2.1 LITERATURE REVIEW ON PHARMACEUTICAL INDUSTRY

A review was conducted of 70 publications; 43 publications were concerned with the pharmaceutical quality directly while 37 publications were concerned with the general quality practices. The content of those sources was analyzed and the following themes were identified:

Guidelines of the pharmaceutical quality.

General practices recently applied in the pharmaceutical industry.

Alka Chadha (2008) This paper studies the impact of the strict patent regime on the patenting activity of Indian pharmaceutical firms and finds that patenting activity of these firms has increased after the signing of TRIPs. The study is conducted for 65 pharmaceutical firms for the period 1991 to 2004 using different parametric and semiparametric count panel data models. Results across different count data models indicate a positive and significant impact of the introduction of stronger patents on patenting activity. Further, the results show a gestation lag of 2 years between R&D spending and patent applications.

Beena, S (2006) This paper tries to address the extent, nature and impact of the recent surge in consolidation strategies especially in the form of mergers and acquisitions followed by the firms in the Indian pharmaceutical industry. The study found that many of the firms are implementing these strategies in the new context of globalisation mainly to overcome the acute competition arising out of the pro-market reforms and to strengthen their market portfolio. The study reaches the conclusion that the consolidation strategies followed by the firms enabled them to cut down the wasteful expenses to a greater extent and which resulted in better performance of the merging firms compared to the non-merging firms in this industry.

Chadda (2006) in her paper has tried to show that Indian firms are spending huge resources to secure non-infringing process patents in foreign countries. After tapping the developing countries, they are trying to access developed countries with drug master filings (DMFs) for bulk actives supply and abbreviated new drug applications (ANDAs) for formulations.

Chadha (2005) there is a stricter patent regime has stimulated patenting activity in the Indian pharmaceutical industry.
Chaturvedi and Chataway (2006) has described in their study about Smaller pharmaceuticals do not have these resources and might not be able to survive in the market. Indian firms are adapting to the changing environments R&D is recognized as the ‘survival kit’ in the post-TRIPS scenario. The paper observed that Indian firms are investing in R&D not only for new drug discovery but for developing capabilities to assimilate and exploit knowledge available externally. They are also positioning themselves as a partner of choice for technology savvy national and multinational firms.

Chaudhuri (2007) explores that R&D expenditure has dramatically increased for a segment of the Indian pharmaceutical industry after TRIPS came into effect. It is not only that the amount of R&D expenditure has increased, but there has been a drastic shift in the structure of R&D activities of the Indian companies. Earlier they were primarily engaged with the development of new processes for manufacturing drugs, now they are also involved in R&D for new chemical entities (NCE). Indian Pharmaceutical Industry has Exciting Opportunities in Post-TRIPS period.

Dhar & Gopakumar (2006) provides analysis to indicate the performance of the firms in the Indian pharmaceutical industry following the changes in the patent regime necessitated by the Agreement on TRIPS. The study shows that the R&D spending of some of the leading firms, in particular, Ranbaxy and Dr Reddy’s has shown increase in Post-TRIPS period. As a result, R&D intensities of the firms have improved significantly.

Dinar Kale & Steve Little (2007) has describes about the Indian pharmaceutical industry has emerged as a leading supplier of generic drugs to both developing and developed countries. The movement of the Indian pharmaceutical industry along the R&D value chain represents a remarkable shift from an importer to an innovator of drugs. The Indian government's industrial and technology policies along with changes in regulation of intellectual property rights played a crucial role in shaping this development of R&D capability. Using the ‘capability creation model’ this paper discusses the learning processes and stages involved in this dramatic accumulation of technological capability. This analysis shows that the Indian pharmaceutical
industry has followed a trajectory from duplicative imitation to creative imitation to move up the value chain of pharmaceutical R&D. Finally as a result of changes in patent law the industry is learning to develop capabilities in innovative R&D. The basic and intermediate technological capabilities gained from imitative learning gave these firms a solid base for development of competence in advanced innovative R&D. These findings have implications for government policies as well as firm strategies in other developing countries albeit with some limitations due to global harmonization of patent laws being promoted by the World Trade Organization.

Grace (2004) reveals that the prospects of changing intellectual property on pharmaceutical industry are extremely positive for the future of the Indian industry. The study shows that one third of all FDA applications came from India in 2003 and this number is expected to be one half in 2004. MNCs have been interested in working with Indian firms for some time, attracted by lower cost structure.

Gupta (2007) Indian companies are increasing their rate of DMF filings every quarter. Indian generic players are also increasing their participation in the advanced markets, particularly the US. ANDA filings with USFDA are also increasing in Post-TRIPS period.

Haritha Saranga, B.V. Phani (2008) The Indian Pharmaceutical Industry (IPI) will be going through a major shift in its business model, from the year 2005 onwards, as the existing Process Patent regime gives way to the Product Patent regime, in order to comply with the Trade Related Intellectual Property Rights System (TRIPS) agreement. As a result, IPI, comprising of more than 20,000 players, is slowly consolidating with mergers, acquisitions and alliances; and getting ready to adapt to the new environment. In such a dynamic environment it would be imperative to examine whether there are any common firm level factors which aid in the survival and growth of a firm. This assumes crucial importance due to the fact that it is almost impossible for any firm to control the factors which affect the industry as a whole. This is particularly true when the changes are driven due to the process of globalization and not due to any policy changes of individual governments. With this objective, we have used Data Envelopment Analysis (DEA) on a sample of 44 companies that have survived at least the past one-decade, to determine the best practices in the Indian Pharmaceutical Industry. The results of DEA have been analysed along
with their Compounded Annual Growth Rate (CAGR) to see if internal efficiencies and growth rate are related in the Indian Pharmaceutical Industry. We have also used regression analysis to see the correlations between various inputs/outputs and the growth rates. Various models of DEA like Constant Returns to Scale (CCR), Variable Returns to Scale (BCC) and Assurance Region (AR) are used to substantiate the results obtained.

**Jaya Prakash Pradhan (2003)** In the present paper, it is attempted to empirically verify the impact of economic liberalization on the R&D behaviour of Indian pharmaceutical firms controlling for the effects of several firm specific characteristics including firm size. The results from the Tobit analysis for a sample of firms over the period 1989-90 to 2000-01 indicate that competitive pressure generated by liberalization has worked effectively in pushing Indian pharmaceutical firms into R&D activity. A host of firm characteristics like firm age, size, profitability, intangible assets, export orientation and outward foreign direct investment are also found to be important determinants of innovative activity in the industry. The study suggests several policy measures to further indigenous technological efforts of pharmaceutical firms, which include, removing obstacles that inhibit outward orientation of firms, providing special scheme for small size firms in the overall technology policy for the industry, intensifying collaborative research efforts between private sectors and government research institution, and utilizing flexibilities in the TRIMs agreements to persuade foreign firms to relocate their R&D units into the country.

**Jaya Prakash Pradhan (2006)** What are the trends in the global competitiveness of the Indian pharmaceutical industry? Where does this industry stand when compared to global peers on pharmaceutical value-added, productivity, research and development and trade performance? What are the new strategies that Indian pharmaceutical companies are adopting to become global players? These questions are addressed in this paper. It is found that strategic government policies were the main factors that transformed the status of the Indian pharmaceutical industry from a mere importer and distributor of drugs and pharmaceuticals to an innovation-driven cost-effective producer of quality drugs. India emerged as one of the fast growing pharmaceutical industry in the world with growing trade surpluses and
exports. However, there are certain limitations that the government policies need to address, like low productivity and R&D intensity. A host of competitive strategies, like greenfield direct investment, overseas acquisitions, strategic alliances and contract manufacturing have emerged as favourites to Indian pharmaceutical firms recently.

**Jaya Prakash Pradhan, (2007)** This paper examines the impact of stronger protection for intellectual property on the exports of a technologically imitative country such as India. The Indian experience in pharmaceutical exports can further add to the existing literature, which is otherwise largely limited to the experience of OECD countries and the USA. The empirical analysis suggests that even an imitative developing country's exports need not be negatively affected by strengthening patent regime globally, and in fact, in the case of pharmaceuticals, India stands to benefit from market expansion effects. However, this finding in the case of pharmaceutical products cannot be argued to hold for other sectors of the Indian economy, and any generalization on overall impact of stronger patent regime on aggregate exports from the Indian economy must be based on further sectoral studies.

