii. Strategic importance of speed</td>
</tr>
</tbody>
</table>
3.4 Impact of Strategic Alliances

Alliances, which are a consequence of growth strategy and which are clearly envisioned and implemented, can prove to be beneficial to both the alliance partners. This is especially the case when there is a transfer of resource from a parent firm to a host firm. James (2002), discusses the resource based view which has led to positive outcomes of alliances. Firm specific assets, which are distinctive and accumulated over time, can be exchanged which can lead to business benefits. Innovations are often a result of combined capabilities of alliencing firms. Hamel (1991), described that in competitive collaboration, the primary objective of the strategic alliance is to internalize the partner skills. He proposed that the alliance partner who understand the co-relation between inter-partner learning, bargaining power and competitiveness will view the alliance as a learning ground. Two major determinants of learning are transparency and receptiveness.

Research and Technology: Porter (1996), indicated that management tools and techniques: total quality management, benchmarking, time based competition, outsourcing, partnering, re-engineering, change management, have resulted in dramatic operational improvement across the globe. This is especially true in high technology industries like pharmaceuticals. Positive aspects namely global generation of innovations which results from R&D and innovative activities both in the home and host countries are outcomes of strategic alliances, Archibugi and Pietrobelli (2002). Additionally, strategic alliances help in the global techno-scientific collaborations involving joint scientific projects and R&D network.

Marketing

Marketing is one of the reasons which has prompted the formation of alliances in the pharmaceutical industry. The pharmaceutical R&D companies, who are into discovery, develop new and promising molecules. Commercialization of the molecule, generating a market, promoting and managing the sales is a completely different aspect, which requires skill and resource. Thus big pharmaceutical companies enter into alliance with R&D firms where the R&D firms develop new molecules and the big pharmaceutical companies look after the commercial aspects. Many companies also enter into alliances for distribution
purposes. With respect to the Indian pharmaceutical industry, the alliances have changed the scenario of the industry in the last 20 years. The alliances have impacted the way the Indian pharmaceutical companies approach marketing.

New Product Development

Deeds and Hill (1996), have demonstrated that strategic alliances are positively related to new product development. They have built on the premise that new product development involves integration of a number of complementary assets and strategic alliances are a quick and effective way to achieve them. There is a parabolic relationship, wherein initially strategic alliance are viable for firms to gain access to assets that increase their new product development, however if the firm enters into too many alliances, negative results may set in.

Competitive Advantage

Bala and Sagoo (2000), have studied the impact of patents on the availability and prices of essential drugs in developing countries. Competition in the pharmaceutical market brings down prices as the originator firm will bring down prices to compete with the local generic firm. Thus when more and more firms are involved in alliances and build their capacity, there will be a positive effect on the price of the pharmaceutical drugs. Lanjouw (2005) has given evidence that show high levels of patent protection encourages the launch of innovative products, especially in countries where MNCs have to encounter local technical capacities. Patent protection indirectly aids alliance formation, which aids in enhancing the production of the molecule and indirectly impacts price and availability of the molecule.

Shrank et al (2006), demonstrated that for chronic ailments, generic pharmaceutical products have proven to be having less amount of patient drop outs. Thus pointing to a fact that it becomes very critical for an originator firm to look at generic options if the patients need to be “locked into” the therapy. Drews (2003), has indicated that productivity of the pharmaceutical industry has fallen short dramatically, that is the number of novel
compounds are depleting thus pushing big pharmaceutical companies to come together through alliances to acquire new product lines to strengthen their portfolio.

With the aspects of globalization and certain typical challenges that is faced by the pharmaceutical industry, marketing skills and practices stems from the central organization and is transferred to local affiliates. The transference is a product of training which involves both technical aspects as well as skills development.

Chandon (2004), has described the strategic options available to an innovator firm after the patent expiry. Divesting is strategy adopted where the brand is not supported but generates revenue due to the inertia of doctors to switch to new generics. Innovation is another strategy that can be adopted by offering new and better services, new dosage combinations, new delivery systems etc. Introducing generic products either directly or by licensing is also a approach taken by innovator companies, to make the most out of the scenario.

