COMPETITIVENESS OF INDIAN ENGINEERING GOODS IN THE EUROPEAN COMMUNITY MARKET SINCE 1981

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CERTIFICATE

Certified that the present dissertation on "**COMPETITIVENESS OF INDIAN ENGINEERING GOODS IN THE EUROPEAN COMMUNITY MARKET SINCE 1981**" submitted by **Mr. J. GAUSPER** is in partial fulfilment for the award of the Degree of **MASTER OF PHILOSOPHY** of the Jawaharlal Nehru University. This is his own work and has not been presented for the award of any degree of any other University.

We recommend that this dissertation be placed before the examiners for evaluation.

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PREFACE

"As goods increase, so do those who consume them"(Ecclesiastes 5:11). This is not an attempt to resurrect Say's law of markets from the strangle holds of Keynes. However, there is no 'equilibrium' in competition. The Japanese experience proves that the supply of a product of 'Schumpeterian quality' creates its own demand. This is true for the vast market offered by the 341 million affluent inhabitants of the European Community, the market penetration of which has become the subject of empirical research for many a scholar and businessman. Despite the 'economic koinonia' that exists among the affluent twelve owing to similarity of tastes and purchasing power, there is a growing trend in community's trade with the extra-EC countries and more specially with the newly industrializing countries.

The community's extra-EC trade can be broadly grouped as trade with the developed countries and the class-2 countries(Developing and Newly Industrializing Countries). The years between 1980 and 1990 marked a 12 percent increase in the community's trade with the developed countries. The rise from 48% in 1980 to 60% in 1990 can be attributed to the rise in real income and an increase in consumer culture while demand being homothetic between the developed countries. The decade also witnessed notable inroads made by the newly industrializing economies of the far east into the Community's market. This is purely achieved through a sharp business acumen by supplying high value-added goods of Schumpeterian quality at a cheaper price.

A developing country like India's trade with the European Community springs from her comparative advantage in traditional goods and from the utilisation oftrade privileges offered by the Community through the Generalised System of Preferences. Despite the emergence of EC as the largest trading partner of India in the recent years, the terms of trade continues to be in favour of the Community with a growing BOP surplus in its favour. This is primarily because of India's export composition not being in tune with the demand

structure of the community.

In terms of product composition, the EC import pattern has progressively moved away from commodities and raw materials towards processed manufactures, in particular equipment goods. The share of the latter increased to 78% of total EC imports in 1990, compared to 54% a decade earlier and at the same time, the corresponding shares of agricultural and energy products declined to 5.9% and 16% respectively from 9.3% and 36.7% in 1980. A number of factors contributed to these developments : the impact of the common agricultural policy, the introduction of natural resource-saving technologies, relative price changes, as well as increased imports of highly processed goods from the newly industrializing economies. Within the manufactures, over the 1980s, imports of equipment goods into the Community have risen at a rate almost twice that of both intermediate and consumer goods, so that in 1990, equipment goods accounted for almost half (45.7%) of all EC imports of manufactured products. It will be interesting to study if India adjusted its export composition to the community market in the light of the Community's substantial shift from traditional goods to high value-added equipment goods.

The Indo-EEC trade relations received an impetus when in 1973, the community made a formal trade agreement with India. The 5-year agreement, which came into force in 1974, provided both a focus and contractual basis for Indo-EEC relations. The purview of this agreement was expanded in 1981 when an economic and commercial cooperation agreement brought within its ambit not only trade exchange, but also economic, industrial and scientific cooperation. A Joint Commission was also set up under this agreement, entrusted with the task of securing its implementation. Within the framework of this 1981 agreement, in 1986, an industrial cooperation programme was initiated and in 1987, a first Memorandum of Cooperation was signed which identified concrete actions to be taken to promote industrial cooperation in important fields such as industrial standards, establishment of data banks, cooperation in sectors such as steel, electronics, telecommunications,bio-

technology,energy,machine tools and human resource development.

In this study,the Competitiveness of the Indian Engineering Goods in the European Community Market since 1981 is analysed from the year 1981 when the Economic and Commercial Cooperation Agreement was signed between India and the EC, to the year 1991, when economic liberalisation in India received its momentum. The main focus of the study is to find if the existing theory of comparative advantage in production and export is relevant in Indian context in promoting its competitiveness in penetrating into the European Community market. If it is so, Indian performance should be better comparing to many a newly industrializing country of the far east against whom India holds a greater advantage of natural and human resources. If Indian performance is not better, then it is necessary to find how those countries have overtaken India. For this purpose, in chapter-1, the factors that contribute to competitive advantage over the comparative advantage are discussed. In chapter-2, the export promotion policies of India in the eighties are studied to find whether the policies are focussed on improving the competitiveness of Indian engineering goods in the European Community market. In chapters 3 and 4, the performance of Indian engineering goods in the EC market in comparison with the extra-EC imports in general and with a few selected developing countries in particular are analysed and conclusions are drawn in chapter-5.

The study being an empirical one, a large amount of trade data were required to be analysed. The data were taken from the Eurostats and microfiche from 1981 to 1991. The import data for engineering goods taken at 2-digit NIMEXE form the main data base for the study. The methodology followed is descriptive and analytical.

When I discussed this particular topic of research at the M.Phil level with my supervisor, Dr. Christopher S.Raj, it seemed to be a Himalayan task to complete it in a year's time. But for the encouragement and guidance of him, it would have never been accomplished. His vast knowledge, research experience and patient guidance helped me to put

together the enormous amount of data collected into a research mould. So it is my privilege to acknowledge him here with a grateful heart. I also remember with gratefulness Prof. Manmohan Agarwal,Dr.Alokesh Baruah and Dr.Manoj Pant who have strengthened my foundations in the theoretical aspects of international trade.

The European Commission staff in New Delhi, Shanti Jaganathan and Ashok Purang showed a great interest in the topic and equipped me with the relevant trade data. I felt much at home with Ashok's hospitality when I had to spend longer hours in the EC library. Even he took the pain of sending two large packets of research material by post!. Thank you Ashok, thank you friends.

I deeply appreciate the staff of American Center and the Jawaharlal Nehru University library for providing all necessary help. I also thank the staff of JNU School of Computer and Systems Sciences for providing me the facility to use their computer. Pao and Sona are fondly remembered for their contribution before the computer terminal and special thanks to Shaji and the *Serwel Computers* for setting my work in a page maker.

Whenever I felt mentally tired, I had the open arms of Prasad welcoming me to relax after lunch with his home made pickle. My other friend Nehemiah, a tough guy, whom I affectionately call as the'north eastern Jat', used to ensure that I did not relax too much to be devoid of finishing the day's work in time. The tea-time 'apologetic koinonia' with Sushil and Caleb grew to act as a steroid in the days of hard work. Joe, Karen, Raju and Pandian used to keep me on track through regular queries. Ahmmed and Patnaik deserve a special place as they proved to be trustworthy friends in need. Thank you friends.

My parents, Dr.William and family, George Kovoor and Valson Thampu deserve special mention as they always encouraged me to excel. Phillip and Emmanuel George

upheld me before the throne of grace. Above all, I thank God for the health, mental abilities and drive that He gave me all through the days of this work. It is He who gave me friends and families. To Him be the glory for ever and ever. In Jesus Name, Amen!

New Delhi

21 July, 1994

J.Gausper

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CHAPTER - I

COMPETITIVENESS: A CONCEPTUAL SHIFT TOWARDS A NEW PARADIGM

The pure theory of international trade, whether the classical version of Adam Smith and Ricardo or the neo-classical version of Heckscher-Ohlin-Samuelson or that of Kravis or that of Linder, expounds a simplist model with an emphasis on tangible factors that determine trade between nations.The reluctance to add the complexities of intangible factors in these basic frameworks had over the years restricted the academecians from looking beyond comparative productive advantage and factor endowments despite the empirical evidences that went against them. This has paved the way for a static connotation of the total trade theory while the entrepreneurs and managers worked on its dynamism. This dynamism calls for a newer meaning to the whole concept of competitiveness, never again to force an agricultural country to continue as an exporter of agricultural products and a capital abundant country to concentrate on machineries if competitive potentials beyond these basic factors can be explored. Thus as in the words of Porter,"the pursuit of competition defined as a trade surplus, a cheap currency, or low unit labor costs contains many traps and pitfalls"[1] There is a need for a new paradigm.

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1. Michael E.Porter, The Competitive Advantage of Nations(London,1990),p.9

THE COMPARATIVE ADVANTAGE THEORY:

The classical determination of what goods and services countries will buy and sell in foreign trade is based on the theory of comparative advantage. As formulated by Ricardo and subsequently further elaborated and refined by the neoclassicists, the precise pattern of specialization in production and trade depended on comparative costs, with the dividing line between imports and exports determined by reciprocal demand, subject to monetary equilibrium in the balance of trade. In Ricardo's theory, trade was based on labor productivity differences between nations. Modern versions of Ricardian theory have assumed one factor of production (labour) and that countries differ in the amount of labor required to produce a good. This comparative advantage in labor productivity determines the competitiveness too.

From the empirical standpoint, the hypothesis suggested by the Ricardian model is that the observed composition of trade can be explained by inter-country variations in comparative costs. Since labor is the key productive factor in the Ricardian model, measures of comparative labour productivity have been designed to serve as a proxy for comparative costs. Given the existence of other productive factors and the fact that, in actuality, trade is determined by differences in absolute money prices among countries, the question becomes: How good is comparative labor productivity as an approximation of comparative total factor productivity and of comparative selling

prices?[2]. But even supposing that an empirical relationship is established between specialization in trade and variations in comparative costs, this does not answer the more fundamental question of what determines these variations in costs[3].

HECKSCHER-OHLIN-SAMUELSON THEOREM:

The H-O-S version of comparative advantage theory is based on the idea that nations all have equivalent technology but differ in their endowments of so called factors of production such as land, labor, natural resources and capital. Factors are nothing more than the basic inputs necessary for production. Nations gain factor-based comparative advantage in industries that make intensive use of the factors they possess in abundance. They export these goods and import those for which they have a comparative factor disadvantage.

Thus, inter country variations in comparatiave costs were determined by differential endowments of productive factors, with the quality of factors and production functions for given goods taken to be the same everywhere. Two well known theorems have emerged from the H-O model: (1) Countries will tend to export goods embodying their relatively most abundant factors and import goods embodying their relatively most scarce factors, and (2) Under certain specified

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2. Robert M.Stern, "Testing Trade Theories",in Peter B.Kenen,ed., International Trade and Finance:Frontiers for Research (New York,1975), p.4

3. ibid, p.4.

conditions, international trade will result in the equalization of returns to factors among countries.

EMPIRICAL TESTS OF COMPARATIVE ADVANTAGE THEORY:

Empirical tests of comparative advantage have been difficult, because of the challenges of constructing tests which derive rigorously from the theory in light of its aggregate nature. Recent examples are Harkness(1983), Sveikauskas(1983) and Leamer(1984). Empirical tests are generally confined to broad groupings of industries such as labor-intensive industries or skill-intensive industries. The results have been mixed but generally supportive of some of the broad propositions of the theory, though they do not explain much of the variations in trade patterns among countries.

The early tests by Leontief and others, conducted within the framework of a two-factor version of the model, estimated the capital and labor requirements of exports and imports, but often yielded results that suggested incorrect or incomplete specification and measurement. Some of these difficulties were subsequently dealt with by redefining and expanding the number of factors in order to distinguish physical capital, human capital, raw(uneducated)labor, and natural resources. There are other important influences on comparative advantage that lie outside the H-O model. These other influences relate mainly to technological differences, which the model assumes away, economies of scale and market imperfections of various kinds. Moreover the model has come under increasingly critical scrutiny because it does not offer an explanation of what

determines a country's initial factor endowment and how this endowment may change through time.

Williams(1970) used a conceptual framework designed explicitly to measure the notion of the "plentifulness" of labor, capital and natural resources in terms of the ratio of domestic endowments to those in the rest of the world and to explain the volume and direction of the factor content of trade. He concluded that capital was the abundant factor in the United States and that the Leontief paradox was therefore invalid.

In another study, analysing the trade between India and the United States, Bharadwaj concludes,"Overall, India exports labor-intensive goods and imports capital intensive goods. India's exports to the US are capital intensive relative to India's imports from the US"[4]. This again is inconsistent with the H-O model.

Leontief's (1954) famous paradox, in which the capital-rich US was exporting labor-intensive goods, is just one salvo in a long debate on whether the H-O-S model explained which countries had comparative advantage in particular products. Leamer(1980) is credited by many as having resolved the paradox, by arguing that the US was a net exporter of both labor and

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4. R. Bharadwaj, "Factor Proportions and Structure of Indo-US Trade",Indian Economic Journal (New Delhi),vol. 10 (1962),pp.105-16.

capital services in the period Leontief studied

THE KRAVIS THEORY:

In his attempt to explain the commodity composition of trade, Kravis presents only a corollary of the existing trade theory of comparative advantage. According to him,the commodity composition of trade is determined primarily by 'availability'. Thus nations export products that are in abundance and import those products that are scarce or the domestic supply of which is inelastic.

Jagdish Bhagwati makes the following suggestive hypotheses from Kravis:[5]

(1) a country's imports will be characterised by domestic inelasticity of supply.

(2) a country's imports will be characterised by the excess of foreign over domestic elasticity of supply.

(3) a country's export industries will show rates of technical progress higher than the national average.

(4) a country's export industries will show higher rates of technical progress than the same industries in the trading partners.

(5) Perhaps the most promising approach would be to utilise Kravi'sdistinction between"unavailability" due to scarce natural resources and due to innovation. Thus, to the preceding two propositions,one could add a further clause : Or,will be intensive in the use, or consist, of raw materials which are relatively abundant in the country.

