CHAPTER III

AIM AND METHODOLOGY

This Chapter describes the problem under study, importance and objectives of the study as well as the methodology adopted. A brief narration of the policy implications of this study has also been given.

The Present Study

International Trade is an important segment of India's economy and it facilitates substantially the economic well-being of the people and exploitation of the resources. A critical aspect of the foreign trade of an economy is its composition since it indicates the sort of goods a country lacks and reveals the quantity of such goods it is in need of.
The composition of India's Exports Trade has undergone significant changes since Independence. Upto the sixties India was selling overseas more quantities of traditional items like tea, coffee, and cotton textiles of conventional nature.

Gems and Jewellery; Textiles and Readymade Garments and Engineering Goods have emerged as important thrust areas of India's exports in recent times. The crux of the problem is how to make the industries of gems and jewellery, textiles and ready made garments and engineering more productive, more efficient and resultantly more competitive, given the role of export trade as an engine of growth.

"Gem and Jewellery" has emerged as the most dynamic sector in India's export profile. India's capability in the field of gem and jewellery production and finishing has worldwide appreciation. The share of gem and jewellery in the exports has gone up tremendously in the recent years. Similarly the performance of textiles and readymade garments - another dynamic growth sector has been remarkable in the recent years. Ready made garments' exports during the last one and half decades have been positive. Exports of engineering goods have also been found very much diversified indicating that India has emerged as a giant exporter of engineering items and consultancy. However, the growth of exports of these three prominent export-items has been as high as it should be. Special efforts and strategies for exports of these
items which have already formed a separate and critical part of the overall policy of exports from the country are subject matters of the present study.

The present research study concerns broadly itself with the examination of various problems facing India's gems and jewellery exports, textiles and readymade garments' exports and and engineering exports and attempts to offer pertinent suggestions as to how the performance by these sectors may be improvised.

The study is explorative in character as it seems to make an extensive study of India's export of gems and jewellery, textiles and ready-made garments and engineering goods. The present study covers the period after independence especially the eighties. It has been expected that the data pertaining to this period will reveal the trend of various aspects of exports of the three major items namely gems and jewellery, engineering goods, and textiles and ready-made garments, and also provides the relevant basis to understand the various facets of India's export strategies. It may be of interest to note that a very few studies of similar nature have ever been undertaken in this country.

Objectives

The principal objectives of the study are as follows:

1. To examine and probe into the recent trends of India's foreign trade.
2. To examine the existing pattern of trade in gems and jewellery.

3. To examine the existing pattern of trade in engineering exports.

4. To examine the existing pattern of trade in textiles and readymade garments' exports.

5. To identify the various weak links in the promotion of major exports from India.

6. To suggest various solutions for the growth of major exports from India.

METHODOLOGY

The data and other relevant information were collected through the following sources, viz.,

1. Published literature available with the Engineering Export Promotion Council, Calcutta, Confederation of Engineering Industry, New Delhi, and Director General of Commercial Intelligence and Statistics, Calcutta and Gem and Jewellery Export Promotion Council, Bombay and Textile Export Promotion Council, Bombay; Apparel Export Promotion Council, New Delhi; Handloom Export Promotion Council, Madras and Cotton Textiles Export Promotion Council, Bombay.

2. Various Reports relating to India's Foreign Trade and International Trade.

3. Secondary sources such as commercial journals, economic dailies, books, trade statistics and records, etc., and
4. Consultation with the experts in the area at Indian Institute of Foreign Trade, New Delhi, concerned officials in the Ministry of Commerce, the Association of Engineering Industries at New Delhi, the Association of Gems and Jewellery Industries at Bombay and the Association of Textile Industries at Madras. The Export-Import Bank of India, New Delhi, the Minerals and Metals Trading Corporation, New Delhi, Indian Overseas Construction Corporation Limited, New Delhi, Engineering Projects India Limited, New Delhi and also Federation of India Chamber of Commerce and Industry, New Delhi.

The information collected from the first three sources pertains to the articles in the area highlighting the trends in India's Engineering exports since Independence, various items involved growth and diversification and the existing policy of the Government to encouraging exports. The information also relates to the various problems being confronted by India's engineering exports sector, Gem and Jewellery exports sector and textile and ready-made garments exports sector.