**Jayashree Dubey, Rajesh Dubey** The World Trade Organization (WTO) has set rules for international trade, with the objective to provide maximum benefits to the consumers. One of its aims is to remove trade barriers to international competition. The Organization is based on the principles of free trade; predictability through binding and transparency; national treatment (treating foreigners and locals equally); granting most favored nation status; dismantling trade barriers, for example, removal of quota restrictions and tariff bindings; and promoting fair competition. At the same time developed nations have used their power while negotiating the rules of trade, and this has posed a great challenge to developing countries. It can be claimed that the rules have been framed in a way which gives opportunities to serve customers of the WTO countries. Only companies with a competitive advantage can survive in the global arena, and this also applies to Indian industries. Since the WTO prevents the use of subsidies and other protective measures, the economic environment will change. This requires bringing major changes in the business system in India. Under this system, the textile, food processing and leather industries will benefit. Although there is confusion among the Indian pharmaceutical companies at present, in this area also India can take the opportunity to grow. Madhya Pradesh
needs to create a welcoming atmosphere for these companies. This article presents the economic conditions in Madhya Pradesh and discusses the reasons for the backwardness. It makes a comparison of the industrial potential specific to the pharmaceutical industry of Madhya Pradesh with other developed states in India.

**Kubo (2004)** found that R&D intensity and the patent to R&D ratio has increased after 1995.

**Lanjouw (1996)** opines that production technologies were well mastered and the lag period between the launch of a new product in its first market and India was thus reduced, in some cases as low as two years. The earlier literature points out that the firms in developing countries compete on the basis of production capabilities, largely acquired from elsewhere and reinforced by basic to intermediate technological capabilities related to a simple knowledge base (Lall, 1987; Bell and Pavitt, 1995). With the signing of WTO, specifically TRIPS in 1994, the Indian industry and market structure is poised to change.

Many Indian pharmaceutical companies have not only shown good performance domestically but have also been able to establish their foothold in overseas markets. Despite challenges posed by the WTO regime, the growth momentum has continued in this sector (EXIM Bank 2007).

**Nair (2007)** points out that future will be bright for the Indian pharma companies focusing on visionary strategies. Drug Discovery, Para IV filings, focus on production of high quantum and moderately priced generics, strengthening API/drug intermediates production, outsourcing to MNC's upgrading manufacturing facilities to USFDA standards and investing in Pharma support services viz. analytical services, diagnostic services, data management services and clinical research operations will prove worthwhile in the long run and help India move up and compete with top global Pharma companies.

**Pradhan (2006)** examines the impact of a stronger protection regime for intellectual property on the exports of a technologically imitative country, India. The empirical analysis presented in the study suggests that in the case of pharmaceuticals, India stands to benefits from market expansion effects.
Pradhan, Jaya Prakash (2006) *Global Competitiveness of Indian Pharmaceutical Industry: Trends and Strategies*. What are the trends in the global competitiveness of the Indian pharmaceutical industry? Where does this industry stand when compared to global peers on pharmaceutical value-added, productivity, research and development and trade performance? What are the new strategies that Indian pharmaceutical companies are adopting to become global players? These questions are addressed in this paper. It is found that strategic government policies were the main factors that transformed the status of the Indian pharmaceutical industry from a mere importer and distributor of drugs and pharmaceuticals to an innovation-driven cost-effective producer of quality drugs. India emerged as one of the fast growing pharmaceutical industry in the world with growing trade surpluses and exports. However, there are certain limitations that the government policies need to address, like low productivity and R&D intensity. A host of competitive strategies, like greenfield direct investment, overseas acquisitions, strategic alliances and contract manufacturing have emerged as favourites to Indian

Pradhan, Jaya Prakash and Alakhendra, Abhinav (2006) *Overseas Acquisition versus Greenfield Foreign Investment: Which Internationalization Strategy is better for Indian Pharmaceutical Enterprises?* Very recently overseas acquisition and outward greenfield foreign investment have emerged as the two important modes of internationalization of the Indian pharmaceutical enterprises. This study examines the relative strengths and weaknesses of these strategies so as to suggest which between the two is a more effective internationalization strategy for the Indian pharmaceutical firms, given the nature of their ownership advantages. This analysis has been conducted in three stages. First, the internationalization process of the Indian pharmaceutical industry has been embedded into a four stage theory emphasizing on the emergence of different modes of internationalization like inward foreign investment, imports, exports, outward greenfield investment, overseas acquisition and contract manufacturing including inter-firm strategic alliances. Second, theoretical perspectives have been developed with regard to the different ways in which greenfield investment and overseas acquisition can maximize the revenue productivity of pharmaceutical firms’ competitive advantages and/or to strengthen their competitive position. Third, case study of Ranbaxy Laboratories has been undertaken to empirically assess its experience with overseas acquisitions. The analysis indicates that the growth and internationalization of Indian
pharmaceutical enterprises was critically dependent upon strategic government policies pursued in the past. The Indian experience offers a number of policy lessons to other developing countries wanting to build their domestic base in the pharmaceutical sector. Theoretical understandings indicate that acquisition is a more effective internationalization strategy than greenfield investment since the former not only provides all the benefits that the latter gives, but also several other competitive advantages important for firms’ performance in world market. The experience of Ranbaxy shows that overseas acquisitions have augmented its intangible asset bundle including distribution and market networks and have provided access to an existing market.

Raveendra Chittoor, MB Sarkar, Sougata Ray, Preet S. Aulakh (2008) wrote in their article about Third-World Copycats to Emerging Multinationals: Institutional Changes and Organizational Transformation in the Indian Pharmaceutical Industry This article investigates how Indian pharmaceutical firms, facing discontinuous institutional changes in their domestic environment due to economic liberalization and intellectual property reforms, have undertaken organizational transformation. Internationalization of resources and product markets constitutes an important component of organizational transformation for local firms in emerging economies. Using longitudinal data on 206 Indian pharmaceutical firms from 1995–2004, we find that firms' access to international technological and financial resources enables product market internationalization. Furthermore, we theorize and find support for our predictions that the association between international resources and markets is conditioned by time and business group affiliation, and product market internationalization affects financial performance. Several implications thus emerge for theory and practice associated with the sources of competitiveness in emerging economy firms and their transformation into globally competitive multinational firms.

Raveendra Chittoor, Sougata Ray, Preet S. Aulakh, M.B. Sarkar (2008) This paper examines the strategic response of the Indian pharmaceutical industry to the dual institutional changes arising from economic liberalization of the Indian economy and the WTO mandated intellectual property regime. An analysis of the relative position and growth of Indian firms vis-à-vis foreign multinationals, changes in the resources and capabilities of these firms, and scope
in terms of product market internationalization and overseas acquisitions during the 1995–2005 period, suggests an ‘indigenous growth’ model in the Indian pharmaceutical industry which is in contrast to the FDI initiated growth witnessed through full or partial privatization of state-owned firms in other geographical contexts. Second, internationalization of both inputs and product markets has been the dominant mode to overcome the pressures arising from institutional changes. We discuss the drivers of this model and provide implications for future research on strategic responses to institutional changes within other industries in India as well as for comparative research across different political and institutional settings.

Ravinder Jha (2007) With the shift to a strong patent law, Indian pharmaceutical companies are rapidly shifting their focus to the generics market of the developed world. But even as India has become a net exporter of pharmaceuticals, import dependence on active pharmaceutical ingredients has steadily increased over the last 10 years. As far as the Indian affiliates of the multinational pharmaceutical companies are concerned, their shares of both the active pharmaceutical ingredients and formulations are declining and their "investment" preferences have shifted towards financial securities. A process of consolidation through mergers and acquisitions has been underway, which apart from increasing market concentration, has been a key element of firm strategy to tap business opportunities along the value chain in the domestic as well as the overseas markets. In the field of R&D, with no Indian pharmaceutical company being equipped to take a potential drug from the investigational stage to the stage of final market launch, collaboration with multinational corporations is the norm, resulting in biases in the choice of therapeutic areas towards lifestyle-related diseases.