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5. J. Bhagwati, "The Pure Theory of International Trade : A Survey", Economic Journal (London), vol.74(1964),p.27.

Kravis' theory is only a synthesis of the comparative productivity theory and the comparative factor endowment theory. The availability or non-availability is determined by the availability or the non-availability of the factor inputs for production. Again, Kravis does not explain why some countries with excess supply(surplus) look for a vent and how some countries are able to create demand for their goods. It is quite evident that countries with scarce natural resources have over the years turned the tables in their favour purely by production and trade strategies. Thus competitiveness can be explained beyond the scope offered by the theory of Kravis.

THE LINDER THEORY:

Linder,unlike the previous trade theorists, considers several other factors that determine the trade flows between countries. In his theory, Linder draws a distinction between trade in primary products and in manufactures. While the trade in primary products can be explained in terms of "relative natural-resources endowments", trade in manufactures is a function of many factors like technological superiority, managerial skills and economies of scale. However, Linder's central thesis is concerned with the volume of trade because of 'preference similarity'. He explains this in terms of homotheticity of demand.

Despite demand being non-homothetic between many East Asian countries and the developed countries, there is a growing volume of trade taking place

between them. This is because of the reason that these newly industrializing countries are competitive enough to push their products into the markets of the developed countries despite their comparative disadvantage in the orthodox factors of production. Linder fails to explain this phenomenon. Now the question comes, what are the determinants of this competitiveness and how do these newly industrializing countries are able to overcome their comparative factor disadvantages and relatively poor national incomes and go for a greater market penetration? This provides further scope for discussion on the subject.

COMPETITIVENESS : IT 'S DETERMINANTS

A country's competitiveness in trade to export it's products is determined by a number of factors to the utmost micro level. However the major determinants can be broadly classified as (i) the price factors and(ii)the non-price factors. According to J.M.Mc Geehan, "the usual approach to the subject of price competitiveness is by the 'relative' method; that is, analysing the changes in export prices, relative to the changes in the supplier's export performance"[6] He takes support of his argument through a study done by Junz and Rhomberg (1964) who analysed eighty-eight observations and found that 43% of the

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.6. J.M. Mc Geehan, "Competitiveness : A Survey of Recent Literature", Economic Journal, vol.78 (1968),p.244.

variation in export shares could be attributed to relative export prices, and that on average it might be expected that a deterioration of price competitiveness by 1% would, ceteris paribus, result in a reduction in exports by almost 3%.[7]. He also quotes another intensive investigation at the commodity level done by J.R.Parkinson (1966) which also confirms the association between price and export performance though the relationship varies considerably from commodity to commodity. In the Indian context, Cohen(1964) found the declining market share of India's exports in the fifties associated with an increase in the price of her export products relative to competitors' prices.[8]

Mc Geehan goes on to discuss the problems of costs and productivity which have been recently centred on questions of size of plant and enterprise. According to him, large size of plant and enterprise might give rise to competitive advantage in two ways:

(1) through economies of large scale production and distribution, given the existing state of technical knowledge and

(2) as a result of the fact that "efforts in the field of research and development tend to be the province of relatively larger firms"[9]

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7. ibid, p.244.
8. Samuel Paul and Vasant L.Mote, "Competitiveness of Exports: A Micro-Level Approach", The Economic Journal Vol.80, (1970) , p.895.
9. Mc Geehan, n.6,p.251.

However, the establishment of larger plants depends on the demand conditions. The practice of ordering aircraft (in the United Kingdom) in a series of small batches (which) prevents manufacturers from setting up the most efficient production arrangements[10]. Also the under utilisation of plants owing to increase in variable costs, restrictions in demand, strikes, and ineffficiency in management go heavily on achieving economies of scale and thereby resulting in high production costs.

In all these price in itself does not become a major determinant of competitiveness. If that is so, devaluation should have a direct positive effect on export promotion and this does not happen in practice. Price effect on competitiveness varies according to the nature of goods. In the words of Mc Geehan," while price is an important consideration in relation to such products as semi-manufactures and a number of standardised consumer goods, it is only a relatively minor factor in the case of capital goods such as machinery"[11].

There are non-price factors such as:

-*DESIGN* which includes performance, reliability and appearance;

-*MARKETING* which depends on credit facilities, help given in installation, after sales service, good will visits and public relations;

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10. Plowden Report, in Mc Geehan, n.6,p.252.

11. Mc Geehan, n.6,p.252

-Ability to acquire gains of *ECONOMIES OF SCALE UNDER PROTECTION*;

-*TRADE BARRIERS*, both direct and indirect;

-*NON-TARIFF BARRIERS* such as trade regulations over environmental protection, and human rights;

-*PRESSURE OF DOMESTIC DEMAND AND PROFITABILITY* (manufacturers regard export sales to be less remunerative than home sales)

-Ability to adapt to changes in *GEOGRAPHICAL AND COMMODITY TRADE PATTERNS*;

-Ability to supply *VARIETY* (Differentiated goods);

-Ability to supply high *VALUE-ADDED* goods;

-Ability to *INNOVATE* products inorder to bring advanced technological gap;

-Ability to adhere to *INTERNATIONAL STANDARDS*;

-Ability to adhere to *JUST-IN-TIME* delivery conditions.

COMPETITIVENESS : INDICATORS

There is no widely accepted single measure of competitiveness. Analysts use many proxies : international trade balances, comparative international figures on productivity or standards of living, manufacturing's share of gross national product (GNP), and comparative studies of the performance of individual industries are common ones. Perhaps, the distinct indicator of sustained competitiveness is the *CONSTANT MARKET SHARE* maintained by industries over a period of time.

According to the constant market share model, the actual change in a

country's exports in a period can be measured by the summation of the *WORLD DEMAND EFFECT, THE COMMODITY COMPOSITION EFFECT, THE MARKET DISTRIBUTION EFFECT* and the residual representing *THE COMPETITIVENESS EFFECT*, in which the world demand effect is that part of the export growth attributable to the general increase in world exports; the commodity composition effect is a weighted sum of the value of exports by each of the various industries; the market distribution effect is a weighted sum of the value of each industry's exports going to each regional market and the competitiveness effect is the difference between actual growth and that which would have been realized if the country had maintained it's share of exports of each product to each region under consideration.*

Though the constant market share is an useful indicator,it is not necessarily the lone or the best indicator of a country's competitiveness. The 1985 report of the President's Commission of the United States of America links competitiveness with the rise in the living standards of manufacturing workers. According to the report :

> "Competitiveness is the degree to which a nation can, under free and fair market conditions, produce goods

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* the weights here are the differences between the growth rate of a particular market for a particular product and the average growth rate for world exports of that industry.

> and services that meet the test of international markets while simultaneously maintaining or expanding the real incomes of its citizens"[12].

Thus, a sinking market share alone is not the proof of failing competitiveness. Despite a fall in market share, if the American industries could keep the living standards of their workers high, there is a sure indication that those industries are competitive. How to explain this phenomenon?

When two countries are like twins,trade will nevertheless take place and it will be entirely intra-industry trade. Suppose now that the factor endowments differ between countries and that the differentiated product industry is relatively capital intensive. As Helpman and Lancaster have shown, intra and inter industry trade will coexist in this case. Both countries will be exporting and importing the differentiated good; however, the country with the higher overall capital/labor ratio will end up as a net exporter of the products in question, while the other country will be a net importer. It follows immediately that inorder to balance trade, the relatively capital-poor country will be a net exporter of the homogeneous good. As the difference in capital/labor ratio grows more pronounced between the two countries, the share of intra-industry

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12. U.S. Congress, Office of Technology Assesment, Competing Economies:America, Europe, and the Pacific Rim, OTA-ITE-498(Washington, D.C., 1991), p.3.

trade in overall trade will decline. Exports of less developed countries are more closely tied to the behaviour of consumer demand while the west's export successes are heavily dependent upon the derived demand for capital goods. The capital goods being high value-added, the industries that specialize on them are able to keep up the real income of its workers despite the sinking market share.

COMPETITIVENESS: AN ENTREPRENEUR'S PARADISE

Why do some firms excel in achieving a greater market penetration while others don't? Competitiveness is more than a theory in a strict sense. It is a game in itself,composed of various strategies to help overcome competitive disadvantages. So competitiveness is a dynamic and evolving process which will be achieved at different levels at different periods. Infact, there is no "equilibrium" in competition according to Joseph Schumpeter. It is a constantly changing landscape in which new produts, new ways of marketing new production processes, and whole new market segments emerge. Static efficiency at a point in time is rapidly overcome by a faster rate of progress[13].

Michael Porter in his attempt toward a new theory of national competitive advantage expounds a few strategies generally followed by nations:

(1) When firms from different nations form alliances, those

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13. Porter, n.1,p.20.

firms based in nations which support true competitive advantage eventually emerge as the the unambiguous leaders.

(2) Competitive advantage is created and sustained through a highly localized process. Differences in national economic structures, values, cultures, institutions and histories contribute profoundly to competitive success.

(3) Importance of national policies

(4) Successful international competitors often compete with global strategies in which trade and foreign investment are integrated.

(5) The home base is the nation in which the essential competitive advantages of the enterprise are created and sustained. It is where a firm's strategy is set and the core product and process technology are created and maintained. Firms often perform other activities in a variety of other nations. The home base will be the location of many of the most productive jobs, the core technologies, and the most advanced skills. The presence of the home base in a nation also stimulates the greatest positive influences on other linked domestic industries and leads to other benefits to competition in the nation's

economy. The nation that is the home base will also usually enjoy positive net exports. As long as the local company remains the true home base by retaining effective strategic, creative and technical control, the nation still reaps most of the benefits to its economy even if the firm is owned by foreign investors or by a foreign firm.

(6) **GENERIC STRATEGIES OF NATIONS**: (An example of ship building industry)

(a) *DIFFERENTIATION STRATEGY* : Japanese firms in ship-building, offer a wide array of high-quality vessels at premium prices.

(b) *COST LEADERSHIP STRATEGY* : Korean shipyards offer many types of vessels but ones of good, not superior quality.

(c) *FOCUSSED DIFFERENTIATION STRATEGY* : Scandinavian yards concentrate on specialized types of ships such as icebreakers and cruise ships that involve specilized technology and which command prices high enough to offset higher Scandinavian labor costs.

(d) *COST FOCUS STRATEGY* : Chinese shipyards, the emerging competitors in the industry, offer relatively simple,

standard vessel types at even lower costs (and prices) than the Koreans.

Since competitiveness mainly depends on various strategical movements, it has become an entrepreneur's dictum. If a nation is enterprising, it shall be indeed competitive. Factor endowments will take a back seat, if the efficiency and effectiveness with which factors can be used become more central to the study. So the study of competitiveness would require a perception beyond the constraints of the traditional economic theories and need to make a good sense to managers as well as to policy makers and economists. In the words of Michael Porter,"A new theory(on competitiveness) must move beyond the comparative advantage to the competitive advantage of a nation. It must explain why a nation's firms gain competitive advantage in all it's forms, not only the limited types of factor-based advantage contemplated in the theory of comparative advantage. Most theories of trade look soley at cost, treating quality and differentiated products in a footnote"[14].

COMPETITIVE POTENTIALS:

Since the determinants of competitiveness find their scope over and above the mere availability of natural resources, there is a need to study the competitive potentials that can help a country with optimal value-added to their comparative advantage of natural resources. Comparative advantage is

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14. Porter, n.1,p.20

based on having an abundance of natural resources in a country, for example oil, whereas the competitive advantage can only be based on an entreprenuer's ability to add value to the available resources, by refining the crude oil. By merely selling its natural richness, a country does not become better of in the long-term - a sale must be written off as a minus on the national balance sheet. Selling the value added (and not the resources) creates a surplus that a country can then invest in its economic development. Hence a county competitiveness is understood as a country's ability to create and sustain economic value-added in the long term relative to its competitors.

Even a country that suffers a comparative disadvantage of natural resources can overcome its limitations by rightly exploiting the other determinants of competitiveness. The *OPPORTUNITY COST* will be definitely more if a country goes for producing any product other than the one in which its factor input is in abundance. However, if the country is not trying over and above the scope of its resource availability to produce goods that would have a greater demand and higher price, the *OPPORTUNITY INCOME LOST* for not producing them is also equally high, perhaps even more. The NICs realised this fact and took advantage of other factors that improve the competitiveness in international trade which was later on theoritised as the "Product Life Cycle Theory". However competitiveness can not be sustained over a period of time, if the returns of strategies played in the short run to overcome the comparative disadvantage are effectively invested to ensure the crystallisation of competitive potentials that can sustain the competitiveness in the long-run. The 1992 World Competitiveness Report gives eight factors that can sustain the competitiveness

in the long-run:

(1) *DOMESTIC ECONOMIC STRENGTH* (macro economic evaluation of the domestic economy overall)

(2) *INTERNATIONALIZATION* (the extent to which the country participates in international trade and investment flows)

(3) *GOVERNMENT* (the extent to which government policies are conducive to competitiveness)

(4) *FINANCE* (the performance of capital markets and the quality of financial services)

(5) *INFRASTRUCTURE* (the extent to which resources and systems are adquate to serve the basic needs of business)

(6) *MANAGEMENT* (the extent to which enterprises are managed in an innovative, profitable and responsible manner)

(7) *SCIENCE AND TECHNOLOGY* (Scientific and technological capacity, together with the success of basic and applied research)

(8) *PEOPLE* (the availability and qualifications of human resources)

Accordingly, out of the fourteen newly industrialising economies - Brazil, Hongkong, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Pakistan, Singapore, South Africa, Taiwan, Thailand, and Venezuela, India is ranked as 8,14,11,11,13,11,12 and 9 in the order of the above mentioned eight factors of competitiveness. These factors of competitiveness give us a hope that these can be changed to our advantage through appropriate policy formulations. Hence it is not a providence that India has to be specializing on traditional goods in which it has a comparative advantage. In growing economies, with the possibility of an increase in disposable income, it can be safely assumed that community preferences are homothetic and similar and so India can safely produce goods for its own market and for trading partners. If we continue to specialize on traditonal goods and export them and import high value-added goods, our balance of payments will be always negative. Any increase in production will then lead to an immiserizing growth as the deterioration in terms of trade will offset the gain accruing from growth. So it is necessary that India has to work on producing goods that are value-added and competitive, synthesizing both the comparative advantage and competitve potentials. While the Heckscher-Ohlin theorem emphasises on comparative factor endowments, the competitive advantage as a theory would suggest the increase in productivity of these factors within the matrix of product selectivity and cost reduction. So the competitive advantage as a theory would synthesize both the enodowment of the H-O-S model and the productivity of Ricardo with emphasis on market demand based production rather than to allow the production decisions to be controlled by the abundance of factor availability. In this study, emphasis is made on exploiting competitive potentials that would help in producing high value-added

goods without sacrificing comparative advantages India holds. It is in this context that the trade between India and the European Community on engineering goods is to be analysed and our competitiveness in selected engineerring goods are to be probed for further improvement, differentiation and value-addition.

