CHAPTER-5
PERFORMANCE ANALYSIS
EXPORT AND R&D
5.1 Introduction: Diversification has its own impact on economic performance. Research findings\(^1\) the world over has established the link between these two. Growth of the business by expansion or diversification — related or otherwise, is quite likely to have an impact on the firms' export performance, import substitution resulting in foreign exchange savings, increase in R & D expenditure and technology upgradation — indigenous or imported. Increase in export earning and curtailment of foreign exchange outgo via import substitution are interrelated as both these exercises result in the increase in the balance of foreign exchange for the company. This is especially true now in India as the rupee has been made fully convertible on the current account. Similarly there is a link between R & D expenditure and technology upgradation. If technology is imported from time to time as a matter of management policy, R&D expenditure need not be high. While if technology is not imported and the firm wants to remain competitive — nationally and globally — R&D allocation has necessarily got to be high. In this chapter the objective was to establish a relationship between the diversified companies being studied and their performance in the fields of export

\(^1\) Note: Please see, Richard Rumelt (1974), Wrigley (1969).
earnings and in the area of research and development. Both these are essential for the long term survival of large corporate enterprises. It was felt that if a trend could be established, it would be a pointer for future researchers to investigate further and confirm this finding. Besides, it would be an indicator that diversification in large corporate enterprises has associated with exports and R&D growth.

5.2 Export Performance:

The gross export earnings of the companies studied is given in Table 5.1. On the whole, it was found that all the companies export a portion of their goods and services. Some companies like HLL, ITC, L&T, BJ&I and BILT earn thousands of lakhs of foreign exchange via export. While some firms like BILT and L&T had shown a consistently increasing trend, others had shown consistency in lesser or larger degrees.

Table 5.2 shows the net export earnings of the diversified companies. Net export earnings was the figure arrived at after deducting foreign exchange outflow from the foreign exchange inflow. Outflow of foreign exchange was because of import of raw materials, spare parts, foreign travel and dividend payment to foreign shareholders. It was surprising to observe that only three firms namely HLL, ITC and BJ&I had shown positive net export earnings for all the six years. Companies like Pfizer and BILT had shown negative net export earnings for all the years.
But even with those firms which had shown positive results in export earnings none had been fully consistent. ITC had a decline in 1987-88, BJ&I in 1985-86 and HLL in three consecutive years starting from 1985-86.

To observe visually this trend in gross and net export earnings two line graphs have been presented (Graph 5.1 and Graph 5.2).

A detailed analysis of the export performance of individual company's was undertaken. Glaxo, a subsidiary of Glaxo International, was found to place strategic importance on exports which was clearly spelt out by the company. The company was a pioneer in export of Indian drugs and pharmaceuticals about 20 years ago, starting with exports of Beta-ionone manufactured from lemon grass oil. It had many notable achievements to its credit in exporting several products for the first time from India. In 1990, the countries to which this firm exported included U.K., France, W.Germany, USSR, Australia, New Zealand, Japan, Sri Lanka, Bangladesh, Thailand, Kenya, Nigeria and Afghanistan. During the analysis it was noted that Glaxo had progressively directed efforts towards substituting exports of primary materials by processed products and increasing exports to diverse markets particularly in general currency areas.

2. Profile of Company, p.11.
Table 5.1
Export Earnings (Gross) of the Seven Companies
Rs. in lakhs

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Companies</th>
<th>1984-85 % age decrease</th>
<th>1985-86 % increase</th>
<th>1986-87 % increase</th>
<th>1987-88 % increase</th>
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<th>1989-90 % increase</th>
<th>1990-91 % increase</th>
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<tbody>
<tr>
<td>1</td>
<td>Glaxo</td>
<td>523</td>
<td>438 (-6.25)</td>
<td>468 (+6.85)</td>
<td>348 (-25.64)</td>
<td>508 (+45.98)</td>
<td>754 (+48.42)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>HLL</td>
<td>18400</td>
<td>17900 (-5.95)</td>
<td>19200 (+16.46)</td>
<td>10400 (+13.04)</td>
<td>13000 (+25.00)</td>
<td>16200 (+24.62)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>ITC</td>
<td>3552</td>
<td>14071 (+14.61)</td>
<td>5316 (+30.58)</td>
<td>5254 (-1.16)</td>
<td>15613 (+6.83)</td>
<td>14597 (+160.05)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>BJ&amp;I</td>
<td>2281</td>
<td>11316 (-42.31)</td>
<td>1871 (+42.17)</td>
<td>2031 (+8.55)</td>
<td>12184 (+7.53)</td>
<td>3146 (+44.05)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>PFIZER</td>
<td>61</td>
<td>63 (+3.28)</td>
<td>167 (+165.08)</td>
<td>147 (-11.98)</td>
<td>200 (+36.05)</td>
<td>171 (-14.50)</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>L&amp;T</td>
<td>NA</td>
<td>NA</td>
<td>2668.69 (+4906)</td>
<td>17110 (+83.84)</td>
<td>12703 (+44.92)</td>
<td>78.66</td>
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<tr>
<td>7</td>
<td>BILT</td>
<td>NA</td>
<td>228</td>
<td>307 (+34.65)</td>
<td>525 (+71.00)</td>
<td>965 (+83.81)</td>
<td>12941 (+204.77)</td>
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</tr>
</tbody>
</table>