Sampath (2005) categorized firms in the Indian Pharmaceutical industry into 3 main groups based on empirical data collected and identified the main strategies and their triggers in each one of the 3 firm groups. The survey of 103 firms highlighted that Indian firms are adapting a combination of cooperative and competitive strategies, for adapting and capitalizing on the opportunities created by the changing patenting regime. There is a high correlation between export intensity and R&D investments in the Indian Pharma sector. Moreover firms that had greater revenues from exports were able to invest a larger amount on R&D.
Saradindu Bhaduri & Amit S. Ray (2007) Contrary to conventional wisdom based on the product cycle and technology gap models, this paper argues that the technology factor can prove to be a key determinant of manufactured exports from less-developed countries (LDCs). The technological advantages enjoyed by LDCs rest on a very different foundation, technological capability, rather than on major technological advancements or breakthroughs. This paper attempts to capture and analyse how technological capability augments export competitiveness of LDC enterprises by introducing quantifiable concepts of technological capability and estimating econometric models of firm-level export performance for two R&D-intensive industries in India, pharmaceuticals and electronics/electricals. The results of our econometric analysis provide new insights into the relationship between technological capability and export performance, highlighting significant inter-industry differences. We find that simple production engineering capabilities augment exports of both sectors, while efficiency of reverse engineering proves to be particularly important for pharmaceutical exports only.

Sharma (2008) India is now emerging as a preferred supplier of Active Pharmaceutical Ingredients (APIs) to many global companies for considerations beyond costs (). It is today the third largest API player after China and Italy. India is way ahead of its competitors in Drug Master File (DMF) filings. The proportion of DMF filings by Indian players has gone up more than three times in the last few years. India has the largest (being outside the US) US FDA approved facilities. Indian firms are able to tackle complex synthesis in relatively short periods of time with cost efficiency.

Sheena Reddy (2006) the growth in R&D for larger pharmaceuticals is greater than the growth for the general pharmaceutical sector. Larger pharmaceuticals have the resources to devote more investment for R&D and can afford to think about the future.

Shyama V. Ramani, M.S. Venkataramani (2004) Presently, the Indian pharmaceutical industry ranks 12th in the world and its market is conservatively estimated to be $2.5 billion. Tracing the evolution of this industry, the paper first shows that Indian firms over the years had invested in gaining knowledge of the chemical technology of creating bulk drugs, and the top tier
firms had greatly "learnt by doing"; improving upon the process technology and bringing down their prices without investing in "formal R&D centers". These firms were then confronted with biotechnology, a set of techniques that was new and more complex to integrate. In this context the paper examines the variety of ways in which the Indian firms are strategically positioning themselves for the integration of biotechnology as dictated by their market objectives.

**Sumit K. Majumdar (1994)** this paper has two objectives. First, the author describes an empirical approach to the assessment of intra-firm capabilities. Firms can acquire and configure resources. These are key building-blocks of firms' strategy as assumed in the emerging resource or capability-based view of strategic behaviour and performance analysis. However, the way resources are utilised are the principal causes of firms' success in attaining economic outcomes. While the process of resource utilisation is invisible, the use of data envelopment analysis (DEA) highlights firms' 'revealed' success in resource utilisation and co-ordination of activities, and DEA is described in detail. Second, empirical analyses of the capabilities and performance patterns of a group of firms in the Indian pharmaceutical industry are carried out.

**Sunil (2006)** undertakes a detailed mapping out of the sectoral system of innovation of India’s pharmaceutical industry. The study shows that the TRIPS compliance of the intellectual property right regime has not reduced the innovation capacity of the domestic pharmaceutical industry which has visualized an increase in both research budget and patenting.

**Susan E. Feinberg and Sumit K. Majumdar (2001)** these authors examine whether knowledge spillovers from MNCs’ local R&D activities benefit domestic firms in the Indian pharmaceutical industry from 1980-1994. In a policy environment that restricted FDI and provided weak intellectual property protection, we find that the only significant R&D spillovers in the Indian pharmaceutical sector were between MNCs and each other. We explore the implications of our findings in light of India's economic and industrial policy goals and implementation.

**T.R. Madanmohan, Rishikesha T. Krishnan (2003)** Trade liberalisation and proposed changes in the IPR has ushered in new dynamics in the Indian Pharmaceutical industry. Referring to theoretical debate on industrial organisational policies, the pharmaceutical industry is moving
towards consolidation and augmentation, thus towards a "new industrial order". The pharmaceutical industry's adaptation to change, as shown in this article, is rather multifaceted both horizontal and vertical at product and process end. Scale economies seems to be the predominant strategy, with an attempt to stabilise and control the environment through alternative technology routines seeming to be the other preferred strategy.

Wendt (2000) empirical studies showing performance of pharmaceutical industry in post TRIPS period are mentioned here. In the past three and a half decades most of the large private Indian pharmaceutical firms focused on reverse engineering R&D, and activity was limited to applying known knowledge, or to making small adjustments in the contents. This resulted in introducing new drugs early in the markets.
2.2 LITERATURE REVIEW ON SPECIAL ECONOMIC ZONE

In this chapter, the existing literature on the subject has been reviewed thoroughly. An overview of various aspects and issues of this study has been presented through the review of studies already conducted on the subject. No doubt, various studies have been carried out on Special Economic Zones (SEZs) all over the world but with different perspectives. An attempt has been made to identify the gap that exists in the research area. In order to have an in-depth review of literature, the studies have been classified into the following two points:

Studies relating to Indian experience of SEZs and Global experience of SEZs.

Aggarwal (2004) analyzed the export performance of Indian EPZs since their inception. The growth rates of aggregate exports, foreign exchange earnings and employment showed a steep jump when new EPZs were created in the early eighties. The share of EPZ export to total export showed a very gradual rising trend during the last twenty years. This is due to the rising trend in electronics exports. However, lack of single window clearance facilities, the attitude of the officials, centralized governance, stringent labour laws and poor physical and financial infrastructure resulted in relatively poor investment climate in the zones.

Aggarwal (2005) examined that EPZs contribute 64 per cent of the total exports in Mauritius, while in Mexico, Maquiladora’s contribution in total exports has been around 40 per cent. Bangladesh and Sri Lanka started their EPZ programme in 1981 and 1978 respectively. By 2000, the share of EPZ exports in their total exports increased to over 20 per cent and 33 per cent respectively. Aggarwal (2006), in his another study titled “The Performance of Export Processing Zones: A Comparative Analysis of India, Sri Lanka and Bangladesh” found that in Bangladesh, total SEZ employment grew from mere 624 persons in 1983 when the first zone was setup in Chittagong, to over 144000 by 2003-04.

Aggarwal (2005) in his research paper revealed that the SEZ scheme introduced by the Government of India in April 2000 has its genesis in the EPZ scheme which was introduced way back in 1965 when the first zone was set up in Kandla. The SEZ Act is a major step in the direction of providing a long-term comprehensive policy framework and fiscal incentives are very important in determining the attractiveness of the zones. The Act has reinforced the
authority of the central government. She further stated that the problem of co-ordination between the centre, states and zones will remain and may perhaps aggravate with the creation of different authorities looking after approval and management.

Aggarwal (2007) examined the impact of SEZs on employment, poverty and human development. The empirical findings of the study are based on the primary as well as secondary data sources. The primary data was generated through extensive interviews of entrepreneurs and workers across the three largest SEZs, namely, SEEPZ, Madras and Noida. The analysis reveals that employment generation has been the most important channel through which SEZs affected human development in India. Employment generated by zones is remunerative. The role of SEZs in human capital formation and technology upgradation is found to be rather limited. The study argues that the potential of zones could not be exploited fully in India. The study highlighted that the new SEZ policy has given a major thrust to SEZs. However, the creation of SEZs alone does not ensure the realization of their potential. The government will need to play a more proactive role to get benefits from SEZs.

Aggarwal (2008) in his research study emphasised the necessity of Special Economic Zone policies in the present World Trade Organization regime for the development of India’s export and economic activities. The study also focused on the philosophy behind the land compensation, expectations of farmers from compensation package and the critical role of a Chartered Accountant in this whole exercise of fair land compensation valuation and the investment by the farmers for future growth.

Aggarwal (2008) made a systematic analysis of the contribution that SEZs have made to technological capabilities and industrial diversification at the sectoral level in India. He first explored the importance and nature of technology transfer and technology creation efforts in SEZs. The analysis is based on a fully structured questionnaire based survey of technology management in 75 firms across three SEZs namely, Santacruz SEZ, Madras SEZ and Noida SEZ. The author also examined success stories of technology trends/creation in introducing new products and promoting new industries in the country. This part of the analysis is based on extensive interviews with zones entrepreneurs in ten operational zones. Of these, seven are the
central government zones, while three other are new upcoming zones. This analysis reveals that SEZs have helped the country in exporting new product and in building up the country’s image in certain products in international market. Though they could not induce technology– based dynamism in the local or national economy due to relatively small scales of operations compared with the domestic tariff area, they did play an important role in seeding new industries and transforming some of the existing industries and it is expected to result in significant inflows of technology and knowledge in SEZs and subsequently, in the rest of the economy through spillover effects.