The consultations held with the various experts and officials at various Institutes and Ministries and Corporations, and representatives of the industry helped to arrive at important conclusions and to know the policy matters relating to India's engineering exports, Gems and Jewellery exports and textile and ready-made garments' exports, and to examine the weaknesses, the strategies and to suggest possible solutions.
SIGNIFICANCE AND IMPLICATION OF THE STUDY

The study assumes greater importance in view of the fact that the chosen areas of exports (Gem and jewellery, textiles and readymade garments and engineering goods) are emerging as major contributories to the export earnings of India's economy.

The study assumes further significance because the items chosen for the study have their bearings on employment and technological factors besides being important for foreign exchange earnings. For instance, industries of gem and jewellery, textiles, and engineering provide not only large-scale employment opportunities but also offer larger scope for technological adoptions of recent origin.

The study becomes all the more significant when viewed in light of the recent liberalisation policies paving way for more foreign collaboration with the respective areas.

The present study gives the direction in which the expansion of India's foreign trade is possible and the role of selected exports as the main torch-bearers for bringing diversification in India's exports. Studies of this kind also provide guidelines to the policy makers in framing policies of trade. The study also becomes relevant since it indicates the importance of fastening exports of Gem and Jewellery, textiles and ready-made garments and engineering goods since it fetches more value added. The study also reveals the severe international competitive conditions against
which the Indian traders have to withstand and secure valuable share in the global market for the major items of exports.

REVIEW OF LITERATURE

The literature on India's exports in general and exports of Gems and Jewellery, Textiles and Ready-made garments and engineering goods in particular throws enough light on the process of industrialization and technological upgradation which has brought remarkable changes in the economic structure of the country. Goods which were on our export / import list since ages have no become very significant foreign exchange earners. While different opinions were expressed on India's major items of exports viz., Gems and jewellery, textiles and readymade garments and engineering items in the form of numerous articles, books and new items, comprehensive studies with research orientation are a very few. The significant aspects of available literatures are presented hereunder.

Morton and Tulloch\(^1\) concluded that foreign trade is a vital sector of a country's national economy and contributes substantially to the economic welfare of the people and the development of resources. Today no country in the world is self-sufficient in the sense that it does not possess facilities for

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economical production of all the goods and services. Kindleberger stated in his study that every country tries to export more than its imports. Exports can be a leading sector in growth or a lagging one. Rybezynski proved through his study that an autonomous increase in one factor, as a result of foreign trade, leads to an absolute increase in production of the commodity using a considerable quantity of the increasing factor and a decline, in the production of the commodity using relatively smaller quantity of that factor.

There is a lot of controversy had gone as to whether international trade promotes or inhibits economic development. On the one hand, Economists like Heberler, Cairne, Mill, opined that international trade is an engine of economic growth in advanced and unindustrialised countries. On the other hand economist like Gunnar Myrdal; Raul Prebisch; Kindleberger concluded that international trade did not benefit under developed countries.

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5. Cairncross, Factors in Economic Development.
Bo Sodar\textsuperscript{10} stated that trade would make a country as a whole better off. Verish\textsuperscript{11} concluded that for hundred of years, international trade has served as a vehicle for extension of improved techniques of production to an ever increasing number of users.

Meier\textsuperscript{12} stresses that if the production increases are in accordance with the comparative advantage and trading takes place at the international ratio of exchange, there arises a gain or increase in real income as a result of a more efficient allocation of resources. This is equivalent to an outward shift in the country's frontier even when resources and techniques of production remain unchanged. Fredie Mehta\textsuperscript{13} came to the conclusion that though the benefits gained through trades may not be equal to the trading countries, certainly there would be product inventions, and product diversification in case of under developed countries.

\textbf{India's Economy and Foreign Trade}

Dinesh Singh\textsuperscript{14} stated that the Indian economy has been set on a rapid growth track as evidenced by the high rate of

\begin{itemize}
\item \textsuperscript{11} Verish, M.C., \textit{Money, Banking and International Trade}, (New Delhi: Vikas Publishing Pvt. Ltd. 1978).
\item \textsuperscript{13} Mehta, Fredie, The Effects of Adverse Income Terms of Trade on the Secular Growth of Under developed Countries, \textit{Indian Economic Journal}, January, 1957.
\item \textsuperscript{14} Dinesh Singh, \textit{Competitiveness in Exports}, \textit{Facts for You}, December, 1989.
\end{itemize}
economic growth achieved during eighties. Focal points of attention are efficiency, competitiveness, technological upgradation and export production. Venkataraman, stressed on liberalization of economic policies affecting the industrial sector with a view to stimulating further investments modernisation and export competitiveness.