Thus the impact of alliances on the can be summarized as follows

**Illustration 5: Impact of Alliances on Business Aspects of Pharmaceutical Companies**

<table>
<thead>
<tr>
<th>1. Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. New product development</td>
</tr>
<tr>
<td>ii. New product launches – domestic and international markets</td>
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<tr>
<td>iii. Enhanced product portfolio</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Marketing</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Access to new markets</td>
</tr>
<tr>
<td>ii. Enhanced sales promotional activities and spend</td>
</tr>
<tr>
<td>iii. New distribution channels</td>
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</tbody>
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<table>
<thead>
<tr>
<th>3 Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Access to new technology</td>
</tr>
<tr>
<td>ii. R&amp;D capability</td>
</tr>
<tr>
<td>iii. GMP manufacturing facilities knowhow</td>
</tr>
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<table>
<thead>
<tr>
<th>4 Manufacturing</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Cost optimization</td>
</tr>
<tr>
<td>ii. Quality management techniques</td>
</tr>
<tr>
<td>iii. Common asset and operational synergy</td>
</tr>
</tbody>
</table>

| 5 Competitive advantage |
3.5 Success Factors for Alliances

Two types of uncertainties in alliances: uncertainty regarding future events and uncertainty regarding partner's responses to those future events. Alliances involve considerable investment of resources and need to be nurtured and managed well, if they are to be successful. Trust between partners forms the basis of any successful alliance. Trust is defined as the mutual confidence that neither party will exploit another’s vulnerabilities; violation of expected behaviours can cause disruption of trust leading to profound confusion. Distrust arises when there is suspicion of intentional violation of expectations. A weak trust is developed when there are limited opportunities for opportunism wherein, the partners can have the mutual confidence that others will not exploit their vulnerabilities because they have no significant vulnerabilities. Semi-strong levels of trust, emerges even when significant vulnerabilities exist, if parties to an alliance are protected through various governance devices. Strong form trust emerges in the face of significant vulnerabilities, independent of whether or not elaborate social and economic governance devices exist, because opportunistic behavior would violate values, principles, and standards of behavior that have been internalized by alliance partners. Parkhe (1998), indicates that trust plays a dominant role in successful alliances. Successful adaptation calls for a delicate balance between the twin virtues of reliability and flexibility. Flexibility is necessary for partners to have a viable relationship in the face of changing circumstances, yet unlimited flexibility affords companies the opportunity and incentive to cheat, reducing the partners trust on each other.

Hyder and Ghauri (2000), have indicated that during the early stages of the alliance, there exists a lot of uncertainties among the alliancing firms, as they are gauging each others capabilities. Resources are committed when the 2 parties establish a relationship with each other. Relationship is strengthened through openness and access to each other’s resources. Two attributes that affect post-formation dynamics are the scope of collaborative activity and division of labour among partners (Reuer and Zollo, 2000).
Doz (1996) identified four factors which are key determinants of an evolving partnership: the definition of the tasks to be jointly performed by the organizations, the alliancing firms’ respective organizational routines, the interface between the alliancing firms and finally the expectation each firm has on the alliance.

Developing relationships between the partners is critical as this is can involve formal and informal transfer of knowledge which is an important factor determining the success of an alliance. Highly competitive industries, firms need to focus on proactively managing their knowledge resources to ensure survival, although the knowledge management process may be difficult as it involves tacit knowledge, Collins and Hitt (2006). The transfer of tacit knowledge is facilitated by the relational capital between the collaborators. They explain how firms use relational capabilities to build relation capital with partners. They acknowledge that knowledge transfer is facilitated by repeated interaction among partnering firms and explore the need for firms to recognize the importance of inter-personal dynamics involved in the transfer of tacit knowledge. Tacit knowledge transfer requires greater trust between partners than does explicit knowledge transfer and building relational capital involves development of trust, information sharing and joint problem solving. Specific governance changes firms make in strategic alliances and explore some of the factors affecting parent firms’ interventions in their collaborative agreements, Reuer and Zollo (2000). They indicated that like acquisitions, many alliances falter at the juncture between alliance formation and implementation. They indicate that governance changes in strategic alliances are a critical factor that influences alliance termination and parent firm’s intervention in collaborative agreement. Governance changes in alliances can stem from intense competition or changes in rivalry. Other factors that affect the post formation dynamics of alliances are scope of collaborative activity and division of labor among partners.