CHAPTER - II

INDO-EC TRADE RELATIONS AND INDIAN EXPORT PROMOTION POLICIES SINCE 1981

The European Community represents a rich man's club. The main idea behind the common market concept is to exploit the market potentials by removing the barriers that hinder trade between the member states of the community, to achieve economies of scale in production and to exercise a common external tariff thus building a fortress around them. This led to a boost in intra-EC trade which can be explained by similarity of average income levels between the member states; average country size; the existence of common borders that ensure information flows; distance between the countries and reduction in transportation costs; the level of tariffs and of trade restrictions and the familiarity with each other's products and the existence of a common language. All these gave rise to the intra-EC export share between 1981-90 from 53.2 percent to roughly over sixty percent.[1]

Naturally, in the commercial transaction, a developing country like India with inward looking trade policies in the eighties was of no attraction to the European Economic Community. In fact,"the treaty establishing the European

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1. European Economy,1993 (Belgium , 1993), p.21

Economic Community does not contain a single article on the community's commitment vis-a'-vis developing countries"[2]. "Community relations with the less developed countries are shaped primarily by the size and growth rate of the domestic market and particular national objectives rather than by a conscious process of external policy formation directed towards creating specific relationships between them and the six"[3].

Thus within the matrix of significant protectionist components such as high tariffs, quotas, aggressive use of antidumping laws, discriminatory public procurement policies, protective rules of origin and classification of sensitive and non-sensitive products,the European Community has granted Generalised System of Preferences to the developing countries in which India has become one of the beneficiaries.

GENERALIZED SYSTEM OF PREFERENCES :

The original element in the Community's general policy towards LDCs was the Common External Tariff(CET). The Generalized System of Preferences are reductions in duties under the CET in favour of manufactured and semi-finished articles from the LDCs. Obviously, basic agricultural and primary products

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2. R. Cohen, "Europe and the Developing Countries", in Ph.P. Everts, ed.,The European Community in the World : The External Relations of the Enlarged European Community (Netherlands,1972),p.109

3. Carol Cosgrove-Twitchett, "Towards a Community Development Policy" in Kenneth J.Twitchett, ed., Europe and the World : The External Relations of the Common Market (London,1976),p.172.

are not included in the GSP. The preferences are generalised in the sense that they are granted in favour of all LDCs. They are not reciprocal,as the countries which enjoy them are not required to give equivalent reductions to the community products under their own customs duties.

GSP is granted within the confines of safeguarding community producers in some sensitive products for which special tariff quotas are applied and secondly the exporting countries have to supply certificates of origin with the products to ensure that they have been manufactured in the developing country or the countries concerned. The quotas, however, have not been divided in accordance with market demand among member states, but on the basis of population, GNP, and other criteria, which do not really synchronize with potential for exports. While in some countries,therefore, quotas are inadequate, in others they remain unutilised.

The community's commitment to it's own GSP system was strengthened by the "Joint Declaration of Intent" made to commonwealth countries which were not considered eligible for association. The Declaration assured the Asian Commonwealth (Ceylon,India,Malaysia,Pakistan,Singapore) in particular, of continued access to EEC markets for products which had previously benefited from preferential access to the British market. The Indo-EC trade relations since 1981 is based on the agreement for commercial and economic cooperation signed on 23 June 1981 which came into force on 1 December 1981. The legal basis for

the treaty is covered under EEC Treaty articles 113 and 235.[4]

The treaty is concluded for a period of five years, extended automatically unless specific notice of termination is given.[5] The Economic cooperation is to cover all fields of mutual interest in order to contribute to the development of their respective economies (promotion of industrial cooperation and the transfer of technology,investment promotion, contacts between economic organizations - including SMEs, seminars etc.) The agreement also provides a firm basis for scientific and technological cooperation (Art 5). On trade, the agreement stresses the two parties' intention to promote diversification to the highest level.

SALIENT FEATURES OF THE GENERALISED SYSTEM OF PREFERENCES :

(1) Limitations on preferences for sensitive products in order to protect the community's industries.

(2) For non-sensitive products safeguard measures might be invoked if imports from a single country exceed a certain reference margin.

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4. Commission of the European Communities Directorate-General for External Relations Treaties Office, Agreements and other bilateral commitments linking the communities with the non-member countries as at 30 June 1986 (Brussels,July 1986)p.135-137.

5. ibid,p.135

(3) Rules of origin more restrictive than in the case of ACP and Mediterranean preferential trade regimes; however regional cumulation (ASEAN, ANDEAN Pact) is provided for.

(4) Duty-free entry for industrial products with some primary products being excluded; no limitations for non-sensitive products.

(5) Limitations (Product/country-specific) for sensitive products, either through the imposition of country-specific fixed duty-free amounts or through tariff ceilings.

(6) *Graduation* (ie) exclusion of preference benefits, based on objective criteria, that is related to performance of a country in the community market.

(7 Un-utilised goods returnable - if a member state does not use the quantities drawn, it shall return them as soon as possible to the corresponding fixed amount. (Council Regulation (EEC) No. 3831/90, Art.3.).

(8) Benefits revokable on political or commercial reasons.

GENERALISED SYSTEM OF PREFERENCES : UTILITY IN PROMOTING COMPETITIVENESS:

The Generalised System of Preferences have no doubt helped promoting exports to the EEC from India. Studies, ceteris paribus, have shown that export of engineering goods gained some momentum[6]. However in the case of industrial products, analysis has shown that for most sensitive or semi-sensitive categories where the quotas under the GSP are very small, very little benefit actually flows to the exporting countries. It should be noted here that an improvement in trade is not necessarily a good indicator of a country's competitiveness. In some cases, these preferences, even indirectly affect a country's industry going competitive. Being non-competitive, yet exporting because of the preferences is a major reason for developing countries not able to fulfil even the quotas prescribed.

Secondly, the sensitive goods are the ones for which India either holds a comparative advantage or a competitive advantage in producing them. So long a country is incapable of producing a good at low costs, the preferences are offered. Once it rises above its constraints, the benefits are withdrawn. This proves that the preferences are for the sick and not for the healthy and agile. So any country that works on a long term objective of growth in trade should

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6. A.Hoda, "The scheme of the EEC under the Generalised System of Preferences and India"(Paper presented at the Jawaharlal Nehru University and EEC Joint Seminar on EEC and India, New Delhi,17-19 November 1980).

look beyond the restrictive scope offered by these preferences. One might argue that these preferences are to help initial recovery which could be effectively utilised to start with. But with the limited quota, withdrawal provisions and no promising market demand, the export oriented units will be detered from goingon to expansion and sophistication and thereby achieving economies of scale. Even plants will be under utilised, leading to harmful effects in the long run.

Thirdly, the export promotion policies of India that offer benefits to exclusively export oriented units hinder them from producing similar goods for the domestic market. In India, these units are given privileges but markets are firmly denied and in Europe these units are again given privileges but markets are not guaranteed. So privileges without markets help very little in firms going competitive. The companies that do well in the domestic side without any privilege do well at abroad too, just for the reason that they have learnt to be competitive without privileges. No doubt, these companies are supported by the strong pillars of a guaranteed domestic market. This calls for the examination of India's export promotion policies and their contribution to the competitiveness .

INDIA'S EXPORT PROMOTION POLICIES : ARE THEY CONGRUENT TO COMPETITIVENESS?

It is to be understood first of all that while the EEC has an intra and extra competitive policy in trade in clearly defined terms, India has none. While the policy of Europe is to aggressively launch out, India's policy had

been more a restrictive one, in the form of the Monopoly and Restrictive Trade Practices Act (MRTP) and the Foreign Exchange Regulations Act (FERA). Indian policy makers were more concerned about the *DISTRIBUTION* side of the economy than the *PRODUCTION* side. In an aspiration towards ensuring a just and egalitarian society, the opportunity cost in not going for an aggressive launch out had been so dear.

According to the findings of VN Balasubrmanyam, and Dipak R.Basu, the domestic policies that neglected exports rather than an overall demand constraint were responsible for the stagnation of India's exports during the 1950s[7]. The Mahalanobis model concentrated on domestic transformation of savings into investment with an in-built investment allocation strategy which emphasised investments in capital goods industries as opposed to consumer good industries. In this scheme exports or the transformation of domestic savings into investment via foreign trade was largely ignored. The economic reasons underlined in this approach are in no way logically questionable, yet it can be realised that this approach had been a defensive inward - looking approach rather than an offensive export oriented approach in tune with the globalisation of competitiveness.

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7. VN Balasubramanyam and Dipak R. Basu, "India:Export Promotion Policies and Export Performance" in Chris Milner,ed., Export Promotion Strategies, (Great Britain, 1990),p.218

The reasons as stated by Balasubramanyam and Dipak Basu are :

(a) The comfortable Balance-of-Payments position and the fairly impressive performance of the export sector during the period of the First Five-Year Plan imbued a sense of complacency.

(b) India's policy makers were influenced by the prevalent thesis of export pessimism, a major theme in the development economics during the 1950s. In agreement to the Prebisch-Singer thesis that developing countries specializing in the production and exports of primary products experienced a long-run deterioration in the terms of trade.

(c) Principle of self-reliance has been equated with self-sufficiency - an attempt to be all pervasive in manufacturing rather than on focussed production according to the comparative factor advantage. A widening rather than deepening approach made India a jack of all trades and master of none, leaving the production costs high and quality, below standard.

The export incentives offered between 1962-66 also did not contribute to any impressive export promotion as the selectivity and non-uniform nature of the scheme resulted in indiscriminate export promotion with little economic

basis. The schemes were complicated and bureaucratically administered. The devaluation of the rupee in 1966 was in part an attempt at offsetting the over-valuation of the effective exchange rate for exports which the complex scheme of subsidies had begun to create. The rupee was devalued by 57.5 per cent on 6 June 1966, with the official rate for the dollar increasing from Rs. 4.76 to Rs. 7.50. The rationale behind devaluation as a measure of export promotion is questionable on the following grounds :

(a) Devaluation as a measure of export promotion considers price as the major component that determines a country's export performance. Export demand is a function of varied complex factors and price is only a determinant.

(b) The law of once price becomes an absurd concept if stretched to international comparison of prices and there is nothing like the standardized product that is viewed equally everywhere. (Isard 1987).

(c) A country can have the lowest price when compared with its competitors and yet may not have a significant share of world trade.

(d) Prices may also not convey as much information about competitiveness as costs do and goods produced by better technology and managerial skills would result in cost-savings and be more competitive.

(e) International evidence suggests that the supply elasticities of primary products are extremely low and that the external price and income elasticities are also low.

(f) Trade theorists have argued that in contrast to traditional exports which have inelastic supply and demand response, non-traditional exports can expand in volume in response to price incentives if there is excess capacity in these sectors. There is sizeable excess capacity in Indian industry and, thus, more scope for expanding exports. However, one would agree that prices may be less important in overseas markets for non-traditional exports compared with factors such as quality, durability and insurance. Currency devaluation itself may escalate cost, and lead to a loss of competitiveness for industries that use imported inputs.

(g) If a devaluation increases domestic supply through internal price response, it can depress world prices. On the other hand, if world prices are lowered due to a devaluation simultaneously by a number of developing countries, it may not lead to an increase in demand. Countries may end up selling the same quantity but at lower dollar prices.

According to a study conducted by the Export-Import Bank of India on Exchange Rates And India's Exports "Exchange Rate Policy of India 1970-92", "....the commodity specific real exchange rates have perverse coefficients negative in a number of cases indicating that the real exchange rate devaluations have not favourably affected India's commodity exports"[8]. "The only cases where

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8. Export-Import Bank Of India, Occasional Paper No. 22(Bombay,May 1993),p.39

the real devaluation of the rupee was found to have statistically significant positive elasticities were sugar, pepper, vegetables, animal oil and fats, coal, coke and briquettes, iron and steel, and watches and clocks"[9]. According to estimates of Bhagwati and Srinivasan over the contribution of devaluation and incentive schemes to the growth in exports during the later half of the 1960s and the 1970s, "in the case of iron and steel and engineering goods, devaluation-cum-subsidies did alter the export performance for the better"[10].