Now India's foreign trade profile has diversified greatly both in terms of commodities and in the geographical destinations of trade since independence. Eric Gouslaves stated that India has trading links with practically all the countries and the commodities traded, either for export or import numbered nearly 6,600. Dinesh Singh stated transformation and diversification in commodity composition of export and import and directional pattern requires deliberate and purposive policies by the government, enlarging production base, promotional measures, back-up institutional service support and sustained efforts.

Subrahmaniam\textsuperscript{19} suggested that a linkage between exports and imports would give the needed thrust to exports and ensure profitability. Mahesh Nanavathy\textsuperscript{20} regrets that India's export performance on three most important components -- government policy and procedure, production for export and marketing is far from satisfactory.

Mutatkar\textsuperscript{21} stressed for marketing know-how and innovative approaches, to penetrate into different world markets, are also essential. Solving the problems of exporters is an integral part of any export strategy. Misra\textsuperscript{22} classified the problems of exporters into two categories -- those general to the industry or sector and those in individual in nature. General problems should be solved by the authorities and the individual problems by organisations involved in export trade like Export promotion Councils, Chamber of Commerce etc. Pande\textsuperscript{23} came to the conclusion

\begin{flushleft}
\textsuperscript{19} Subrahmanyam, K.R.V., Four-point formula for linking exports mooted' -- \textit{Indian Express}, December 18, 1989. \\
\textsuperscript{20} Mahesh Nanvathy, 'Indian Exports - Need for a New Bold Policy' The \textit{Economic Times}, March 12, 1988. \\
\textsuperscript{21} Mutatkar, L.K.S., 'Whether India's Exports', \textit{The Economic Times}, September 14, 1988. \\
\textsuperscript{22} Misra, R.L., 'Steps to Boost Exports,' \textit{The Financial Express}, July 22, 1988. \\
\textsuperscript{23} Pande, Makrand, V., 'Counter Trade of India,' \textit{The Economic Times}, May 6, 1989.
\end{flushleft}
that counter-trade* in India has been prevalent for more than three decades but some times, it is seen that the objectivity, addi-

tionality of exports has not achieved. Our imports are being fina-

neced but at the cost of poor terms for our exports and under cutting in the existing export markets due to dumping by our counter traders.

24 Tiwari suggested for the right kind of linkages between growers, manufacturers and exporters in order to make the export strategy a success.

Khan25 found that in case of Ginger, though there is growing unit value, there is no export surplus in India, and suggested for a systematic replantation as is practiced by the only competitor Guatemala. Khan 26 advocated the need for hygiene in processing and storage which is a major constraint in the export of Turmeric.

A Working Group of the Agricultural and Processed Food Products Export Development Authority 27 recommended establishment of export oriented modern abattoirs and duty free import of

* Counter-trade is a generic term. It encompassed many trading arrangements ranging from simple barter to complex frame work agreements.


machinery to increase export earnings from meat and its products. Rao foresees good export potential for eggs as there is growing world wide consumption. As such India requires infrastructure support like cold storage facilities. Paul stated in case of shrimp exports, though there is crash in prices due to dumping on the markets by other Asian countries, India can compete easily given the salinity of the soil, the water and the tropical climate.

Toolsidas sees good prospects again for jute products. With synthetic prices on the rise and growing demand for non-traditional jute goods in overseas markets. Maruthi stated that the silk industry needs to modernise the post cocoon technology to produce quality yarn.

Suresh Shaw feels that the Indian wool is suited only for carpets. The apparel industry needs mechanised wool which is at present imported from other countries. Pathal stressed on modernisation of the production process of coir.

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products. In order to enable India to compete with the machine made products from countries like Srilanka.

Varshene and Bhattacharya concluded that the process of industrialisation in India had brought remarkable changes in the economic structure of the country. Goods which were on import list hitherto, have now become important export items.

Agarwala appraises that the share of engineering goods exports though show a remarkable rise in recent years, India's share is very modest in the context of world trade. Sharma finds that our engineering items are yet to establish their name in the overseas markets in terms of price and quality. Irudyam concludes that engineering exports are price-elastic; Rath concludes that though India has improved its capital goods performance, even exporting to capitalist countries, India has not done well as its competitors like Brazil, Argentina.