Source: Annual Report and Accounts of the Companies
* Annualised
Fig. 5.1 Export Earnings (Gross) of Seven Companies

- Glaxo
- HLL
- ITC
- BJ&I
- PFIZER
- L&T
- BILT

EXPORT EARNINGS
(Thousands lakhs)

YEAR

84-85  85-86  86-87  87-88  88-89  89-90
<table>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Glaxo</td>
<td>71</td>
<td>113</td>
<td>+59.15</td>
<td>129</td>
<td>+14.16</td>
<td>156</td>
<td>+20.93</td>
</tr>
<tr>
<td>2</td>
<td>HLL</td>
<td>4620</td>
<td>4368</td>
<td>(-)5.45</td>
<td>3530</td>
<td>-19.18</td>
<td>1744</td>
<td>-50.59</td>
</tr>
<tr>
<td>3</td>
<td>ITC</td>
<td>3046</td>
<td>3510</td>
<td>+15.23</td>
<td>4470</td>
<td>+27.35</td>
<td>4148</td>
<td>-7.20</td>
</tr>
<tr>
<td>4</td>
<td>BJ&amp;I</td>
<td>2028</td>
<td>901</td>
<td>-55.57</td>
<td>1690</td>
<td>+87.57</td>
<td>1846</td>
<td>+9.23</td>
</tr>
<tr>
<td>5</td>
<td>PFIZER</td>
<td>-244</td>
<td>-183</td>
<td>(+)25</td>
<td>-30</td>
<td>+83.60</td>
<td>-143</td>
<td>-376.67</td>
</tr>
<tr>
<td>6</td>
<td>L&amp;T</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>BILT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-3772</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Annual Report and Accounts of the Companies
* Forex inflow - Forex outflow.
Fig. 5.2 Export Earnings (Net) of Seven Companies

- Glaxo
- HLL
- ITC
- BJ&I
- PFIZER
- L&T
- BILT

EXPORT EARNINGS
(Thousands lakh)

YEAR

84-85  85-86  86-87  87-88  88-89  89-90
From Table 5.1 it can be observed that though there had been an overall increase in the export earnings of Glaxo, year to year ups and downs are noticeable. The exports during 1985 were 10 percent higher than the previous year. During 1986 there was a fall which was ascribed to low orders for beta ionone from Soviet Union. In the next year exports rose by 6.85 per cent. The reason for this jump was the export of certain new products manufactured by third parties. 1988 again saw a fall to the tune of 25.64 per cent. However, since 1989 the trend had improved considerably with two successive years of growth. 1989 saw an increase of 45.98 per cent which further rose to 48.42 per cent during 1990. It was evident that this concentrically diversified multinational had performed well in the area of exports. However, when the net export earnings was considered there was a negative trend for the last two years. That the volume of negative export earnings was increasing, was of serious concern.

Hindustan Lever is one of the highest export earning companies in India. In the six year period from 1984-85 to 1989-90, exports of the company exceeded Rs.565 crores. In this field it had won many laurals, making explicit its achievements in the area. During 1988, the company received from the President of India, the prestigious National Export Award. For three successive years beginning 1987-88, the company received the award for being the single largest exporter from Kandla Free Trade Zone\(^3\). The

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company had nine factories across the country dedicated to export manufacture. Its exports consists of both traditional items as well as food, chemicals, garments, marine products, handknotted carpets, foodwear and leather goods. Some of the countries to which HLL exports are the Middle East, EEC markets, U.S.A. and Japan.

Except for a marginal decline during 1985-86 (-5.95%) the company had shown a consistent growth in its exports. Even during this year the shortfall was due to extremely adverse international market conditions. The growth rate of around 25 percent for the last two years was a good indicator of things to come.