Ahmed (2008) in his article stated that SEZ legislation is an arbitrary act against the people of India which can play havoc with their livelihood, food security and environmental safety, justice to workers, fiscal health and a balanced development of the economy. There is an urgent need the government seriously revisit and rethink these two anti–people and undemocratic legislations and take concrete steps to remedy the distortions inherent in them, including repealing them to enact few more reasonable legislations in the interests of justice, social harmony equitable development and respect for human and natural rights of the citizens over their land and livelihoods.

Amitendu Palit (2009) explains in his paper about Zones are popular instruments in developing countries for pursuing export-led growth strategies. Developing countries have built zones as models for selective policy applications and for easier integration into the world economy. India is not an exception. However, the recent Special Economic Zones (SEZs) that have come up following the SEZ Act of 2005 have created several controversies. These include concerns over accentuation of economic divides and industrial relocation. This article examines the rationale behind zone-based growth strategies and studies the international evidence on zones. It also looks closely at India’s earlier and current experience with zones. It finds that India’s new SEZs are following specific locational patterns on account of discriminatory incentive structures that are also inducing distinct product-orientations in these zones.
Armas and Sadni-Jallab (2002) in their study, analysed that SEZ investment does not bring the same technology as investment in the rest of the economy. The low skill assembly type operations in the SEZs leave little scope for technology transfer.

Avhad and Chintamani (2008) in their article concluded that when IMF and the World Bank picked up the idea of SEZs, the world scenario changed. In 1990 there were 847 SEZs in the world. At present, there are about 4000 SEZs in 120 countries in the world. In India, SEZs can be set up in public sector, private sector or joint sector or even by state governments. The central government encouraged the state governments to pursue the policy of SEZ rigorously. The largest number of SEZs are sanctioned in the developed states like Maharashtra. Out of 75 SEZs in Maharashtra, 08 SEZs are in Marathwada, 07 in Vidarbha and remaining SEZs are in Pune-Raigad-Thane-Mumbai belt.

Bharati and Khedkar (2008) made a detailed analysis on the concept and meaning of SEZ, characteristics of SEZ Act 2005, tax exemptions and concessions available under the scheme of SEZ and progress and performance of SEZ. The study is based on the secondary data. The authors found that 404 valid formal approvals were received by Government of India. Out of this, number of notified SEZs (as on 9th Jan., 2008) were 193. The notified SEZ as on 30th September, 2007, provided an investment and employment of Rs. 285279 crore and created over Rs. 2230277 additional job opportunities respectively. The exports in 2006-07 were Rs. 34787 crore. The study concludes that SEZ, no doubt, would act as a catalyst in bringing a progressive change in the economic growth and development of our country. The study suggested that the economic development should be a win-win process for all sections of the society. The government should consider the public opinion in respect of SEZs.

Bhatta (2003) highlighted the importance of SEZs, provided an overview of the rules, regulations and incentives, the possible implications for the environment of the region, and the importance of ensuring transparency in conducting an environmental impact analysis. The study emphasized that maintenance of ecological balance along with industrial development is required.
Bloodgood (2007) analyzed the role of government in attracting foreign investment. The author examined that like many other countries, Government of India has offered certain incentives to attract foreign investment, many of which are concentrated in Special Economic Zones. Due to this, net foreign direct investment (FDI) flows into India reached at $15.7 billion in 2006-07.

Chatterjee (2008) in his research study analyzed the conceptual framework, incentives and facilities to SEZ developers, SEZ policy and economic aspects of SEZs in India. Exports from SEZs grew by 16.4 per cent during the period 2000-01 to 2004-05. During the same period, total exports from India grew by 12.1 percent. Employment generation, both direct and indirect, has been the most important channel, through which SEZs have impacted on human development and poverty reduction in India. Even though their contribution to national employment has been rather limited, they have contributed significantly to employment generation at the regional level. Due to stagnation, their ability to absorb surplus labour has been declining. It can only be reversed if fresh investment is attracted to SEZs. With the SEZ Act in place, there has been a surge in the establishment of new zones, which is likely to generate huge employment potential in the economy. Most of this will be a net addition to employment as investment relocation in export-oriented production is likely to be limited.

Curtis et al. (2006) compared China’s experience using SEZs to promote regional export-oriented economic growth with the experience of Post-Soviet Russia, Mexico and the Dominican Republic, and found that SEZs will only succeed in countries with a strong central government, geographic ties and cultural ties to developed markets and competitively low-wage labour.

Datt (2007) in his article titled, “Development, Displacement and Rehabilitation” stated that the Central government should formulate a socially balanced policy on SEZs. It is no use blindly following China which has only five such Special Economic Zones, but in India there is a plan to have 285 SEZs. Unlike China, in a democratic country like India, it is not possible to ruthlessly muzzle the voice of the displaced people in favour of generating profits for the industrial and business classes, and developers.
Deborah Braugtigam and Tang Xiaoyang (2011) has published the online article in which the articles examines recent Chinese efforts to construct a series of official economic cooperation zones in Africa. These zones are a central platform in China’s announced strategy of engagement in Africa as mutual benefit. They analyse the background, motives and implementation of the zones, and argue that they form a unique experimental model of development cooperation in african market.

Dennis A. Rondinelli (2006) Export Processing Zones and Economic Development in Asia: A Review and Reassessment of a Means of Promoting Growth and Jobs Nearly every developing country in Asia has established export processing (EPZs) and free trade zones (FTZs) to promote economic development. EPZs and FTZs have created new employment, generated foreign exchange, expanded national revenues and increased export flows. But not all have thus benefited. Adverse effects of these industrial enclaves, not offset by national benefits, are varied. The zones mostly have high construction and maintenance costs, primarily employ low-wage, unskilled female labor, offer an unstable employment base, generate little domestic added value, develop few labor or managerial skills, transfer little modern technology or know-how and have weak links to domestic manufacturers. Large EPZs may promote undesirable in-migration from rural areas, produce more dependence on foreign-owned firms that tend to move or cut back production when wages, costs or international trends change. Policy options to prevent or mitigate adverse effects are presented.

Dogra (2007) in his article, criticized the SEZ policy in India. He stated that the SEZ legislation is an arbitrary act of economic violence against the people of India which can play havoc with livelihood, food security, environment, justice to workers, fiscal health and balanced development of the economy. The sooner it is scrapped, the better will it be for the country, its people, its peace, its justice and its democracy.

Ge (1999) studied the implications of Special Economic Zones in China’s economic transactions; and attempted to draw some policy lessons for economic liberalization in a more general context. Establishing the zones has been the first and most crucial step that China took to
reform and open its economy since 1979. The zones establishment, performance and impact on China’s transition are examined in addition to related reform efforts and policy issues. It is argued that the zones may serve as a policy means in facilitating trade and financial liberalization, enhancing resource utilization and promoting economic growth and structural changes. During the period 1980-95, the overall Chinese economy expanded at an annual average rate of 10 per cent, while Shenzhen SEZ has grown at an astonishing 35.5 per cent in real terms.

**Gopalakrishnan (2007)** attempted to examine SEZs as a part of larger pattern of change in the Indian policy and economy. SEZ should not be seen and evaluated on the basis of their stated policy goods alone; these goals have little relationship to the actual structure of SEZ policy. Rather, the approach will be to examine some of the more unusual features of the SEZ policy, using them as indicators to explore the policy from other angles. The conclusion that emerges is that SEZs can be seen as a response to constraints that have arisen on capital in the recent Indian context, aimed at allowing super-profits and rapid accumulation to continue. However, the consequences are likely to be complex and very dangerous.

**Gope and Ghosh (2009)** analyzed the SEZ environment in India and the contribution of SEZs to economy. Prior to SEZ Act 2005, there were 19 SEZ projects in operation throughout the country. Under SEZ Act, 222 projects had been notified. Out of 462 formally approved SEZs as on 15.05.2008 and the number of valid in principle approvals is 135. These had proposed to acquire 1855 sq. km. (for both FA+PA) area of land which is only 0.112 per cent of the total agricultural land. SEZs established prior to the Act coming into force, there were 1122 units providing direct employment to over 1.93 lakh persons, about 37 per cent of whom were women.