TRADE POLICIES IN THE EIGHTIES:

The Alexander Committee on trade policy, appointed by the ministry of commerce had suggested, back in 1978, an overhauling of India's import and export control policies, especially through delicensing of imports. The official committee on trade policy headed by Tandon came up with a package of export-promotional measures in 1982 which included subsidies and fiscal concessions to exporters. In 1984 supplementary measures were recommended by the Hussein Committee on import and export policies which reiterated the need for trade policy reforms, for achieving both improved trade balance and efficiency in resource use. Stress was laid on export promotion, import liberalisation and especially, on a greater access to free flow of technology from abraod, presumably by means of an easier access to foreign equity

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9. ibid, p.39.

10. Jagdish N. Bhagwati and T.N. Srinivasan, Foreign Trade Regimes and Economic Development : India (Delhi, 1976), p.135

participation in India. It was claimed that a freer flow of direct foreign investment would contribute towards higher exports, possibly by ushering in technological innovations in the export sector.

These policy measures contributed to two major tendencies in the export regime: first, a general move towards liberalisation of imports, entailing successive expansions in the OGL (Open General Licence) list. Second, attempts were there to link up export expansionary efforts to import liberalisation, by means of import licences exclusively granted to exporters. According to the findings of H.L. Chandhok and Policy Group as quoted by R.S.Tiwari, between the year 1980 and 1986, quantum index of export and unit values of export in India reduced from 187.74 and 222.64 to 104.72 and 161.32 respectively[11].The study also underscored the failure of Indian export to capture the expanding world market as its relative share in world exports declined over the years. Also, from 1980-81 to 1987-88 the performance of India's export, despite its best efforts, was found poor as compared to its earlier periods[12].

During this period it was found that India's export was elastic with respect to price, while in elastic with respect to income of the import-markets. This proves external demand constraint, owing to poor quality and less

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11. R.S. Tiwari, "India's Export Performance : Problems and Policy Re sponses". India Quarterly (New Delhi), vol.48(1992),p.33.
12. ibid, p.41.

value-addition. Despite these export promotion policies, our exports suffered much in comparison to the other developing countries. Our relative share of export, of the developing countries continued to be around 0.5 per cent in the eighties. Why our industries could not compete with the other developing countries in regards to price and quality? Were our industrial policies conducive to the export promotion policies? It is essential to examine the linkage between the export sector and the industrial sector, especially in regards to the engineering industry which is the subject of this study.

INDUSTRIAL POLICY SINCE 1980:

The industrial policy of the Government of India was restated by the Minister of State for Industry in July,1980[13]. The announcement exphasised the commitment of the government to rapid and balanced industrialisation of the country with a view to benefitting the common man in the shape of increasing availability of goods at fair prices, larger employment and higher per capita income. A dynamic industrial economy capable of distributing the benefits of industrialisation to maximum number of people was envisaged. The socio-economic objectives of the new policy were :

- Optimum utilisation of the installed capacity.
- Maximising production and achieving higher productivity.

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13. The summary is from,D.P. Bhatia,"Industrial Policy in India during the Eighties- An Evaluation", Quarterly Economic Report of the Indian Institute of Public Opinion (New Delhi), vol.33(1990),pp.36-38.

- Higher employment generation.
- Correction of regional imbalances through a preferential trea ment to agro-based industries, and promoting optimum inter-sectoral relationship.
- Faster promotion of export-oriented and import substitution industries.
- Promoting economic federalism with an equitable spread of invest ment and the dispersal of returns amongst widely spread-over small but growing units in rural as well as urban areas.
- Consumer protection against high prices and bad quality.

For the attainment of these objectives a reiteration of faith in public sector was considered esssential. It was at the same time stated that the private sector was to play a vital role in pursuing the goal of a vibrant, self-reliant and modern economy.

Generation of additional employment and increase in production and productivity were essential for solving the country's problems. Accordingly, it was decided to recognise additional capacities as a result of replacement and modernisation of equipment, over and above the originally endorsed capacities.

More importantly, stress was laid on the adoption of advanced technology, allocation of substantial resources for research and development, a dovetailing of industry and energy, pollution control and environmental improvement.

Then a faster growth in export oriented industries was stressed.Though it also talked of import substitution but later it was put under the carpet. Thus the seeds of export led industrialisation were sown.

POLICY INITIATIVES FOR STRENGTHENING INDIA'S ENGINEERING EXPORTS:

The policy initiatives for strengthening India's engineering exports were basically made on the broader framework of making the engineering sector competitive, cost and quality efficient. So the emphasis on these initiatives has been on industrial efficiency and technological upgradation. The major initiatives, covering broadly the industrial policy liberalization, export-import policy, foreign collaborations, development of small scale industries and product specific provisions are analysed in the following paragraphs :

INDUSTRIAL POLICY:

BROAD BANDING: Introduced in 1985-86 and later on extended to cover additional items, this scheme is aimed at facilitating optimum utilization of capacity by providing flexibility to manufacturers for adjusting their product-mix to the changing market requirements. Under it, industrial units can apply for manufacture of broad categories of items/products instead of specific ones. This scheme also facilitates a large volume of production, helping to achieve economies of scale. The MRTP/FERA companies too can avail themselves of it subject to certain conditions.

Various engineering products included under this scheme are : machine tools, motorized two-wheelers and four-wheelers, steel pipes & tubes, metallurgical machinery, earth-moving equipment, agricultural machinery, auto ancillaries, instruments for automobiles, diesel engines, aerial ropeways, marine freight containers,railway wagons and coaches, vacuum and air brakes, steel fabricated structures, offshore platforms, cranes, typewriters , electrical equipment, material handling equipment, electronics, electric wires and cables, ball bearings, textile machinery and electric fans, domestic refrigerators,deep freezers,washing machines, dish washers and vacuum cleaners.

CAPACITY ENDORSEMENT : A scheme for endorsement of capacity with regard to minimum scale of operation was introduced in 1986-87. Its basic purpose is to prevent fragmentation of capacity at uneconomic levels and thus to improve the cost effectiveness in the long run. Under this scheme, the existing units are automatically allowed to expand their capacities up to the minimum prescribed levels and the new units are sanctioned only for minimum capacity levels. Major items included in this scheme are : electronic products and components, cold and hot rolled strips, commercial vehicles, passenger cars, tractors, two-wheelers, bicycles, electric fans, refrigerators, fluorescent tubes and lamps, steel pipes and tubes and aluminium products.

.DELICENSING OF UNITS: Delicensing of units is born out of hassels of licensing and gives adequate credence to entrepreneurs' decision-making ability in respect of medium size projects. With this exemption, the policy has freed nearly two-thirds of the industrial involvement from avoidable delays and paved the way for speedier clearance of higher projects. On the production of steel, capacity for production has been expanded through modernization and replacement of equipment and also diversification of existing units is provided for. The Government further liberalized the steel licensing policy on 29 May 1990. Under the new provision, private sector has been allowed to make steel through the blast furnace route subject to a ceiling of 2.5 lakh tonnes per annum. The policy also encourages modernization of electric arc furnace subject to the use of sponge iron being produced or used to reduce the burden on foreign exchange required for import of steel melting scrap. The idea behind the streamlining of licensing policy is that in view of the modern technological requirements, the secondary steel sector should be helped to integrate both backwards and forwards so as to improve the economic viability of particularly smaller units. Subsequently, the Government has further liberalized the steel policy by allowing the private sector units to set up steel-making facilities up to one million tonne per annum based on electric arc furnace and small blast furnaces. This decision is expected to help units achieve higher production, increase energy conservation and use modern technology[13].

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13. Economic Times (New Delhi), 30 MAY 1990.

EXPORT-IMPORT POLICY:

The Exim Policy, which had been announced annually before 1985, is now valid for a 3-year term in order to sustain the momentum for modernization and technological upgradation in the industrial sector, promoting efficient import substitution and improving the quality incentives and facilitating for exports along with their administration. The three-year Exim Policy is an opportunity for an indepth examination of the existing policy provisions and for simplifying the related procedures. Import policy has been further liberalised and Open General Licence has been substantially enlarged. In fact, almost all those items which are essential for the economy and where domestic production is either non-existent or totally inadequate to meet the country's requirements are allowed to be imported under the Import Policy[14].

IPRS BENEFIT: The scheme of IPRS (International Price Reimbursement Scheme) was introduced in 1981. Its main purpose is to reimburse to exporters the difference between domestic and international prices of specific raw materials after the shipment has been made. However reimbursement is subjected to minimum levels of value addition. This condition is to encourage high value added exports.

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14. Government of India, Ministry of Commerce, Import and Export Policy 1988-1991, vol.1,p.19.

DUTY EXEMPTION SCHEME: Facilities are also available to provide necessary inputs for export production at international prices with exemption from customs duty and to import capital goods at concessional rates of customs duty. As a result of this provision, the latest technology would be available at international price and the country's interests will be taken care of by stipulated export obligation.

EXPORT PROCESSING ZONES : Besides Kandla Free Trade Zone and Santacruz Export Processing Zone, the Government of India has set up four additional EPZs, one each in Madras, Cochin, Falta and NOIDA. Another such EPZ is being established at Visakhapatnam. Further, there exists a scheme of 100 per cent Export Oriented Units. The basic objective of these schemes is to make the products internationally competitive by providing duty-free inputs to the manufacturing units. Industrial units operating under these schemes are required to export their entire production, excluding permitted level of rejects. In order to make them cost-effective, the Import Policy allows them duty-free import of capital goods, components, raw materials, spares, etc.

TECHNICAL DEVELOPMENT FUND : This Fund has been operated by the Ministry of Industry since 1976. Its basic objective is to promote technological upgradation and modernization. This Fund covers the foreign exchange requirements of the existing units for import of capital equipment, technical know-how, technical assistance, technical drawings and designs and technical consultancy services.

FOREIGN COLLABORATIONS:In order to keep pace with the rapid technological developments taking place in developed countries, foreign collaborations in regards to import of technology is permitted in high-technology areas, export-oriented industries, import substitution projects, and indigenous units aiming at upgradation of their technology. The Government lays an enormous emphasis on ensuring efficient absorption and adaptation of imported technology through adequate investment in Research and Development. Foreign investment is permitted in such areas, which require sophisticated technology or where there is a critical production gap or where it helps expand India's export potential. Such an activity also helps promote transfer of technology, critically needed for a cost-efficient and competitive growth of our economy.

SMALL SCALE INDUSTRY:

The small scale industrial sector has been assigned an important place keeping in view the potential of this sector in employment generation, dispersal of industry in rural areas and enhancement of exports. Export promotion of products manufactured in the Small Scale Sector has been given considerable attention and efforts are being made to increase this sector's share in the total exports of the country. As on 1 January 1990, the total number of items for exclusive manufacture in the small-scale sector stood at 836. Most of these items emanate from the engineering sector. With a view to helping SSI units develop and upgrade technological skills, the Government of India has

established a number of institutions under both the Central assistance and UN AID. The Small Industries Development Organization (SIDO) is the main agency involved in this task. In the past few years, SIDO has set up Process-cum-Development centres for foundry and forging industries at Agra and for household electrical appliances at Bombay. Other items for which such centres are being set up are: pumps, motors and diesel engines at Coimbatore, autoparts at Gurgaon, and miniature and auto bulbs at Dehradun.

In order to look after the development work of these organisations, the new industrial policy proposes to establish an Apex Technology Development Centre in SIDO. Other notable institutions which provide such services are: Central Institute of Tool Design(CITD), Hyderabad; Central Institute of Hand Tools, Jalandhar; Institute for Design of Electrical Measuring Instruments (IDEMI), Bombay; and Bicycle Research & Development Centre, Ludhiana. Set up with assistance from international agencies, these centres provide consultancy services to engineering units on processes of production, standardization of product development, design,etc. They also provide training facilities to workers and supervisory staff. The Modernization Programme envisages upgradation of obsolete technology through identification of the inputs needed by small-scale industries in rural, urban and backward areas, and helps them obtain optimum inputs from various organizations. Its main objectives are : improvement in production technology, product development and design, testing and quality control, selection of proper machinery and raw materials and application of improved management technology.

All these policy measures were initiated in the early eighties and later on revised and upgraded from time to time. Despite all these, the share of India's engineering exports in world engineering exports in the eighties was a negligible 0.13 per cent. Also it should be noted here that the share of Engineering exports in the production of Engineering Industry has been declining since 1981-82. In 1981-82, 4.3 % of the production of enginering industry was exported, whereas in 1987-88, the percentage exported had come down to 2.8 %. In the light of these, the following chapter studies in detail, the Indian engineering goods export to the European Community in the eighties.

CHAPTER-III

INDIA'S EXPORT PERFORMANCE IN THE EXTRA-EC ENGINEERING IMPORTS

In this chapter the export performance of India in engineering goods to the EC market from 1981-1991 is analysed.The community's import data for engineering goods are taken from the Eurostats at 2-digit Nimexe code upto 1986 and from 1987 onwards, according to the 2-digit Harmonized Commodity Description and Coding System. However, there is no conspicuous change between the two codes in terms of commodity description for engineering goods. So for this study, the 2-digit Nimexe code and the commodity description are taken granted.