Another feature of HLL was that its scientists had earned numerous patents and rewards arising out of breakthroughs and innovations that had led to significant import substitution. For example, the upgrading of unconventional and forest seed oil (in 1990 annual consumption of over 1,00,000 tones yielded a saving in foreign exchange to the tune of Rs.60 crores) to replace imported fats in soap making was one. Another was the technology for producing a range of sophisticated organic chemicals and catalysts. Its distinction in the field of import substitution becomes evident even more when note is taken of the company having been presented the National Gold Shield of import substitution in 1990⁴, being the highest award given by the Government to

Ibid., p. 10.
industry. Taking a look at Table 5.1, it was significant to note that the company had achieved a high degree of positive foreign exchange earning capacity. However, the trend was not fully satisfactory as three years (1985-86 to 1987-88) showed declining growth.

The Indian Tobacco Co. is the highest foreign exchange earner in the private sector\(^5\). During the period of study, except for a very small decline (-1.16\%): during 1987-88, the company had performed extremely well on the export front. During the last year especially, it recorded a growth of 159.74 percent: which is no small achievement by any standard. Realising that Indian tobacco was finding it difficult to be competitive globally the company had diversified its export portfolio. This includes hotels, marine products, hand-woven carpets, agri-products, software and of course tobacco. Consultancy services is also emerging as an important component of the export portfolio. Another feather in ITC's cap was that its subsidiary ITC Global Holdings, incorporated in 1992 April and situated in Singapore had been accorded the status of "Approved International Trader" (AIT) by Singapore Government\(^6\). It is the first Indian company to get this status. Of greater significance was that ITC had shown an equally good performance on the net export earning front as well. Barring a marginal decline during 1986-87 it had shown consistent growth over the years in export earnings.

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6. Ibid.,
The fourth diversified company studied, namely, Birla Jute and Industries had also performed well on the export front. Taking a look at Table 5.1 indicates that BJ&I had recorded a consistent increase in exports over the successive years during the period of study. Its primary exports were jute products, cement and synthetics. Despite the fall in demand for jute products in the international markets, yet the company had successfully exported these goods. As a consequence the textile ministry awarded a certificate of excellence for export of jute goods to the company during 1988-89. To further boost its cement exports, the company had set up a cement export corporation. But the company feels that the government had not taken adequate steps to encourage cement exports even though various constructive proposals had been suggested by it. It felt that the enormous growth in the demand for cement in South-East Asia had created an opportunity for India to not only earn substantial foreign exchange, but in the process ensure better capacity utilisation in cement industry and to a large extent reduce the current imbalance between local demand and supply. BJ&I had done well to show consistent net export earnings over the six years except for a decline during 1985-86.

Pfizer too had a fairly consistent exports record, though in volume and absolute terms the size was not very big. From around Rs 61 lakhs in 1985 its exports earnings rose to Rs 200 lakhs during

1990. Except during 1988-89 when the company experienced decline in exports (-11.98%) during the remaining years it has shown upward trend. The company exports bulk drugs and drug intermediates to various countries in Asia, Africa, Europe and America. Being a concentric diversifier its operations were restricted to pharmaceuticals. However in the net export earnings front Pfizer had performed badly. During all the six years it had shown negative results. Being a sister concern of Pfizer International this speaks poorly for the company.

The exports figures for Larsen and Toubro were available only for four years. Even during this period the good performance of the company became obvious. From Rs. 2668.69 lakhs in 1986-87 the exports rose to Rs 12,703 lakhs in 1989-90, a huge rise of 376.00 per cent. L & T’s products and services were exported to Europe, South-East Asia, Africa, erstwhile USSR and West Africa. Its exports include a host of electrical goods, engineering goods, computer software and other scientific equipments and structures. Its construction activities also earn it huge foreign exchange. ECC, L&T’s Construction Group offers comprehensive construction service to industries around the world. Fertilizers, petrochemicals and public buildings were important areas of its overseas operations. It had built such structures in Qatar, Yemen, Abu Dhabi, Sri Lanka, Iraq, Nepal, Malaysia, Kuwait and USSR. Besides, L&T is a recognised export house8. The company’s

marketing network provides global access to quality conscious Indian manufacturers. Such exports include amongst others, chemicals, leather goods, engineering items, pharmaceutical machinery, granite, marine and agro-products. In every sense of the term, L & T is a truely diversified company with an export bias. But except for the last year 1989-90, when it earned Rs.790 lakhs in foreign exchange, the previous three years it had shown negative net export earnings. Though the amounts were marginal considering the volume of its business and it reflects on its ability and policies.