**Govilkar (2008)** analyzed SEZ Act, 2005 and SEZ Rules, 2006. The study found that policy of SEZ has been adopted and implemented with the objective that it will develop sufficient and high quality infrastructure by private sector, will attract considerable foreign investment, will increase employment opportunities, will boost the export, and thereby will expand economic activities in the country. The industrial islands could become engine of growth. India, to get better share in world trade, must undertake special efforts, when the global export opportunities are increasing. SEZ could be a prominent policy for the same.
Grasset and Landy (2007) studied and compared the evolution of the Indian economic policy vis-a-vis the adoption of the SEZ policy, and found that the SEZs as a peculiar device wherein a segregated territory within a country is meant to be a part of the globalization process. Such a measure represents on a part, two evolving tendencies in the industrial and export scenario of post-independence India. First, the individual states more as a critical factor in spending up the industrialization process and second, multinational corporations are acquiring a greater role to play in India’s overall economy. For that matter, the success of SEZs is contingent upon the favourable policies and investment climate of individual states and their impact would be more regional than national.

Guha (2008) examined the evolution of the new development enclaves – SEZs – in India in the light of the space relation of capital. The process of establishing SEZs in India is essentially a classic unfolding of the process of “accumulation by dispossession” which is a part of recent strategy of global capital to overcome the chronic problem of over accumulation. The paper also throws light on the ongoing reorganizations of the space relation of capital in India.

Jain (2006) analyzed the SEZ scheme in India. The author examined the need of SEZs, minimum area requirement for various types of SEZs in India, incentives and facilities provided to SEZ units and developers, provisions relating to establishment of units in SEZs in India. The author further suggested that the need for development of SEZs can be attributed to various factors, viz. foreign investment, technological and know-how advancement, development of backward regions, employment generation etc.

Jamie Cross (2009) From dreams to discontent Educated young men and the politics of work at a Special Economic Zone in Andhra Pradesh tells us about India’s free trade zones are imagined by politicians, planners and business elites as ‘engines of growth’ and ‘vehicles of social mobility’. Building upon a body of recent scholarship concerned with ‘post-educational landscapes’ in South Asia I challenge these visions by exploring how investments and achievements in education ‘pay off’ for a new generation of zone workers. Drawing on the biographies of young Telugu men with secondary-level technical qualifications, who are employed to cut and polish diamonds at the Vishakhapatnam Special Economic Zone (SEZ) in Andhra Pradesh, I show how the zone is a space in which young men are confronted with the
devaluation of their education, their failure to realise local visions of masculine success, and the prospects of their future marginality. These experiences have important implications for the everyday politics of labour, shaping both consent and discontent in the terms and conditions of work.

Jenkins et al. (1998) examined the median zones that have been in operation for five or more years; and found that these median zones were providing lot of employment. In Asian countries, they provided employment to 10500 persons and in Latin countries 3500 persons till 1998.

Jin Wang (2013) titled The economic impact of Special Economic Zones: Evidence from Chinese municipalities in which The paper exploits a unique Chinese municipal dataset to assess the impact of Special Economic Zones on the local economy. Comparing the changes between the municipalities that created a SEZ in earlier rounds and those in later waves, I find that the SEZ program increases foreign direct investment not merely through firm relocation, and does not crowd out domestic investment. With dense investment in the targeted municipality the SEZ achieves agglomeration economies and generates wage increases for workers more than the increase in the local cost of living. The effects are heterogeneous: for zones created later the benefits are smaller while the distortions in firm location behavior are larger than those for the early zones. Municipalities with multiple SEZs experience larger effects than those with only one SEZ.

Ke Li, Jan Whitwell and Jan Whitwell (2005) A GROWTH MODEL FOR CHINA’S SPECIAL ECONOMIC ZONE We employ a general macroeconomic analysis to describe the economic growth and performance of the Special Economic Zone (SEZ). It is shown that not only does foreign investment make a significant contribution to the economic growth of the Zone, but also, the rapid response of foreign investment to the output level is important for maintaining steady-state growth. The open door policy and the policy of encouraging foreign investment have thereby played an important role in the recent development of the Chinese economy.

Khan (2010) analyzed that SEZ is the need of today’s economy to support India’s target of becoming developed nation. The physical exports done in year 2007-08 were Rs. 66637.68 crore
from these SEZs. The creation of SEZ provided employment to around 3.5 lakh persons. The manufacturing and research projects are set up in these SEZs. Many large MNCs as well as Indian MNCs set up state of the art plants in these SEZs. This all will continue to contribute India’s GDP. The study suggested that though, SEZ policy adopted by India to support economy in a big way, the conversion of fertile land into industrial land may create food crisis in near future. The use of waste land available in India (around 552692 sq. km.) for SEZ development will ensure that the farmers are not displaced from their farmland, the development not concentrated near cities and the fertile land will continue to be used for agriculture use.

Krishan (2007) examined the extent and concentration of SEZs in India. He found that as on 3 October, 2007 there were 173 notified SEZs in India. 19 among them were operational prior to SEZ Act, 2005. Among the various states, Andhra Pradesh takes the lead with 47 SEZs followed by Tamil Nadu, Maharashtra, Karnataka, Haryana, Uttar Pradesh and Punjab. He also found that there is a tendency of clustering the SEZs in a particular district, adjoining Hyderabad in Andhra Pradesh accommodates 24 SEZs, Bangalore in Karnataka 13 SEZs, Kancheepuram in Tamil Nadu 11 SEZs and Pune in Maharashtra 10 SEZs; and other concentration of SEZs is observed in Gurgaon district in Haryana and Gautam Buddha Nagar district of Uttar Pradesh. At least 54 districts have only one SEZ each.

Kumar (2007) analyzed some of the key features relevant to the creation of SEZs. In the article, it is argued that the SEZ policy is a part of the policy of ‘growth at any cost’ with the cost falling on the already marginalized sections in the rural area. The employment generation in SEZs will not be able to compensate for the loss of employment in the activities that SEZ will displace. The output and investment will be much less than claimed in these SEZs.

Kumar (2008) in his article, emphasized that SEZ area will develop substantially at the expense of non-SEZ area. This is likely to accentuate the already rising regional disparities. There is likely to be diversion of resources from non-SEZ area to the SEZs. SEZs will usher in enclave development. Migration to urban areas will rise and urban infrastructure will face enormous pressure. The excess land being allotted to SEZs will result in the creation of new landlords. If the overall gains from SEZs are so unclear and government is still going ahead with the scheme,
then it can only be because it wants to give concessions to certain sections. He further suggested that for the sake of accountability, land should be acquired in phases as the project is set up. Thus, it is necessary that the party interested in setting up an SEZ or any other project should give a time bound plan and if that is not adhered to, more land should not be acquired and what was acquired should be returned. A fine should be imposed on the party involved and distributed to those whose land has been acquired.

Kusago and Tzannatos (1998) estimated that SEZ units move upward in value chains. This is reflected in the educational attainment of workers in SEZs which has changed dramatically over time in countries such as Korea, Taiwan and Sri Lanka. SEZs cannot therefore, be dismissed as islands of low productive jobs.

Lai C-F, (1985) signifies a change of policies in China. The balanced growth of city and countryside which occurred in the Maoist era is now replaced by a relative emphasis on an elitist urban-based development strategy which manifested itself in the establishment of the four Special Economic Zones (SEZs) in 1980. Although the utilisation of foreign capital and the import of capitalist management skills are justified by means of Lenin's theory of state capitalism, it shows that problems such as the flourishing economic crime, the creation of housing classes, and the undermining of socialist relations of production have already emerged in Shenzhen SEZ after a few years of development.

Madani (1999) in his research study, argued that successful human capital formation depends on the sophistication of the economic activities carried out in the zones.