Liberalization of restrictions on foreign direct investment has historically been one reason behind equity changes in market entry of international joint ventures in developing countries. Foreign exchange rate movements can be another source of instability in alliances. Prior alliances with a partner, for instance, allow firms to better understand partners’ routines for managing collaborative processes.
Baker, Gibbons and Murphy (2008), have illustrated that two important factors that determine the form and performance of strategic alliances are – spillovers from joint project into parents and the need for governance. Serapio and Cascio (1996), have found that alliances are terminated for one or more of six reasons:

- Differences between partners, people and managerial styles
- Unsuccessful venture
- Breach of agreement
- Nonfitment of goals and strategies
- Financial difficulties
- Achieving the original objective of the alliance

Douma et al (2000), identify different aspects of fit and their interrelationships, as well as provides an insight into the drivers for fit. Alliances are knowledge intensive and have moved away from the traditional cost-driven model. Inspite of this many alliances do not deliver the value expected by the strategic partners. Alliance success depends on an effective and efficient alignment (in other words, fit) between the partners involved. Fit is very much related to concepts such as complementary balance, mutual benefits, harmony. They have identified five aspects of mutual relationship: Strategic fit, Organizational fit, Cultural fit, Operational fit and Human fit.

Strategic fit involves six drivers, sharing a common vision, having a compatibility of strategies, mutual dependency, market acceptability of the alliances, should add value for the partners and their customers, and finally the alliance should be of strategic importance to both the partners. The drivers for organizational fit includes: addressing organizational similarities and differences in the alliance, providing for strategic and organizational flexibility, reducing the design complexity, enabling effective management control by both partners, overcoming potential strategic conflicts and enabling partners achieve their strategic objectives.

James (2002) has indicated that there are challenges of managing resources and capabilities in an alliance, which stems from organizational and cultural barriers. Alliances
especially mergers and acquisitions, do extract a heavy price from the ongoing business activities, due to disruptions caused by loss of staff, break up of teams, dip in morale and loss of business due to lack of focus. Management of the integration process is critical for the success of any alliance. Imperfect information of the various aspects of the organization can influence the integration process. Sense of inertia and a propensity to hold on to original beliefs on the employees part can often create barriers in the integration process which will eventually delay the process. Alliances can cause cultural clashes and intra-organizational battles between competing business and executives, which can lead to the exit of manpower.

Thus alliance is not an end by itself, the success of an alliance is an elaborate procedure, which involves involvement of management at all levels. Trust is the most important factor which determines the success of the alliance. Understanding the fit and strategic goal is critical for the success of the alliance. Day to day functioning and governance need to be handled effectively as they would impact the smooth functioning of the organization. In addition, external factors like regulation and liberalization may also play a role in the continuance of an alliance.

Illustration 6 : Factors Affecting the Success of Alliances

<table>
<thead>
<tr>
<th>1. External factors</th>
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<tbody>
<tr>
<td>i. Legal and regulatory policies</td>
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<tr>
<td>ii. Currency related aspects</td>
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<table>
<thead>
<tr>
<th>2. Strategic fit</th>
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</thead>
<tbody>
<tr>
<td>i. Strategic fit</td>
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<tr>
<td>ii. Organisational fit</td>
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<tr>
<td>iii. Cultural fit</td>
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<table>
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<tr>
<th>3. Governance</th>
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</thead>
<tbody>
<tr>
<td>i. Day to day operations</td>
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<tr>
<td>ii. Communication</td>
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<table>
<thead>
<tr>
<th>4. Trust</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Formal and informal relationships</td>
</tr>
<tr>
<td>ii. Collaborative activities</td>
</tr>
</tbody>
</table>
3.6 Conclusion and Research Gaps:

Strategic alliance between Indian and foreign pharmaceuticals is a phenomenon that is here to stay for many more years in the future. Literature has discussed extensively the driving factors for the alliances and the trend of alliances in the 5 decades starting from 1960 till 2010.

Research gaps that have been identified are as follows: Considerable literature is available on the strategic alliances that have taken place among pharmaceutical companies abroad. The studies have analyzed the reasons for the alliances, the trends and outcome of the alliances. There is no study available on the outcome of the alliances on various factors like business, customers and employees. The alliances are considered to be beneficial as they are formed to meet a business objective and after the objective is realized, they are termed as successful. However, the impact on employees is not studied in depth.