The nomenclature for engineering goods according to the 2-digit Nimexe code are as given below:

Nimexe	Nomenclature
BASE METALS AND ARTICLES OF BASE METAL	
73	Iron and steel and articles thereof
74	Copper and articles thereof
75	Nickel and articles thereof

Nimexe	Nomenclature
76	Aluminium and articles thereof
77	Magnesium and beryllium and articles thereof
78	Lead and articles thereof
79	Zinc and articles thereof
80	Tin and articles thereof
81	Other base metals employed in metallurgy and articlesthereof
82	Tools, implements, cutlery, spoons and forks, of base metal; parts thereof
83	Miscellaneous articles of base metal

MACHINERY AND APPLIANCES:MECHANICAL AND ELECTRICAL

84	Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof
85	Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles

VEHICLES, AIRCRAFT, VESSELS AND ASSOCIATED TRANSPORT EQUIPMENT

Nimexe	Nomenclature
86	Railway or tramway locomotives, rolling-stock and parts thereof; railway or tramway track fixtures and parts thereof; mechanical (including electro-mechanical)traffic signalling equipment of all kinds
87	Vehicles other than railway or tramway rolling-stock, and parts and accessories thereof
88	Aircraft, spacecraft, and parts thereof
89	Ships, boats and floating structures

OPTICAL AND PRECISION INSTRUMENTS

90	Optical, photographic, cinematographic, measuring, checking, precision medical or surgical instruments and apparatus; parts and accessories thereof
91	Clocks and watches and parts thereof
92	Musical instruments; parts and accessories of such articles

ARMS AND AMMUNITION : PARTS AND ACCESSORIES THEREOF

93	Arms and ammunition; parts and accessories thereof

TABLE - 3.1

INDIAN ENGINEERING EXPORTS TO THE EC FROM 1981-1991

(Qty in tonnes)

Nimexe	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
73-83	17872	19095	11714	18370	21973	15117	25461	39943	120990	166066	53753
84	3309	3126	2439	3265	4392	3682	3748	5945	6091	8064	8956
85	768	889	841	888	1364	1479	1649	1937	2274	2805	4625
86	NIL	NIL	NIL	NIL	NIL	134	193	397	1208	36	43
87	2063	1791	1791	2770	3952	2935	4249	6454	7649	9846	14859
88	3	2	3	2	4	6	11	15	95	64	289
89	32	NIL	53	2765	NIL	1	NIL	9	229	8	NIL
90	193	243	172	189	196	231	284	322	295	413	420
91	22	NIL	4	NIL	3	NIL	NIL	2	4	9	5
92	119	121	110	135	105	112	117	99	122	113	116
93	68	65	48	37	32	28	27	20	24	44	94

Source : Eurostat

TABLE - 3.2

PERCENTAGE OF ENGINEERING GOODS IN INDIA'S TOTAL EXPORTS TO EC

Year	Total exports to EC(in tonnes)	Total Engg. Exports to EC(in tonnes)	Percentage of Engg. goods in total exports
1981	1499933	24449	1.6
1982	3569746	25332	0.7
1983	2578492	17175	0.66
1984	3458285	28421	0.82
1985	3160651	32021	1.0
1986	2889703	23725	0.82
1987	2767035	35759	1.3
1989	4834851	138981	2.87
1990	5293040	187468	3.54
1991	4989406	83160	1.66

. Tables 3.1 and 3.2 indicate the quantity of Indian Engineering exports to the EC market. The commodity composition of engineering goods in the total exports is negligible. The average share of engineering goods in India's total exports

in 1981-91 is just 1.5 per centage. Out of the total engineering exports, base metals and articles made of base metals occupy a maximum share(in quantity terms) of 72.48 per cent, followed by mechanical machineries and appliances (11.04%); road transport equipments (10.2%) and electrical appliances(3.8%) between the years 1981 and 1991. Rest of the engineering exports experienced a dismal performance.The general increase in imports from India can be ascribed to the general increase in demand every year and not to any specific demand for Indian engineering goods. The proportionate decrease in exporting value added goods in comparison with the basic goods indicates the lack of competitiveness of Indian engineering goods in the European Community market. However, the inferences drawn above will be complete only when products are analysed in their value-terms.

While engineering goods cover a share of 1.5 per cent in quantity terms out of total Indian exports to the European Community (Table-3.1), in value-terms, they occupy 6.7 per cent out of the total earnings from Indian exports to the community (Table-3.4). However out of the 99 product categories exported at 2-digit Nimexe code, the engineering goods that cover a total of 21 products,i.e., approximately one-fifth of the total number of products exported gets a return of only one-fifteenth of the total export earnings. This is mainly because of the sale of less value-added goods like the basic metals which occupy 72.8% of the total quantity of engineering goods exported, as mentioned earlier. Table-3.5 gives a comparative data on the percentage of product categories exported in quantity and their percentage in value-terms and the unit value of goods exported between the years 1981 and 1991.

TABLE - 3.3

INDIAN ENGINEERING EXPORTS TO THE EC FROM 1981-91

(value in 1000 ECUs)

Nimexe	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
73-83	62148	55305	50639	60968	62258	52664	72050	103516	180702	163957	151542
84	27155	32056	24894	42488	44194	45504	50827	62909	82678	95302	101604
85	8553	11328	10773	13314	12141	12456	13703	21705	28597	37277	85128
86	NIL	NIL	NIL	NIL	NIL	138	143	276	1177	188	125
87	6039	6242	6839	9250	11834	12118	11487	16022	22480	27856	43956
88	337	328	727	541	1590	1338	3528	4123	11911	9988	56863
89	175	NIL	116	10441	NIL	1301	NIL	2678	45	171	NIL
90	9829	19390	11318	10370	9639	12303	11769	18731	27123	39919	46114
91	223	NIL	150	NIL	132	NIL	NIL	41	92	470	435
92	1867	2041	2534	2520	2071	1370	1311	862	1324	1390	1323
93	334	299	233	410	434	324	249	342	426	318	470

Source : Eurostat

TABLE - 3.4

PERCENTAGE VALUE OF ENGINEERING GOODS IN INDIA'S TOTAL EXPORTS TO EC

Year	Total exports to EC(in 1000 ECUs)	Total Engg. Exports to EC(in 1000 ECUs)	Percentage of Engg. goods in total exports
1981	1880013	116660	6.2
1982	2571749	126989	4.9
1983	2195639	114773	5.23
1984	2905352	150302	5.17
1985	2672323	144293	5.39
1986	2395065	139516	5.8
1987	2761651	165067	5.97
1988	3181848	231205	7.26
1989	4102163	356555	8.69
1990	4540887	376836	8.3
1991	4756478	487560	10.25

TABLE-3.5

AVERAGE PERCENTAGE OF PRODUCTS EXPORTED AMONG THE ENGINEERING GOODS IN QUANTITY AND VALUE TERMS AND THEIR UNIT VALUES BETWEEN 1981 AND 1991

Nimexe code	Percentage of Products exported(Quantity)	Percentage of Products exported(Value)	Average unit value* of the products(ECUs)
73-83	72.48	43.25	2800
84	11.04	23.33	11360
85	3.8	9.55	11800
86	0.25	0.11	1900
87	10.2	6.88	3060
88	0.05	2.22	225750
89	0.94	0.94	6600**
90	0.67	9.0	68340
91	0.01	0.06	39190
92	0.26	1.06	14600
93	0.13	0.19	9700

*One unit is taken as 1000 Kg.

**Except for the years 1986 and 1988.

Table-3.5 supports the argument given above. While base metals and articles thereof cover 72.48 per cent of the total engineering exports in quantity terms, they bring only 43.25 per cent of the earnings from total engineering exports. The unit value of these goods had been low, sold at a rate of 2.8 ECUs per Kg. India's performance in mechanical goods and appliances had been comparatively better than the other engineering goods, showing consistency all through the years with an average of 11.04 per cent of the total engineering exports and bringing a value return of 23.33 per cent. However, the competitiveness of the product can be confirmed only when it is compared with the performance of other countries, which will be done later. Rail transport equipment is the one that shows adverse performance with no sale upto 1985 and whatever sold later had an unit value of only 1900 ECUs. Road transport indicates a moderate performance with 10.2 per cent of the total quantity exported but its unit value had been only 3060 ECUs, bringing a return of only 6.88 per cent of the total value. Aircraft accessories were sold at a higher unit value consistently at an average rate of 225750 ECUs but the quantity exported being very low (0.05 per cent of the total), the returns had been only 2.22 per cent of the total. Water transport equipment experienced a poor performance both in quantity and value terms. However in the year 1986, one unit was sold at 13,01000 ECUs and in 1988, 9 units sold at a rate of 2,97500 ECUs which are not taken into account in finding the average unit value as these appear to be abnormal peak values of exceptional character which would disturb the average. Surgical, medical and other precision instruments show a consistent performance in unit values as well as in their share in the total returns.

TABLE-3.6

INDIAN ENGINEERING EXPORTS AS A PERCENTAGE OF TOTAL EXTRA-EC ENGINEERING IMPORTS

Year	Imports from India (1000 ECUs)	Extra-EC Imports (1000 ECUs)	India/Extra-EC %
1981	116660	69625871	0.17
1982	126989	76024750	0.17
1983	114773	84806458	0.135
1984	150302	102572080	0.146
1985	144293	114188670	0.126
1986	139516	110950590	0.125
1987	165067	118072490	0.14
1988	231205	147710400	0.156
1989	356555	175819690	0.2
1990	376836	179546560	0.21
1991	487560	197555890	0.25

Having analysed the performance of engineering goods among the total Indian exports to the European Community and the performance of product

categories in the total engineering exports of India to the community, the study will be complete when the performance of engineering goods as a whole and different product categories among the engineering goods are compared with the Extra-EC import of engineering goods and with the performance of selected class-2 developing countries that export the same products to the community. It will help us to analyse the market gain or loss accrued to different product categories and to know the trends that will found base for competitiveness in the future.

Table-3.6 helps us to know the negligible performance of Indian engineering goods in comparison with the total extra-EC engineering imports. The average value of Indian engineering exports to that of the extra-EC imports between the years 1981-1991, mentioned in per centage is only 0.16. While the value of extra-EC imports increased 2.8 times in 1991 to that of 1981, the value of imports from India indicates a 4.2 times increase. However, this result can misguide us if the absolute money (value) differences are not taken into account. In 1981, the absolute value difference between India's total engineering exports to the community and that of extra-EC engineering imports was 68509211 ECUs and in 1991, it was 197068330 ECUs. On this account, the result remains constant to 2.8 times and there is no indication of any increase in money return in absolute terms and thereby any improvement in competitiveness. However, there is a possibility that individual products may have gained some demand in quantity and value terms as the increase in India/ Extra-EC import value per centage indicates. This will be analysed in the following Table-3.7 for different product categories for each year between 1981 and 1991.

TABLE-3.7

PERCENTAGE RETURNS GAINED/LOST IN COMPARISON WITH EXTRA-EC IMPORTS BY DIFFERENT INDIAN PRODUCT CATEGORIES

Nimexe	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
73-83	0.42	0.33	0.29	0.29	0.28	0.26	0.37	0.4	0.55	0.55	0.51
84	0.14	0.14	0.1	0.13	0.12	0.13	0.13	0.13	0.15	0.17	0.16
85	0.08	0.1	0.08	0.08	0.06	0.06	0.06	0.07	0.07	0.09	0.19
86	0	0	0	0	0	0.08	0.06	0.14	0.59	0.07	0.03
87	0.07	0.06	0.06	0.07	0.08	0.09	0.08	0.1	0.12	0.14	0.18
88	0.01	0.02	0.04	0.02	0.05	0.04	0.11	0.06	0.11	0.09	0.38
89	0.01	0	0.01	0.67	0	0.09	0	0.04	0.003	0.008	0
90	0.16	0.3	0.15	0.12	0.09	0.12	0.11	0.15	0.19	0.28	0.29
91	0.02	0	0.01	0	0.01	0	0	0.002	0.004	0.02	0.02
92	0.06	0.06	0.06	0.06	0.05	0.03	0.02	0.14	0.2	0.21	0.2
93	0.4	0.3	0.24	0.4	0.46	0.37	0.28	0.29	0.28	0.15	0.23

Table-3.7 indicates an overall consistent performance by different product categories all through the years between 1981 and 1991. Intermittent swings can be attributed to overall demand pattern of the community, a negligible per

centage increase in the quantity and therefore the returns from the demand to India. There is no conspicuous upswing in the returns, even if the overall rise in the quantity exported from India between the years 1988-1991 is taken into account, for the reason that the average unit value of the product categories continued to remain low except for the electrical equipment and parts thereof(code:85), surgical,medical and other precision instruments (code:90) and musical instruments(code:92). Base metals and articles thereof indicate a noticeable proportion of return for the quantity sold had been high enough to offset their unit values.

Thus we have seen that the export performance of Indian engineering goods in the European Community market between the years 1981-1991 had been neither quantitatively nor qualitatively competitive. The consistent performance over the years helps us to conclude that the export performance was not affected by the policy changes in India. The light fluctuations can be more ascribed to the market demand conditions in the community and not to the export promotion measures taken in India. No policy measures can help in promoting exports unless the product categories are export-worth in regards to their quality, the other incentive packages attached to it and ofcourse, the price. While Indian products remained uncompetitive in the Community market, the other developing countries, especially from the far east have made quantum leap in their competitiveness and market penetration (Details in chapter-4). In what are the products we have lost our competitiveness and in what products those competing countries have specialised to ensure a greater market penetration are the subjects of study in the following chapter.

CHAPTER - IV

INDIA'S EXPORT COMPETITIVENESS: PERFORMANCE AMONG THE NEWLY INDUSTRIALIZING COUNTRIES OF ASIA

In the previous chapter, we have seen the export performance of Indian engineering goods in the European community market in comparison to the extra-EC imports and also the performance of different product categories among the total engineering goods. This chapter is divided into three parts. In the first part, the export performance of Indian engineering goods is compared with selected developing countries of Asia - China, Hongkong, Malaysia, Singapore, South Korea, Taiwan, and Thailand. In the second part, commodity specialization for exports of these countries are compared with that of India. In the third part, the demand pattern of the European Community is analysed to find whether Indian export pattern is in congruence with the Community's demand pattern.