Kulwinder Kaur Francis Cherunilam and for that matter every economist suggested that the development of an economy and the achievement of self-sufficiency in various sectors depend to a very large extent on the development of the engineering industry, so that the industrial base is strengthened and make export of its goods and other goods internationally competitive both in price and quality. Misra and Puri in their study on engineering industry found that a large part of investment in the industrial sector of India was earmarked for the sectors which increase the capacity for further production like capital and heavy goods industries, and thus industrial base of the country is now considerably strengthened.

Arora concluded that the Indian technological base, though advanced to some extent, has not kept pace with marketing requirements abroad, and our technology upgradation needs much to be desired. Ranganayakulu lamented in his study that the machine tools industry in India has failed to achieve the degree of technical innovation which is essential to make it comparable and competitive with international standards.

40. Francis Cherunilam; Industrial Economics, Indian Perspective (Mysore: Molly Francis, Cherunilam, 1984).
42. Arora, D.S., Changing Technological Environment and India's Engineering Exports - Foreign Trade Review, April-June, 1985, pp. 116-121.
Shaw regrets that though there is vast export potential in West Asia for our hand tools, India is not in a position to attain optimum share because of lack of considerable market efforts by Indian manufacturers, absence of personal visits and lack of efficient local agents in major cities.

Though Indian bicycle industry is competent in overseas markets, there is lack of market research by Indian exporters regarding the designs and models prevailing in other countries.

Vittal concluded that in case of electronics unless there is a competitiveness in domestic market like Japan the Indian electronics industry cannot compete on the international front.

Dasmunshi suggested liberalised lending norms by banks and setting up 100 per cent EOU s as measures to help increase gem and jewellery exports. Vivek Bharati opined that India could not step up jewellery exports for want of a well established mechanism to be adopted by Indian Consortium. Sankara Pandya

45. Editorial, Facts for You, October 1989, p. 44.
stated that export of diamonds and studded jewellery from India could be substantially stepped up in the coming years as there is a steady upsurge in demand for various kinds of jewellery throughout the U.S.A. Shah suggested for the exemption of the diamond industry from electricity duty as it consumes far less power than several other small scale industries. Sheila Saha identified that Japan is a thrust market for India's jewellery exports. Mandawat concluded that experience and innovation are the key words for the growth of jewellery exports from India. "GOLD 1990" (a survey) concluded that the developments in the former "Communist Block" countries was expected to continue to influence the market in the coming decade.

Oppenheimer stated that India can now aim at becoming a major exporter of studded jewellery in the world market an area neglected by the Indian jewellers. Laxmanan pleaded that levying tax on the foreign exchange drawn for foreign export promotion tours is not in the interest of growth and further development of country's jewellery exports. Chandra urged government to scrap to Gold

Control Act which had outlined its purpose. Shah cautioned that India would lose its share in international market for Gems and Jewellery if technological upgradation of its processing and finishing techniques is not achieved quickly.

It was concluded in the report prepared by Hiro Kundamal of Hong Kong that if there is more interest and support from government and greater cooperation from the jewellery and gem industry associations in India. Research Bureau of Financial Express suggested in its survey that an exclusive drive to promote the export of studded jewellery should be launched to increase value addition in gem and jewellery export. Mandawat suggested the government policies must be pragmatic and the Ministry of Commerce should not intermediate with diamond exports at this juncture when these exports (gems and jewellery) are doing extremely well and when the strength of the Indian diamond industry has brought so much credibility to it globally.

Suresh Shah opined that the Gold Control Act treats gold jewellery exporters like suspects and, therefore, it should be abolished. Laxmanan stated that exporters of many countries offer attractive credit facilities to buyers in many important

markets. Similar liberal credit facilities should be extended from Indian exporters too. Mandawat in his study revealed diamond smuggling coupled with increased domestic consumption has eroded the net foreign exchange earning from diamond exports of India. Varma traced many favourable features which India can offer to foreign customers at competitive rates in the form of trade related services. Satya Sundaram traced out a serious drawback of the diamond industry i.e. incapacity of the diamond industry (being a cottage industry) to invest in R & D. Mandawat advocated against inhibitive rules and regulations which interfere with every aspect of jewellery manufacturing and exporting from India. Malcolm Subhan hinted that could wipe out its hefty trade deficit with the European Community (EC) through exports of gold jewellery alone. Muralidhar speaks of high cost-low-production for gold which caused a disturbing impact for the two primary products of gold in the country. Research Bureau of FE forecast that rising cost of mining industry is expected to result in slowing down of gold mining boom during 1990s when prices are likely to be more

volatile in the range of dollars 360 to dollar 460 per ounce. Shah concluded that the diamond export industry has been making a sizeable value addition of about 40 per cent in the export sphere. Mondowat suggested that Indian gold jewellery exporters should improve the quality of their jewellery products and bring it at par with other leading jewellery centres such as Italy in gold jewellery.