Majumdar (2007) examined various aspects of SEZs and concluded that zones can play a long-term dynamic role in the host country’s development if they are set up appropriately, managed well and integrated with the overall national economy. The author argued that the problems of displacement of farmers and labourers and potential tax revenue losses may be offset through gains accrued in terms of higher export earnings, flow of investments, employment creation and technology upgradation. The study suggests that the policy should be designed to encourage large-sized SEZs, so that they can exploit scale-related advantages.
Michael Levien (2011) written a article on Special Economic Zones and Accumulation by Dispossession in India in which the paper seeks to reconstruct David Harvey's theory of accumulation by dispossession (ABD) through an ethnography of a Special Economic Zone in Rajasthan, India. While Harvey sees ABD as an economic process of over-accumulated capital finding new outlets, I argue that it is an extra-economic process of coercive expropriation typically exercised by states to help capitalist overcome barriers to accumulation – in this case, the absence of fully capitalist rural land markets. In India's privately developed SEZs, the accumulation generated by this dispossession – which represents the dis accumulation of the peasantry – occurs through capitalist rentiers who develop rural land for mainly IT companies and luxury real estate, and profit from the appreciation of artificially cheap land acquired by the state. While such development has only minimally and precariously absorbed the labour of dispossessed farmers, it has generated a peculiar agrarian transformation through land speculation that has enlisted fractions of the rural elite into a chain of rentiership, drastically amplified existing class and caste inequalities, undermined food security and, surprisingly, fuelled non-productive economic activity and pre-capitalist forms of exploitation.

Michael Levien (2012) written in his article that Special Economic Zones (SEZs) have become the epicenters of ‘land wars’ across India, with farmers resisting the state's forcible transfer of their land to capitalists. Based on 18 months of research focused on an SEZ in Rajasthan, this paper illuminates the role of ‘accumulation by dispossession’ (ABD) in Indian capitalism today and its consequences for rural India. It argues that the existing theories of land grabs do not adequately explain why dispossession becomes necessary to accumulation at particular times and places, and seeks to reconstruct Harvey's theory of ABD to adequately account for it. It then shows the specific kind of rentier- and IT-driven accumulation that dispossession is making possible in SEZs and the non-labor-absorbing, real-estate–driven agrarian transformation this generates in the surrounding countryside. Land speculation amplifies class and caste inequalities in novel ways, marginalizes women and creates an involutionary dynamic of agrarian change that is ultimately impoverishing for the rural poor. Given the minimal benefits for rural India in this model of development, farmer resistance to land dispossession is likely to continue and pose
the most serious obstacle to capitalist growth in India. The agrarian questions of labor and capital are, consequently, now rejoined in ‘the land question.’

Mistry (2008) in his article observed that the SEZs seem to be a phenomenon which will become a bane in the Indian development experience. Further, the cost of SEZs in terms of human rights violation, lose a livelihood, slack rehabilitation and environment degradation will in the long run, prove to very high. Therefore, government should rethink its policy of SEZs and should implement it only on an experimental basis with caution in the backward areas where no development has taken place.

Mitra (2007) examined the rationale behind SEZs and pitfalls in the implementation of the SEZ strategy with special reference to India. The study highlighted that SEZs can generate several benefits. The clustering of industries, resulting from the benefits provided to SEZs leads to better utilization of infrastructure and therefore lower infrastructure costs per unit of output. However, there are several deficiencies in the implementations of SEZ policy in India. The inability of the state to provide a country-wide network of infrastructure facilities implies that SEZs are still being located close to the major cities and are thereby adding to the congestion of these cities and generating diseconomies of agglomeration. The study suggested that the section of SEZs should not only take into account the economic impact generated from within the SEZs through higher production or employment but also the impact of SEZ on other areas through its effect on the resource base and environment. It is also recommended that the government should not act as an intermediary in acquisition of land.

Mitra (2007) in his paper titled “Special Economic Zones in India White Elephants or Race Horses” looked at the policy of SEZs in India and their suitability for fulfilling the goals of exports promotion, employment generation and maintenance of the tempo of economic growth. On the basis of economic theory and history, he concluded that absorption of agriculture labour is necessary for sustained economic development of a developing country. SEZs constitute a means for such sustained development in India. However, the SEZ policy in India has suffered from permission being granted for far too many SEZs which are either sub-optimally sized or are appendages to mega cities.
Mondal (2003) estimated that in Bangladesh, the growth of employment in the SEZs is much faster than that in the total organized manufacturing sector. It was over sixteen times than that of the organized manufacturing sector during 1983-84 to 1987-88 and over four times higher during 1988-89 to 1999-2000.

Mukhopadhyay (2009) examined the structure of fiscal concession, the compensation policy adopted and the credibility of the project figures, based on the variation across different projects of the similar type and finds them lacking. Based on data available from Ministry of Commerce, the study finds that most of the SEZs are in the IT/ITES sector and a large share of projected employment is also expected to come from this sector. Furthermore, the SEZs also appear to be concentrated in few relatively developed districts, near urban centers. This will mean that the additional economic activity engendered by the fiscal concessions for SEZs will be in the sector that is already doing well, as in the Information Technology Enabled Service (ITES). Further, regional imbalances will worsen as a result of the concentration of SEZs in a few locations.

Mukhopadhyay and Pradhan (2009) explored the location of SEZs. The study examines the district-wise location of SEZs and relates them to the characteristics of district as available in the census. It finds that most of the SEZs, especially the tiny (less than 100 hectares or 1 sq. km. in size) SEZs are concentrated in districts in top quartile of urbanization. These tiny SEZs and IT/ITES SEZs appear to be concentrated in the districts that are proximate to the six mega cities of Delhi, Kolkata, Mumbai, Hyderabad, Bangalore, and Chennai. The study then statistically examines the concentration of SEZs in the IT/ITES sector. It was identified that more than 70 per cent of all SEZs and 93.4 per cent of all notified IT/ITES SEZs are having less than one square kilometer size.

Murayama and Yokata (2009) examined the historical trajectories and outstanding labour and gender issues of EPZs/SEZ on the basis of the experiences of South Korea, Bangladesh and India. The findings suggest the necessity of enlarging our analytical scope with regard to EPZ/SEZ, which are inextricably connected with external employment structure. Further, the study calls for an immediate and comprehensive review of the labour and gender conditions in Indian SEZs where workers are in a disadvantageous position not only against capital but also in comparison with workers in South Korea and Bangladesh EPZs/SEZs.
Ota (2003) analysed the changing role of SEZs in the context of China’s economic development and some of the emerging problems that SEZs were confronted with at the new stage of development. An attempt is laid here on study of policy and performance of the SEZs in comparison with those of Asian EPZs which managed to shift their industrialization strategy from the import-substitution to the export-orientation at the critical stage of development. The SEZs were in a better position to elicit lessons from the experiences of Asian EPZs, despite various conditions and limitations prevailing in China’s socialist market economy. The study also finds that since the implementation of economic reform policy in 1979, China’s economic development is quite impressive with her average annual rate of economic growth of over 10 per cent between 1980 and 1995, increasing her GDP from 451.8 billion yuan to 5826 billion yuan. SEZs apparently triggered her economic growth.

Pillai (2007) in his study on SEZs highlighted that in India, the SEZs that were set up prior to the SEZ Act, are providing employment to about 1.85 lakh persons of which about 40 per cent are women. Export from the existing SEZs increased from Rs. 13854 crore in 2003-04 to Rs. 34789 crore in 2006-07, an increase of about 151 per cent in the last three years and expected investment of Rs. 100000 crore including foreign direct investment of US$ 5-6 billion by the end of December, 2007. He concluded that SEZ scheme will act as a catalyst in the development process of the country.

Prabu (2009) in his research paper highlighted many issues related to SEZs such as land acquisition, the problem of rehabilitation, loss of tax revenue, incentives and facilities to the developers of the SEZs, etc. The researcher concluded that though theoretically, conceptually, economically, financially and operationally SEZs appear to be a blessing, but actually it is not true. Throughout the country the creation of SEZs has created a big fever among politicians, economists, farming community, tax people and social workers. Specifically, the states in which the SEZs have been approved are facing intense protests from the farming communities accusing the government of forcibly snatching fertile land from them at heavily discounted prices as against the prevailing in the commercial real estate industry.

Raj and Roy (2008) in their article concluded that the SEZ Act, 2005 is anti-democratic and unconstitutional as it completely violates the right to life and livelihood of the people, who are
being forcibly displaced for the implementation of these projects. The Act promotes large scale privatization and monopolization of resources into the hands of a few private developers at huge costs to the state exchequer as well as the economy and environment of this country. In their case study they found that the issue regarding Nandigram and Singur is a purely economic one. Politicians have merged this issue with the political framework which emerges as the crux of problem. Public participation is necessary for the welfare of the community. The economic aspect has been neglected which should be addressed by the state. Policies have to be streamlined to ensure that the pain and profits of growth are more equitably distributed.