While the extra-EC imports imply imports from both the developed countries and the developing, to find India's performance in the context of the developing economies, it is essential to compare it with some selected Asian countries.

TABLE - 4.1

EXTRA-EC SHARE OF TOTAL ENGINEERING EXPORTS OF SELECTED ASIAN DEVELOPING COUNTRIES FROM 1981 TO 1991

Country	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
China	0.17	0.19	0.2	0.2	0.2	0.26	0.5	0.8	1.0	1.3	1.7
Hong Kong	1.5	1.3	1.3	1.5	1.2	1.5	1.7	1.7	1.4	1.3	1.2
Malaysia	0.5	0.53	0.53	0.7	0.7	0.6	0.5	0.5	0.6	0.7	1.0
Singapore	0.98	1.0	1.1	1.2	1.1	1.2	1.3	1.5	1.7	2.1	2.1
S.Korea	0.69	0.58	1.2	0.8	1.0	1.7	2.4	2.4	2.0	1.8	2.1
Taiwan	1.05	1.1	1.2	1.5	1.4	1.8	2.8	3.0	3.1	3.2	3.5
Thailand	0.25	0.18	0.12	0.1	0.12	0.1	0.12	0.22	0.3	0.4	0.5
India	**0.17**	**0.17**	**0.14**	**0.15**	**0.13**	**0.13**	**0.14**	**0.16**	**0.2**	**0.2**	**0.25**

TABLE - 4.2

AVERAGE SHARE OF SELECTED ASIAN DEVELOPING COUNTRIES IN EXTRA-EC IMPORTS OF ENGINEERING GOODS FROM 1981 TO 1991 (IN PERCENTAGE)

country	Average share in percentage	Average growth percentage
Taiwan	2.2	0.4
South Korea	1.5	1.2
Hongkong	1.42	-0.05
Singapore	1.4	0.43
China	0.6	2.5
Malaysia	0.6	0.2
Thailand	0.22	-0.12
India	**0.17**	**0**

From the above two tables it can be understood that the export performance of India in the extra-EC engineering imports from the above selected developing countries of Asia is comparatively the lowest. Taiwan indicates a steady increase in the value of goods exported with an average share of 2.2 percent of the total extra-EC imports of engineering goods and an average growth percent of 0.4 from the base year 1981. South Korea records a share of 1.5 percent

between 1981 and 1991 with an average growth percent 1.2 from 1981.The data for Hongkong indicates an average share of 1.41, however there is a negative growth at an average of 0.05 percent from the year 1981 is recorded except for the years 1987 and 1988 in which the share increased from the share of initial year 1981. Singapore held an average share of 1.4 percent of the extra-EC imports of engineering goods with an average growth of 0.43 percent from the year 1981. China's share, though only 0.6 percent of the total extra-EC imports, it records a steady growth of 2.5 per cent from the year 1981. Comparing to China, Malaysia also holds an average percentage share of 0.6, but its growth rate has been slow to that of only 0.2 percent when counted from the base year 1981. Thailand held a share of 0.22 per cent but an average decline in share has been recorded at a rate of 0.12 per cent between the years 1981 and 1991. India is only above Pakistan. India's share hasbeen only 0.17 per cent and between the years 1981 and 1991, it's growth in share per cent has been offset by the decline in some years, resulting in nil growth. Between the years 1986 and 1991, there is an increase in the share of every country mentioned above, with China, Taiwan and South Korea being the major gainers.

While the other developing countries have made steady gains, the performance of India continuing to remain constant indicates that the exports of engineering goods operate within a narrow product range, confirming the steady rise in the export quantity of base metals and articles thereof which command less price in the market as it was seen in Chapter-3. In the following paragraph and Table No.4.3, the share changes have been analysed for

the different product categories in comparison with the above selected Asian developing countries. (Country-specific exports of engineering goods for these countries from 1981 to 1991 are given productwise in Appendix)

TABLE-4.3

INDIA'S PERCENTAGE SHARE OF DIFFERENT PRODUCT CATEGORIES IN COMPARISON WITH SELECTED ASIAN DEVELOPING COUNTRIES SINCE 1981

Nimexe	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
73-83	8.2	7.4	6.9	6.8	5.92	5.73	5.7	6.66	9.56	9.27	7.15
84	7.56	7.4	3.8	2.7	2.5	2.13	1.7	1.4	1.5	1.55	1.35
85	0.48	0.57	0.5	0.48	0.42	0.39	0.3	0.3	0.35	0.4	0.8
86	0	0	0	0	0	1.02	0.73	5.9	22.3	6.08	1.8
87	9.6	7.1	5.94	7.4	11.11	7.12	4.38	4.87	3.9	3.56	3.57
88	3.83	5.7	27.6	28	22.2	2.78	46.15	21	27.5	23	52.6
89	0.29	0	0.03	12.4	0	0.74	0	0.96	0.02	0.08	0
90	5.1	10.1	5.4	4.07	3.14	3.43	2.35	2.65	3.13	4.44	3.85
91	0.06	0	0.05	0	0.04	0	0	0.006	0.01	0.07	0.05
92	0.87	1.06	1.08	0.97	0.77	0.29	0.16	0.7	0.98	0.96	0.82
93	23	14.85	16.24	19.64	48.5	26.87	14.22	10.5	15.31	10.4	9.91

India's share among the selected developing countries that export engineering goods indicates a mixed trend, with intermittent swings in most of the cases. Even among the developing countries, India continues to hold a steady share in exporting base metals and articles thereof. The decline in the share of these base metals between the years 1982 and 1987 in proportionate to the total trade is in no way an indication of decrease in exporting less value added goods and therefore increase in competitiveness. This period indicates a general decline in extra-EC imports of base metals and articles thereof. From the year 1988 onwards, there is a steady increase in the extra-EC imports on this particular product category and India too has increased its relative share. In the product category of mechanical appliances and parts thereof, India's share had been good in the beginning of the period under this study and from 1983 onwards a gradual decline is witnessed. Electrical machinery and parts indicate a marginal growth but from a very low base value of 0.48 percent and with an intermittent decline between the years 1986 and 1988. In road transport equipment and parts thereof, India held comparatively a better share from the year 1981 to 1986 and from then on, the share has been declining. In the product category, air transport equipment and parts thereof, India's share has been increasing in comparison to the other countries, but the total quantity in this product category imported from the developing countries as a whole by the community has been very low and it deprives India of any notable competitive position. In the category of medical, surgical and other precision equipments, India's share has been moderate but declining in absolute money terms, as the traded goods inthis category being less. India's share has

TABLE-4.4

PRODUCTWISE SHARE OF TOTAL ENGINEERING EXPORTS TO THE COMMUNITY MARKET BETWEEN 1981 AND 1991 FROM SELECTED ASIAN DEVELOPING COUNTRIES (IN PERCENTAGE)

Nimexe	China	H'kong	Malaysia	Singapore	S.Korea	Taiwan	Thailand	**India**
73-83	19.2	9.5	8.7	4.9	16.5	27.8	5.8	**7.5**
84	3.6	12.7	1.9	24.4	13.9	39.4	2.3	**1.8**
85	8.6	14.0	11.9	19.7	20.4	22.2	2.7	**0.5**
86	3.7	2.44	0.55	0.8	89.3	1.2	0.13	**1.9**
87	9.9	0.78	6.0	2.8	24.6	56.9	2.2	**4.5**
88	4.2	3.4	7.6	25.7	11.1	13.8	3.07	**30.7**
89	4.5	5.7	0.12	13.0	65.9	10.2	0.03	**0.64**
90	7.8	29.1	9.1	9.6	13.2	24.3	3.07	**3.8**
91	13.2	70.4	0.93	1.7	4.6	7.5	1.6	**0.03**
92	5.08	19.6	1.09	7.6	44.8	20.8	0.32	**0.6**
93	48.9	0.89	1.3	1.88	10.04	20.6	0.82	**15.6**

TABLE-4.5

INDIA'S RANK AMONG SELECTED ASIAN DEVELOPING COUNTRIES IN THE EXPORT OF DIFFERENT ENGINEERING PRODUCT CATEGORIES BETWEEN 1981 AND 1991

Nimexe	India's Rank
73-83	VI
84	VIII
85	VIII
86	IV
87	V
88	I
89	VI
90	VII
91	VIII
92	VII
93	III

been very poor in water transport,watches and clocks,and recording and reproducing product categories in comparison with other developing countries under study in this chapter.

Upon analysing the share of Indian engineering exports on different product categories among selected developing economies between the years 1981 and 1991, India's ranking on these product categories, exported in total between the years 1981 and 1991 can be deduced from tables 4.4 & 4.5.

Among the eight developing countries analysed for their export of engineering products to the European Community market for different product categories, India stands first in the total value of goods exported between the years 1981 and 1991 for the product category, air transport equipment and parts (Nimexe Code : 88). However the total sale in this product in value terms in the period under study has been 91274000 ECUs only, which is less than the one year sale of mechanical appliances in the year 1990 or 1991. Interestingly enough, on this product category, mechanical appliances and parts thereof, a single year sale of which exceeds the total sale of air transport equipments, India holds the last rank among the eight developing countries under this study. This is a clear proof that the product category in which India ranks first lacks demand. So is the case with product category,arms and ammunitions (Code 93) in which India ranks third. Mechanical and Electrical appliances,the two product categories for which the demand is higher than all other products, Taiwan, Singapore and South Korea rule the roost. In rail transport equipment,though South Korea holds the first place, the total demand from all these countries being very low, will hold no attraction for the supply side. India is fourth in this product category. In road transport equipment and parts thereof, India started off very well, next only to Taiwan but later on gave way to tough competitors, having pushed down to the fifth position. In water transport equipment and parts thereof, South Korea stands first with 65.9 per cent of the total share and India stands sixth, with a large gap in total sale in absolute value terms.In medical, surgical and other precision equipments, despite India's performance being moderate, the position is only the seventh, because of tough competition. In clocks and watches, Hongkong is the leader,

holding 70.43 per cent of the totalshare and India holds the last position. So is the case with the recording andreproducing equipments in which South Korea, Taiwan and Hongkong hold the top three positions respectively.

The ranking of the above selected developing countries' performance in the total exports of engineering goods can possibly mislead us in analysing the competitiveness because of the high values of exports that are recorded in a single year while the other years on the same product groups record a very low performance. So there is a need to study the trends in product specialization over the years between 1981 and 1991 to check consistency and growth. It will also help us to analyse whether India has specialised in high value-added products which command a greater demand by the European Community fromthe selected developing countries . Tables4. 6 & 4. 7 give the results of the calculations[1] of the trends in product specialization in highvalue added goods, by reference to each country's relative performance intotal trade in engineering goods with the European Community.

1.The index of specialization is calculated as follows : (This formula taken from Brendan Cardiff,"Innovation and trade in high-technology products",European Economy,No.16, July 1983 is modified to the requirement of this particular study.)

$$\frac{X_{ij}/\Sigma x_j}{X_i/\Sigma x}$$

in which X_{ij} = exports of product 'j' by country 'i'; Σx_j= total exports of product 'j' by selected developing countries; X_i = total exports of engineering goods by country 'i' and Σx = total exports of engineering goods by the selected developing countries.

TABLE-4.6

TRENDS IN PRODUCT SPECIALIZATION OF SELECTED ASIAN DEVELOPING COUNTRIES IN THE CONTEXT OF EXPORTS TO THE COMMUNITY MARKET

Nimexe	year	China	H'kong	Malaysia	S'Pore	S.Korea	Taiwan	Thailand	India
73-83	1981	3.2	0.47	1.39	0.2	0.93	0.88	4.5	2.6
	1986	4.09	0.57	1.39	0.4	0.9	0.99	2.96	3.27
	1991	2.01	0.52	0.55	0.18	0.96	1.19	0.68	3.56
84	1981	1.07	0.65	0.57	1.42	0.37	1.7	0.07	2.4
	1986	0.38	0.86	0.19	1.34	0.85	1.4	0.44	1.22
	1991	0.43	0.84	0.24	1.56	0.67	1.4	0.9	0.67
85	1981	0.11	0.87	1.2	1.41	0.95	1.24	0.09	0.15
	1986	0.47	0.86	1.8	0.87	0.89	0.98	1.04	0.22
	1991	1.15	0.88	1.72	1.01	1.19	0.66	1.21	0.4
86	1981	0	0	0	0	7.7	0	0	0
	1986	0.91	0.12	0	0	3.97	0.07	0	0.58
	1991	1.13	0.37	0.05	0.61	3.75	0.14	0.4	0.9
87	1981	0.81	0.06	0.14	0.07	2.43	2.59	0.21	3.04
	1986	0.66	0.07	0.06	0.16	2.5	1.1	0.22	4.06
	1991	1.07	0.04	0.93	0.18	1.09	1.73	0.78	1.78

TABLE-4.6 contd.....