When it comes to the context of the Indian pharmaceutical companies, the gaps in the literature are far more obvious. Beena, Smith, Pradhan, Greene, Langley are some of the researchers who have contributed in understanding the trends in strategic alliances in India and the factors that have led to the formation of alliances. For instance, many of them refer to the liberalization policy of 1991, and the accession to TRIPS are two important reasons. There is no study available which discussed the impact of the alliances on the Indian companies. Companies have grown, achieving high turnovers, accruing huge investments, diversifying into contract research and R&D, are these the outcomes of alliances, or natural transition of Indian pharmaceutical companies? With regards to the reasons for the formation of alliances between Indian and foreign pharmaceutical companies, many causes have been identified. Literature has given a number of evidences like reduced costs, scientific talent etc. However, there is no formal study which pinpoints the actual reason for the alliances. Additionally, the kind of alliance undertaken by a particular enterprise is critical. Small pharmaceutical company may undertake alliance with a foreign partner for a completely different reason in comparison to a large innovator Indian pharmaceutical firm. There is no correlation between the kind of company and the alliance undertaken.
The study attempts to understand and analyze the trends on strategic alliances between Indian and foreign pharmaceutical companies. Although many researchers have commented on this topic, the data is limited up to 2006 only. Many alliances have happened post 2006, which needs to be considered as well. There is no study which traces the objectives of alliance that have happened in each decade starting from 1950 with regards to Indian pharmaceutical companies.

The first objective of the study is to analyze the various factors that have led to the formation of alliances between Indian and foreign pharmaceutical companies. There are a number of factors like economic factors, technological aspects that have contributed to the alliances. Although there are many literature references to the politico – legal situation which opened up the economy and made business lucrative in India, there are no studies which actually discusses this. There are indications on some critical aspects that have led to alliance formation between Indian and foreign pharmaceutical companies like : Products, Marketing, Manufacturing, Technology and Competitive advantage. There is no formal study incorporating aspects of these 5 areas into strategic alliances.

The second objective of the study aims at understanding the business implications of the strategic alliances between Indian and foreign pharmaceutical companies. There are many researches that have discussed the alliances and their formation, however implications of the alliances is a subject with very little work. This is especially so in case of Indian scenario. There is no study which discusses the major business area that is impacted the most during an alliance. The most important stake holder namely the employee and the impact the alliance has on him is again a topic with no available literature. The alliances that have occurred in the Indian pharmaceutical industry has been beneficial to a large extent. They also have some negative implications. There is no available literature that discusses these crucial aspects. One of the research questions is to address the benefits and detriments of the alliances that have occurred between Indian and foreign pharmaceutical companies.

The third objective of the study is to understand and evaluate the factors that are critical for a successful alliance. Alliances are the outcome of a strategic business objective and involve
investments. Hence their objective success is critical for every organization that is part of the alliance. Although there are literature which have referred to critical success factors of an alliance, literature with respect to success factors for alliance between Indian and foreign pharmaceutical companies is not available.

Thus to summarize, the literature gaps identified are depicted in the table as follows.

### Illustration 7: Literature Gaps

<table>
<thead>
<tr>
<th>Literature Gaps Identified</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Trends Strategic alliances between Indian and foreign pharmaceutical companies</td>
<td></td>
</tr>
<tr>
<td>i. No decade wise analysis</td>
<td></td>
</tr>
<tr>
<td>ii. Data is available till 2006 only</td>
<td></td>
</tr>
<tr>
<td>iii. No study on the objectives of the alliances is available</td>
<td></td>
</tr>
<tr>
<td>2. Factors that have led to formation of alliances between Indian and foreign pharmaceutical firms</td>
<td></td>
</tr>
<tr>
<td>i. Role of technological factors in alliance formation</td>
<td></td>
</tr>
<tr>
<td>ii. Role of economic factors in alliance formation</td>
<td></td>
</tr>
<tr>
<td>iii. Role of competitive advantage related aspects in alliance formation</td>
<td></td>
</tr>
<tr>
<td>3. Business implications of strategic alliances between Indian and foreign pharmaceutical firms</td>
<td></td>
</tr>
<tr>
<td>i. The major business area impacted during an alliance</td>
<td></td>
</tr>
<tr>
<td>ii. Impact of alliance on marketing elements</td>
<td></td>
</tr>
<tr>
<td>iii. Impact of alliances on the People of the firms who have formed an alliance</td>
<td></td>
</tr>
<tr>
<td>4. Factors that are critical for a successful alliance between Indian and foreign pharmaceutical firms</td>
<td></td>
</tr>
<tr>
<td>i. Critical success factors with respect to Indian context</td>
<td></td>
</tr>
<tr>
<td>ii. Beneficial aspects of alliances to Indian firms</td>
<td></td>
</tr>
<tr>
<td>iii. Negative fallouts of alliances with regards to Indian pharmaceutical industry</td>
<td></td>
</tr>
</tbody>
</table>

This study will address the above identified research gaps through both primary and secondary data evaluation. The primary data will be collected by the elements on whom the alliance has an impact, namely employees and customers.