Ballarpur Industries had over the years shown not only a consistent performance regarding export earnings, but it had also increased the size of its exports and the value too. From Rs. 228 lakh in 1985-86 its exports rose to Rs. 2,941 lakhs a phenomenal increase of 1189.91 percent. Besides, being a recognised Export House, it was honoured during the year 1989-90 by the Chemical and Allied Product Export Promotion Council for meritorious performance. Its export included glass products, phosphoric acids and Ossein. The products are exported to countries in Asia, Europe and USSR. However, it is a pity that the company had shown uniform negative export earning during the period of study. Thus, it was clear that though BILT's exports had been increasing, its import had also been rising at a greater pace.
5.3 Research and Development Performance: The basic idea was to assess how the diversified companies fared in the realm of R&D. It is a well-known and accepted fact that for long-term competitiveness a firm must have a strong R&D base, alternatively it has to depend on imported technology which involves huge foreign exchange outflow. In the present study answers to three important questions were sought: How much fund was invested in R&D? What were the achievements/breakthroughs on the R&D front? and Had R&D helped to reduce imports, improve quality and minimise costs? It was felt that answers to these questions would enable the researcher to determine the success or otherwise of the firms in the area of R&D.

Though not many figures were available to assess the trend quantitatively, other information garnered from company annual report were analysed to arrive at conclusions. Glaxo India spent considerable amount on its R&D activities. Data was available for two years 1989 and 1990. During these two years it spent Rs. 169.28 lakhs and Rs. 308.45 lakhs respectively. These as a percentage of the total turnover were 0.8 percent and 1.1 percent respectively, which by Indian standards are high. These sizeable sum spent, is despite the technical know how received free of charge from Glaxo Group for manufacture of sophisticated drug formulations in the cardio-vascular, anti-asthmatic and anti-rheumatic fields and advanced antibiotics were undertaken by Glaxo. These R&D efforts have resulted in import substitution of certain high value raw materials and
several process received from abroad were successfully modified and commissioned in India. Besides the Food Research & Development Laboratory at Thane of Glaxo had developed new products in the field of nutrition and dietetics. The company had maintained a track record of no import of technology for a fee, during the entire period of study.

HLL was also found to have spend considerable funds on R&D. Though as a percentage of its sales turnover it was not very high. In 1988 the expenditure was Rs. 476 lakhs i.e., 0.6 percent of total turnover, during 1989, this figure stood at Rs. 471 lakhs being 0.5 percent of sales and in 1990 R&D expenditure was Rs. 556 lakhs, which was 0.5 percent of turnover. HLL has a centre exclusively for research activities. Its research yielded technologies to render unconventional oils — such as castor, rice bran, sal, Kusum, Karanjia, linseed and neem — suitable for producing high grades of soap. A result of this breakthrough was additional income for the marginal farmers and tribals. Some other breakthroughs of HLL’s research centre include: Mixtalol, a chemical which improves the photosynthetic efficiency of plants; detergent actives from renewable sources; a superior process for upgrading sal an exportable cocoa butter substitute; and methods to include prawns to breed in captivity, making possible prawn farming as a year

round activity\(^{11}\). HLL's micro - biologists have generated a range of natural flavours such as apple, almond, cheese and pineapple which are much in demand overseas. Because of developing many of these technologies indigenously a lot of saving was possible on the import front. As a result in 1985, the Govt. of India awarded HLL its top award for import substitution\(^{12}\).

Further, in 1987, the company received the Indian Merchant's Chamber award\(^{13}\) for industrial R&D, recognising its achievements in this field. In conclusion, to a large extent, it can be taken that the company's well known product brands were the results of its R&D activities. But from financial point of view, its expenditure incurred on R&D was insignificant compared to its sales turnover.

With ITC, the Indian Tobacco giant, it was observed that the expenditure on R&D was rather low. In 1988-89 it spent Rs. 281.39 lakhs on R&D which further came down to Rs. 262.72 lakhs in 1989-90. As a percentage of turnover it was 0.3 percent and 0.1 percent respectively. For a large company like ITC and being the single largest export earning firm in India, these figures were indicative of the negligible importance being given to R&D. However, being a subsidiary of the American Tobacco Co. it receives support from its parent organization.