Nimexe	year	China	H'kong	Malaysia	S'Pore	S.Korea	Taiwan	Thailand	India
88	1981	0	0.11	6.3	1.65	0.16	0	0	1.25
	1986	0.1	0.06	0.1	5.62	0.16	0.01	0.19	1.59
	1991	0.35	0.07	0.21	0.4	0.51	0.8	0.49	29.22
89	1981	0	1.27	0	1.57	0.88	1.2	0	0.1
	1986	0.93	0.02	0	0.81	3.4	0.18	0	0.42
	1991	0.28	0.13	0.04	0.64	4.52	0.29	0.01	0
90	1981	1.19	1.14	1.03	1.1	0.84	0.86	0.23	1.62
	1986	1.04	1.5	1.2	0.53	0.83	0.89	1.24	1.96
	1991	1.02	2.23	1.3	0.61	0.63	0.83	1.27	1.92
91	1981	0.6	2.86	0.08	0.17	0.42	0.41	0.03	0.02
	1986	2.04	3.9	0.04	0.05	0.22	0.2	0.9	0
	1991	1.83	5.59	0.28	0.15	0.17	0.33	0.6	0.03
92	1981	0.78	1.00	0.06	0.6	2.9	0.98	0.02	0.28
	1986	0.65	1.14	0.11	0.52	2.07	0.67	0.09	0.16
	1991	1.59	0.18	0.04	0.02	2.4	1.18	0.26	0.41
93	1981	23.96	0	0	0	0	0	0	7.3
	1986	9.2	0	0	0	0	1.55	0	15.33
	1991	4.15	0.04	0.38	0.04	0.46	0.75	0.03	4.94

TABLE-4.7

OVERALL INDEX OF PRODUCT SPECIALIZATION OF SELECTED ASIAN DEVELOPING COUNTRIES BETWEEN 1981 AND 1991

Nimexe	China	H'kong	Malaysia	S'Pore	S.Korea	Taiwan	Thailand	**India**
73-83	2.27	0.6	1.17	0.29	0.88	1.01	2.1	**3.8**
84	0.42	0.8	0.25	1.43	0.74	1.43	0.84	**0.93**
85	1.02	0.88	1.6	1.15	1.09	0.81	0.97	**0.24**
86	0.44	0.15	0.07	0.05	4.75	0.04	0.05	**0.97**
87	1.17	0.05	0.8	0.17	1.3	1.78	0.79	**2.3**
88	0.5	0.21	1.02	1.51	0.59	0.51	1.11	**15.7**
89	0.53	0.36	0.02	0.76	3.51	0.37	0.01	**0.33**
90	0.92	1.83	1.22	0.56	0.7	0.88	1.1	**1.94**
91	1.57	4.4	0.13	0.1	0.25	0.27	0.57	**0.01**
92	0.6	1.23	0.15	0.45	2.4	0.76	0.12	**0.31**
93	5.79	0.06	0.18	0.11	0.53	0.75	0.29	**7.93**

The following deductions are made from Tables 4.6 and 4.7 :

(1) Countries that indicate an increase in specialization in product category, base metal and articles thereof for which there is a consistent demand in the European Community market but less price are India and Taiwan. China and Thailand have reduced the specialization in this category and rest of the countries indicate constancy in proportionate to their total engineering exports.

(2) The product categories mechanical and electrical appliances and parts thereof for which there is a greater value as well as demand in the Community market exist are specialized by almost all countries, indicating a tight competition. In the mechanical appliances, China, Malaysia and India have experienced a decline in competitiveness, whereas Hongkong, Singapore, Taiwan and Thailand have increased their market share. South Korea indicates a consistent performance in this product group. In the electrical appliances, China, Malaysia, South Korea, Thailand and India have increased their market share through specialization while Singapore and Taiwan indicate a decrease in specialization and Hongkong indicating a consistent performance.

(3) In the road tranport equipment and parts thereof for which there is a moderate demand and value, Malaysia, Singapore and Thailand have increased their specialization while South Korea, Taiwan and India indicate a decrease in specialization towards competitiveness. A consistent performance comes from China and Hongkong.

(4) The medical, surgical and other precision instruments and parts thereof that hold a higher value and moderate demand is another product category in which there is a close competition from these selected developing economies. There is an indication of increase in trend towards specialization from Hongkong, Malaysia and Thailand and consistent trend from China, Taiwan and India. Singapore and South Korea witnessed a decline in specialization.

(5) The product categories, clocks, watches and parts, Rail, water and air transport equipments and parts thereof and arms and ammunitions and parts thereof are mainly shared by a single exporter or two in which the clocks and watches have a moderate demand and price. Hongkong specialises on clocks and watches, South Korea specializes on Rail and water transport equipments, India in air transport equipments, and arms and ammunitions are mainly shared by China and India.

From the above analysis, it can be understood that India has been attaining comparative specialization on exports of product categories which have either low value or lesser demand. The products for which the competition is high, India's performance is poor. The following table No. 4.8 examines the importpenetration of the EC market by different product categories to understand the trends in demand conditions existed in the market for the period under study.

TABLE - 4.8

IMPORT PENETRATION OF THE EC MARKET

(extra-EC imports as a percentage of apparent consumption)*

Product category	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Metals	19.5	20.4	22.1	21.6	21.8	21.4	21.5	25.5	23.8	23.3	24.8
Articles of metals	4.3	4.4	4.4	4.7	4.7	4.7	4.9	5.3	5.6	5.6	6.2
Mechanical goods	14.3	14.3	13.9	14.8	16.5	16.1	16.8	17.2	17.8	18.1	19.0
Electrical goods	15.9	15.9	16.4	18.4	18.7	17.6	18.0	19.2	20.2	19.9	20.9
Motor vehicles&Parts	8.1	8.3	9.4	10.9	11.2	11.4	11.0	11.1	11.3	11.6	13.1
Other transports	27.2	27.5	27.8	31.2	24.0	19.3	20.5	31.5	33.3	33.8	38.4
Instrument engg.	35.0	35.6	38.2	42.0	40.7	39.5	38.7	39.4	42.4	41.7	42.7

* Gross out put plus total imports minus total exports.

Source:Eurostat

TABLE - 4.9

ANNUAL AVERAGE GROWTH RATES OF COMMUNITY IMPORTS OF HIGH-TECH PRODUCTS FROM SELECTED TRADE PARTNERS,1981-90,

IN VALUE TERMS (IN PERCENTAGE)

Period	Extra-EC	USA	Japan	EFTA	MC*
1982-86	11.2	8.3	19.4	15.3	20.3
1986-90	11.7	10.1	9.2	9.2	21.0
1982-90	11.4	9.2	14.2	12.2	20.6

* MC15= most competitive developing countries. The group includes Argentina, Brazil ,Hong Kong, India, Indonesia, Israel, Macau, Malaysia, Mexico,Philippines, Singapore, South Korea, Taiwan,Thailand and former Yugoslavia

Source : Eurostat

Tables 4.8 and 4.9 indicate the demand conditions of different product groups and the growth rate in import of high-tech products from developing countries. There is a consistent growth in the consumption of high value added goods and there is an indication of growing trend in import of high tech products from developing countries. These indicate the necessity to specialize on high-value added goods to be competitive as the demand conditions existing in the European

market is favourable enough to produce and export them. Upon analysing exhaustively the performance of Indian exports of engineering goods in the EC market both in quantity and value terms and in different product categories in comparison to Extra-EC imports in general and developing economies in particular, over and above the inferences drawn in chapters 3 and 4,in the following chapter some general conclusions are drawn and specific product categories are identified to improve the competitive advantage over and above the comparative advantage within the limits of demand conditions existing in the Community.

CHAPTER - V

CONCLUSIONS

In chapter - 1, the need to look beyond comparative advantage in producing and exporting goods was emphasized. Kravis made a distinction between "un-availability" due to scarce natural resources and due to innovation. The performance of a few selected developing countries analysed in chapter- 4 indicates that the comparative disadvantage due to unavailability of natural resources was overcome by competitive advantage of innovation. The word 'innovation' mentioned here not necessarily mean innovating totally a new technology or a product. It can be an innovation in producing goods with the existing technology but at a lesser production cost, innovation in design, appearance and reliability. Also we have noted that differences in national economic structures, values, cultures, institutions and histories contribute profoundly to competitive success. Along with these differences, the generic strategies followed by nations to promote their exports also play a major role. The importance of national policies to promote competitive advantage was analysed in the light of India's export promotion policies and performances, in chapter - 2.

As we analyse the performance of these developing economies and India, it appears that the competitive advantage plays a more important role than the comparative advantage. India's consistent growth in exporting base metals and articles thereof indicates its specialization in the

product categories in which it has a comparative advantage. India's poor performance in gaining share in the product categories for which there is a greater demand and value indicates its lack of competitiveness. It is interesting to observe that for several single product categories, the returns gained by countries in the period under study far exceeds the total returns for India out of the total engineering exports for the whole period under study. The total earnings of India out of the product categories 73-93 Nimexe from 1981 to 1991 is 240,32,03000 ECUs. Taiwan earned 5.5 times of this amount just by selling the single product category, mechanical appliances and parts thereof. By selling the same product category, Singapore earned 3.4 times of India's total earnings, South Korea earned 1.9 times of it and Hong Kong earned 1.76 times of India's total earnings. Again by selling electrical appliances, Taiwan earned 5 times of it, South Korea earned 4.6 times of it, Singapore earned 4.46 times, Hongkong earned 3 times, Malaysia earned 2.7 times and even China earned 1.9 times of India's total earnings. It should be noted here that in the beginning years of the period under our study, India's export earnings on mechanical appliances were higher than that of South Korea and the returns on electrical appliances from the European Community market were higher than that of China. To achieve competitive success, firms from the nations must possess a competitive advantage in the form of either lower costs or differentiated products that command premium prices. To sustain advantage, firms must achieve more sophisticated competitive advantages over time, through providing higher-quality products and services or by producing more efficiently. India's consistent low performance both in quantitative and qualitative terms indicates the missing aggressiveness in the export sector.

It appears from the unit value of goods exported from India, analysed in chapter-3 affirms the Prebisch-Singer hypothesis of a trend leading to a long term deterioration in terms of trade. The pricing trend for base metal and articles thereof, the product category for which India maintains a consistent growth in proportionate to the total trade, indicates a decreasing value. Any specialization in that product category will lead to an 'immiserizing growth'. Apart from the specialization done in base metals and articles thereof, mechanical goods and road transport equipment share a larger volume in the total engineering basket for exports. This indicates the specialization done within the country on these product categories, among the engineering goods. These product categories have a greater demand and higher value and an attempt to specialize on them in the whole basket of engineering goods is an indication towards achieving competitiveness. However, when we compare the performance of these products with that of the other developing countries (chapter-4), there is an indication of decline in competitiveness. A product category that occupies a larger volume in a country's export basket but a relatively lesser volume in the world export basket may indicate having a greater comparative advantage and lesser competitive advantage. Also it might suggest that those goods are produced with an eye on the domestic market with least inclination for markets abroad.

The demand conditions prevailing in the European Community market, as seen in chapter-4 indicate a growing trend towards importing higher value-added goods. A growing trend to import high-value added goods from developing countries was also seen. It appears from the export trend of India that this

country has a hand in every product, but all below marginal level of competitiveness. The other developing countries have concentration on a few selected product categories, indicating a greater specialization and competitiveness. It should be noted that the specialization of those countries are in line with the demand conditions of the European Community market. India's inability to concentrate on selected product groups for greater market penetration indicates the lack of a clear cut export competitive policy and therefore a clearly outlined strategy.

'Stability' and 'continuity' are the key words a businessman or a foreign collaborator would look into in any policy formulation of the government. Investments are made according to the political and market stability expected in a country over a period of time. While briefly analysing in the study, Indian export promotion policies, we can observe lack of consistency. There is no clear cut competition policy or an export promotion policy linked to the industrial policy which would help an entrepreneur to plan long term investments confidently. This is mainly because of the reason that the then economic policies were initiated within an institutional framework where the 'state' rather than the 'market mechanism' determined the resource allocations in the system. Our policies indicate a favourable inclination towards the distribution side of the economy at the cost of an aggressive production side which would ensure a production system that would equally compete with those economies of an aggressive kind.

The growth in engineering exports in absolute terms between the years 1981

and 1991 appears to be relative to the general increase in overall demand of the community and can not be attributed to a greater market penetration or increase in competitiveness of Indian engineering goods. The trade agreements and the economic and commercial cooperation agreements of 1981 and 1986 have not contributed to any phenomenal growth in the exports of engineering goods from India. This helps us to infer that economic agreements done on political level will not contribute to growth in trade unless the commodities offered are competitive enough in comparison with those offered by other countries.

The present study indicates that among the engineering goods that are exported from the developing countries, the mechanical and electrical machineries and appliances have a consistent and growing demand. Any product development or diversification in these product categories are likely to enhance consumerism and therefore a promising market. Almost all the developing countries have the bit of their own share in these product groups but a few excel as it was noted earlier. Road transport equipments and precision instruments also have a consistent demand. The study reveals that in order to increase the market share of India, both in quantity and value terms, it is essential that India increases its specialization in these products. Specialization over a period of time will lead to a greater diversification, a 'Schumpetarian quality', the supply of which will create its own demand. As it was noted earlier, the mechanical and road transport equipment which have a larger share in the basket of engineering goods exported also have a greater demand in the domestic market. Therefore a broad conclusion obtained is that there is a need for India to specialize towards perfection in these goods, which would help India to hit the

European market. It is the opinion of the present researcher that such development is contingent upon India giving greater emphasis on the standards and quality of such products produced for the domestic market. There is every likelihood that the products competitive both in quality and price in domestic market would be of competitive standard in the European market India can never improve its product standards for the foreign market. So the necessity to concentrate on the supply side.

Ability to supply goods in a cost effective and quality assuring manner is imperative in promoting exports to the European Community. Empirical tests (Chapter-1) have found price as one among the many factors that determine competitiveness. Nevertheless, non-price factors appears to be equally important in production and supply to ensure competitiveness. Some of the non-price factors includes on the supply side are : product design, quality, product adaptation, upgradation of process technology, diversification, new product development, packaging, after sales service, availability of components and cost of production. The supply side should be in congruous with the demand which is not merely the ability and willingness to make a purchase, but the willingness to make the right purchase that would give maximum satisfaction to the consumer. This study finds especially as analysed in chapter - 4, a growing trend in demand for high-tech and high value-added goods in the European Community market Unless the supply side meets the demand of that kind, merely the reduction of costs through devaluation, in order to promote exports will not work, as established in chapter-2.