Nandagopal in his study suggested that the government would allow non-resident India (NRI) to bring twenty five per cent of the money which repatriated as gold, and also allow tourists to bring in limited quantities of the metal paying customs duty. The Government made wide-ranging amendments in the import policy, allowing the import of 15 items under (OGL) pertaining to Gems and Jewellery. The Government was planning to amend the Gold Control Act with the intention of removing certain restrictive provisions in the Act which could ultimately help jewellery export from the country. Muralidhar cautioned that in case the government considers allowing gold imports, a stiff import duty will have to be imposed if the indigenous mines are to survive.

Francis opined that the domineering presence and active supervision of DTC is a must for the stability of stone business as it would be futile to attempt to reduce the overall control of DTC on the diamond industry. Parekh suggested that gold imports should be allowed, but at the same time it should be ensured that no outflow of foreign exchange is involved. Timothy Green stated that rising cost of mining industry is expected to result in slowing down of gold mining boom during 1990s when prices are likely to be more volatile. Shah concluded in his study that the diamond export per cent towards the end of eighties. Francis dealt in his study with the MMTC's attempts to procure rough diamonds directly from primary sources.

Asha Rai stated that while the demand for man-made-fibres, including art silk is shooting up, the lack of modern processing facilities has forced the powerlooms in the country to make only traditional items like sarees. Sahetiya Srichand highlighted in his study the need for enhancing the availability

76. Parekh, H.T. Exports of Jewellery from India (The Economic Times, September 20, 1989).
of fibre yarn and thus bring about an all-round increase in the production of fabrics. Krishnan Kutty\textsuperscript{82} studied how growth in sales and profits in textile business could be made even under unfavourable situations like stagnant demand.

Parekh\textsuperscript{83} suggested in his study that the export-linked condition for import of raw-materials needs to be evaluated on the basis of condition of each industry related to textile exports. Ashok Garware\textsuperscript{84} identified several factors which require to be controlled for maintaining the pricess of fabrics, particularly at the retail level. Mody\textsuperscript{85} suggested to make an urgent review of duties on intermediaries, the costs of which have gone up manifold with a view to reducing the cost of raw material by reasonable levels. Sinhania\textsuperscript{86} opined that if there was more production of cotton, this should be utilised by producing more cotton yarn/fabric, for which there is good demand in the international market. Varadaraj\textsuperscript{87} identified the various factors like power-cuts, high wages relentless rise in input costs such as power, transport and packing materials which adversely affected the production or yarn and fabrics.

\begin{itemize}
    \item 83. Parekh, I.H., Allow export of regular VSF, \textit{The Economic Times}, April, 1992.
    \item 84. Ashok Garware, Textiles; Broad-banding Welcome Step, \textit{The Economic Times}, April, 1993.
\end{itemize}
Ashok Gehlot advocated that the industry should take the full advantage of the liberal license measures to augment textile exports. Banker studied the spectre of sickness which is haunting the textile industry. Santhanam (I.I.F.T.) has presented a brief analysis of the new policy initiatives.

Narrowing down the trade deficit will require action on several fronts but improved export performance by the engineering has to be the key mechanism. Engineering goods have acquired the status of a major constituent of our exports only in recent years. Engineering exports have shown a great buoyancy as the country's top foreign exchange earners. Manufactured products, machinery and transport equipment provide the core for our future exports. There has been a substantial transformation of India's export structure in the recent years. India has now emerged as a major exporter of capital equipment and other sophisticated items.

90. Santhanam, A Report on Textile Exports from India, IIFT, New Delhi.
including projects and consultancy services. The future of India's export trade depends on how far performance in these sectors can be further improved. India which reportedly has the largest engineering manpower is not in a position to enter the highly sophisticated and expanding segment of world trade. In some selected fields, India now possesses sufficient engineering expertise based on international qualitative standards.