\(^{11}\) Ibid.,
\(^{12}\) Ibid.,
\(^{13}\) Ibid.,
Besides, ITC has collaborations for technology transfer with the North Dakota State University of USA, the Cereal Research Institute of Hungary and Vetomag, one of the premier seed development companies in Europe. One of the important achievements of the company's R&D wing was the introduction of Paddy Husk Burner developed in collaboration with Tata Institute of Research. Another breakthrough was the development and marketing of SUCKEROUT, a chemical suckericide which helped to increase crop yields considerably. Two of the major contributions of ITC's R&D were import substitution of edible oil, thereby reducing the country's import bill and the other was boosting income of a large number of farmers in rural and semi-urban areas by creating jobs.

It was found that Birla Jute spent very little on R&D. For example, in 1988-89 the company spent only Rs.11 lakhs on R&D, which as a percentage of turnover was negligible. But it was observed that the different divisions of the company had collaborations with the R&D organisation's in their respective industries. The Synthetic Division was found to be closely associated with several Textile Research Institutes (TRIs) and used to avail of their R&D activities to upgrade the plant on a regular basis. The Cement Division activity collaborated with the National Council Cement and Building Material (NCB).

for R&D acitity. On the whole the conclusion which emerged was that the management of this diversified company was quite conservative on spending on R&D and tried to make do with the minimum outlay possible. It is not unlikely the company management lacks strategic thinking. An example was the loss that it was facing in the linolium division due to inadequate research in the area.

Pfizer India being a part of the Pfizer Worldwide, gains from the investments made by the parent company all over the globe. The expenditure by Pfizer on R&D alone worldwide, over the period of study revealed the importance that this concentrates diversified pharmaceutical company attaches to R&D activity. Pfizer on a global basis spent over Rs.280 crores in 1985 which rose by 17 percent to Rs.350 crores in 1986. In 1987 and 1988 it spent Rs.520 crores and Rs.700 crores on R&D, to cite an instance in 1989-90 it spent Rs.219.80 lakhs on R&D, which amounted to 1.82 percent of turnover. This was no mean achievement by the management of this company, as this sum is the highest invested in R&D by any of the seven diversified companies being studied.

The expenditure by Larsen and Toubro on R&D was sizeable, though figures were available for two and half years only. During the 18 months period of 1987-89 the company spent Rs.855 lakhs on R&D. During the next year 1989-90 this figure stood at Rs.699 lakhs. However, as a percentage of total turnover the

17. Ibid.,
expenditure was only 0.77 percent and 0.68 percent respectively. Taking into consideration the volume alone it was found that L&T was the largest investor in R&D area. Being an engineering giant its expenditure on R&D covers diverse fields. For example purchase of scan machine for stress analysis, shock pulse metre for lubrication, heat exchangers for network analysis etc. It was found that the benefits derived as a result of such activities were introduction of indigenous designs, import substitution, increase in productivity, improvement in quality and material utilisation and improved customer service. The company had received the National award for R&D in the electrical industries sector for the inter house development of a new range of fuselinks. In addition to this, it had got the prestigious national and international awards for excellence of packaging developed in house. The company also received the Sarvamangla Award from the Association of Consulting Civil Engineers, Bangalore, for excellence in construction.

The expenditure on R&D activity and its percentage with relation to turnover for BILT is given below:

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<tbody>
<tr>
<td>Expenditure (Rs.in lakhs)</td>
<td>88.24</td>
<td>44.00</td>
<td>90.30</td>
<td>87.37</td>
</tr>
<tr>
<td>% of turnover</td>
<td>0.25</td>
<td>0.1</td>
<td>0.2</td>
<td>0.2</td>
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</table>

It is obvious that this flagship company of the Thapar Group which is ranked amongst the first five in the country in assets and turnover spent too little in volume and as a percentage of turnover on R&D. However, a review of its specific activities and their results displayed interesting outcomes. At the paper units, R&D efforts had led to the creation of new varieties value added papers, along with improvement in quality of existing product ranges. Another significant achievement was the conversion of activated sludge from the effluent treatment plant into a suitable fish feed\textsuperscript{20}. Research at the chemical unit of the company, resulted in a process patent for removal of mercury from water effluent. It also yielded an improved process for higher phosphatic recovery from rock phosphate\textsuperscript{21}. An important centre for R&D activity of BILT is the Thapar Corporate Research and Development Centre (TCRDC) which had succeeded in creation of an enzyme for surface sizing of paper and replacement of coal by gas from cellulosic waste in lime manufacture\textsuperscript{22}. Despite having these breakthroughs to its credit, it was not possible to exactly determine how much these have helped the company to reduce imports, improve quality and minimise cost.

\textsuperscript{21}. Ibid.,
\textsuperscript{22}. Annual Report, 1989-90, Research & Development.