Ramachandran and Biswas (2007) in their study focused on the possible locations of SEZs, and developed a set of criteria and methodology for identifying such locations. The most critical consideration in their case pertains to proximity to the national highways, broad gauge railing lines and large cities. Only the wasteland is related for the establishment of SEZs instead of productive agricultural land. Applying such criteria, they found 64 districts in 16 states as most suitable for setting up of SEZs. The authors warn that the politicians may be in a hurry to implant such zones anywhere but it does require care and patience for not only finding desirable location but also working for their impact on mankind.

Reddy (2009) made a detailed analysis on the need and evolution of SEZs in India and the performance of Indian SEZs. The study highlighted that the overwhelming response to the SEZ scheme is evident from the flow of investment, creation of additional employment, export performance and attracted FDI in the country. The study concluded that the SEZs are real growth engines for the economic development of the country.

Reddy and Srinivas (2008) explained that the promotion of SEZs is an attempt to deal with infrastructural deficiencies and procedural and bureaucratic complexities caused by monetary, fiscal, taxation and labour policies. The objective of setting up of SEZs is to gain structural growth with world-class infrastructure, which is helpful to the economic growth of India. This study presents an overview of the process and progress of SEZs in the country in general and in Andhra Pradesh in particular.
Reddy et al. (2009) analyzed the nature and significance of SEZs in India, inter-state formal approvals of SEZs and land allocated to them. The study is based on the secondary data drawn from the Ministry of Industry and Commerce, Government of India. It is found that southern-region has not only dominated with the highest number of formally approved SEZs, but also in all the other categories of SEZs. The state-wise comparison reveals that Maharashtra and Andhra Pradesh have occupied first two positions in the total formally approved SEZs and also in IT/ITES, Pharma/Bio-tech and other categories of SEZs. On the other hand, a large portion of land was allocated to multi-product SEZs and a meagre share of land was allocated to IT/ITES and Pharma/Biotech SEZs in the country.

Reddy et al. (2010) analyzed employment generated by SEZs in southern India. The data has been drawn from the Ministry of Commerce and Industry, Government of India. The study is confined to notified SEZs only. The study found that of the total current employment generated by notified SEZs in India (370700 persons), about 41 per cent employment has been generated by SEZs of southern-region. Among the states in the southern region Tamil Nadu stands first with about 20 per cent followed by Karnataka and Andhra Pradesh with about 10 per cent each in the total current employment in India as on 31st March 2008.

Roychowdhury (2007) in his study analysed the pros and cons of the SEZ model for resettlement and rehabilitation. He stated that land for land can be an effective and justified mode of resettlement, provided comprehension for developing the new land is made available. For that, a land bank should be set up after taking the stock of present barren and infertile land in the states and the land available under the sick units and closed factories. In no circumstances, a very fertile land should be acquired as that will dampen the growth and productivity of agriculture which is dangerous for economy as that will endanger food security.

Sampat (2008) explored some stand in the political schema of SEZs in India with specific reference to one immediate fallout of serious concern and contestation the imminent displacement of thousands of people livelihoods in countrywide where these SEZs are stated to come up. A factsheet on SEZs on the Government of India website gives details of the number of approved and proposed SEZs, their land requirements as well as export and employment
potential. However, there is no mention of the number of people to be displaced by these zones and it is not clear, how the government intends to attend the issues of displaced.

Sanyal et al. (2007) in their research study criticized the SEZ policy in India and stated that the claim of creating lakhs of jobs in SEZs is a complete hoax. The corporate who will establish production units in SEZs, will also seek jobless growth and only a small number of jobs for a highly skilled workforce can be expected in sectors like IT. Acquisition of cultivable land will not only make millions of farmers and agricultural labourers lose their livelihood but also will definitely have adverse effect on production of agriculture and environmental resources such as water and forest resources. In the SEZs, there will be exploitation of labourers as labour law does not applicable within these zones and there will also be a possibility of sex harassment of women labourers.

Sen and Dasgupta (2007) in their paper, which is based on a field study found a state of severe insecurity in terms of job contracts, income and other labour status for those employed in the highly subsidized and growth-oriented enclaves of SEZs. They further stated that India’s drive towards industrialization by setting up a large number of SEZs in different parts of the country needs to rethink. Unconditional benefits to capital as are offered to these privileged zones only with the sections to expropriate labours on legal huge landscapes by displacing the agrarian community open up the need to revisit India’s current industrialization policy.

Sengupta et al. (2007) in their study, concluded that the SEZs policy has run into a public debate on the logic of special concessions being granted to already well-entrenched and well-performing capital and the manner in which the required land is being acquired with state intervention. It has also brought into sharp public focus the resistance of local residents facing the prospect of displacement and their plight in the absence of viable alternative livelihood system. Although the need for accelerating infrastructure development for industrialization and taking advantage of agglomeration economies within these zones is acceptable but the way in which they are being sought to be created and their overall implications for industrial growth and economic development need to be thoroughly examined. It is, therefore, necessary to analyse SEZ Policy and orient it to a justifiable economic programme. The National Commission for
Enterprises in the Unorganised Sector (NCEUS) suggests “Growth Pole” as an alternative form of SEZs utilizing their potential benefits but avoiding the pitfalls into which unrestricted expansion of SEZs may fall in our country. Instead of creating ‘special enclaves’ for the big and the strong on freshly acquired land, the authors feel that a hard look is warranted towards areas that have spawned clusters of single products or multi-products and services.

Shankar (2008) analyzed that the SEZ Act and Rules have evoked considerable interest and a large number of applications for approvals continue to receive almost on daily basis, especially from the private sector. The anticipated exports, investment and employment send positive signals. Another positive development is that the SEZ scheme is being overseen by an Empowered Group of Ministers. At the same time an effort should be made to see that the scheme parameters are not changed frequently since certainty and stability of Government policy is necessary for investment.

Sharma (2009) in the report of Conference held at the Indian Institute of Advanced Study on SEZs raises doubts about their desirability on different counts: It is centered around three themes: SEZs and economic development; SEZs and distributed implications; and SEZs and legal issues. The study found that SEZs can lead to some serious consequences. Struggles on the land issues are already surfacing in different parts of the country. The SEZ policy can lead to serious and adverse consequences including social conflict, civil strife and breakdown of democratic institutions. It is also likely to lead to increased inequalities: and there is possibility of shrinking of economic space for the ordinary people by making their production more unremunerative.

Siddhartha Mitra (2007) describes On the basis of economic theory and history we can conclude that absorption of agricultural labour is necessary for sustained economic development of a developing country. Special Economic Zones (SEZs) constitute a medium for such sustenance. However, the SEZ policy in India has suffered from permission being granted for far too many sub-optimally sized SEZs or for others serving as appendages to mega cities and therefore inheriting all the diseconomies associated with the large size of the latter.
Sikidar and Hazarika (2008) in their study highlighted that the SEZ is being increasingly seen as an alternative way of economic growth through exports and duty exemption. As a part of SEZ policy, the government offers several incentives to investors like tax holiday for up to 10 years, duty free imports and exports, world class infrastructure, strategic locations and market access. The article provides an overview of SEZs evolution and global growth besides focusing on several operational aspects of the SEZs, related constitutional requirements and relief and exemption from income tax. The authors suggested that there is an urgent need to pay attention to some key issues to ensure a transparent and effective SEZ management.

Sivaramakrishnan (2009) focused on implication of SEZ policy for urban growth and the governance of the SEZs. It has been argued in the paper that the SEZ is conceptual not only as a production centre but it is also an urban centre. However, the existing policy is unclear about both urban growth implications and their management. The emerging model of governance promoted by different states and also encouraged by the center appears to be ‘non-municipal’. The paper presents the views of various stakeholders such as government departments and individuals expressed in the hearings of the Parliament’s Committee on SEZs. Nevertheless, the ‘non-municipal’ approach, enabling an SEZ to become a private ‘fiefdom’ rather than a part of the country subject to the Constitution and the laws of the land appears to be prevailing. The paper also critically examines how a constitutional loophole, namely, the Proviso to Article 243Q, is being exploited for this purpose.