From the analysis of India's export performance in different product categories in chapter-3 and 4, the consistent growth in the less value added product category, base metal and articles thereof, leads to infer a high intensity of labour input in these product categories. The characteristics of small scale industries (Chapter-2) that play a major role in the export sector, coupled with employment generation also supports such inference. Dependency upon comparative factor advantage like labour can adversely affect competitiveness. Since technology plays a major role in productivity, there is a need to go for rationalization of industries. Development of flexible manufacturing methods through the use of computers will help product specific scale of economies and in the long run to that of a group of related products. India's production process are tuned to take advantage of the cheap labour factor and the policies are also in favour of it to create employment opportunities. It is expected that the cheap labour available will contribute to less production costs and therefore to international price competitiveness. However, the comparative advantage that would accrue because of cheap labour could be often offset by shut downs, industrial disputes and absenteeism. It is said that labour peace is an inestimable competitive advantage for German businesses, which assures the customers reliable on-time delivery and service. Among the major industrial economies, Germany loses the fewest days to strikes. For every 1000 employed, West German industry suffered an annual average of just 41 days of shut down over the past 20 years. Comparatively the figures are 453 for Britain, 234 for the United States and 67 for Japan. In the case of India, industrial disputes by engineering industry led to 33947000 mandays lost in 1988, 15182000 mandays in

1989 and 12591000 mandays lost(provisional) in 1990[1]. So a comparative advantage fails to be transformed into competitive advantage in India because of industrial disputes.

The present study while analysing the larger volume of mechanical and transport equipment goods offered in the total engineering export basket, it was revealed that these goods were produced with an eye on the domestic market. It should be noted here that the rising Indian middle class with an enhanced consumer culture, tastes and purchasing power offers a domestic market which is almost equivalent to that of the total population of the European Community. The rising domestic demands and the intense competition in the world market have gradually decreased India's exports. A protected domestic market with vast domestic demand discouraged export culture . Theoretically, with increasing returns to scale, the marginal cost of production gets smaller as a firm produces more. When a tariff is imposed on imports to protect the domestic market, the local firm profits from protection and captures a larger share of the home market. But in addition, by producing more for the domestic market, it should be able to reduce the marginal cost and hence become more competitive abroad. Protection may then serve as an instrument of export promotion through the realization of economies of scale. In India, the policy restrictions that made competitive firms to

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1. Pocket book of Labour Statistics, 1991, as quoted in Confederation Of Indian Industry, Hand Book of Statistics, 1991(New Delhi, 1991),p.129.

produce at sub-optimal levels(Chapter-2), led to restriction in achieving economies of scale and therefore totally undermined competitiveness. The net result was the outcome of a collusive oligopoly, more satisfied with the domestic market, with least concentration on quality and standard.

Despite the complacency over domestic market, there are some genuine issues that could discourage the producers from going exclusively for the foreign market. The small scale industries provide flexibility and quick product adaptation which are many a time not possible for large manufacturers in India. Between the years 1987 and 1990, nearly 26 per cent of the total engineering exports came from this sector. The government policies are much in favour of promoting the small scale industries towards achieving a greater export performance. Small scale industries operate on low production costs, taking advantage of the cheap labour. Now, with the introduction of the ISO 9000 series to serve as the basis for establishing quality management system conforming to the European Community would require the small firms to restructuralize their whole process of designing, manufacturing, shipping and servicing procedure. Will this restructuralization affect their production costs and therefore affect their cost competitiveness? In case the small scale industries go for restructuralization with an expectation of long-run reduction in average costs, can they face the tariff or restrictive quotas from the European Community when the competition picks up momentum?. From the present study as analysed in chapter - 2 , it appears that the product that makes a competitive penetration into the EC market is likely to be classified as sensitive and therefore be deprived of GSP benefits, as it is the case with Indian textiles.

Again, the introduction of Just-In-Time(JIT) delivery system that ensures zero stock costs would adversely affect the supplier as they will have to commit themselves to small batch of production with rapid turnover of items and tight control of sub-contracting. Trade in money leaves the exporters in general dazed as it causes turbulence in stability of money, exchange rates and interest rates. Limited quota and the possibility of withdrawal of benefits might also discourage the exporters from going for expansion and thereby to achieve economies of scale. So an entrepreneur would prefer to be on the safe side to produce for the domestic market first and then to go for foreign markets. If there is no emphasis on standards in the domestic market, in order to make quick profits, perfection will be sacrificed.

Similarity of standards and quality in producing goods for the Community market and the domestic market will be achieved, if the purchasing power of the domestic market is also as high as the importing market. One easily observable example is the case of motor cycles and cars. Hero motor cycles and Maruti cars were initiated for the domestic market and once the market standardization is achieved, through the sale of them in the domestic market that expounded the purchasing power, these vehicles are getting exported. This calls for less taxation which can create an environment for more disposable income and therefore a discreet domestic demand and expenditure. It should be noted here that the far eastern countries had to concentrate on export oriented policies keeping in view of the smaller domestic market and lack of comparative factor advantage in the primary factors of production. This may have motivated them to go for an aggressive export market thrust through

diversification of products and concentration on quality and standards. So they learnt perfection from the beginning. India's domestic market is an advantage for the companies to go competitive, if strict rules are imposed on product quality and standards. This would necessitate the transformation of our production process and structure in accordance with the standards of the west. Country competitiveness is understood as a country's ability to create and sustain economic value-added in the long-term relative to its competitors. Unless India's internal market demand and production structure become congruous with that of the European Community's, the Indian engineering goods will continue to show a negligible competitive performance.

APPENDIX

COUNTRY-SPECIFIC, PRODUCTWISE EXPORTS OF ENGINEERING GOODS FOR THE SELECTED ASIAN DEVELOPING COUNTRIES FROM 1981 TO 1991

Source : Eurostat **Value : in 1000 ECUs**

1981

Nimexe	China	H'Kong	Malaysia	S'Pore	S.Korea	Taiwan	Thailand
73-83	77998	100105	100540	27994	91094	130951	165314
84	12417	65895	19742	94526	17303	12175	1157
85	6190	438304	205669	466897	219882	436578	7974
86	0	0	0	0	4767	0	0
87	1644	1029	839	780	19921	32162	631
88	0	254	5181	2622	181	0	0
89	0	21707	0	17559	6903	14278	0
90	7338	61423	19075	39207	20935	32446	2118
91	7037	291929	2884	11712	19971	29449	578
92	5351	60093	1234	23649	8000	41154	244
93	1121	0	0	0	0	0	0

1982

Nimexe	China	H'Kong	Malaysia	S'Pore	S.Korea	Taiwan	Thailand
73-83	96975	99616	95056	35079	121777	128621	114830
84	17611	89499	216774	122977	18458	128931	1801
85	8645	463966	255843	558185	229155	438997	12106
86	0	304	0	0	9864	0	0
87	2305	991	254	1185	38380	38293	304
88	0	0	3642	1617	202	0	0
89	468	3107	0	2731	34742	11756	0
90	7101	60180	18776	23958	24691	34664	3004
91	7922	243983	1579	5847	15643	23589	1282
92	5804	62501	4027	16011	70056	32170	633
93	938	0	0	237	539	0	0

1983

Nimexe	China	H'Kong	Malaysia	S'Pore	S.Korea	Taiwan	Thailand
73-83	96023	101355	97526	43623	122545	152583	72994
84	18467	182957	21123	179858	24995	197701	4131
85	10968	442800	299662	617022	267285	518644	20606
86	0	155	0	0	10104	409	0
87	1688	2748	357	1277	33622	67807	676
88	0	0	760	973	171	0	0
89	18600	3514	0	4471	427716	9288	0
90	6184	74146	22230	22808	24917	43866	4271
91	10396	246562	878	5195	18831	25584	2572
92	6166	66664	6355	29206	82153	40401	299
93	1028	0	0	0	0	173	0

1984

Nimexe	China	H'Kong	Malaysia	S'Pore	S.Korea	Taiwan	Thailand
73-83	110508	119115	146864	59193	121533	197122	76343
84	19019	490329	99201	358589	96312	445530	6759
85	12621	546542	423453	705851	367860	667829	26093
86	0	275	0	0	3882	0	0
87	1779	1305	200	1733	43905	65953	767
88	0	598	607	442	217	0	0
89	41187	938	0	20808	0	10464	0
90	9887	94694	27617	23743	28339	55906	4390
91	13493	257334	2153	4166	21971	20757	4325
92	5222	71759	5916	28902	90268	54528	68093
93	1358	0	0	0	0	189	130

1985

Nimexe	China	H'Kong	Malaysia	S'Pore	S.Korea	Taiwan	Thailand
73-83	122295	118100	193282	55032	125999	201919	86119
84	21435	366127	60801	474860	236375	539351	7768
85	20997	509035	493872	665700	435587	678434	34680
86	0	0	0	0	24954	158	0
87	1912	1811	715	1933	49836	36042	1208
88	128	239	1072	2854	781	0	248
89	17823	1176	977	35901	88470	8662	0
90	10325	99430	37964	33496	39341	66234	5078
91	17021	249238	4538	3165	21293	12189	1933
92	5919	63103	4089	29896	107625	54126	837
93	360	0	0	0	0	101	0

1986

Nimexe	China	H'Kong	Malaysia	S'Pore	S.Korea	Taiwan	Thailand
73-83	135832	107533	100197	59547	189932	234262	38961
84	29582	373834	32550	460191	417232	756784	13523
85	54267	568694	451736	619446	659296	815045	48065
86	442	331	0	0	12350	250	0
87	4070	2445	798	4291	97874	48019	529
88	174	551	370	43619	1815	107	134
89	5857	854	0	22963	135986	8141	0
90	13441	110197	34471	30437	68501	82320	6363
91	32398	352154	1453	3530	22119	22637	5672
92	11220	110804	4103	39893	226926	81926	640
93	402	0	0	0	0	480	0

1987

Nimexe	China	H'Kong	Malaysia	S'Pore	S.Korea	Taiwan	Thailand
73-83	213242	130190	80290	55640	254046	416034	41020
84	63872	354781	41121	670489	549630	1275690	27152
85	205833	785528	463903	778002	1107917	1137625	55610
86	762	402	0	0	18241	0	0
87	11310	2167	467	9550	121561	100419	5179
88	471	447	382	1002	760	307	748
89	1286	29643	0	16467	166989	22891	0
90	22629	177622	37288	37029	77620	128741	8080
91	54906	380053	2361	4932	28545	30757	8460
92	29683	135455	6388	63258	455814	149780	810
93	441	0	0	0	348	713	0

1988

Nimexe	China	H'Kong	Malaysia	S'Pore	S.Korea	Taiwan	Thailand
73-83	335539	149106	80682	72409	285083	485291	41983
84	114413	522724	58276	958361	834481	1809496	106135
85	488934	1095353	555739	1144604	1990654	1648532	138773
86	1062	314	02	100	2900	10	05
87	32818	4858	3336	8315	100860	155213	7506
88	1073	472	3251	4108	5042	731	800
89	1614	43151	03	25938	179377	25507	20
90	47568	226270	50932	57657	102335	183733	18767
91	94525	468067	3098	6598	28463	49116	16148
92	9259	7773	148	494	63870	38737	1021
93	1004	55	72	16	679	1031	57

1989

Nimexe	China	H'Kong	Malaysia	S'Pore	S.Korea	Taiwan	Thailand
73-83	415665	149624	114436	106898	294287	578409	49209
84	195831	566241	57730	1278521	837972	2270698	166520
85	896532	971772	797333	1546369	1836842	1864752	250473
86	23	306	0	31	3594	121	22
87	52964	3873	58334	14737	125061	281504	11673
88	726	2285	2226	5494	5333	12126	3182
89	158	17320	41	19853	132916	44533	84
90	62044	260883	63027	5271	118921	241997	26722
91	139228	481216	4218	8734	30017	62736	13006
92	17737	7707	114	435	62639	43267	1340
93	1097	111	04	116	241	784	03

1990

Nimexe	China	H'Kong	Malaysia	S'Pore	S.Korea	Taiwan	Thailand
73-83	429785	105627	85006	92240	297615	540333	53262
84	266802	599031	65828	1599618	773018	2545214	174859
85	1305741	875891	1024468	1798809	1864189	1813984	354861
86	653	286	563	15	1326	59	01
87	90079	3285	71602	29273	92207	450586	17818
88	485[illegible]	4483	3304	6287	9360	3073	[illegible]926
89	2687	5888	586	95025	68292	49367	472
90	89860	221618	80774	87586	119068	224534	35223
91	145519	443931	9854	15503	25061	56153	13295
92	23524	8487	366	526	63028	44656	1599
93	1633	35	101	63	306	581	07

1991

Nimexe	China	H'Kong	Malaysia	S'Pore	S.Korea	Taiwan	Thailand
73-83	581474	109633	94102	63329	339350	721938	57055
84	437861	629507	145186	1993312	838750	3129787	271018
85	1679455	936741	1483703	1829183	2127249	2033518	514285
86	1061	254	28	713	4315	286	109
87	180163	5470	92878	36699	223287	609030	37995
88	5089	740	1815	7351	9221	24817	2085
89	14917	4966	1124	42671	297201	32467	229
90	167147	264595	126035	123331	125897	284032	60304
91	204276	454513	18265	21552	22976	77023	19617
92	34968	2943	511	442	64888	55041	1681
93	2679	19	147	31	362	1026	05

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