Gopal opines that various policy measures taken by the Government, the increase in the industrial infrastructure and the dedicated endeavours of a very large number of exporters, the country has made substantial progress in the engineering sector.

Misra and Puri in their study on engineering industry explain that a large part of investment in the industrial sector was earmarked for the sectors which increase the capacity for further production. As a result massive investments were made in the heavy and capital goods industries. It is mainly due to this fact that the industrial base of the country is now considerably strengthened and a wide range of goods are now produced within the country. The most spectacular achievements have been in the field of engineering industries.

Martin Would in his directional pattern of study concludes that where a comparison was made, India's growth in exports of engineering goods did not match with that of its major competitors. India did not exploit opportunities in trade as well as many of its competitors. For a longtime exports to East European countries were the main source of growth, because of India's inability to exploit other opportunities especially in the industrialised countries.

Saravanavel in his work on India's foreign trade, found that India has been trading with foreign countries from ancient times. Until 1947, India had a pattern of trade which was traditionally that of colonial and agricultural country and a bulk of foreign trade was confined to Britain and other Commonwealth countries. After Independence, planned development over the last four decades has resulted in a rapid transformation of India's export structure. There has been a major shift from the traditional to non-traditional items like engineering goods.

Ruddar Datt in his work on evolution of the Indian economy opines that as economic development gathers momentum the structure of imports and exports undergoes a change. With the dawn of planning in India the pattern of imports and exports had undergone a change under the impact of its Five Year Plans. In

98. Martin Wolf, India's Exports, (Delhi: Oxford University Press, Published by the World Bank, 1982).
place of traditional imports and exports, new commodities like engineering goods entered our export and import list.

Lacan Prasad concludes that the bulk of the demand for power projects, fertilizer plants, cement plants, steel plants, mining equipments and petro-chemical plants are being met at present from indegenous production. The engineering goods have also emerged as a non-traditional element in our exports.

Ray, in his work states that the importance of engineering industry in the national economy. This study suggests that India will have to do much in order to make a determined thrust in foreign markets for engineering goods.

Kulkarni in his work on India's industrial development concludes that the most spectacular development after 1950 and particularly since 1960 has been in the field of engineering constituting basic metals, industrial machinery, heavy electrical equipment, electronics etc.

Richard Thamas\textsuperscript{104} in his study on prospects of India's engineering exports opines that few years ago Indian engineering were insignificant. By the late 1970s they had become the country's largest visible source of foreign exchange. There is a growing acceptability of Indian engineering goods and services.

The development of the engineering industry enables us to make much headway towards import substitution and thus save lot of precious foreign exchange. It is our most dynamic export sector.\textsuperscript{105}

A special feature of India's industrial development had been the growth of capacities in engineering products. Large investments had been made in engineering industries producing heavy electrical equipment, heavy foundry forge, heavy engineering machinery, heavy plates and vessels etc.\textsuperscript{106}

The range of engineering goods not only showed a fair measure of diversification and specialization, but some of the products also found their way to developed countries.\textsuperscript{107}

\begin{itemize}
\item 105. Francis Cherunilam, \textit{Industrial Economics: Indian Perspective} (Mysore: Molly Francis, Cherunilam, 1984).
\end{itemize}
Choudhuri explains how with increasing industrialization and consequent demand for servicing facilities, engineering industries have developed around Calcutta, Bombay, Madras and many other places. Of great significance is the development of capital goods industries as India has made remarkable progress in the manufacture of various types of machinery for her industrial plants.

Prasad in his study concludes that country of the size and resource endowment, India can exploit opportunities of developing engineering industry as a source of earning foreign exchange and India could come a forceful competitor in the world market.

Kulwinder Kaur opines that economic growth requires the transformation from a state of dominance of the agricultural sector to that of the industrial sector. Given the high vote of growth population, there is no prospect that incomes and levels of living of the poor can be substantially improved, unless a much larger proportion of the labour force is shifted to manufacturing such as engineering and other allied activities. Hence, the need for establishing such industries which can ultimately meet the requirements of domestic consumption and foreign exchange earnings.

Agarwal in his book on Indian Economy states that as a capital goods producing industry, engineering industry is of significance in determining the pace of economic growth of the country.

Sanjivayya in his analysis on exports of engineering goods express the view that during last few years of planned development in our country, the engineering industry has made rapid strides and now occupies an important place in the national economy.