Stoltenberg (1984) in his study examined that SEZ have begun to bear fruit for China. Indeed, they represent the focus of a substantial share of all foreign investment to date. While the source of the vast bulk of such investment has been Hong Kong and overseas Chinese, there are indications that the base is broadening. Although gaps remain in the framework of administrations and significant uncertainties continue to confront potential investors, the flexibility shown by the Chinese in responding to problems as they arise must be encouraging from the investors’ point of view. Such a response is not surprising in view of the support the central leadership has voiced for continued SEZ development. The SEZs provide environments for resting structural reforms and learning about the law of value and market forces and have also provided employment opportunities. The degree to which the zones will serve to filter foreign
capital, technology, and equipment to other regions, remains to be seen generators of economic growth.

Subrahmanian and Mohanan (1978) analyzed the central idea behind the setting up of EPZs in underdeveloped countries to motivate Multinational Corporations (MNCs). In their paper the authors studied the Santa Cruz Electronics Export Processing Zone (SEEPZ) and brought out that operations of the MNCs have not achieved the expected results. First, the overall production and export, as well as the proportion of value added, by units in the SEEPZ have been far below the targets. Second, the proportion of the value added has varied inversely with the degree of foreign control, with Indian owned units using Indian technology performing far better than units controlled by the MNCs.

Sung-Hoon Lim (2011) Risks in the North Korean Special Economic Zone: Context, Identification, and Assessment This examines the key factors (firm-specific conditions, political risk, and countermeasures for reducing political risk) affecting the risk assessment of the Kaesong Industrial Complex, a North Korean special economic zone extremely sensitive to the North Korean nuclear issue. The empirical results suggest that of the foreign firms operating in Kaesong, those with a structure sufficiently flexible to cope with the rising cost of labor are more likely to face higher levels of political risk. In addition, investment decisions involving high levels of political risk are closely related to company strategies such as minimizing the initial investment and deploying a dual-plant strategy.

Viswanadhan (2006) analyzed the export performance of SEZs in India. The author examined that total export from the existing EPZs notified as SEZs after the SEZ Act, for the year 2004-05 were Rs. 18300 crore. Nearly 45 per cent of the total exports came from just one such zone, SEEPZ, the most successful zone among the early zones.

Wang (2009) in his research paper examined the impact of SEZs on foreign direct investment and other economic outcomes by using a comprehensive and unique data set on Chinese municipalities from 1978 to 2007. The study found that SEZ policy increased per capita foreign direct investment by 58 per cent. It did not crowd out domestic investment and domestically owned capital stock and increased total factor productivity growth rate by 0.6 percentages point. The results suggest that creating SEZ not only brings capital, but also more advanced technology; and provides important policy implications for many developing countries.

Wang and Bradbury (1986) examined the role of SEZs along China’s coast zone and their place in the progress of modernization in Chinese industry. A special case study is made of Shenzhen SEZ where the Chinese government has attempted to promote the inflow of foreign capital and technology, while at the same time maintaining control over direction and types of development taking place. The state has developed joint ventures and local firms as the platform into which new technology is injected and from which new industries in the interior of country will be spawned. Total investment in Shenzhen increased from $ 120 million in 1979 to $ 1130 million in 1983 due to government efforts. Shenzhen’s manufacturing employment grew from 5000 persons in 1978 to 25000 persons in 1980.

Warr (1989) examined that EPZs are economic enclaves within which manufacturing for export occurs under virtual free trade conditions. Many developing countries have established EPZs with the hope of reaping economic gains through employment, foreign exchange earnings and technology transfer. This article studies the benefits and costs of EPZs in Indonesia, the Republic of Korea, Malaysia and the Philippines; and reviews the relationship between the welfare effects of EPZs and the host country’s economic policies.

Wong (1987) attempted to provide a review of the latest development of China’s SEZs, assessing their achievements in terms of the attraction of foreign capital, export growth and
foreign exchange earnings and technology transfer. Reforms and innovative measures initiated in the zones that have implications for other parts of China are also discussed. Problems encountered in the course of SEZ development are examined, nothing in particular the heavy capital expenditure on infrastructure provisions, the development of a trade-based economy, the over-ambitions objectives which would be difficult to achieve in a short period of time as well as other economic and social issues. It is observed that the development of the SEZs has been proceeding without careful and co-ordinated planning and that the designation of economic development zones in the open coastal cities stands to undercut the allures of the SEZs and has made the latter much less “special” than they used to be.

Wong and Chu (1984) examined the general concept of free zones which include customs bounded warehouses/factories, EPZs and SEZs to free ports or comprehensive free trade zones. Special emphasis is placed on discussing the objective and characteristics adopting a strategy of export led growth by way of establishing EPZ/SEZs in the Asian region. Major difference between EPZs in countries with market economies and SEZs in socialist country (China) are brought out. Performance of Asian EPZs/SEZs is evaluated in terms of achievements in attracting foreign country investment, earning foreign exchange, export growth, employment generation, transfer of technology, backward and forward domestic linkages and regional development. Common problems encountered by the Asian Zones include inadequate infrastructure provision, social problem due to high percentage of female workers and the exploitation of the indigenous labour force, inefficient government administrations and low standard of management. Despite great regional variations in the source of EPZs/SEZs, the continuing growth in the number of such zones indicates an increasing interest on the part of Asian governments to adopt the EPZ.

Zhang Lei (2008) The Evaluation of the Process of Indian Special Economic Zone Construction and its Achievements. India has been engaged in special economic zone construction since 1960's and the process of which has accelerated since the beginning of the 21st Century, especially since 2006. In recent years, Indian special economic zone has made great achievements in promoting economic development, expanding export, attracting foreign
investment, and creating jobs. But at the same time, there exist such problems as insufficient infrastructures, harsh labor laws and disputes over land expropriation.

The study conducted by Confederation of Indian Industry, Northern Region (2006) analyzed the export performance of SEZs in India. Export from SEZs grew by 16.4 per cent during the period 2000-01 to 2004-05. In the same period, total export in India grew by 12.1 per cent. Electronics and gems & jewellery contributed more than 75 per cent of the exports from SEZs during the year 2002.

The study conducted by World Bank (2008) examined 30 years of experience of Zones, reviewed development patterns and economic impact of zones world-wide. The experience shows that while zones have been effective in addressing economic growth and development objectives, they have not been uniformly successful. Success in East Asia and Latin America has been difficult to replicate, particularly in Africa and many zones have failed.

A study conducted by Seth Associates (2007) explored the Indian policy framework for SEZs. The study also examined the various incentives and facilities available to SEZs, and recent legal and regulatory development pertaining to SEZ in India. The study highlighted that in India during 2004-05, as many as 948 units were in operation in the SEZs, providing direct employment to about 1.10 lakh persons from which 40 per cent of them were women. The exports from the SEZs during 2004-05 have registered a growth of 32 per cent in rupee terms over the previous year.

The study by Nishith Desai Associates (2006) concluded that the establishment of the SEZs has, undoubtedly, helped to increase the volume of international trade. Further, a large amount of foreign investment has found its way not only into the export trade, but also into infrastructure construction and commerce. Foreign companies have been encouraged to establish their presence in the territories and the export industry has grown. Advanced foreign technology has been brought in with the inflow of foreign investment. All these factors have contributed to the growth of the Indian economy. The enactment of the SEZ Act and its implementation would enable the GOI to fulfil its agenda of economic reforms as the multiplier effect on the economic activities triggered by SEZ materializes.
The review of literature brings out that most of the studies relating to Indian experience of SEZs analyzed the SEZ scheme in India, incentives and facilities provided to the developers of the SEZs. The sector-wise, state-wise and region-wise distribution of formally approved, approved in principle, and notified SEZs in India has been undertaken in many studies. On the other hand, some studies have taken up the issues such as land acquisition, problem of displacement and rehabilitation of farmers and agricultural labourers, effect of SEZ on agriculture sector, labour laws, concentration of SEZs, revenue losses to government, effects of SEZs on environment etc. The studies relating to global experience of SEZs examined the performance of SEZs in terms of employment generation, export promotion, attracting investment (both domestic and foreign), technology upgradation and skill formation. But in India, there are very few studies which examined the performance of SEZs and these studies are narrow in scope. So, there is a need of comprehensive analysis on the performance of SEZs in India. The present study is a modest attempt to fill the gap in SEZ literature.

The review of literature of pharmaceutical industry presents in a new way of explaining and understanding the relation of Indian Pharma zone with Global pharma Zone. Its review helps us to understand the position and place of Indian pharma industry in the World. It try to find out the actual demand of this industry in the world market.

At last I would like to conclude that the past study on both the topics helps us to understand the importance of these topics.
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