The most rapid advances were made by engineering industry supplying the process of reproduction which encompasses the output of industrial equipment. The expansion of engineering industry increased the output of machine tools, electric motors, transformers, etc.

Raju Chellan concluded that India attained a position of some eminence in catching up with products and technology and some of the latest systems just introduced worldwide found themselves in the local markets within months. Kumar Mahadevan

found that heterogeneous nature of the African continent with different types of governments of their foreign exchange difficulties gave India tremendous opportunity to export its engineering goods through its enhanced share in the projects. EEPC\textsuperscript{116} suggested ways and means by which prospects for Indian diamond market can be improved. Prakash, G., Hebalkar\textsuperscript{117} concluded that with a concerted pursuit of a software-primary policy, has developed into a major world players. Bhatt\textsuperscript{118} found that having once imported technology, our entrepreneurs are content with that and are not bothered whether it needed upgradation. A Survey\textsuperscript{119} revealed that non-availability of funds for settling approved claims under the international price reimbursement scheme (LPRS). Hebber\textsuperscript{120} stressed the general competitiveness in builder's hardware by the Indian exporters. Malcolm\textsuperscript{121} state that India needs advanced machine tools not only for

\textsuperscript{116} EEPC Sees U.S.A. as Major market for Compressors, \textit{The Economic Times} July 9, 1989.
\textsuperscript{118} Bhatt, R.S., \textit{World of Technology: Reaching through R \& D, Industrial India}, August, 1991.
\textsuperscript{120} Hebber, M.N., EEPC Drive in FRG to boosts exports, \textit{Business India}, September, 1992.
\textsuperscript{121} Malcolm Subhan, Good response to Indian machine tool makers, \textit{The Economic Times}, November 4, 1989.
manufacturing industry in general but also for such key sectors as cars, railways, electronics, mining and construction.

Ramu, S. Deora pleaded with the government to strengthen and consolidate the link between agents and imports. Bhatia emphasised on larger production to create exorable surpluses. Arora dealt with the emerging trends in the services sector and its related impact on engineering sector. Leghate suggested that exporters should utilise their import entitlements to update their plants. EXIM Bank study concluded that the market of computing services has been attracting resources and the number of business units increased substantially. Malcolm Subhan forecasts bright prospects for India's machine tool exports.

Engineering goods have emerged as one of major areas of export growth, and would be contributing sizably to the country's export earnings.

In the past four decades the industry in India has undergone a rapid transformation. The country today is manufacturing a wide range of sophisticated engineering items and consumer electronics, communication and broadcasting equipment, aerospace and defence electronic equipment, computer control and instrumentation and electronic components.

The key to greater self-reliance, sustained growth and a manageable balance of payments lies in improved export performance of many goods, especially engineering items.  

India which is one of the major industrial powers of the world, to be more precise, could will be one of the leading exporters of industrial items.

The EEC is keen to buy India's engineering items in large quantities by 1992, when it becomes a single and integrated market.

If Indian exports of engineering goods are to compete in the U.S. market, they will have to open wholly-owned subsidiaries there for importing and distributing products as found by Subramanian, in his study.

India's exports became more diversified and the share of non-traditional items like engineering goods, chemicals etc., grew at a faster rate than India's total exports.

Electronics is a dynamic industry where changes take place at a fast pace. New products and processes of manufacture are evolved every year. This industry is attracting every sector of the industrial structure and there is no escape from it.

India's rapid pace of industrialisation has created a tremendous potential for sourcing of components by industrialised countries that are hitherto relying on other advanced nations.

East European countries, especially the Russia have emerged as one of India's potential export market for engineering goods.

The Indian engineering industry particularly the electronics industry stands at a low image when compared to the size of the industry in Korea or Taiwan, therefore, India's export prospects will depend upon the improved performance of her engineering electronics industries.

Engineering industry and still a tendency to wait for engineering systems to be developed in the west before trying them out in India and that our entrepreneurs continued to run to these countries for know-how and consultancy.  

Engineering products, have become one of our main export items, however, unlimited scope exists for this branch. Exports are likely to increase in the coming years if we are able to deliver in right time.  

Engineering industry in India has come of age and plays a key role in the economic development of the country. It has very close linkage with all the other sectors of national economy. It is the supplier of goods and services for the sectors and it has been rightly termed as "The Engine of Growth".  

Vinod Parekh is of the view that the entrepreneurial talent, human and natural resources and production facilities all are available in India in an ample measure.